XXIII IFHE WORLD CONGRESS 2016

Daejeon Convention Center, Daejeon, Korea
Sunday July 31 – Saturday August 6, 2016

Hope & Happiness:
The role of Home Economics in the pursuit of Hope & Happiness for individual and communities now and in the future
Hope & Happiness:
The role of Home Economics in the pursuit of Hope & Happiness for individual and communities now and in the future
## Presentation Schedule: Overview

### Session Code

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<th>CODE</th>
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<tbody>
<tr>
<td>CONCURRENT SESSION</td>
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</table>
| CDS | Consumer | Consumer Behavior  
Consumption & Resource Management  
Government & Public Policies  
Sustainability |
| CHD | Children | Children and Families |
| EDU | Home Economics Education | Home Economics Education |
| FAM | Family | Family Relationship  
Youth, Elderly & Women |
| FDN | Food | Health, Nutrition & Food Science |
| HMT | Home Management | Consumption & Resource Management  
Family Finance  
Government & Public Policies  
Poverty  
Sustainability |
| HOS | Housing | Housing & Environment |
| TEX | Clothing | Textile, Clothing & Design |
| INT | Others | Others |

### OTHER SESSION

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<tr>
<td>SP</td>
<td>Symposium</td>
<td>EH</td>
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### Session Times - Exhibition

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<td>EH</td>
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<tr>
<td>B1-SP01</td>
<td>Why Child Support Enforcement is Important?</td>
<td>Aug 2</td>
<td>1</td>
<td>13:30 ~ 15:00</td>
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<tr>
<td>B5-SP01</td>
<td>Meeting the Needs of Families in a Changing World: Perspectives from the Americas</td>
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<td>B6-SP01</td>
<td>Research and Teaching in the Area of Housing and the Residential Environment for Emerging Consumers in the United States</td>
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<td>B1- GOODS01</td>
<td>Consumer Behavior towards a Sustainable Future</td>
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<td>Life Skills Education</td>
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<td>B1-FAM01</td>
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<td>Sustainable Society for Happiness</td>
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<td>B1-INT02</td>
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<td>B2-CDS01</td>
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<td>Biochemical Effect of Food Components</td>
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<td>B4-CDS01</td>
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### Session Times - Workshop

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<tr>
<td>B1-WS01</td>
<td>Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures</td>
<td>Aug 2</td>
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<td>B1-WS02</td>
<td>Rangoli – The Indian Art of Floor Décor</td>
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<td>B2-WS01</td>
<td>Promotion of IFHE to Non-Members</td>
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<td>B3-WS01</td>
<td>Home Economics and Sustainability - European Perspectives</td>
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<td>Marital and Partner Relationship</td>
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<td>Different Perspectives on Happiness</td>
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<td>Socio-Psychology, Marketing &amp; Production</td>
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**Workshop**

**Room 108**

**Rangoli – The Indian Art of Floor Décor**

*Chair*  
Roopa Rao (University of Mumbai)  
*India*

**WS_0258**  
**Rangoli – The Indian Art of Floor Décor**

*First Author* (Main Author)  
Roopa Rao (University of Mumbai)  
*India*

*Co-Author(s)*  
Manjiri Bhalerao (SNDT University)  
*India*

*Presenting Author*  
Roopa Rao (University of Mumbai)  
*India*

The primary objective of this creative workshop is to:

(i) create awareness to one of the many vivid Indian cultural heritage – Rangoli,
(ii) demonstrate the techniques of traditional rangoli making
(iii) provide a platform for hands-on-learning experience to all who want to learn this unique Indian art.

**Room 205**

**Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures**

*Chair*  
Miriam O’Donoghue (Curriculum Development Unit, City of Dublin Education Training Board)  
*Ireland*

**WS_1300**  
**Using Visual Literacy Pedagogies in Home Economics to Cultivate Hope for Sustainable and Responsible Futures**

*First Author* (Main Author)  
Helen Maguire (St. Angela’s College)  
*Ireland*

*Co-Author(s)*  
Amanda McClay (St. Angela’s College)  
*Ireland*

*Presenting Author*  
Miriam O’Donoghue (Curriculum Development Unit, City of Dublin Education Training Board)  
*Ireland*

This workshop will enable participants to access and review the new Home Economics specific Images and Objects Active Methodology e-Toolkit and to practice the fundamentals of active teaching and learning using images and objects with increased skill, confidence, and self-reflection. Participants will apply activities for integrating images and objects in Home Economics to generate engaging discussions, develop critical reflection and cultivate confidence in the use of these methods in future professional practice.

The Home Economics specific toolkit is based on the previous Images & Objects Toolkits, 1-6, as developed and published by the consumer Citizenship (CCN) Network and the Partnership for Education and Research about Responsible Living (PERL) Network (2008-2015). The adaption and development of a Home Economics specific ‘Images and Objects’ toolkit by the symposium team is underpinned and informed by an action research project which has been presented previously by the authors at IFHE Congress 2012 and IFHE Council 2014. Workshop participants will receive a copy of the e-toolkit as recently jointly published by the Home Economics Department, St. Angela’s College, Sligo and the Curriculum Development Unit City of Dublin, Education Training Board, Dublin with the support of the UBUNTU Network Ireland and the Department of Foreign Affairs and Trade, Ireland.

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**Symposium**

**Room 206**

**Why Child Support Enforcement Is Important?**

*Chair*  
Sun Hee Lee (Korean Institute for Healthy Family)  
*Republic of Korea*

**SP_1935**  
**Why Child Support Enforcement Is Important?**

*First Author* (Main Author)  
Sun Hee Lee (Korean Institute for Healthy Family)  
*Republic of Korea*

*Co-Author(s)*

*Presenting Author*  
Sun Hee Lee (Korean Institute for Healthy Family)  
*Republic of Korea*

While human rights have been universally pursued in the history of mankind, we still have many socially disadvantaged people in Korea whose fundamental rights are not properly secured. The reality is that even the right to live like a human being is being seriously threatened.

Women - The Glass-Ceiling Index of Korea is 25 points, which is even less than the half of the average of the OECD members, 56 points, and ranked as the lowest among the OECD members. In this regard, many Korean women still suffer from social discrimination and domestic violence.

Children - Social atmosphere and institutional strategies in which children as our future generation can grow up brightly and bravely need to be urgently established. We need to find a solution to improve the shameful reality.

The issue of social security for socially disadvantaged people comes down to one thing how much constant and effective the society puts into to improve the human rights of them. To this end, we need to change the way we perceive those people with social disadvantages, as our neighbors equal to us and members of our community we should share the love with, not as the subject to be protected or cared.

Soothing the agony and scar, and sharing the pain of the socially disadvantaged, and accepting those as our neighbors are the ways we put love into action.

Today’s abundant world

Notwithstanding the global economic growth and better access to material resources, the issue of socially disadvantaged class remains unsolved. That issue is rather perceived to be directly connected to the issue of social inequality. Then, how we solve the issue of social inequality?

Social inequality needs to be perceived as an important issue that enormously affects the entire nation, beyond the issue of securing the minimum livelihood.

Since the human rights of socially disadvantaged people is not just their private matter, but the matter of entire nation, we need to pay attention to it and endeavor in order to solve the issue, while sharing various thoughts and perspectives of the entire nation.

**SP_1936**

**Korea’s Multicultural Family Support Services and Achievements**

*First Author* (Main Author)  
Seongeun Cho (Korean Institute for Healthy Family)  
*Republic of Korea*

*Co-Author(s)*

*Presenting Author*  
Seongeun Cho (Korean Institute for Healthy Family)  
*Republic of Korea*

Rapid structural change is occurring throughout the Korean society, due to rapid transition into the multicultural society, as well as low birthrate.
and aging in Korea. As the inflow of foreign laborers and manage migrants has sharply increased since the 1980s, the Korean society expands the policies for the settlement of marriage migrant women and their children, and for family support.

The immigrants migrating to the Korean society, mainly due to marriage, labor or study, surpassed 1.97 million or 3.0% of the total resident-registered population, based on July 2014 (2014 Statistics of the Ministry of the Interior, 2015). This actually means that the number of immigrants is over 2.9% of the total population, which is the multicultural threshold presented by the UN. The UNESCO and OECD have already defined Korea as an immigrant nation (The Ministry of Gender Equality and Family, 2015). Recited from the national multicultural acceptance survey research). The number of Korean nationality acquires and their children including the registered as foreigners for 90 days and more of stay in Korea was 56,627 in 2006, but it rose to 1,569,470 people in 2014, up three times more. The number actually has increased by 193%, compared to 2006. Although the inflow of manage immigrants slightly slowed down, culminating in 2008, the number of them was 149,364 people in 2014, a remarkable increase of 46% for six years.

The Korean family policy concentrated on early stage settlement of the marriage immigrants in the Korean society for the past ten years. Especially, the Korean language education-service has been intensively supported, and 217 Multicultural Family Support Centers were set up nationwide to offer multicultural family services. The Multicultural Family Support Center offers the following services: door-to-door Korean language education, bilingual environment project, children’s language development support, translation and interpretation, and marriage immigrants’ employment support, as well as Korean education. The center has been making efforts for multicultural family children’s growth and the increase of multicultural family acceptance by expanding the services assisting multicultural family children’s growth and programs to exchange between multicultural family and general public since 2015.

The Healthy Family Support Center, which was established in accordance with the Framework Act on Healthy Families in 2005, has grown to a total of 151 centers for the past 10 years. The Framework Act on Healthy Families was enacted to emphasize the importance of national responsibility with regard to families as Korea has been facing a low TFR (Total Fertility Rate) that has been worsening since the late 1990s and the disintegration of families due to the economic crisis after IMF in Korea: this means the beginning of an explicit family policy in Korea. Rather than welfare services passively offered to low-income families, the Healthy Family Support Center advocates integrated services for all families in holistic approach (not just an individual but a family), regardless of economic standard and family structures. After 10 years, it has now become Korea’s most representative system for delivering family services. It has grown to become an agency where families (spouses, parent(s), parent-child, etc.) can get education and counseling in the stable delivering system. It is also performing its function as a community hub where new services can be commenced. In particular, this 2016, it is expanding its services as a more comprehensive service agency to reach out to various types of families, including multicultural families and single-parent households. Thus, it is expected to contribute to family happiness and social integration in Korea in the coming years.

## Concurrent Session

<table>
<thead>
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<th>Room 101</th>
<th>Consumer Behavior towards a Sustainable Future</th>
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<tr>
<td>Chair</td>
<td>Jong-Youn Rha (Seoul National University) Republic of Korea</td>
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</table>

### SP_1937 Change and Growth of the Healthy Family Support Center for the Past 10 Years

**First Author** (Main Author) Kyung-Eun Park (Korean Institute for Healthy Family) Republic of Korea

**Co-Author(s)**

**Presenting Author** Kyung-Eun Park (Korean Institute for Healthy Family) Republic of Korea

The Healthy Family Support Center, which was established in accordance with the Framework Act on Healthy Families in 2005, has grown to a total of 151 centers for the past 10 years. The Framework Act on Healthy Families was enacted to emphasize the importance of national responsibility with regard to families as Korea has been facing a low TFR (Total Fertility Rate) that has been worsening since the late 1990s and the disintegration of families due to the economic crisis after IMF in Korea; this means the beginning of an explicit family policy in Korea. Rather than welfare services passively offered to low-income families, the Healthy Family Support Center advocates integrated services for all families in holistic approach (not just an individual but a family), regardless of economic standard and family structures. After 10 years, it has now become Korea’s most representative system for delivering family services. It has grown to become an agency where families (spouses, parent(s), parent-child, etc.) can get education and counseling in the stable delivering system. It is also performing its function as a community hub where new services can be commenced. In particular, this 2016, it is expanding its services as a more comprehensive service agency to reach out to various types of families, including multicultural families and single-parent households. Thus, it is expected to contribute to family happiness and social integration in Korea in the coming years.

### IP_0520 Towards Sustainable Development: An Exploratory Study of Apparel Companies’ Economic, Social and Environmental Sustainable Initiatives

**First Author** (Main Author) Sarah Mizener (Kent State University) USA

**Co-Author(s)**

**Presenting Author** Sarah Mizener (Kent State University) USA

This research sought to explore the implementation of sustainable practices by financially successful apparel companies with the intention of increasing awareness of economic incentives to ethical and environmentally conscious behavior. Examining financially successful companies who support sustainable practices can encourage other businesses to follow their lead and governments to formulate policies aimed towards sustainable development. For the purpose of the study, a qualitative analysis of four financially successful, multinational apparel companies’ social, environmental and economic sustainability efforts was conducted to understand their sustainability initiatives. Content analysis of corporate social responsibility reports of Nike, H&M, Gap, and Adidas was conducted to understand the various sustainability efforts that these companies undertake to interpret their level of sustainability.

Data analysis revealed six major variables where companies undertake sustainability initiatives: reduction of energy use & consumption, development of technology & infrastructure, reduction of negative impact of chemicals on the environment, textile waste reduction, other efforts for conservation & use of alternatives, and social responsibility. Each phase in the data can be broken down into themes that explain the sustainable practices that each company displayed. The data was organized in five-year increments to gain an overall timeline of sustainability implementation, which have been labeled as four phases: Launch, Evolve, Advance, and Progress, hereby referred to as L.E.A.P. The purpose of this research is to make sustainability reachable, understandable, and attainable through the L.E.A.P. program.

Becoming aware of sustainable practices utilized by successful companies provides Home Economics professionals, governments and policy makers with useful information to motivate businesses and country leaders to promote sustainability initiatives. Through understanding sustainability initiatives in the production and supply process of the apparel industry, which employs more than 60 billion people worldwide, this study aims to create hope for providing sustainable development to create a healthier, happier future for generations to come.

### IF_0154 Sustainable Food Purchasing Behavior of Consumers in Singapore

**First Author** (Main Author) Li Mei Johannah Soo (National Institute of Education/Nanyang Technological University) Singapore

**Co-Author(s)**

**Presenting Author** Li Mei Johannah Soo (National Institute of Education/Nanyang Technological University) Singapore

**AIM**

Sustainable food consumption is one of the approaches to ensure sustainable living. This primary aim of this study was to examine the perception and behavior towards the purchase of sustainably-produced food of consumers in Singapore.

**METHODS**

A self-administered survey, including a values clarification exercise, a likelihood to buy environmentally-friendly scale (Cronbach’s alpha = .89),
The Effect of Fashion Leadership and Sustainable Clothing Attributes on Purchase Intention: Case of a School-Sponsored Store

Kim Hahn (Kent State University)
Quong Tao (Kent State University)
Catherine Leslie (Kent State University)

First Author (Main Author)
Co-Author(s)
Presenting Author

USA

METHODS
Ten sustainable fashion garments to be sold at the school-sponsored store were evaluated by college students who are enrolled in introductory fashion industry course. One hundred thirty-six students (90% female) completed a paper survey about fashionability and marketability of the showcased garments, along with Gutmans and Malis (1982) fashion leadership scale.

RESULTS
Result showed that the high leadership group did not provide a higher score for every clothing attribute and every garment. Yet, the high leadership group scored six of the garments higher than the low leadership group on at least one attribute. Among those attributes, the high leadership group scored higher on durability (four garments out of six garments), style/fashion (three garments out of six garments), and comfort (three garments out of six garments for each attribute).

CONCLUSION
Findings suggest that designers should pay more attention to the general appearance and style/fashion in order to promote their sustainable products to young fashion-minded consumers. Findings from this study can be used for both Home Economics professionals and the fashion industry to successfully promote sustainable products, bringing happiness to our environment and a hopeful future with sustainable development.

Towards Sustainable Mobility: Consumer Assessments of Light Electric Vehicles

Kaarina Hyvönen (University of Helsinki)
Petteri Repo (University of Helsinki)
Minna Lammi (University of Helsinki)

First Author (Main Author)
Co-Author(s)
Presenting Author

Finland

AIM
Light electric vehicles are promoted as important means to make transport more sustainable. They are considered to reduce greenhouse gas emissions, air pollution, traffic noise, and to enhance walkability in particular in urban areas. However, consumers have not been eager as yet to adopt and use them, and it is also unclear what kinds of established forms of transport they will substitute. This paper explores and assesses the opportunities of light electric vehicles such as electric bicycles, electric mopeds, electric micromobes and the Segway as means for everyday transport in Finland. It applies the approach of sociotechnical change as proposed by Geels (2002) and pays attention to consumers' experiences of using these vehicles, consumer views on their future use, and especially to what established vehicles they will substitute.

METHODS
The study is based on statistical analyses of responses to a survey representative of the population of Finland. The 1030 respondents in total were selected from an Internet panel consisting of 40,000 Finns which is operated by the Finnish market research company Taloustutkimus Oy.

RESULTS
The results show that light electric vehicles were considered interesting, although only 14% of the respondents had used them. A half of the respondents declared that they would be willing to use them in the future. The electric bicycle and the Segway attracted most interest.

CONCLUSIONS
The study increases knowledge in light electric and sustainable mobility. The results indicate that there are opportunities for light electric vehicles to become serious alternatives for transport in Finland in the future (see Geels, 2002), and hence make transport more sustainable. To achieve wide popularity among consumers, light electric vehicles and their supporting infrastructure need to be designed so that they better meet the needs and hopes of different types of consumers.

Practice of Sustainable Food Consumption during Lessons in Home and Consumer Studies – A Case Study of Pupils Classroom Education

Emmalee Gisslevik (University of Gothenburg)

First Author (Main Author)
Co-Author(s)
Presenting Author

Sweden

AIM
The aim of this study is to explore how pupils respond to and practice education about sustainable food consumption in the context of HCS lessons.
competencies required by homemakers in processing African oil bean seeds for sustainable livelihood in South East Nigeria. The study identified competencies required by homemakers in processing African oil bean seeds for sustainable livelihood in South East Nigeria. The study adopted survey research design. The population for the study was 786 made up of 150 registered farmers and 556 lecturers. The sample for the study was 451 made up of 150 farmers and 301 lecturers. The entire population of the farmers was studied while proportionate random sampling technique was used to select 50% of the lecturers. A 47-item structured questionnaire developed from literature reviewed and confirmed through the function of industry was used to collect data for the study. Each questionnaire item was assigned response options of Highly Required (HR) Moderately Required (MR), Slightly Required (SR) and Not Required (NR) with values of 4, 3, 2, 1 respectively. The questionnaire was face validated by three experts. The internal consistency of the items was determined using Cronbach alpha method and a coefficient of 0.81 was obtained. The data collected were analyzed using mean to answer research questions and t-test to test the null hypothesis. The study found out that 47 items were required by home makers in processing AOBs for sustainable livelihood. The hypothesis tested revealed that there was no significant difference in the mean ratings of the two groups for respondents in identified items. It was therefore recommended that the identified competencies (13 in planning, 21 in processing and 13 in marketing) be utilized by skill acquisition centers to make them competent in processing AOBs for sustainable livelihood.

IN CONCLUSION

key words: Entrepreneurial competencies, Homemakers, Processing, Sustainable Livelihood, Oil Bean Seeds

Key words: Entrepreneurial competencies, Homemakers, Processing, Sustainable Livelihood, Oil Bean Seeds.
Japan
13:30 ~ 15:00
19
Household Budget Management Support and Education for Consumers in Need
Tuesday August 2
Actual Condition and Demand of Safety Education of Female Middle School Students in Busan Metropolitan City, Korea

**IP_0876**

**Household Budget Management Support and Education for Consumers in Need**

**First Author** (Main Author)
Yumiko Ono (Tokyo Kasei Gakuin University)
Japan

**Co-Author(s)**

**Presenting Author**
Yumiko Ono (Tokyo Kasei Gakuin University)
Japan

Through a number of studies so far, the presenter has defined “consumers in need” as consumers who require daily monitoring by family members or carers to engage in consumer activities. As the presenter aims to explore consumer behaviors, the study's focus is on household budget management and its relationship with occupation, income, and education levels. In interviews, the importance of initiatives in the “Unit Learning Based on Daily Life Experiences,” which is specific to Special Needs Education Schools, was stressed, and there is potential here for further investigation into financial management support and education in Special Needs Education Schools.

**METHODS**
In late 2013, early 2014 an online survey was conducted among middle class family food gatekeepers in Indonesia, Melbourne, Singapore, Shanghai and Vietnam. Respondents were asked to rate the importance of 18 items about food knowledge and skills, derived from previous research. Cross tabulation analyses by country of residence were conducted to examine similarities and differences between the views of the respondents. Exploratory factor analysis derived an eight item factor named: Importance of food knowledge and skills (Cronbach’s alpha = 0.90).

**RATIONALITY AND AIM**
The content of food education is changing and the views of food consumers may be important in the design of these courses. This study examined the views of middle class family food gatekeepers from five countries in the Asia Pacific Region.

**RESULTS**
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conducted a survey with the subject of total 512 students, including 235 students in the first grade and 277 students in the second grade of female middle schools in Busan. The method of sampling is a convenience sampling and the survey instrument is questionnaires developed by researcher referring to preceding studies regarding safety education. The survey instrument is a measure of the Likert scale of 5 points and the reliability is Cronbach alpha values as high as 0.95.

The actual condition analysis shows that the highest incident of accidents among female middle school students are experiment and practice accidents, which totaled 86 cases. The next is bruise activity accidents while students are exercising (N=216) and water accidents (N=216). The third highest incident rate is related to verbal violence: which 365 students experienced out of a total 496 students, including 251 students through abusive language and 114 students through personal attack. This survey shows that verbal violence happens with bullying and relationship problems with friends. The fourth highest rate was attributed to bicycle accidents, which 233 students experienced and the fifth is product safety accidents. With product safety accidents, fixed poisoning is the most common (N=66), defective school supplies (N=90), defective toys (N=23), and food intake accidents (N=17). 120 students experienced cyber addiction accidents in sequence and smartphone addiction was noted by 104 students. Accidents with tools of gas (N=114), cyber violence accidents (N=99) and suicide attempts(N=99) followed in order.

By performing the survey for the contents of safety education demand in the home economics curriculum, the most required contents from female middle school students over the average 4.51 are prevention and response procedures for sexual violence and sex trafficking (4.60), suicide prevention and response procedures (4.56) and bullying (4.51). Child abuse prevention and response procedures (4.46), physical violence prevention (4.40), domestic violence prevention and response procedures (4.39) and experiment and practice safety (4.26) followed in order.

Demographic changes lead to social changes worldwide. Coping with specific challenges of an ageing population, the focus explicitly is on the needs of seniors. Home economics, in the interface of health-care, nutrition and social support can contribute to sustainable development.

The aim of the study, partly funded by the International Federation for Home Economics (IFHE), was to grasp the current situation of the elderly systematically in various regions of the world and to identify key issues arising from the seniors’ daily needs. The data should be the basis of Home Economics curricula on various levels.

The case study was conducted in six countries by an international team of scientists between 2011 and 2013. Literature review explains the situation of seniors in the participating countries Brazil, Germany, Guyana, India, Japan and Swaziland. A case study focused aspects of socio-demographics, health, nutrition, family, household and society (n = 50 per country; urban and rural, seniors 65 and older).

Comparing the countries, the number of children differs obviously. The health status also is significantly heterogeneous: respondents from Swaziland assess their health status overall more negative than other respondents. Cultural/religious differences are specifically in relation to nutritional habits: descriptive results show dissimilarities concerning food.

Key-results show that habits, household activities and needs of the elderly vary across the world as well as their children’s support. The need for support related to the senior’s health status is heterogeneous.

A standardized curriculum for Home Economics should comprise comparable modules worldwide on different educational levels, but must consider socio-cultural differences. Differentiated strategies should be developed focusing on the seniors themselves but also education and the perception of Home Economics in societies. The awareness of country-specific differences goes along with the requirement of intercultural competencies as an essential component in Home Economics.
The purpose of this study was to examine variations in contact opportunity with the elderly by demographic characteristics and identified related factors of Korean's attitudes on sharing time and space with the elderly. Although there is a discourse on space for the elderly, we should consider the possibilities of separation and exclusion because of the demarcated space only for the elderly. Furthermore, interactive public space, in which every generation could contact and interact, could serve an important function in integrating society as well as generation. In this light, this study focused on the importance of intergenerational contact and was conducted to explore ageism phenomena which are barriers to intergenerational integration. The data came from the 2012 Korean General Social Survey (KGSS). The sample included 1,535 people over 18 years old. The study was conducted by Yi-Hsuan Tsai (Seoul National University), Jiyeon Lee (Seoul National University), Vimalavalli S (Bharathidasan Govt. College for Women), and Yi-Chun Huang (National Taichung University of Science and Technology). The results showed that prejudice toward the elderly was positively associated with negative attitudes on sharing time and space with the elderly. Positive view of one's own aging was negatively related to negative attitudes on sharing time and space with elderly, while negative view of their own aging was positively related. The intergenerational contact was negatively associated with negative attitudes on sharing time and space. In addition, the intergenerational contact buffered the effects of prejudice toward the elderly. The current study expands the current scholarship on space and the elderly by suggesting that prejudice toward the elderly, one's view of aging, and intergenerational contact were related to Korean's attitudes on sharing time and space with the elderly. Findings shed light on the elements that should be considered on space for the elderly or intergenerational space for intergenerational integration.
Celiac Disease affects one in 100-150 persons worldwide. Most don’t know it, suffering unnecessarily. Nutrients are not absorbed. Home Economists must be informed to help curb the epidemic. Eating no gluten is only treatment. Be informed so thousands can eat for health properly. Powerpoint

The increasing concern for overweight and obesity has led to a proliferation of individual body projects that aim at losing and managing weight. New tools for weight loss have been produced by Internet technologies, such as online services providing detailed calorie counting in food diaries, peer support in discussion forums, and expert advice. Our earlier paper based on interviews with users of two Finnish online slimming services suggested that the food and exercise diaries provided by the services produced a script for a calculative practice of slimming, and that for the users, the diaries necessitated slimming in which both calories, nutrition and bodies were treated as quantified objects. In this paper, we turn to examining the relationship between the calculative script produced by the services and the discourses of slimming that are brought about in a discussion forum related to the services. Therefore, we look into the role of providing and receiving peer support in understanding the script supplied by the service. We examine the interpretative repertoires that either comply or challenge the calculative script of the service, and analyze how users re-script and negotiate the meanings of slimming.

The data was collected in August 2014 and September 2015 from a discussion forum linked to one online slimming service. Among the postings from users in the period 2008–2014, we chose a convenience sample of discussions from themes ‘Weight management’, ‘Peer groups’ and ‘Successes’. We did a qualitative content analysis in two rounds. Firstly, we looked for discussion participants’ interpretative repertoires of the script. Secondly, we categorized our data in subscribing, transforming, de-inscribing and circumscribing the script. Our preliminary findings suggest that discourses drawing on subjective experiences may either support or contradict with the slimming script of the service. Therefore, we list into the role of providing and receiving peer support in understanding the script supplied by the service. We examine the interpretative repertoires that either comply or challenge the calculative script of the service, and analyze how users re-script and negotiate the meanings of slimming.

The supervisors’ number in these centers exceeded that of the number of nutritionists and sport educators. The centers acknowledged the need for nutritionists and sport educators to be increased. The study used the services that are provided by the “Johns Hopkins Weight Management Center” which is part of Harvard University in USA, as a reference. This is a descriptive, and cross sectional study which was designed to evaluate 37 body weight control centers in Khartoum State. The study attempted to assess these centers because no attempt has been made before to assess these centers and there are no agreed criteria to do that. The study used the services that are provided by the “Johns Hopkins Weight Management Center” which is part of Harvard University in USA, as a reference.

The supervisors’ number in these centers exceeded that of the number of nutritionists and sport educators. The centers acknowledged the
importance of anthropometric indices as basic measures. Moreover, nearly half of them were found to use the anthropometric indices. The common food items recommended to the clients in each meal or snack were found to contain the required and balanced food items that are ideal for clients seeking weight reduction. But there was lack of knowledge about the quantity that must be eaten during dieting. All the centers use sport education for weight control programs.

The majority of the clients wanted to reach satisfactory body image, few of them were found to be enrolled in these centers according to the physicians’ advice. The clients were found to be satisfied with services they received.

The Sudanese centers were found to be different from that of the Johns Hopkins Weight Management Center (JHWMC) in many ways (e.g. the composition of team, weight management program, client orientation program, formulae to calculate the ideal body weight, as well as in some of the services offered to clients).

<table>
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<tr>
<th>IP_1099</th>
<th>The Role of Regulatory Focus in Water Conservation Behavior</th>
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<tr>
<td>First Author (Main Author)</td>
<td>Jyoun Kang (Texas State University)</td>
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</tbody>
</table>
| Co-Author(s) | Gwendolyn Hustvedt (Texas State University)  
Mira Ahn (Texas State University) |
| Presenting Author | Gwendolyn Hustvedt (Texas State University) |
| USA | USA |

Due to climate change, access to quality water will become increasingly urgent and difficult for many families. The aim of this study is to examine the role of regulatory focus in water conservation behavior. The method for this study was an online survey of 761 Hispanic consumers in regions of the US facing drought, and included variables for the theory of planned behavior. During the survey, respondents were primed with a question designed to stimulate the promotion focus, prevention focus or with a control question. The results of regression analysis demonstrated that promotion primed consumers (encouraged to focus on achieving a positive outcome) differed from the prevention primed consumers (encouraged to focus on preventing a negative outcome), as well as the control consumers in terms of their perception about water conservation. Three variables concerning water conservation (attitudes, subjective norms, and perceived behavioral control), behaved differently under promotion and prevention priming. The promotion priming (thinking about saved money) increased the ability of the perception of control over household water conservation behaviors to influence current and future water conservation. Conversely, the prevention priming (thinking about lost money) and the control group participants did not feel behavioral control at all. Conclusions from this study can provide guidance for home economists working to increase water conservation behavior. Priming consumers to adopt a promotion perspective by thinking of the positive benefits of saving water rather than the negative consequences of wasted water may help consumers feel more in control of their household’s ability to conserve water.

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<th>IP_1447</th>
<th>Rethinking Tivaevae as the Model for Community, Sustainability, Textiles Art and the Wellbeing of Students</th>
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<tr>
<td>First Author (Main Author)</td>
<td>Sarah Wirth (KETANZ)</td>
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<td>Presenting Author</td>
<td>Sarah Wirth (KETANZ)</td>
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From my Masters studies on Pacific Education with Dr. Cherie Chu at Victoria University, I was asked to “rethink Pacific Education.” I saw an exhibition of Tivaevae, a quitting art form from The Cook Islands, Tahiti and Hawaii and felt that this was the medium with which I would connect with my students. When considering “rethinking Pacific Education” in my classroom, I thought I would be showing a beautiful Textiles Artform; however it was much more than that, the Tivaevae connected us to the local community, strengthened my class bond, leading to an appreciation of the art form and made strong connections to students’ wellbeing. I made contact with a local Cook Island sewing group in Wellington and these women came to impart their knowledge to my students, in the same way as they were taught by their mothers. They explained how they were made for their functions, culture, the importance of society and heritage. The stories from the Tivaevae are told and the significance of the

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<tr>
<th>IP_0424</th>
<th>IFHE-US Mentoring Committee to Present “Hope and Happiness Is....Mentoring”</th>
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<tr>
<td>First Author (Main Author)</td>
<td>Mary Warnock (University of Arkansas)</td>
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</table>
| Co-Author(s) | Jacqueline Warnock (Texas A&M University)  
Deborah Tippett (Meredith College) |
| Presenting Author | Mary Warnock (University of Arkansas) |
| USA | USA |

AIM

International Federation for Home Economics (IFHE) members can experience hope and happiness by participating in a mentoring program. Young professionals need mentors so that they do not become isolated or discouraged within their profession. Joining IFHE can assist to alleviate these issues, but the new member must become active, make contributions and remain a long-term advocate in order to benefit from the happiness of this career satisfying professional organization. Working with young professionals can bring hope to experienced members.

METHODS

Objectives of symposium are to (1) demonstrate the establishment of a mentor/mentee relationship via technology; (2) define expectations for continuing the mentor/mentee contacts after establishing commitment by both parties; (3) utilize assessment tools to determine effectiveness and impact of the mentor/mentee partnership and (4) present activities that can be used to deliver personalized learning leading to IFHE participation.

RESULTS

These objectives will be accomplished by using power points, oral presentations, videos and hyperlinks to (1) demonstrate the effective use of Skype, email, social media or other electronic forms of technology in creating a teaching/learning environment; (2) provide handouts defining the roles, responsibilities and expectations of the mentor and mentee; (3) provide copies of assessment tools that can be used to determine the degree of success of the mentoring relationship for 6-month and 12-month periods; (6) illustrate/conduct interactive activities, role playing, ice breakers, brain storming to reinforce the teaching/learning applications of the mentor/mentee relationship with emphasis on influencing mentees to remain involved in IFHE so that they can enhance and support their chosen career goals for their own happiness and the betterment of the global community; and (5) provide an IFHE-US mentor and a new member mentee to share their stories about the benefits of the program from personal and professional perspectives.

CONCLUSION

Participants will understand the mentor/mentee relationship with the benefits of hope and happiness resulting from IFHE membership.

Tuesday August 2 13:30 ~ 15:00

Tivaevae was explained.

Students worked in the Technology area of Textiles. They developed an understanding of the inclusion of Tivaevae to the importance of it as a beautiful storytelling ritual and as a significant female historical textiles art form. Our students have a growing connection with the Pacific, especially Samoa and Fiji and Te Papa in Wellington, including the latter that has the largest collection of Tivaevae in the World which is on our doorstep. During this unit they gained an understanding of the relationship between the Tivaevae, both as an art form and as cultural markers of families’ history.

Students needed to reflect on how technologies impacted on society in the Pacific, especially the Cook Islands in relation to Tivaevae and modern New Zealand practices of Tivaevae.

Student turned their research into article or blog: describe the environment at the time that Tivaevae were introduced to the Cook Island, and the need and/or opportunity that the Tivaevae addressed identify who the key people were that played a role in the development Tivaevae explain how the development of Tivaevae, people, and the social and physical environments interact discuss the impact that these interactions had on society discuss both the successful and unsuccessful ways in which people, the social and physical environments and the development of Tivaevae interact.

The students made a Tivaevae for the opening of a new building at school and recorded their stories of how this impacted on their textiles practice.

Tuesday August 2 13:30 ~ 15:00
Everyday household activities consume natural resources. For instance, washing the laundry either performed manually or by a washing machine, requires use of water, as well as consumption of energy for heating the water, and consumption of detergents and other additives (e.g. clothes softeners). In addition, the laundry washing frequency and the washing habits differ greatly among different consumers in different parts of the world.

The consumption of resources can be minimized if best practices on laundry washing are applied by consumers. Part of the IFHE Programme Committee on Household Technology and Sustainability (PC HT&S) is (a) the compilation of best practices and the corresponding development of informative posters and (b) the compilation of frequently asked questions (FAQs) based on scientific evidence for various household activities such as laundry washing. Two sets of best practices and corresponding sets of FAQs were developed, one in manual laundry washing and one in automatic machine washing. The aim of these best practices and FAQs is to help Home Economics professionals to educate and train consumers around the world to change their washing habits towards more sustainable patterns.

The focus of this paper is the presentation of the development of the best practices and FAQs on laundry washing. Future work of the members of the PC HT&S will be on the dissemination and testing of the effectiveness of best practice posters in different parts of the world.

From different perspectives, refrigeration in private homes may be seen as critical: on the one hand, a significant share of the total residential electricity consumption is consumed for this purpose. On the other hand, proper food storage is a significant aspect in view of food safety, hygiene and prevention of food waste. Several studies indicate that the consumer behavior in refrigeration and the food storage practices vary greatly among consumers both, on individual and an international level.

The energy consumption of refrigerators as well as food losses could be reduced and the food safety and quality could be optimized if consumers apply best practices on refrigeration. For that reason, scientifically sound best practices on refrigeration were developed by the IFHE Programme Committee on Household Technology and Sustainability (PC HT&S) based on peer-reviewed scientific literature.

The development of the best practices and how Home Economics professionals worldwide could apply them is presented in the paper.
**Room 107**  
Cultural Aspects of Clothing & Textiles

| Chair | Yhe-Young Lee (Korea University)  
Republic of Korea |
|---|---|

**IP_0339**  
Hope for Indigenous Textile Knowledge through Product Diversification

| First Author (Main Author) | Neera Barooah (SNDT Women's University)  
India |
|---|---|
| Co-Author(s) | Ela Dedhia (Mumbai University)  
India |
| Presenting Author | Neera Barooah (SNDT Women's University)  
India |

**AIM**

The aim and objectives of the study was to develop measures to enhance the sustainability of the textile crafts of indigenous communities of North eastern region of India, which is home to about 225 tribal communities, to help the rural economy, prevent rural migration, preserving textile heritage, and ensuring an environment friendly production process. The study aimed to develop diversified products using tribal designs and understand the acceptability of these products.

**METHODS**

The socio-economic condition, textile tradition, semicircle practices of the following tribes in the state of Assam, namely, the Bodos, the Dimasa, the Karbis, the Mishings, the Rabhas, the Singhphus, the Tews were studied by administering interview schedule and observation method. Diversified products such as apparel, home textiles and fashion accessories were developed using eri silk with almost extinct tribal designs in an attempt to revive the designs. The fabrics for the products were woven in handloom with jacquard mechanism. The developed products were showcased to prospective consumers to understand their acceptability.

**RESULTS**

It was found that majority of the weaver’s families live in poverty, and a steep decline was found in textiles practices along with many crafts, and designs that have already gone extinct due to a lack of innovation in the production process, in terms of spinning or weaving and lack of interest of the younger generation. The developed products found acceptability among rural and urban consumers, indicating an opening of a new avenue for tribal textile craft.

**CONCLUSION**

The study concluded that, with creativity and innovation, it is more likely to encourage the younger generation to continue their textile tradition with indigenous knowledge. The study also indicated the need for partial technology induction to enhance productivity.

**Key-words:** Eri silk, sustainability, diversified products, socio-economic status, technology induction

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**IP_1335**  
Changing Iconography of Traditional Indian Resist Block Printed Textile, Ajrakh-Catering to International Niche Markets

| First Author (Main Author) | Ela Dedhia (University of Mumbai)  
India |
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| Presenting Author | Ela Dedhia (University of Mumbai)  
India |

Craft and design, in Indian context, is extremely complex and multifaceted having huge impact on livelihood of huge population of millions of traditional craftsmen. Patterns, techniques and processes form the cultural icons, which are inherited and imbiberd from one generation to the next. Irrespective of the medium a craftsman works with, the form, colours and motifs are derived out of their consciousness, evolved through years of experience.

Under the pressures of an evolving society and changing commercial and technological needs, these traditional patterns, icons and symbols are also undergoing change.

The aim was to find different approaches of designers, non profit non government organizations and craftsmen in traditional printing cultures like ajrakh, in an attempt to revive, survive and sustain in the commercial space. A printing cluster in Dhamadka, Kutch, western Indian state, traditionally printing textiles for the local population had become confined to ajrakh fabrics, lungis, turbans, sarees, etc. over the years. The other is Ajrakhhpur in Kutch, a recently developed cluster, post-earthquake 2001, formed by migrated traditional block printers from Dhamadka who adapted to changes much faster due to their proximity to town Bhuj which is well connected by road, rail and air and visited by tourists from all over the world. The printer communities have moved-on to producing products for the urban global market, yet have retained their cultural identity. In recent times, input by developmental agencies and individuals have freshly invigorated the scenario by revising interest in a traditional product by playing around with motifs, colour combinations and experimented with layouts, raw material and product development. Rannotsav initiated in 2009, brought in a revolution of tourism. Sudden influx of tourist from all parts of India and the world created a new beginning for locals of Kutch including the craftspersons in the international niche markets.

**IP_0401**  
Emirate Costumes of Traditional Title Holders of Northern Nigeria

| First Author (Main Author) | Hadiza Dicko (Ahmadu Bello University)  
Nigeria |
|---|---|
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| Presenting Author | Hadiza Dicko (Ahmadu Bello University)  
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**AIM OBJECTIVES**

The objectives of the study are to:
1. Identify the different royal costumes used by the Traditional Title Holders (TTH) of Northern Nigeria;
2. Identify the type of costumes given to the TTH of Northern Nigeria during turbanning;
3. Determine the number of garments used by the TTH of Northern Nigeria for official palace functions;
4. Identify the types of embroidery designs used on the costumes of the Traditional Title Holders of Northern Nigeria.

**METHODOLOGY**

Descriptive research survey method was used to document the different emirate costumes and types of embroidery designs used by the Traditional Title Holders of Northern (TTH) Nigeria and the costumes given to the TTH during turbanning. Population of the research consisted of 551 TTH in North-West Geo-political zone of Nigeria. The zone has seven states (Kano, Katsina, Kaduna, Kebbi, Jigawa, Sokoto and Zamfara). Stratified random sampling technique was used to select four states, while Hat Drawn method was used to select one emirate council from each state (Zazzau from Kaduna State, Daura from Katsina State, Kano from Kano State and Sokoto Caliphate from Sokoto State). A total of 134 TTH (114 District Heads and 20 King Makers) were used to collect data for the study using structured questionnaire. Descriptive statistics of frequency and percentage was used to analyze the data collected.

**RESULTS**

The findings revealed that the costumes of the District Heads and King Makers of TTH of Northern Nigeria include Babbar rija, alkyabbba, hula, big trousers (buye/wando/kumun kafa/wandond zina/wandon Kano), embroidered shoes, jhabba, falmara, kubta, yar and rawani. The embroidery designs preferred by the TTH are farfesu, yar madaka, shabka, two neddles (allura biyu), hand and machine embroidery. The average number of garments used for official functions is 5, even though only babbar rija, hula, alkyabbba and rawani were given to them during turbanning. The horses of the TTH are not left out in special regalia. They have costumes like jalala, dan kai tunjimi, banten doki, suka budu, labbati, layun wuya, saddie, likkaa, kafitrau, Dan gohu, Dan kirji, dan kokuwu and so on.

**CONCLUSION**

The emirate costumes of the Traditional Title Holders of Northern Nigeria include among others big gown (babbar rija), turban (rawani), cap (hula), big trousers (buye/wando/kumun kafa/wandond zina/wandon Kano), embroidered shoes (takima), yar ciki, cikak (alkyabbba), jhabba, kubta, falmara and kaftan. From all these items of costumes, only four items (babbar rija, hula, rawani and alkyabbba) were given to the TTH
The Usage of Ethnographic Belts in Promoting Pupils’ Creativity

**AIM**
The territory of Latvia is not big but Latvian ethnography is very rich. The amount of belts is varied and interesting. Historically belts were used to contain clothing, in household, for example to set a cradle. Belts have been made in many techniques in different Latvia regions and they have a great variety of pattern compositions and setting of colours.

Our task is to preserve and hand over to future generations our cultural heritage. At school pupils get much information about folk art and traditions. The rich amount of belts is a good material to develop many-sided skills of pupils and indirectly acquaint them with ethnographic materials.

The aim of the paper is to find out whether using elements of ethnographic belts for performing different tasks pupils indirectly deepen their knowledge about ethnography, belts and their patterns.

**METHODS**
The information was obtained studying literature and ethnographic materials, investigating articles, interviewing and summing up the results.

**RESULTS**
Pupils working with belts, their fragments, pattern elements, get acquainted with the values of national culture thus promoting their familiarization and preservation. While doing tasks with belts’ elements pupils’ creative thinking and memory are developed because creative thinking is one of the main human’s essence detectors.

At household lessons pupils, while making compositions for modern articles which are made of various materials, creatively use patterns of belts and their colour variations.

**CONCLUSION**
Teaching pupils think, creatively use the obtained knowledge, skills and abilities, pupils get accustomed to non-standard situations which help to form personalities who will know the culture of their country, will be able to create ideas and realize them in independent work in any life situation.

I’m Free Now! A Cognitive Generalization of the Self through Experiences: The Self-Esteem and Self-Schema of African American Women Wearing Natural Hair

**AIM**
The hopefulness for beauty acceptance continues to be a battle for African American (AA) women (Thompson, 2009). The valuations of AA beauty, particularly concerning natural (unprocessed/unstraightened) hair, are negative due to the hundreds of years of brainwashing during the slave trade. Africans were made to believe they were worthless and unattractive (Robinson, 2011; Thompson, 2009). The phenomena known as the White Standard of Beauty materialized in the process of this encoding. This standard is still relevant today, and many AA women feel pressure to conform to the overall society as well as from those within the AA culture. As a result their self-esteem and self-schema suffer. However, AA women are beginning to redefine their own standard of beauty with their natural hair (Potton, 2006).

**METHODS**
The current research is a continuation of a previous study conducted in 2003. A purposive sample of 25 African Americans women with natural hair were interviewed in 2003. An additional 13 African Americans women with natural hair were interviewed in 2012 via snowball sampling. Individual interviews were conducted as well as a The Perceptions of African Americans on their Natural Hair questionnaire which included the Rosenberg Self-Esteem Scale (1981). The interviews were transcribe verbatim and analyzed via open coding followed by an axial coding approach.

**RESULTS**
Three themes emerged from the data: 1) the past experiences of AA women being told they have “bad” hair; 2) the unsupportive society including family and friends regarding women wanting to wear their own natural hair; and the now positive self-image and self-acceptance the women have of their natural hair texture regardless of the still dominate White Standard of Beauty.

**CONCLUSION**
This study’s contribution offers a better understanding of the AA culture, in hopes of fostering a more widely acceptance of AA hair textures and other body characteristics.
**Workshop**

**Room 205**

**Promotion of IFHE to Non-Members**

**Chair**
Elisabeth Leicht-Eckardt (IFHE EC)
Germany

**Presenter(s)**
- Reem Al-Naib (Fulda University of Applied Sciences, Kassel University)
- Stefan Wahlen (Wageningen University)
- Sidiga Wahi (Ahfad University for Women)
- Rie Imoto (Kagawa Nutrition University)
- Faiza Hussein (Ahfad University for Women)
- Stefan Wahlen (Wageningen University)
- Reem Al-Naib (Fulda University of Applied Sciences, Kassel University)

**WS_0943**

**Promotion of IFHE to Non-Members**

**First Author (Main Author)**
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Germany

**Co-Author(s)**

**Presenting Author**
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Germany

**AIM**
The aim of the Session/workshop is to present successstories of IFHE as INGO at the UN and UN agencies as well as highlighting the options for IFHE Members and the IFHE global network in the different fields of home economics such as home economics research, home economics education, family, and household challenges and advocacy at all levels. The session/workshop will also introduce the IFHE programme 2020 of IFHE upcoming President Prof. Dr. Sidiga Wahi including the perspectives of the IFHE Young Professionals Network followed by a discussion with participants.

**METHODS**

- The workshop will start with a short 2-3 Minutes introduction about IFHE Challenges the chair of the IFHE Finance and Membership Committee
- A 20 minutes presentations of IFHE experts in the related fields from various regions i.e. Africa, Pacific, Americas, Asia, Europe highlighting their experiences with IFHE as an international non governmental organisation; with Home Economics as an interdisciplinary field of research, and with Home Economics Education as basis for development and well being to motivate non members to join IFHE when reflecting their success stories.
- A 15 minutes Presentation by IFHE upcoming President Sidiga Wahi to highlight her presidency program period 2016 – 2020 and beyond
- A discussion will follow with participants to reflect their commitment to advance IFHE

**SESSION/WORKSHOP OUTCOME**
The outcome anticipated is the commitment by the non member individuals and organisations to join IFHE and to get more professionals to be involved with the process of promoting IFHE to more non members

**CONCLUSION**
Output will be a collection of ideas for the membership committee for the next four years to attract more professionals to join IFHE all over the globe.

Submitted by: Prof. Dr Elisabeth Leicht-Eckardt, Chair of the IFHE Finance and Membership Committee.

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**Concurrent Session**

**Room 101**

**Rational Consumer Decisions**

**Chair**
Hester Steyn (University of the Free State)
South Africa

**IF_0110**

**Factors Influencing Consumer Behaviour in a Sequence to Food Waste**

**First Author (Main Author)**
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**Co-Author(s)**
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**Presenting Author**
Barbara Freytag-Leyer (Fulda University of Applied Sciences)
Germany

**AIM**
The research was conducted to find out the factors that lead consumers to waste food. The analysis of consumer behaviour during their shopping trips and at home was conducted to measure the level of its negativity.

**METHODS**

- Data from 115 consumers in two German cities was collected by a quantitative questionnaire.
- The results showed that nine factors influence and drive consumers to food waste which are divided into three stages of the food journey at their homes.
- Factors due to food shopping: buying too much food, fresh moves and buying big packages.
- Factors due to food storing: not eating the items that should be eaten first, forgetting products in the cupboards that lead to be unfit for consumption and doing distant or non systemic “spring cleaning” leading to dispose old and forgotten products.
- Factors due to preparing and cooking food: preparing too much food in one meal which owes to poor portion size control, forgetting leftovers in the fridge and high sensitivity to food hygiene.
- Besides, the majority of consumers does have structured behaviour before taking off to the supermarket by checking their inventory needs and preparing a shopping list at least sometimes. Some (20%) have unorganized behaviour. They get influenced by market offers and promotions that lead to buying more food than planned and overshopping. Consumers like to cook more food than can be eaten especially for holidays.
- The majority of the consumers do not partake the habits of leaving food on the plate as a deed out of courtesy.

**CONCLUSION**
According to the nine factors found, campaigns for reducing food waste can be planned.

**IP_1219**

**Price Discount Effects in Fashion Products: A Range Theory Approach**

**First Author (Main Author)**
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**Co-Author(s)**

**Presenting author**
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USA

**AIM**
Although price promotion is a popular marketing strategy in the apparel industry due to the short product life cycle of fashion products, there has been very limited study focusing on customers’ perceptions towards price discount in the fashion product context.

Based on the Price-Quality-Value model, we propose that price discount has influences on perceived quality and perceived savings, which in turn impact purchase intentions. Building on range theory, we also investigate the moderating role of range of expected price discount (REPD), and the factors influencing REPD.
Consumer Perspective of Phytonutrient Food Sources and Functional Food Application in the Market for Food Management and Sustainable Future

**AIM**

Food management is the application of management principles of planning, organizing, implementing and evaluating in solving the problems associated with feeding or the provision of foods. It involves the utilization of the human resources of knowledge and skills in planning controlling and organizing the non human resources of money, food supplies and equipment to achieve good health (Anozie&Ekhe,2009).

Plant foods contain thousands of natural chemicals. These are called phytonutrients or phytochemicals. Fruits and vegetables contain phytonutrients. When man eat or drink phytonutrients, they may help prevent disease and keep the body working properly. Phytonutrients play an important role in the relationship between diet and the prevention of chronic diseases. The scientific data offers the food industry the opportunity to develop functional foods that phytonutrients emphasized. Consumers who are unfamiliar with phytonutrients is hampering the successful marketing of such functional foods because it is a consumer with requires knowledge and understanding of diet and health. Good management of food is aimed at providing the consumers with nutritious and safe food to achieve good health;this demands appropriate knowledge, skills which many consumers may not possess. these consumers has limited time for food preparation. Because Alexandria is an emerging market for phytonutrients and functional foods, the study explore the following:

(i) consumer Knowledge of the term "phytonutrients"; dietary supplements, functional food;
(ii) Knowledge of the food source and the associated health benefits of specific phytonutrients;
(iii) consumer behavior in purchasing phytonutrients and functional foods dietary supplement, and what are the strategies consumer adopt in food management?

**METHODS**

The study employed a survey research design using a questionnaire. It was conducted in Alexandria city center. A purpose sample of 150 consumers was selected structured questions had response options of agreed, undecided, disagreed,corresponding to the values of 3,2, and 1, respectively, on a Likert Scale. SPSS program for statistical analysis.

**RESULTS**

About third of participants were aware of the term “dietary supplements, function food”; most of the participants were aware of the food sources as health benefits. Broccoli is the food by most of the participants (75.6%) is indicated as a rich source of antioxidant. More participants were aware of the term “phytonutrient” was the daily recommended number of servings of vegetables indicate correctly (58.5%), than those who do not know it (40.8%). Some participants expense more than 10% of their monthly income for purchasing dietary supplements, about 30% of them depend on their friends and family relatives whom residing abroad in obtaining the dietary supplements products. Time factor, expensive food resources or buying cheap ingredients, preparing only meals that require less time and poor preservation facilities are facing feeding management and lead consumer sometimes to purchase the dietary supplements when urgently needed.

**CONCLUSION**

The consumer were likely less aware. Significant exposure is necessary to introduce the importance of phytonutrients in health and disease prevention.

**RECOMMENDATIONS**

Family and consumer’s associations should stress the need for adequate meal planning, choosing and purchasing healthy food.

**BACKGROUND**

For hospitality services, as provided in institutional households, there are increasing options to certify services or products and their ingredients in terms of their environmental sustainability, geographical origin, nutritional values and other attributes. Such certifications are often reasoned with having a positive impact on marketing and reputation.

**AIM**

To develop an overview of common certifications / labels used in hospitality services with a focus on catering in institutional households in Switzerland, Germany, Austria, Canada and USA. Thereby the questions, what certifications are on the market, what they have in common and how both providers of labels and hospitality services experience this market, are answered.

**METHODS**

Qualitative research design, underpinned by the pragmatism paradigm and a primarily inductive approach. Data collection methods include document research and semi-structured interviews with providers and users of labels. Data is analysed thematically, using a coding strategy especially developed for the purpose of this research. The research will be conducted in autumn term 2015 by a group of four students studying facility management with focus on hospitality services in institutional households.

**RESULTS**

The findings will show that the market of certifications and labels for hospitality services in the countries focused on is large.

**CONCLUSION**

It is anticipated that there is a booming market for certifications and labels for the hospitality service industry. This adds to the body of knowledge in the field of Home Economics by providing decision makers with an overview of this market including reasoned pros and cons why the use such labels might be of benefit or not.
Corporate Use of Private Property: Consumer Rights?

Most consumers seek to own private property to achieve hope and happiness. Across the globe private landowners face challenges when corporations demand to use or access private property, generally providing landowners with little compensation. The legal concept of eminent domain is used by corporations when it is determined that their use is in the public interest. In recent years US citizens have increasingly challenged the use of eminent domain by corporations, especially when the purpose is to obtain private financial rewards for the company owners, not public use. A number of states have passed laws and constitutional amendments that speak to the priority of individual landowner property rights. However, as numerous proposals for new interstate transmission pipelines have been made, landowners are often finding that corporate interests trump individual rights.

Interstate transmission pipelines in the United States are approved by the independent Federal Energy Regulatory Commission (FERC), which is funded by the energy industry and has an employee “revolving door” with the industry. Other federal agencies whose responsibilities are affected by natural gas transmission pipelines must work through FERC to address them. The responsibility for safety inspections lies within the Department of Transportation which is chronically short-staffed and under-funded. It has not met Congressional requirements made four years ago when the agency was last reauthorized and it does not appear that this will improve anytime soon. Landowners in rural areas have especially challenging situations since they are low priority for government safety and environmental inspections. Often less rigorous standards for safety are required in rural areas, allowing pipeline owners to save money but exposing landowners to greater risks. Citizens get little to no help from local and state government as they seek to protect themselves, the environment, and their property.

Citizens are organizing new non-profit grassroots groups and coalitions of groups across geographic areas and with a wide range of organizations to fight the pipelines. They are using internet technology to communicate with each other and the government and to search for information. Websites, Facebook groups, and email listeners quickly share information about the problems with pipelines that is often not covered by newspapers and television. Fundraising and educational events support citizen efforts to protect their own and their neighbors safety and property. Citizens have not been so engaged in policy issues in decades.

This paper will explore and compare current policy and recommend changes for to achieve more fairness and better landowner ability to achieve hope and happiness. It will also investigate citizen advocacy activities and propose strategies to keep citizens engaged in policy processes as they continue to influence decisions. If citizens can maintain the grassroots organizations and activities they are more likely to achieve fair balance of power between corporations and private landowners and will be more likely to find hope and happiness.

The introduction of sustainable development into the Swedish national syllabus of Home and Consumer Studies, anticipates teachers to offer opportunities for pupils to make conscious choices and act as responsible consumers. However, little is known what the term sustainable development entails in Home and Consumer Studies education and the subject’s knowledge area of food. The aim of the present study was to explore the content of teaching food from the perspective of sustainable development in the classroom practices of Home and Consumer Studies. In an exploratory case study, data in the form of audio recordings, field notes, assignment questionnaires and, to some extent, video recordings from 14 lessons in grade 8, were analyzed using qualitative content analysis. The analysis reveals that education about food from the perspective of sustainable development entails in Home and Consumer Studies education and the subject’s knowledge area of food. The content in the teacher’s classroom practice emerges as three main categories: sustainable food selections, sustainable cooking, and sustainable food utilization with a base in the multidimensional meal process that reaches far beyond the kitchen walls. In conclusion, the study indicates that Home and Consumer Studies is a school subject that offers education for sustainable food consumption with the self/homemade meal in focus. However, clarification of what teachers in Home and Consumer Studies are expected
to offer in regard to content, width, and depth when teaching sustainable food consumption in classroom practice is needed.

**IP_1009 Young Consumer-Citizens on the Door to Service Society**

**First Author (Main Author)**
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**Co-Author(s)**

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Finland

In consumers’ everyday life service encounters are frequent and crucial episodes which reveal the cultural norms of the interactive situations. As we enter service scenes we are positioned either as acknowledged, appreciated consumers or as marginal (mistrusted, invisible) consumers. Especially when young people enter service scenes Hoffman’s principles of equality and politeness guiding service encounters are contested. It has been argued that it is relatively easy to deny the rights of young people as consumer-citizens and place them in the marginal. This study focuses on the role of doors in the marginalization of young service consumers in the context of both private and public sector services. The study aims to shed light on how the service encounters begin at the doorway and how the doors carry symbolic meanings as barriers to cross already before the actual service encounters. The data are generated using narrative and ethnographic methods. The analysis draws on a data set of service narratives and field notes including photographs collected in ethnographic field work. The analysis applies close reading and narrative methods. In their stories the young people use the metaphor of a heavy door which captures vividly their struggle between seeking for help and crossing borders. In addition, their agency as fully-fledged service consumers is contested also in the commercial service environment: they may not be greeted at all or it is implied that they are considered as potential shoplifters. Thus, tentative findings indicate that for young people entering the space of services is charged by meanings – especially meeting public sector authorities. The borders and barriers are built in the strong cultural middle class norms and adult order. The door and events at the door play pivotal role in relational exclusion/inclusion of young people.

**Room 103 Scale Development**

**Chair**
Jung Ha Lim (Korea University)
Republic of Korea

**IP_0324 The Development and Initial Report of the Transracial Adoption Parenting Scale - Revised**

**First Author (Main Author)**
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USA

**Co-Author(s)**

**Presenting Author**
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USA

**AIM**

Literature concerning cultural and racial socialization in international adoption strongly suggests the need for a reliable, valid, and practical instrument for empirical research. Thus, this study aims to revise the original Transracial Adoption Parenting Scale (TAPS) and examine the factor structure of a revised version of the TAPS (TAPS-R) with a sample of international adoptive parents.

**METHODS**

Data were collected using a cross-sectional online survey design. As part of cultural and racial socialization study, the survey was administered in 2012. A convenience online sample (N = 310) was recruited through parenting support groups. The majority of the participants were Caucasian mothers (90%). The average age was 48.30 years (SD = 7.10). The average income was approximately $134,000 (SD = 83,275).

Exploratory factor analysis (EFA) identified and extracted an expected factor structure. The number of factors retained was decided based on existing literature, an examination of the produced eigenvalues, a scree plot, and parallel analysis. Using oblique promax rotation, the factors were then rotated to allow for correlated factors. Each item was examined and assigned to the factor on which it had the largest loading. Items that did not meet a cutoff point (c. .30) were not retained in the final structure.

**RESULTS**

The EFA revealed a reduced 47-item form of the TAPS-R with a 4-factor underlying structure. The three factors: Racial Awareness (10 items), Multicultural Planning (17 items), and Coping Skills (15 items) confirmed theoretical expectation (Vank, 2001). A fourth factor: Integration (5 items) also emerged.

**CONCLUSION**

The findings suggest that the TAPS-R is a sound instrument that captures socialization beliefs and practices among international adoptive parents. The results can contribute to literature related to cultural and racial socialization in transracial adoption. As this is an initial study of the TAPS-R, future study is needed to further establish its reliability, validity, and factor structure.

**IP_0248 Ergonomic Evaluation of ICT Facilities in Schools of Mumbai**

**First Author (Main Author)**
Roopa Rao (University of Mumbai)
India

**Co-Author(s)**

**Presenting Author**
Roopa Rao (University of Mumbai)
India

**AIM**

To evaluate the computer laboratory facilities provided by private schools in Mumbai and to learn about the perceived discomfort faced by the students of class three and class four due to the concept of design for the average concept adopted by schools today.

**METHODS**

237 students aged 8 - 10 years from five schools in Mumbai were observed during their computer classes at school. These children were interviewed (self-constructed questionnaire) about their perceived feeling of comfort (modified musculoskeletal discomfort questionnaire) while using the computer laboratory facilities. Relevant anthropometric data was collected to check for good fit between the user (child) and her workstation (computer).

**RESULTS**

Most of the students were satisfied by the computer lab facilities provided by the school. Their (82.3%) main complaint was that they are asked to work in groups. The seat height was appropriate for 85.2% (n = 202) but the pressure in the popliteal area was evident in 60.3% (n = 143). The seat height was adjustable but the children were not aware of this. The work surface height was uncomfortable for 34 children (14.3%). 67.1% (n = 159) did not have arm/hand support too, increasing the prevalence of awkward work postures.

**CONCLUSION**

Comparison of the user anthropometric data and working heights revealed misfit, but these can be rectified with incorporation of adjustable furniture. The working environment was also evaluated ergonomically and a few recommendations were suggested. The school authorities were open to suggestions and willing to incorporate ideas discussed.
**IP_0325**

An Exploratory Factor Analysis of the Socialization Self-Efficacy Scale (SSES) with International Transracial Adoptive Parents in the United States

**AIM**

Cultural and racial socialization in international transracial adoptive families are mainly initiated by parents. As parenting self-efficacy is suggested as a predictor of socialization practices, there is a need for a reliable, valid, and practical instrument with which to measure self-efficacy. Thus, this study aims to provide examine the factor structure of the Socialization Self-Efficacy Scale (SSES).

**METHODS**

Data were collected using an online survey in 2012. A convenience sample (N = 310) was recruited through parenting support groups. The majority of the participants were Caucasian mothers (90%). The average age of the participants was 48.30 years (SD = 7.10). The average income was approximately $134,000 (SD = 83,175).

**RESULTS**

The EFA, as expected, revealed a 10-item SSES form with a 2-factor underlying structure similar to that suggested in relevant literature: Cultural Socialization Self-Efficacy (CSSSE, 6 items) and Racial Socialization Self-Efficacy (RSSE, 4 items). The CSSSE factor includes items relevant to parents’ motivation and beliefs about their capability to perform cultural socialization. Items in the RSSE factor are relevant to parents’ motivation and capability to perform racial socialization.

**CONCLUSION**

The findings suggest that the newly developed SSES is a sound instrument that captures parents’ motivation and belief about their capability in socialization. As this is an initial study of the SSES, further research is needed to further establish its reliability, validity, and factor structure.

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**IP_0884**

Study on the Feasibility and the Design to Support Child Care for a Child to Do Chores with an Interactive Robot Pepper

**AIM**

Previous studies on a daily assistant robot have been focused on the achievement of completely autonomous household tasks. However, it is also important to consider the robot system which enables a robot to do chores with a child from the perspective of supporting child care in family. The aim of this study is to consider the recognition / manipulation ability and the interaction design required for the robot to do so. We focused on tidying up stuffed animals among the chores three-year-old children can try.

**METHODS**

We found Pepper has difficulty in holding solid objects like dishes, but it can grasp flexible objects like stuffed animals and towels. Pepper can put an object on a table or a shelf and release it to a box on the floor even though it is weak in bending down because the motor load becomes high. The performance of the cameras is almost same as other robots, but it is not enough to see the world closely and widely in a real daily environment.

**CONCLUSION**

There is a paucity of studies comparing Family and Consumer Sciences/Home Economics curricular offerings. This study considered how a commercially available communication robot could achieve doing chores with a child through one example of tidying up stuffed animals. To achieve this, new sensors for seeing the world closely and widely, the ability to keep holding a stuffed animal and the interaction design of relying on a child when dropping it are required. Our study is important in specifying what a commercially available robot can / cannot do, and revealing the direction of the study of the robot system for supporting child care.

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**Room 104**

**Home Economics Curriculum from around the World**

**Chair**

Hille Janhonen-Abuquah (University of Helsinki)

**IF_0134**

American and South Korean Family and Consumer Sciences Secondary School Programs: A Cross-Cultural Comparison

**AIM**

Education and problems related to education are greatly influenced by economic, political and social factors. This cross-cultural comparison of the educational systems in the United States and Republic of Korea sheds light on how these factors influence the value placed on Family and Consumer Sciences/Home Economics curricular offerings.

**METHODS**

This study is a qualitative comparison of the structure and offerings of Family and Consumer Sciences to those in Republic of Korea. The information was gathered through interviews and governing policies and educational mandates documents.

**RESULTS**

The educational systems differ in many ways, however, secondary programs in Family and Consumer Sciences (FCS) have a long history in both countries. In the United States, where secondary public education is free, fifty states continue to offer courses in secondary schools. The courses are either elective or required depending on each state’s requirements. Students may opt to attend career and technical schools (formerly called vocational) where they can specialize in FCS content areas like culinary or child care. There are two types of high schools in Korea, general and vocational. Vocational schools offer specializations in agriculture, technology, commerce, fishery, industry and Home Economics. Admission to high school is dependent on the results of competitive entrance examinations. Content area teachers move between classrooms teaching core subjects, including English, Korean, Mathematics, Social Science and Pure Science. Home Economics is one of the optional programs as is Art, Music, Physical Education and Technology.

**CONCLUSION**

There is a paucity of studies comparing Family and Consumer Sciences/Home Economics secondary programs in the United States and Republic of Korea. Findings from this study indicate that a follow-up empirical study be conducted. Also, work on building relationships between FCS professionals would enhance learning for all.

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**Tuesday August 2**

15:30 ~ 17:00
**Development of a Guide Book for Learning Japanese Life Culture**

**First Author (Main Author)**: Yoko Ito (Chiba University)

**Co-Author(s)**: Miho Kawamura (Saitama University), Akiko Ueno (Joyo Gakuin University)

**Presenting Author**: Yoko Ito (Chiba University)

**Japan**

**AIM**

There are an increasing number of children with non-Japanese cultural backgrounds or heritage in Japan. They have been facing educational problems. They need not only Japanese language instruction but also facilitation for understanding culture and life in Japan. "Kateika (Japanese Home Economics)" is a compulsory subject at the elementary and secondary school levels in Japan. This enables students to acquire fundamental knowledge and skills for living in Japan. "Kateika" also helps students cultivate values to respect culture of everyday life.

The purpose of this research is to develop a guide book for students with non-Japanese cultural backgrounds or heritage who are living in Japan.

**METHOD**

At first, the framework for the guide book was made on the basis of data about students with non-Japanese cultural backgrounds or heritage, as well as the current Kateika textbooks contents. The data was gathered concerning what and when they had felt difficulties at school and home. Secondly, after a tentative guide book was written and screened by those students and graduates, the final print of the guide book was created.

**FINDINGS AND CONCLUSIONS**

The contents of the guide book are as follows:

1. **Food and Cooking**
   - Japanese traditional food culture
   - Using kitchen tools and cooking stove
   - Preparing rice and miso soup
   - Nutrition and meal planning

2. **Clothing**
   - Traditional Japanese clothing
   - Basic sewing
   - Clothing for warm and cold seasons
   - Clothing maintenance and washing

3. **Housing**
   - Traditional Japanese housing
   - Home maintenance
   - Home safety

4. **Family life**
   - Characteristics of modern families in Japan
   - Annual cultural events

Consumer skills

1. Universal designs and signs
2. Clothing labels
3. Consumption and environment

The effectiveness of the guide book was proved by interviewing non-Japanese children. How to use this guide book beneficially will be discussed continuously for future improvement.
**AIM**

The Caribbean Examinations Council (CXC) has recently revised the Home Economics curriculum used in secondary schools. The aim of this research is to elicit the points of view of leading Caribbean Home Economists on the discipline as taught in Caribbean schools and based on the stated objectives, content coverage; career preparation, personal and emerging needs for family education in this curriculum.

**METHODS**

A simple survey using a short open ended questionnaire gives each respondents ample opportunities to reflect on and share their understanding and concerns about the new curriculum guide. Thirty five respondents from across the Caribbean that are deemed to be leaders in the field because they are educated in the discipline; they also interface with the home economics curriculum at the tertiary and secondary levels where home economics is taught in the region. As teachers, school administrators and consultants to the CXC with responsibilities for accessing students’ performance in the regional examination, the respondents are most influential in the management of the home economics curriculum in the Caribbean. Qualitative data will be collated and analyzed for themes. Simple counts and averages will be applied where appropriate. Direct quotes will be used to add depth of understanding the emerging themes.

**RESULTS**

Key themes based on the information gleaned will be highlighted as significant issues impacting the teaching of home economics in the Caribbean. Adequacy of the curriculum to meet the emerging needs of the Caribbean family will be highlighted as well as views of the new curriculum fulfilling high school graduates’ employability needs will be presented.

**CONCLUSION**

The results will inform the examination focus and possible review of the Home Economics Curriculum used in in Caribbean Schools. This curriculum revisit will advance any adjustment to the under developed objectives and content of the new curriculum.

**IP_1063**

**Linking Home Economics and Science Curricula in Three Nordic Countries - Possibilities for Integration and Dialogue**

**First Author (Main Author)**  
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Maja Tuomas Toometus (University of Helsinki)  
Maja Alkeri (University of Helsinki)

**Presenting Author**  
Erik Fooladi (Volda University College)  
Norway

**AIM**

Home economics is an integrative discipline providing numerous possibilities for interdisciplinary teaching and learning. Furthermore, food and cooking, due to their universal and multifaceted nature, provide relevant contexts for teaching and learning across school subjects. Within science education, major challenges are lack of experienced relevance amongst students, and their difficulties in transferring learnt knowledge to real life situations. To overcome these challenges, "science for all" and humanistic perspectives, as well as content-based approaches have been suggested. Herein, we study to which degree home economics and science/chemistry in three Nordic countries have curricular support for interdisciplinary teaching, allowing for such "science for all" and content-based teaching. Our main research question is thus: When food and cooking is used as context, which possibilities for interdisciplinary teaching are supported by Nordic curricula in home economics and science/chemistry? 

**METHODS**

A quantitative document analysis was conducted of lower secondary school home economics and science/chemistry curricula from three Nordic countries: Finland, Norway and Sweden. Although curricular overlap between these subjects is obvious in some areas, e.g. health and nutrition, we were particularly interested in food and cooking as interdisciplinary learning context. Thus, home economics curricula were coded for instances of natural science, chemistry and "nature of science and multiliteracy". Conversely, science/chemistry curricula were coded for instances of food/cooking as well as "nature of home economics and multiliteracy".

**RESULTS AND CONCLUSION**

The results indicate a considerable potential for the two subjects to benefit from each other. Not surprisingly, home economics draws important parts of its content from science, but the results herein show that there are also numerous possibilities for science/chemistry to draw on home economics, particularly food and cooking as context for science teaching. This sheds light on possibilities for innovative education; how home economics might benefit from a scientific perspective on cooking and how science education may benefit from being acquainted with content and contexts provided by home economics. However, epistemic differences in the two disciplines must be taken into account to understand how ways of thinking/working in science and craftmanship knowledge in home economics can be beneficial as well as challenging in such collaboration. Examples are given, and possibilities and challenges are discussed.
many results in great joy, contentment, and happiness. Further, knowing that one possesses strong literacy skills contributes to his or her hope for the future because the ability to read and write well is critical for academic and career success.

Carney (2010) argues that a student’s reading ability is foundational to all other academic skill development. Essentially, if a student cannot read well, then comprehension of other subjects such as math, science, and social studies is limited. This academic skill is continuously scrutinized and regularly assessed by our educational system. However, as noted by the Annie E. Casey Foundation (2015), “reading proficiency remains unacceptably low (in the United States) in an economic environment that requires increasing levels of education and skills for family sustaining jobs.”

FCS teachers face two issues with content literacy. First, they are not reading teachers; however, like every other teacher in the nation, they are held accountable for student progress in FCS content and all academic areas including literacy. Second, a wide range of students including those who are reading below grade level enroll in FCS courses. Therefore, FCS teachers are confronted with varying reading levels within one class and often receive little to no training on how to integrate reading in the classroom.

The aim of this presentation is to provide five research-based strategies that can be easily integrated in the FCS classroom to build content literacy skills of students. These strategies have been the focus of numerous professional development trainings for FCS teachers provided by this author. The five strategies cover the reading process (pre-reading, during-reading, and post-reading stages) and the writing process. The five strategies include:

- Anticipation Guide
- Cube
- GIST Summarization
- RAFTS
- ReQuest

The finding found that the competencies of Thai food entrepreneur in creative economy era consisted of four aspects: 1) The knowledge of fundamental Thai food and the history of traditional Thai food. 2) Entrepreneur aspects which emphasize on patience, intention, management skills, self-responsibility, awareness to others and environment. 3) Creative thinking skills especially observation skill and divergent thinking and 4) Specific skills which emphasize on Thai food cooking skills, information communication technology skills and team work skills.

The results of this study can be implemented when developing entrepreneurship education.

The goal in entrepreneurship education is to provide the students with tools that enable realistic self-evaluations and that help them to recognize their own strengths and competencies. The students should also be trained to learn to recognize the opportunities that their family background and their family businesses can provide them.

The growth to entrepreneurship stems from a long process of learning in different environments and the students create their personal learning environment in the triangulation process of socialization, education and different experiences in different fields of life. In this process family gives them the values and some core competencies that are necessary for managing household and one’s private economy. Those competencies are close to skills that are also important for entrepreneurs and in business life. The students at higher education institutions and the early experiences in the work life help the students to understand the structures and some realities in the society and business life. And the passion to do, work and study frequently comes from their hobbies.

Home and family, school and free-time activities are the core components that influence pre-understanding of the students as they start planning their studies and careers. The theoretical studies and practical exercises with the supervision of teachers, entrepreneurs and other experts form a process where the students’ understanding grows. The process can lead to internal entrepreneurship, external entrepreneurship and entrepreneurial orientation. In this process the students can utilize the skills that they have learned in their business family and household.

Neither the educators nor the students or other family members are still not aware of this potential that the students coming from business families already have as they start their studies and their journey toward entrepreneurship.

This research paper seeks to clarify the differences in attitudes toward family and home life among students in both countries in their study of home economics.

The formation of attitudes toward family and home life among Japanese and Korean high school students in home economics education.

The growth to entrepreneurship stems from a long process of learning in different environments and the students create their personal learning environment in the triangulation process of socialization, education and different experiences in different fields of life. In this process family gives them the values and some core competencies that are necessary for managing household and one’s private economy. Those competencies are close to skills that are also important for entrepreneurs and in business life. The students at higher education institutions and the early experiences in the work life help the students to understand the structures and some realities in the society and business life. And the passion to do, work and study frequently comes from their hobbies.

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This research paper seeks to clarify the differences in attitudes toward family and home life among students in both countries in their study of home economics.

Currently, in Japan and Korea, family characteristics and values are undergoing diversification. This is thought to affect students’ attitudes about family and home life. Accordingly, it is necessary to incorporate this situation into the teaching of home economics, in which students study the family and home life.

This research paper seeks to clarify the differences in attitudes toward family and home life among students in both countries in their study of home economics.

METHOD

From July to October 2015, a questionnaire survey was administered to 109 Korean (152 male, 156 female) and 485 Japanese (181 male, 224 female) high school students.

RESULTS

Stereotypical attitudes toward gendered division of labor were stronger among male students compared to female students in both countries,
and stronger in Japan than in Korea for both genders. Regarding attitudes toward marital functions, it was clear that in both countries, female students attached importance to family functions, whereas male students attached importance to social valuation by marriage.

In Korea, the most memorable part of home economics for male students was sex education, whereas for female students, it was spouse selection, pregnancy, and childbirth. In Japan, the most memorable aspects for both genders related to post-marital tasks, such as child development and childcare.

Our research on educational curricula and teachers’ guidance indicated that teaching in Korea emphasizes marital functions, whereas in Japan, the emphasis is on childcare, and the aforementioned results are related to these findings.

**IP_0697** Challenges for Developing Global Citizenship through Home Economics Education in Japan

**First Author** (Main Author) Akiko Umeno (Kinjo Gakuin University) Japan

**Co-Author(s)** Yoko Ito (Chiba University)
Hirono Hashino (Tokoha University)

**Presenting Author** Akiko Umeno (Kinjo Gakuin University) Japan

**AIM**
Over the past 10 years, Japan has kept on breaking its own record for the highest numbers of non-Japanese working in Japan. Those workers bring their families and make new families in Japan. This results in more and more children who do not have Japanese as their mother language. Since Home Economics (HE) education includes teaching culture of everyday life, we understand that HE education can actively take an important role to instruct global citizenship where students understand and appreciate other cultures as well as their own. Therefore, the purpose of this research project was to clarify what kind of challenges we have for developing global citizenship through Home Economics Education in Japan.

**METHODS**
In accordance of the course of study in Japan, the concept of living harmoniously in local society needs to be taught in junior high school HEc. In order to find current difficulties for teaching cultural diversity for global citizenship, we interviewed 6 junior high school HEc teachers who had taught HEc to students with non-Japanese cultural backgrounds or heritage.

**FINDINGS AND CONCLUSIONS**
The students with non-Japanese cultural backgrounds or heritage, the interviewed HEc teachers taught, were from various countries such as Brazil, China, Philippines, etc. It was found that the teachers were giving those students extra individual instructions during and after class so that they could understand what was being taught in class. Those students still sometimes had difficulties in class. For example, they could not prepare sewing tools and bring them to their class. The teachers also recognized that those students were enthusiastic, especially in cooking labs, and desired to have lessons where those students could introduce their cultural foods and clothing to Japanese students. However, they were not able to do such lessons due to the limited class hours.

**IP_1412** Implementing Lesson-Planning Tools of Family Welfare Science Course to Enhance Problem-Solving Skills of Students of Home-Economics Education

**First Author** (Main Author) Luthfiyah Nurlaela (Universitas Negeri Surabaya) Indonesia

**Co-Author(s)** Ika Fatchur Romadhoni (Universitas Negeri Surabaya)

**Presenting Author** Luthfiyah Nurlaela (Universitas Negeri Surabaya)

The main purpose of education is to help students learn in a way that allows them to use what they have learned in solving problems in new situations. Problem solving is the basis for education; therefore lecturers are expected to develop students’ ability to solve problems. The study aimed to describe: (1) the workability of the course plan of Family Welfare Science applying learning models for solving problems, (2) students activity during the learning, and (3) the problem solving skills after the learning process. The study employed descriptive method. What to implement in the study were therefore the lesson-planning tools to boost the problem solving skills of students. It was conducted at the Department of Perdikan Kesejahteraan Keluarga, Universitas Negeri Surabaya (PKU-Unej), with 67 students participated in the study. The research instruments included course plan workability sheet, observation sheet of learning activities, and test. The collected data were analyzed using descriptive qualitative and quantitative analyses.

The results showed: (1) all learning activities in the course plan were implemented and categorized as “very good”, except the student presentations fit into the category of “good”, (2) the student activities included team-working, contributing ideas, being responsible, and caring were increased by N-gains: .70, .67, .58, and .65, and (3) the implementation of the tools could enhance the problem solving skills of students that involved understanding the problem, planning how to solve problems, planning to implement problem-solving, and reflecting on the results of solving the problem with the N-gains: .764, .627, .580, .707. The conclusion is that the adoption of the lesson-planning tools can improve the problem solving skills of students.

**IP_0182** Opuntia Muclage as Jelling Agent in Marshmallows

**First Author** (Main Author) Carina Botha (University of the Free State) South Africa

**Co-Author(s)** Lize Iz du Toit (University of the Free State)
Maryna de Wilt (University of the Free State)
Arnold Hugo (University of the Free State)

**Presenting Author** Carina Botha (University of the Free State) South Africa

**AIM**
The aim of the study was to compare the grilling abilities of mucilage from cactus pear cladodes to that of gelatine, by combining it with other hydrocolloids, in the making of marshmallows.

**METHODS**
Ten different formulations were prepared: control (100% gelatine); 75% mucilage + 25% xanthan (MX); 75% mucilage + 25% agar-agar (MA); 75% mucilage + 25% guar (MG); 80% mucilage + 20% xanthan (8M2X); 80% mucilage + 20% agar-agar (8M2A); 80% mucilage + 20% guar (8M2G); 75% mucilage + 12.5% xanthan + 12.5% agar-agar (MXA); 75% mucilage + 12.5% xanthan + 12.5% guar (MGG); 75% mucilage + 12.5% agar-agar + 12.5% guar (MAG). Marshmallows were prepared and the following analysis were done: line spread tests, penetrometer readings (both flat and cone), percentages sag and Warner Bratzler Shear measurements; colour (a*-, b*-, and L*-values) and water activities. The best formulation was compared to commercially available marshmallows in South Africa.

**RESULTS**
There were significant (p<0.001) differences between the different experimental samples for all measurements. The best replacement for gelatine, in marshmallows, was found to be the 75% mucilage + 12.5% xanthan + 12.5% agar-agar (MXA) combination, as it differed significantly from the control (100% gelatine) sample in regard to toughness, as measured by the Warner Bratzler Shear. It was significantly (p<0.001) tougher than all the other experimental formulations and resembled the toughness of commercially available marshmallows in South Africa. When compared to four of these commercially available white marshmallows, the MWA sample had the lowest shear and L* values. It compared very well to the Manhattans’ white marshmallows in regard to a* values, sag and penetrometer measurements with the cone attachment. It had the highest water activity value; however, it was still in the range of an intermediate moisture food, making it microbiologically safe.

**CONCLUSION**
It was found that in combination with xanthan and agar, cactus pear mucilage formed a gel which imparted desirable characteristics to marshmallows.
**IP_0860** How Do to Research Cooking at Home as Everyday Foodwork?

**First Author (Main Author)**
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Finland

**Co-Author(s)**

**Presenting Author**
Kaisa Tiokki (IFHE)

Finland

Cooking is a part of daily life in almost every home and a central topic of home economics science. Food can be prepared at home in many different ways: sometimes food is just microwaved, and occasionally a whole day is spent in the kitchen. These different styles tell not just about skills or motivation. Everyday food is rather prepared in a particular material and social environment and is suitable for a prevailing situation. Therefore different cooking practices connect rather to the experience of happiness.

Thus it is relevant to ask, how the person responsible for cooking makes the action suitable for her or him and simultaneously survives the demands of environment. How do families with children manage to prepare daily food, if both parents are working outside the home? Where, how and who decides, “What is cooked today”? What practices are related to foodwork?

These questions are part of my home economics science research aiming at a doctoral thesis. In the research, everyday life is understood as a process, a continuous interaction in the social and material environment. Thus domestic cooking cannot be seen only as an individual action in a home context. Food preparation is not just cooking. It includes planning, shopping, co-operation with others and interaction with the material world.

**IP_0787** There Is Mucilage in My Marshmallows... Say What?!

**First Author (Main Author)**
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Maryna de WIL (University of the Free State)
Arnold Hugo (University of the Free State)

**Presenting Author**
Liezl du Toit (University of the Free State)

South Africa

**AIM**

The AIM of this study was to determine consumer acceptability of marshmallows made with wet mucilage, by combining it with other hydrocolloids, in the making of marshmallows.

**MATERIALS AND METHODS**

One hundred regular consumers of marshmallows tasted the following six samples: white commercial (Manhattan); white homemade (gelatine); white mucilage (75% mucilage + 12.5% agar + 12.5% xanthan); pink commercial (Manhattan); pink homemade (gelatine); pink mucilage (75% mucilage + 12.5% agar + 12.5% xanthan). The pink samples were flavoured with strawberry essence. Consumer liking was tested for taste, aftertaste, texture and overall acceptability, by using a nine-point hedonic scale.

**RESULTS**

The white mucilage marshmallows had the lowest score for taste, aftertaste, texture and overall acceptability and differed significantly (p<0.001) from all the other samples. However, the pink mucilage marshmallows did not differ from the pink commercial marshmallow which had the highest scores for taste, aftertaste, texture and overall acceptability, and pink control marshmallow. The differences between the white mucilage marshmallow and pink mucilage marshmallow ranged between 2.75 and 2.89 on the hedonic scale.

**CONCLUSION**

It was concluded that flavouring successfully masked the distinctive taste and aftertaste of the mucilage in the marshmallows, thereby also increasing scores for texture and overall acceptability.

**IP_1180** Collection, Identification and Analysis of Non-Alcoholic Drinks in Cape Coast

**First Author (Main Author)**
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Ghana

**Co-Author(s)**
Thelma Dasoberi (University of Cape Coast)

**Presenting Author**
Sarah Dartkwa (University of Cape Coast)

Ghana

**INTRODUCTION**

Non-alcoholic drinks form part of the daily diets of families and include juices, sodas, milk, tea, coffee and energy drinks. These drinks provide some health benefits from antioxidants, nutrition and vitamins which help prevent heart diseases, cancer and diabetes. On the contrary, the sugars, calories and caffeine they contain can be detrimental to health in high doses. The study aimed at identifying the health impacts of the numerous non-alcoholic drinks sold in the Cape Coast Metropolis.

**METHOD**

Non-alcoholic drinks were collected from ten purposely selected supermarkets, and grouped into six (malt, carbonated, non-carbonated, fruit juices, locally manufactured drinks and others). pH, titratable acidity, percent acid and total sugars of drinks were determined and Plate Count Agar method (PCA) was used to identify possible microorganisms in locally manufactured fruit juices. Other microbiological analyses for determining yeast, mold, E. coli and coliform loads were also carried out.

**RESULTS**

A total of 25 juice samples were examined microbiologically. Numerous microbial species including bacterial, yeast and mold isolates were isolated from locally manufactured fruit juices. Yeasts and molds caused spoilage in the juices. Aspergillus species were observed in most juice samples. Escherichia coli were detected in few samples while Salmonella were absent.

**DISCUSSION**

The presence of these pathogens have negative implications on health and are potential hazards to public health. These pathogenic microorganisms are a clear indication of food borne outbreaks and the high sugars associated with probable increase in diabetes and cancer which are on the rise in the metropolis in recent times.

**CONCLUSION**

Families need to be cautious of non-alcoholic drinks they patronize so as not to be blinded by the nutrition aspect and end up with the negative health impacts these drinks offer.

The presentation at the IFHE World Congress is based on the first part of the qualitative research about foodwork. To attain a holistic view of foodwork in situational everyday life, it is important to observe activity as it happens. Therefore an empirical data is recorded with a video camera which is attached to temple at eye level. The first empirical data is collected from the researcher’s own daily foodwork. This autoethnographical research gives an opportunity to develop both a methodology of the research and the theoretical background.
**Tuesday August 2**  
15:30 ~ 17:00

### Room 107  
**Biochemical Effect of Food Components**

**Chair**  
Jae Eun Shin (Daeyeon University)  
Republic of Korea

**IP_0023**  
**The Effects of Taurine on Plasma Glucose Concentration and the Active Glucose Transport in the Small Intestine**

**First Author (Main Author)**  
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Japan

**Co-Author(s)**  
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Japan

**Presenting Author**  
Yo Tsuchiya (Tohoku Women’s College)  
Japan

**AIM**

Taurine is a free beta-amino compound and a normal component of the human diet. Especially mollusks, major materials of seafood, contain a large amount of taurine to maintain osmolarity in those body. Taurine has many important physiological roles in mammalian systems, including anti-oxidation, membrane stabilization, neuro inhibition, and cardiovascular functions. Taurine is also known to lower blood glucose levels and improve hyperglycemia. However its effects on glucose transport in the small intestine have not yet been investigated. In the present study, we elucidated the effect of taurine on glucose absorption in the small intestine.

**METHODS**

For the oral glucose tolerance test (OGTT), glucose solution (2 g/kg) with or without taurine was orally administered via a gastric tube in a single time. To perform portal blood sampling, we inserted a polyethylene tube in the rat portal vein. To measure the value of the active glucose transport in the small intestine, the everted sacs were prepared from rat jejunums.

**RESULTS**

In OGTT, addition of 10 mM taurine suppressed the increase of the hepatic portal glucose concentrations. To investigate whether that suppressive effect of taurine is occured, the mucosal solution in the experiment using the everted sac was used to investigate the role of taurine in glucose transport in the small intestine. We found that taurine did not show suppressive effects on active glucose transport.

**CONCLUSION**

These results suggest that taurine suppressed the increase of the hepatic portal glucose concentrations via the suppression of SGLT1 activity in the rat jejunurn depending on the chloride ion.

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### Room 107  
**The Effects of Cooked Pumpkins, a Functional Foods as Hypoglycemic and Hypolipidemic Factors on Diabetic Rats**

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This study aimed to evaluate the hypoglycemic and hypolipidemic effects of functional foods made from pumpkins on diabetic rats. Three treatments were used (boiling, stir-frying and roasting). Seventy rats were randomized into 7 groups each consisted of 10 rats as follows: Group 1: normal control, group 2: diabetic control, group 3: diabetic fed on pumpkins powder (2g/kg), group 4: diabetic fed on fried pumpkins (2g/kg), group 5: diabetic fed on roasted pumpkins (2g/kg), group 6: diabetic fed on boiling pumpkins (soup) and group 7: diabetic treated with glibenclamide (2g/kg), as a positive control. The rats were made diabetic by alloxan and were fed for 4 weeks on daily basis. Blood samples were collected following the experiment. Pancreatic specimens were also collected for histological analysis. Glucose, total lipid (TL), cholesterol, triglycerides (TG), low density lipoprotein (LDL), and very low density lipoprotein (VLDL) were found to increase significantly, while insulin and high density lipoprotein (HDL) decreased in diabetic rats as compared to the normal control group (P<0.05). Treatment with cooked pumpkins (soup, fried and roasting) of diabetic rats caused significant decrease in glucose, TL, TG, LDL, VLDL, and cholesterol, while increase in insulin and HDL, compared to diabetic group (P<0.05). Pumpkins soup due to its higher fiber content was found to be superior in lowering glucose and elevating insulin of the diabetic rats. Histological analysis also revealed a significant increase in the diameter and number of Langerhans islets in rats fed on pumpkins, which further confirmed the latter findings. Consequently, cooked pumpkins might be beneficial in diabetic patients, and it can be utilized as hypoglycemic and hypolipidemic food.

**Key words:** pumpkins, functional foods, hypoglycemic, hypolipidemic

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### Room 107  
**Effects of Actinidia Pectin on the Expression of M-AchR/β-arrestin and Filament Mechanism of G-actin/F-actin in the Intestinal Cells**

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**BACKGROUND**

Acetylcholine M receptor (M-AChR) is a membrane receptor on the intestinal epithelium or smooth muscle cell (SMC), belongs to super family member of G protein coupled receptors (GPCRs). As acetylcholine (Ach) or similar materials stimulating, M-AChR binds with β-arrestin to mediate GPCRs chain reaction, initiate downstream signal transduction and increase in intracellular [Ca²⁺], lead to specific physiological phenomena, such as intestinal fluid secretion and intestinal peristalsis speed.

**OBJECTIVES**

In this research, actinidia pectin (AP) was studied to how influent on the expression of M-AChR/β-arrestin and filament mechanism of G-actin/F-actin in the intestinal cells.

**MATERIALS AND METHODS**

Caco-2, DLD-1 and mouse smooth muscle cell were cultured respectively, used to observe M-AchR endocytosis and its protein expression, intracellular [Ca²⁺] changes with actin filament sliding and skeletal contraction.

**RESULTS**

20µM AP could induce M-AchR endocytosis with the increase of intracellular [Ca²⁺], because of β-arrestin1/2 action. While G-actin/F-actin coupled and led to filament, the length of SMC was shortened by 20-30% significantly (p<0.05). In the future, M-AchR protein on membrane was less 35%-65% (p<0.05) significantly and transported into cell.

**CONCLUSION**

When AP binds to the GPCRs downstream signaling molecule, it produces a non dependent signal transduction, lead to M-AchR endocytosis and the selective activation of downstream signal, as β-arrestin1/2 and G-actin/F-actin. AP maybe is as incomplete preference ligand and used to give a new bio-function for human health.
The use of rice, maize and sorghum flour blends in the formulation of economically high nutritive weaning diet was studied. The weaning food samples were analyzed for their nutritional, functional and sensory properties in 3 proportionate ratios of 68% rice:20% maize:20% sorghum (diet I), 50% rice:25% maize:25% sorghum (diet II) and 48% rice:30% maize:30% sorghum (diet III). The nutritional composition of the samples was compared with a known commercial infant compound weaning formula (Nutrend). The result in nutrient composition were not highly significant except in protein content. The results showed that the carbohydrate content increased with increasing inclusion of rice flour from the local formulated samples. The functional properties of the samples showed an increase in the swelling index and water absorption capacity from diet I to diet III while bulk densities were relatively constant in all samples. The organoleptic evaluation showed that all the samples were well accepted by the judges in terms of taste, aroma and consistency. The results of the proximate composition showed that there was no significance difference in the protein contents of the local weaning food samples but lower than control. The result indicates that diet III has the lowest moisture content, therefore will have high storage stability. The carbohydrate contents amongst the samples that have low fat contents were high. The findings showed that there is high level of carbohydrate and low fat contents amongst the samples. It is therefore recommended that adding up to 10% protein to the local weaning food by including soya bean products, legumes and or pulses will enhance its nutritional composition.

Key Words: Evaluation, Weaning, Diet, flour, blends.

AIM
University students regularly wear jackets when interviewing for jobs and when they practice teach as student teachers in Japan. However, they feel uncomfortable in particular because they are not used to the tight fit of the jackets. It is necessary to study the level of comfort when wearing jackets.

METHODS
We researched how comfortable wearing jackets was for some activities of daily living (ADL) by means of questionnaire surveys. Experiments to measure muscular activities were also carried out by electromyogram (EMG) when wearing jackets. Wear comfort was analyzed based on the results of the research and experiments. Two hundred university students participated in a survey.

RESULTS
It was effective that wear comfort was analyzed based on the results of the research and experiments. There were also same difference in the relationship between the results of the research and experiments.

CONCLUSION
The restriction of each ADL was evaluated by the sensory tests for eleven regions of the body using a five-point scale on a survey. Respondents felt major constriction when they held the strap on the train and the bus, crossed their hands behind their heads, and raised their hands up above their heads. In the case of male respondents, those with a well-developed muscular body felt more constricted than those with a non-developed muscular body. In the case of the female respondents, many of them were used to wearing size M, however, they frequently wore smaller sized clothing. The EMG of the deltoid muscles and the latisimus dorsi muscles of some students recorded findings for the restriction of each ADL when wearing a jacket. In the EMG, the contraction by male students with a well-developed muscular body was remarkable. In particular, the muscular activities of the deltoid muscles showed some marked increases. The muscular activities of the deltoid muscles in female students wearing smaller sized jackets had more remarkable increases than when wearing their usual size.

Conclusions
It was effective that wear comfort was analyzed based on the results of the research and experiments. There were also same difference in the relationship between the results of the research and experiments. 

METHODS
The swing distances of the sports T-shirt with two coins (with coins) inserted at the both side of back were compared with one without coins (without coin) by the motion analysis (KC-1HiCam-Sys) during 10km/hr running on the treadmill in the climatic chamber of the 20ºC, 65%rh. The ventilation rate and the heat transfer coefficient under running of T-shirt with coins were compared one without coins by the ventilation experiments of the tracer gas method and measuring heat flux and skin temperature of breast and back.

RESULTS
The swing distance of T-shirt with coins had been amplified more greatly than that one without coins. Ventilation rate and the heat transfer coefficient of the back also increased when the coins were inserted to the back. Therefore it was confirmed that inserting the coins in the back amplified the bellows action, and it contributed to the heat transfer of clothing.

CONCLUSION
It was found that two coins inserted at the both sides of back pockets of sports T-shirt were more effective than without one to prevent the heat stroke during exercise in the hot environment.
focus on the fundamental of fabrication and design based problem solving, is well recognized by educators in Finland as contributing to STEM learning outcomes for all students, but especially for women. The goal of this presentation is to present a plan for building a global online learning network that focuses on textiles in order to bridge the gap in the availability, quality and objectivity of curricula that is currently scarce and not pleasingly shared. Resources from industry associations, online education sources such as the BBC and also a university-based online course will be examined and additional resources solicited from Congress participants in order to further clarify those resources not currently publicly available that might be contributed to an online network. The presentation will also outline similar learning networks that provide a model for open, online learning and identify potential funding sources for IFHE members to consider for funding such an effort. Fundamentally, without providing simple, universal access to the basic science behind our field, home economists who work in the area of textiles and clothing cannot anticipate expanding our participation in the critical conversations of the future and need to explore avenues of putting familiarity with our discipline on a higher footing.

Workshop

**Room 108**
**Through the Lens - A Profile of the Work of YPN Members of IFHE**

Chair: Amanda McCloat (St Angela’s College) Ireland

WS_1547
**Through the Lens - A Profile of the Work of YPN Members of IFHE**

First Author (Main Author): Amanda McCloat (St Angela’s College) Ireland

Co-Author(s):

Presenting Author: Amanda McCloat (St Angela’s College) Ireland

Futureproofing the Federation and the Home Economics profession has been identified as a key strategic action for the IFHE. The engagement of young professional Home Economists is critical to the future of the Federation and the profession. This workshop profiles the varied work of the members of the Young Professional Network of IFHE. It facilitates a number of those young professionals to present on their work in Home Economics and have an opportunity to engage in critical discussion in relation to strengthening the Home Economics profession and the Federation.

**Room 205**
**Workshop for Consumer Economics in CEEC Outreach Committee**

Chair: Leena Savisalo (IFHE) Finland

Presenter(s): Joanne Pearson (IFHE-US) USA

WS_1217
**Workshop for Consumer Economics in CEEC Outreach Committee**

First Author (Main Author): Leena Savisalo (IFHE) Finland

Co-Author(s):

Presenting Author: Leena Savisalo (IFHE) Finland

Workshop Title:
United Nations Hunger Challenge and Reducing Waste in the CEEC

Presenters:
Leena Savisalo, CEEC Committee Chair and ‘other authors’

Key Words
United Nations, Hunger Challenge, Waste Reduction, Food Waste, CEEC

IFHE has committed its members and the students, families, organizations, and businesses with whom they work to the United Nations Zero Hunger Challenge. The goals of the challenge are five in number, with the focus of the Outreach to Central and Eastern Europe Countries (CEEC) Committee being zero loss or waste of food.

The objectives of the workshop are to:

2. Present actions taking place in the CEEC regarding reducing waste, especially food waste.
3. Elicit from workshop attendees ideas of how home economists around the world can educate clients and students about ways to reduce...
One of the important areas of educational development is the use of innovative technologies to support the learning process. The aim of the study is a disclosing of peculiarities of organizing a distance learning process support on a base of e-scenarios. The main problem that must be solved was to outline the potential application of innovative technologies in distance education from the Home Economics, the formation of the learning process on a base of e-scenarios and development curriculum and program of training courses. Methods that were applied for this are economic and mathematical methods and statistical methods, and programming tools. As a result, there were developed a distance system to provide educational services to study Home Economics, with online access to the necessary training courses and information for them, the best of their curriculum, expanded and faster search capabilities for learning at any time and in any plays. Consequently organization of a distance learning process on a base of e-scenarios become an integral part of innovative educational programs on Home Economics, will quickly choose the best options of training programs, including their development with using contemporary information, provide easy access to knowledge for everyone.

**WS_0918**

**Distance Support the Learning Process on a Base of E-Scenarios**

**First Author (Main Author)**
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Ukraine

**Co-Author(s)**
Leena Savisalo (FHE)
Finland

**Presenting Author**
Leena Savisalo (FHE)
Finland

AIM
This workshop aims to highlight European perspectives on Home Economics and sustainability. We want to build up and strengthen a European agenda for the upcoming years.

**RESULTS**

The goal of this paper is the presentation of a proposal on the best practices in the household sector for food waste prevention. The content is based on the review of relevant published peer-reviewed scientific literature. Recommendations for avoidable actions and best practice tips will be given.

**METHODS**

Four speakers present their views about Home Economics and sustainability and we discuss a possible convergence in a joint agenda.

**CONCLUSION**

We finally want to scrutinize similarities and differences in the European region on sustainability in Home Economics. That will assist in setting up an agenda for the upcoming years.

**WS_0688**

**Best Practices for Food Waste Prevention by Households**

**First Author (Main Author)**
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Germany

Food waste is an increasingly important topic of interest due to the ethical, financial and environmental implications that it relates to. Recently, the Food and Agricultural Organization of the United Nations estimated that approximately one third of food produced for human consumption is either lost or wasted through the food supply chain, from agricultural production and post-harvest handling and storage, to processing, transportation, distribution and consumption. Regarding the causes underlining the dynamics of food waste generation, they seem to be sector and country specific. In affluent economies, such as those in industrialized countries, post-consumer food waste accounts for the greatest part of the losses and most of the avoidable food waste fraction is derived from households. These statements are supported by a preparatory study for food waste generation in the EU-27, which reports that households produce 42% of the total amount of food waste.

The goal of this paper is the presentation of a proposal on the best practices in the household sector for food waste prevention. The content is prepared within the framework of the Programme Committee on Household Technology and Sustainability of the IFHE. Best practices are based on the review of relevant published peer-reviewed scientific literature. Recommendations for avoidable actions and best practice tips will be given.

**Concurrent Session**

**Room 101**

**Rethinking the Dimensions of Home Economics Education**

**Chair**
Hyejung Jung (Shinshu University)
Japan

**IP_0157**

**Relevance of Home Economics Programme to the Career Aspirations of Today’s Learner**

**First Author (Main Author)**
Hannah Benyaba Edjah (University of Cape Cost)
Ghana

**Co-Author(s)**

**Presenting Author**
Hannah Benyaba Edjah (University of Cape Cost)
Ghana

This research is part of a thesis research which sought to explore the issue of skill development in relation to aspirations and employability.
of home economics students of the University of Cape Coast (UCC), Ghana. The home economics programme of UCC focuses on providing students chiefly with knowledge and skills that will help them function in the education sector; however, a previous study suggests that students’ interest in the education sector has dwindled. Food and Nutrition students for example, are now more interested in the health sector and will thus appreciate being offered experiences that will aid them acquire skills for the health sector. As the central focus of any curriculum or its components is the learner, there is the need to ensure that programmes of study help to meet the aspirations of today’s learners.

The aim of the study was therefore to investigate the nature of practical experiences provided to students, students’ skill expectation as against skill acquisition and also the nature of relationship between students’ top career interest and skills highly acquired through the home economics programme. The quantitative approach to survey the opinion of learners concerning nature of practical work, skill development and aspirations was utilized. The descriptive design aided in examining the difference between students’ level of skill expectation and acquisition. Third and final year students totalling 140 formed the sample and data was collected using a structured questionnaire. Means, dependent t-test and Pearson’s correlation were used in analysing data. One interesting finding from this study is that unlike food and nutrition students, clothing and textiles students’ level of skill expectation was not met. This invariably calls for a second look at the nature of practical experience offered home economics learners in UCC.

Culturally responsive teaching aims that learner’s home and school cultures are meaningfully connected in learners’ learning environment. To put the theoretical thinking into practice, an action research was conducted in a school to answer the following questions: How can culturally responsive learning environment be created within compulsory school? How could the schools benefit from the cultural knowledge and skills possessed by the learners and their families? Which kinds of tools can create learning space for culturally responsive learning?

Action research “Family at school – school at home” seeks to answer these questions. In addition to the already existing forms of parent – teacher interaction like meetings, on-line notebooks, newsletters this intervention aimed to develop new ways for communication and sharing. The need to develop new ways for parent – teacher interaction had risen from the fact that the home and school cultures may be very different and to help the learning process of a child mutual understanding between school and home should be created. The intervention took place during one semester. Participant voice – pupil, teacher, parent, school administration – was studied in order to develop the practices further.

The theoretical framework for the study is drawn from culturally responsive education and social theory of learning. Culturally responsive education addresses the learner in a comprehensive way through multi-dimensional engagement in learning activities. As culturally responsive learning aims for change and freedom it is both transformative and emancipatory. On the other hand, social theory of learning sees learning as the experience, as doing, as belonging and as becoming. The focus is on the process of being an active participant in the practices of social communities and constructing identities in relation to these communities.


IP_0605
Building Comprehensive Learning Space in a Culturally Responsive Manner
First Author (Main Author) Hille Janhonen-Abruquah (University of Helsinki) Finland
Co-Author(s) Leena Herno (University of Helsinki) Sirpa Tammissuo (University of Helsinki)
Presenting Author Hille Janhonen-Abruquah (University of Helsinki) Finland

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The purpose in this study was to reduce risk factors of school violence and reinforce protective factor of school violence, to reduce learner’s impulsivity and aggression by strengthening their self-esteem and empathy and correctly to change their attitudes toward school violence through the instruction using multiple intelligence.

Specifically, this research has 4 objectives as follows: 1) To identify the school violence triggers by using diagnostic tests and in-depth interviews; 2) To design the practical problem-based lesson plans using multiple intelligence and teaching and learning strategies for each protective factor both in teaching methods aspects and learning contents aspects; 3) To develop 29-period of lesson plans and 4) To evaluate the effects of the instruction, that is to say, the changes of aggressive and impulsive behaviors and attitudes, self-esteem and empathy, and school violence, after applying Home Economics lesson plans to 288 students in one high school in Gyeonggi from March 14th to September 5th in 2014.

The effect of the instruction by the paired t-test results showed that the learners’ the aggression and impulsivity had been lowered, on the other hand, their self-esteem and empathy had increased. Also, learners’ attitudes toward school violence had changed positively. The self-esteem in school as sub-variables of self-esteem had slightly increased, but there was no statistically significant difference.

Although students felt difficulty in the ‘Explore Solution’ and ‘Withdrawing Thought’ process of the instruction, this instruction was effective to improve the learners’ problem-solving abilities, to reduce their impulsivity through practical reasoning, to have students to practice what they’ve learned in the real world, and to improve their cooperation and intimacy with friends. Lastly, the high school students to take this instruction showed higher satisfaction with this instruction focusing on the Practical Problem-Based Home Economics instruction using multiple intelligence.

With the approval of the Sustainable Development Goals which emphasize the importance of civil society in securing their achievement, it becomes clear that home economics preparation must strengthen the competencies of new professionals to enhance the ability of others to work for the wellbeing of all. This might best be accomplished by integrating throughout the curricula strategies to foster a global perspective, as a means to develop the knowledge, dispositions, and appreciation for the complex, multicultural perspectives in the local and global environments. Such a global perspective is consistent with the International Federation for Home Economics position statement and the family and consumer sciences body of knowledge.

The purpose of this paper is to explore how this home economics-global perspective might be informed by the interrelated philosophical perspectives of Henri Bergson and Paulo Freire, who through his critical consciousness methodology, leaned heavily on the Bergsonian notions of duration and reversal when outlining his Pedagogy of the Oppressed. Working from the premise that freedom is essential to human completion, Freire argued for structural transformation so that all could become ‘beings for themselves,’ and that such a transformation is made possible through developing the conscientization of the oppressed. By distinguishing between a humanistic rather than a humanitarian approach, Freire suggests a means by which the home economics-global perspective might be strengthened, permitting development of citizens capable of shaping and strengthening their own sense of community. Such a perspective would enhance the wellbeing of all.
the ability of home economics professionals to support and promote a civil society capable of addressing the Sustainable Development Goals.

### IP_1102 Food and Health in Light of Luhmann’s Theory of Social Systems

- **First Author** (Main Author): Lilja Pakkala Sæberg (University Collage of Hedmark) - Norway
- **Co-Author(s)**: Sahi Thuva (Mora University Collage) - Norway
- **Presenting Author**: Lilja Pakkala Sæberg (University Collage of Hedmark) - Norway

The aim of this presentation is to contemplate the way of using Luhmann’s (1999) theory of social systems in a PhD project. The research question of the project is "How do teachers and students understand the professional pedagogical practice in teacher training education in the subject matter of ‘Food and health’ (Home Economics) in the contemporary Norwegian society.

This theory is universal and sociological, providing interesting perspectives for understanding different social phenomena in a contemporary society. Researchers in education have found this approach useful in exploring the complexity in pedagogical practices during the past decades. It also supplies tools for discussing research quality. The theory of social systems elaborates a framework for reflexively modern societies as polycentric and hyper-complex systems. It includes and combines a substantial amount of recognizable concepts from many disciplines and apply them in an unexpected and innovative manner and challenges the dichotomous thinking between the sciences and the humanities. This presentation considers the concept of self-producing systems of communication and concepts of structural coupling, media, code, complexity, and contingency.

Luhmann’s theory implies a methodological reduction in distinctions between systems and surroundings, the “guiding difference”, that reduce the complexity in an investigated social phenomenon. The society’s educational system is one differentiated functional social system that makes up society. The professional pedagogical practice in “Food and health” is seen as a subsystem to the educational system. It is self-referential and based on communication with other systems, observes its surroundings through specific media that are rooted in a specific code. The application of these terms can contribute to clarify the specific nature of pedagogical practices in “Food and health”, philosophically, methodologically and methodically.

This presentation may show how conceptual applications of Luhmann enables new observations and contribute to construct new knowledge of pedagogical practices in the subject of “Food and health”.

### IP_0303 Study on Value Orientations of Family Moral Education - An Analysis on Changchun of Jilin Province in China

- **First Author** (Main Author): Xiao Qiang (Jilin Agricultural University) - China
- **Co-Author(s)**: Wu Hongying (Jilin Agricultural University) - China
- **Presenting Author**: Xiao Qiang (Jilin Agricultural University) - China

**AIM**

Study on Value Orientations of Family Moral Education

**METHODS**

According to the achievements of the analysis on abroad and the educational objectives for the ideological, the value orientations are classified into 3 categories: ideological education, moral education, citizen consciousness education. 887 parents in Changchun of Jilin province are chosen to participate in this study. Which including the family moral education of value orientation questionnaire investigation.

The questionnaires consist of 3 parts, part 1 is about the ranking towards citizen consciousness education, moral education, and the various items under each category as per the degree of importance, part 2 is about the basic situation of moral education value orientation difference, part 3 is about the sources for the value orientation of moral education.

**RESULTS**

Moral Education is the most valuable value orientation for family education. The statistical data of this survey reveals that there are no significant differences for different educational background, different working places and different genders and parents in different genders. Variation analysis of 5 dimensions between parents’ basic information and family education value orientation, this is the only value orientation that has no difference. Also this is the proof on explaining why parents put Moral Education on the top priority in the third category. Responsibily Consciousness education is the most important value orientation that parents concern. Through the statistical data of this survey, we can see that there are significant differences for different educational background, different working places and parents with different genders. Also variation analysis of 5 dimensions between parents’ basic information and family education value orientation, this is the value orientation which is one of value orientation with the most significant difference. This also tells us that, in order to improve kids’ Responsibility Consciousness, parents’ civic literacy matters a lot.

The value orientation of family education exists in different sources. The statistical data of this survey reveals that idealistic formation on how a parent educates the kids, which is heavily affected by social environment and parents.

**CONCLUSION**

Suggestion are that we should follow the socialism core value. Such as some measures should be taken for leading parents pay more attention on citizen consciousness education, clearing the way to the parent-child communication.

### RESULTS

Moral Education is the most valuable value orientation for family education. The statistical data of this survey reveals that there are no significant differences for different educational background, different working places, different salary, and kids in different genders and parents in different genders. Variation analysis of 5 dimensions between parents’ basic information and family education value orientation, this is the only value orientation that has no difference. Also this is the proof on explaining why parents put Moral Education on the top priority in the third category. Responsibility Consciousness education is the most important value orientation that parents concern. Through the statistical data of this survey, we can see that there are significant differences for different educational background, different working places and parents with different genders. Also variation analysis of 5 dimensions between parents’ basic information and family education value orientation, this is the value orientation which is one of value orientation with the most significant difference. This also tells us that, in order to improve kids’ Responsibility Consciousness, parents’ civic literacy matters a lot.

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**CONCLUSION**

Suggestions are that we should follow the socialism core value. Such as some measures should be taken for leading parents pay more attention on citizen consciousness education, clearing the way to the parent-child communication.
### Building a Home Economics Competency Model in Manitoba, Canada

**Presenting Author**
Diana Mager (Manitoba Association of Home Economists)

**First Author**
Diana Mager (Manitoba Association of Home Economists)

**Canada**

**AIM**
A multi-level competency model is being developed by the Manitoba Association of Home Economists (MAHE) to identify the skills and knowledge individuals must learn to become a home economist adequately trained in the profession in Manitoba. The Professional Home Economists Act defines the practice of Home Economics as every act which has as its objective the discovery, integration and application of physical and social science principles for the purpose of enhancing the quality of people’s lives. The competency model is based on the vision and values of the practice of Home Economics and the role Home Economists have in increasing the well-being of individuals in relation to their physical, cultural, natural and social environments. The competency model will also support the need for foundational knowledge and skills required to teach Home Economics within the provincial school system. Home Economics teachers educate people about healthy living, building positive relationships and enhancing emotional well-being through experiential learning, meaningful communication and sustainable resource management. This knowledge encourages positive behaviour changes and strengthens fundamental skills that can help individuals live meaningful and fulfilled lives.

**METHODS**
A Professional Home Economists Action Team was created to develop a model defined by the three disciplines of Home Economics – Human Nutritional Sciences, Family Social Sciences and Textiles Sciences; and the requirements for Home Economics teacher education. Four team leads were established to identify competencies and proficiency levels in each of these areas. A Human Ecology Advisory Team was also established. This team consists of University of Manitoba faculty members in collaboration with the Professional Home Economists Action Team. The purpose of the Human Ecology Advisory Team is to help build new Human Ecology program requirements dependent on the identified competencies for the practice of Home Economics. Team work is based on research and curriculum reviews, workshops, interviews, and professional job requirements.

**RESULTS**
The competency model is in the process of being developed.

**CONCLUSION**
Once completed, it will clearly identify the professional knowledge and skill level requirements needed to help increase people’s well-being through each of the three disciplines. Increased well-being can directly impact the state of happiness people can achieve. The competency model will also provide consistency in the requirements for the practice of Home Economics which will play a crucial role in curriculum development, employment and on-going professional development.

### Professional Identity Development of Home Economics Teacher Students during Their Study Program

**Presenting Author**
Kristi Paas (Tallinn University / University of Helsinki)

**First Author**
Kristi Paas (Tallinn University / University of Helsinki)

**Co-Author(s)**
Pasi Pakkari (University of Helsinki)

**Estonia**

**AIM**
This research project focuses on Home Economics teacher education. The aim is to find out how teacher students’ professional identity develops during their studies. The preparation of Home Economics teachers is different in every country. For example, in Finland and in order to become Home Economics teacher, one has to study for five years to earn a Master’s degree, and subject and pedagogical studies take place concurrently in the study program. Finnish teacher students have also an opportunity to choose a minor subject, which they can teach in schools. In Estonia, Home Economics is historically connected to Handicraft subject, and teachers are educated as Handicraft and Home Economics teachers. These studies last for 3 + 2 years, where teacher education program takes place in the latter two-year part, in the Master’s level.

**METHOD**
Our study uses qualitative, i.e. narrative, approach, as it provides an opportunity to see the complexity of the development a professional teacher identity. In order to grasp this complexity, different data sets are collected to find out how identities are formed and constructed.

**RESULTS / FINDINGS**
In this study, different stories of becoming a Home Economics teacher are being told. The analysis of the data compiles a complete overview (a story) of a professional identity building process.
Development of Smart Education Program for the STEAM Oriented Home Economics(H-STEAM) - Based on an Analysis of the Overlapped Contents of Other Subject Textbooks in the Middle School -

First Author (Main Author) Seho Joung (Korea University High School) Republic of Korea
Co-Author(s) Jung Hyun Chae (Korea National University of Education)
Presenting Author Seho Joung (Korea University High School) Republic of Korea

In attempt to overcome the limitations of the STEAM education and SMART education pilot study, a comparative analysis of redundancy using twelve textbooks of the current first-year middle school students - Home Economics, Science, Technology, Art, Mathematics, Korean Language, Ethics, Social Studies, Chinese Character(Hanmoon), Physical Education, English- which follow the 2009 revised curriculum has been conducted.

Based on the results of the study, study topics aligned with H-STEAM education which is at the heart of Home Economics textbook were selected, subject-oriented integrated instruction was designed, and the SMART education program was developed to maximize the effect of the integrated instruction.

Six periods worth of lesson plans and digitalized learning materials based on the selected topics were approved for the validity and quality of the content by 11 teachers from Science, Technology, Music, Art, Mathematics, Korean Language, Ethics, Social Studies, Chinese Character(Hanmoon), Physical Education, English subject matter, five teachers of Home Economics, and a professor of Home Economics through interviews. Following the supplementation of the SMART education program, the modeled instructions was delivered to 280 grade 7 class 6 of a middle school in Seoul from 11/08/2013 to 12/19/2013. After each class, students were surveyed concerning the instruction. The results of this study are summarized as follows.

First, according to the analysis of the overlapped contents of other subject textbooks in the middle school, redundancy was evident in 18 subtopics of the 25 in the Home Economics textbook. Overlapping was shown to be the highest in the subject of Ethics, and Physical Education, Social Studies, Art, Mathematics, English, Science, Korean Language, Music, Technology, and Chinese Character(Hanmoon) followed respectively.

Second, the SMART program and six lesson plans and instructional guide of the Home Economics centered H-STEAM to be taught in six periods for the following topics: 'Enhancing Problem Solving Ability', 'Establishing Appropriate Gender Roles', 'Forming Positive Self-esteem', 'Building Appropriate Friendship', 'Stress Management', 'Forming Good Consumer Habits'.

Third, STEAM education instruction reflecting the analysis of the redundancy of the 12 subject areas reduced learning materials for the students, prevented loss of interest, and provided teachers with faster pacing by eliminating the redundant elements across the subjects.

Fourth, the instruction can be seen as having had a positive impact on the students in the areas of participation, communication, and self-directiveness as shown in the student survey responses: "The increase in participation in the learning, overall accidents increased, rapid information retrieval, self-directed learning, active communication, and the teacher’s quick response, cooperation and good SMART newness of integration." According to the results of the survey, it is possible to establish a dialogue over the various teacher generations and to focus more systematically on the professional identity development also during the in-service training courses of Home Economics teachers.

This study investigated the influence of life satisfaction, accomplishment value, peer attachment, relationship with teachers, and parents’ perception of their children’s friends on self-esteem of adolescents. The study population consisted of a nationally representative sample of middle school 1st grade students who completed the Korean Children and Youth Panel Survey of the National Youth Policy Institute in 2010, 2012, and 2014. Descriptive statistics used included frequency, average, and standard deviation, in addition, reliability, repeated measure ANOVA, and regression results were reported using SPSS statistics. The results were as follows. First, this study showed that the longitudinal changes of self-esteem, life satisfaction, accomplishment value, peer attachment, relationship with teachers, and parents’ perception of their children’s friends were significantly different across three time points. Second, self-esteem was the most influential to self-esteem and peer attachment was the second most influential in the three data set after controlling for gender, parents’ academic attainment, and residential area. The influence of life satisfaction on self-esteem decreased across the three time points, but that of peer attachment increased over time. Instruction on life satisfaction and peer attachment needs to be more highlighted in Home Economics classes to enhance the self-esteem of adolescents.
RESULTS
The summarized results of this study are as follows. First, the groups with high degree of adult attachment show that all subordinate variables broken down in Dr. Moon's model have leveled high compared with those groups with low degree of adult attachment. Second, the group with the high level of adult attachment who find themselves feeling greater attachment to mothers indicates that more impacts are imposed upon Dr. Moon’s model of EI. Third, the level of adult attachment to fathers is relatively proportional to the level of managing emotions with positive influence.

CONCLUSIONS
To sum up, parent attachment can be seen to have a critical impact on EI. The more stable the maternal attachment becomes, the higher the level of EI is. The group with a low adult attachment can be inferred that it has lower impact on developing EI when compared to that of the counterpart. Therefore, well-grounded parental attachment would influence on the level of EI.

IP_0692 The Effects of Parent Memory Disease Onset on Adult Children Caregivers’ Mental and Physical Health Outcomes

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Co-Author(s) Saeun Choi (Korean National University of Education) Ally Pakstis (University of Maryland)
Presenting Author Jinhee Kim (University of Maryland) USA

Memory related diseases such as dementia or Alzheimer are a devastating syndrome that involves the deterioration of cognitive function. It is the sixth leading cause of death in the U.S. and treatment costs were estimated to be between $159 and $215 billion in 2010 (Heron, 2013; Hurd, Martire, Delaunade, Muller, & Langa, 2013). Family members make up an overwhelming majority of the caregiving. In 2014 it is estimated that family members provided nearly 18 billion hours of unpaid care (Alzheimer’s Association, 2015). The onset of dementia in an aging parent can provoke an increase in physical and mental health stress for their adult child caregiver (Richardson, Lee, Beng Weger, & Grossberg, 2013; Schub & Sherwood, 2006). The purpose of this study is to examine the effects of the onset of parent’s memory disease on the adult-child caregiver’s physical and mental health. Using the 2010 and 2012 waves of the RAND Health and Retirement Study (HRS) dataset in the United States, the present study selected 2,082 main respondents (male=812, female=1,270), who had at least one living parent and none of their parents experience the memory disease by 2008. Using the logistic regression model, the effects of the onset of a parent memory disease were examined on the psychiatric problem of an adult child. Contrasting for the psychiatric problem at T1, demographic variables, family-related variables, and finance-related variables, respondents whose parent showed the onset of memory disease at T1 were more likely to be diagnosed with psychiatric problem between T1 and T2 (β=0.97, p<.01). However, physical health outcomes such as blood pressure problem, diabetes, heart problems, and stroke were not found significant. The findings are consistent with prior research on caregiver stress. The data were analyzed using frequency-distribution mean, standard deviation, graphs and chi-square.

RESULTS
Finding revealed amongst others
1. That family conflict were prevalent in the study area (82.4%) 2. The commonest forms of family conflict are intense arguments, quarrels, silence and verbal assaults.

CONCLUSION
The study investigated how family living can be enhanced to ensure happiness in the home and the family through effective management of conflict/crises in Edo State of Nigeria. The specific objectives were to identify the nature and type of family conflict prevalent in the study area, identify possible causes for the conflict, assess its impact and make appropriate policy recommendations arrived at ameliorating such conflicts.

IP_0407 Ensuring Happiness in the Family through Effective Management of Conflict/ Crises in Edo State

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AIM
The study investigated how family living can be enhanced to ensure happiness in the home and the family through effective management of conflict/crises in Edo State of Nigeria. The specific objectives were to identify the nature and type of family conflict prevalent in the study area, identify possible causes for the conflict, assess its impact and make appropriate policy recommendations arrived at ameliorating such conflicts.

METHODS
To achieve this data was collected through questionnaires 1201 respondents randomly sampled from the three (3) senatorial districts of the state. The data were analysed using frequency distribution mean, standard deviation, graphs and chi-square.

RESULTS
Finding revealed amongst others
1. That family conflict were prevalent in the study area (82.4%)
2. The commonest forms of family conflict are intense arguments, quarrels, silence and verbal assaults.

CONCLUSION
The study recommends amongst. The study recommends others, that effective communication amongst family members enhancing the capacity of key institutions such as religious organizations, traditional leadership as a way of resolving family conflict and creating happiness in the family.

IF_0158 Home Economics Research: Instilling Hope and Re-Directing Source of Happiness in Individuals and Families of Contemporary Society

First Author (Main Author) Aurora Raldan (University of the Philippines Diliman) Philippines
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Ninety Four years have passed since the discipline of Home Economics was established in the University of the Philippines (UP) under the College of Education in 1921. Forty years later, in 1961, the College of Home Economics (CHE) was established. Presently the College has five Departments and offers seven undergraduate and ten graduate programs. While many Home Economics institutions around the world have either disintegrated or changed their names and “identities”, the UP College of Home Economics remained intact and continues to thrive and gain its rightful recognition in the various sectors it was mandated to serve – the academe, the government or general public; industry, individuals, families and households. Research in different forms played a key role in all these linkages, either in terms of understanding a certain phenomenon, policy development/review, product development, curricular review or program evaluation.

Through a systematic review of a total of eighty-six (86) reported research and creative work outputs in the College the past twelve years, from 2003-2014, an exhaustive summary is provided and studies examined at various levels. Patterns in the process of identification of research problems and their purposes, frameworks, and methodologies used and utilization of results will be used to determine the breadth and depth of the relevance of Home Economics in instilling hope and re-directing happiness in individuals, families, and households of contemporary society. The themes of the studies and creative work outputs are essentially examined in the light of modern day concerns such as mass production of goods and consumerism, nutrition, health and food safety; the welfare of children, elderly and strengthening of families; and
Room 105 Programs and Intervention for Childhood Health and Nutrition

Chair
Dong-Yean Park
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IP_0345
Hope and Happiness for Sickle Cell Anaemic Children on Dietary Management in Federal Medical Centre, Abeokuta, Ogun-State, Nigeria

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AIM
The study assessed Hope and Happiness for Sickle Cell anemic children in Federal Medical Center Abeokuta, Ogun-State Nigeria.

METHODS
Descriptive design was used for this study. The population was made up of all 90 cell sickle cell children between the ages of 5-12 years that are attending the hospital from January 2014 to March 2015. Structured questionnaire was used to collect information from the parents, guardians and medical reports. The data was analysed with frequency distribution and percentage. Chi-square was used to test research hypothesis at 0.05 level of significance.

RESULTS
It was observed that majority: 62(68.9%) of the respondents had normal weights, 76(86.7%) agreed that fruits such as carrots, oranges and watermelon are good for maintaining healthy life. Furthermore, 78(86.7%) of the respondents had access to vegetables like pumpkin, amaratus, and crain crain drawing leaves that contains fibers which aid digestion and stimulate production of hemoglobin that supply red blood cells very frequently. 60 (66.7%) of the respondents had access very frequently to beef, 86 (92.2%) of the respondents had access very frequently to snail meat while 48 (53.3%) had very frequent access to liver. Also, 74 (82.2%) of the respondents agreed that they took breakfast, dinner and home made foods regularly and 78 (86.7%) also agreed that their foods are usually prepared in good condition. Furthermore all 100 (100%) of the respondents agreed that special diets consumed lessened pains and thereby giving them hope of survival. Statistically there is significant relationship between dietary pattern of respondents and their health status.

CONCLUSION
Conclusively, nutritional knowledge of the patients and dietary patterns had relationship with health status. Good nutrition leads to healthy living and reduce pain and money spent on diseases associated with poor diets. This promotes healthy community and reduce children mortality.

Supplemental Feeding Program: A Nutrition Intervention to Promote Health in School Children

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AIM
Adequate nutrition is vital in the proper growth and development of children as it conditions their learning abilities and their capacity to work.

The nutritional security of young and growing children is a great challenge to the food supply and nutrition programs of a country. This research aimed to implement a supplemental feeding program for Grade 1 pupils and to evaluate the effect of this program on the weight of the beneficiaries. It also tried to gather information on the family status of the pupil beneficiaries and feedback on their school performance. An information dissemination drive on proper health care and nutrition was also conducted to both pupils and their parents.

METHODS
The supplemental feeding was made for a duration of five months wherein meals following a cycle menu are served after the Flag Raising Ceremony. An initial activity of getting the Body Mass Index of the pupils was undertaken before the implementation of the program. Three weight-ins were undertaken during the implementation of the program and another weighing three months after the program was terminated.

A survey questionnaire was utilized in eliciting data from parents regarding the family profile particularly on the age of parents; occupation; number of children in the family; ages of children and foods served during meal time and snack time.

RESULTS
Result reveal that the age of 35 parents particularly on fathers ranges from 24-46 with 31-35 age bracket having the highest while the age of mothers ranges from 21 to 46 years old. Farming is the number one occupation of the fathers with 73.91%. Seventy-two percent of the mothers are housekeepers. The study also shows that there are 4 families with three children; 8 families with four children; 6 families with five children and 5 families with six children. From this information, it shows that there are 104 total children for the 25 families of the pupil beneficiaries.

Most of the children are aged 2-12 with majority (36) within the 3-6 age bracket, 28 within the 7-12 age bracket and 12 belonging to 0-2 age bracket. The families can be considered “young families” as indicated by the ages of the children in the family.

As to foods served during meals and snacks, the study revealed that eggs are commonly served during breakfast followed by noodles, hotdogs and vegetable dishes. Milk is the most beverage served. During lunchtime, vegetable dishes is the most commonly served followed by fish dishes and chicken dishes. For supper, vegetables again is served the most followed by fish dishes and pork dishes. The snack items served by parents are biscuits together with juice during both the morning and afternoon snacks.

The study revealed that on the first month of implementation positive observations were already noted on the weight of pupil beneficiaries with a mean weight score of 17.53 kilograms or a gain in weight of an average of two kilograms per pupil. After the final weighing, a total mean weight of 20.25 kilograms was noted which showed a 4.46 increase from initial total weight of the beneficiaries. It also tried to gather information on the family status of the pupil beneficiaries and feedback on their school performance. The data was analysed with frequency distribution and percentage. Chi-square was used to test research hypothesis at 0.05 level of significance.

CONCLUSION
As per results of the weights of the pupils before, during and after the implementation of the program, it can be concluded that the program provided the beneficiaries the needed food supply for them to have gain in weight. It is recommended that the continuation and possible expansion of the program to more schools be done.
**IP_0947** Childhood Obesity Prevention in UAE: A School-Based Intervention Study

**First Author (Main Author)**
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**Sudan**

**AIM**
Childhood obesity has been attributed to unhealthy lifestyle behavior, resulting from unbalanced diet, sedentary lifestyle and inconsistent knowledge, attitude and behavior. This cluster-randomized intervention was designed to address childhood obesity and its related risk factors through implementing public health nutrition strategies and employing a selected behavior modification approach.

**METHODS**
Eight public primary schools were randomly selected in Al-Ain city, UAE. Validated questionnaires, base line anthropometric, dietary and physical activity behavior data were collected from 1594 children (male and female 6-9 years) prior to the intervention. Trained teachers from four selected schools applied the school-based nutrition and physical education intervention among 513 pupils. The study outcome measures were the positive deviation in dietary and physical activity knowledge, attitudes and practices after a 2 month intervention period.

**RESULTS**
Baseline anthropometric measurements showed normal BMI-for-age among in both intervention and control schools (82.8% male, 79.6% female). However, 10.9 and 10.7 % of the girls and 6.5% and 9.6% of the boys in all intervened schools were overweight and obese respectively. After eight-week intervention, no significant change in BMI was observed among both intervention and control school-children. A significant positive change occurred in knowledge, attitude and practice and decreased sedentary activities among intervention school children (95% CI -0.02).

**CONCLUSION**
This pilot school-based intervention study, that was funded by Emirates Foundation has proven to be effective and its framework could be tested at larger scale in UAE to prevent and manage childhood obesity.

Keywords: obesity, primary school children, nutrition, intervention, UAE

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**IP_1028 Engaging Preschoolers in Nutrition Education through Stories, Music, Dance and Magic Tricks**

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**USA**

**INTRODUCTION**
Education has shifted away from simple dissemination of knowledge to using reinforcing communication channels (i.e. stories, music, dance, and magic tricks). Paege’s theory suggests that 2-7-year olds are in the pre-operational stage. The preschoolers think symbolically, use language, classify and represent objects by images and words. In addition, studies indicated that preschool children need appropriate outlets to express their energy in a positive and creative way. Two outlets, dance and music, should be considered among preschoolers. By adapting an established curriculum to include creative movement and music, preschoolers will have a better understanding of the arts while learning. Magic tricks are ageless and relevant across cultures.

**AIM**
Around the world, disasters from natural hazards occurred more frequently in the last 20 years affecting around 218 million people each year (CRED, 2015). Disaster risk is a concern for the Home Economics discipline because this directly affects the daily life of individuals and families. Disaster events have short and long term impact on quality of life and for those who experienced severe losses, their vision of hope and happiness are often shaken.

**METHODS**
This paper explores the role of Home Economics in achieving the United Nation’s goal of creating disaster resilient households and communities. The first part reviews literature on Disaster Risk Reduction and Management (DRRM) particularly disaster studies at the household and community levels. It highlights key concepts in DRRM relevant to family studies, such as risk, vulnerability, resilience, and coping and adaptive capacities. The second part presents the contribution of Home Economics to the disaster field of study.

**RESULTS**
Home Economics offers a unique frame for DRRM with its focus on family as the unit of study, its integrative approach, and the common goals and values of DRRM. It is therefore essential that the Home Economics discipline becomes involved in DRRM education and training.

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**Room 107 Different Types of Families and Family Strengths**

**Chair**
Virginia Vincenti (University of Wyoming)

**IF_0146 Role of Home Economics in Creating Disaster Resilient Families**

**First Author (Main Author)**
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**Philippines**

**AIM**
The curriculum, “Eagle Book Series”, was developed by the Center for Disease Control and Prevention (CDC) in response to the burden of diabetes among Native Americans. After evaluation among African American children, a two-year program was implemented at three Head Start Centers on the Lower Eastern Shore of Maryland. Approximately 300 pre-schoolers participated. Four lyrics with accompanying movement were created emphasizing each book’s main message. The reading of each book was followed by music, dance, and magic tricks. A growing ball (food safety), magical tube (importance of exercise), colorful scarves (variety of food choices), and an oversized mouse trap (healthy eating habits) were used as magic tricks. The effectiveness of stories, music, dance, and magic tricks was measured using surveys and caregivers’ feedback. All activities were videotaped. Descriptive statistics and content analysis were used.

**RESULTS - CONCLUSION**
Approximately 300 preschoolers participated. 90% were African American, 75% of them understood the main message in each book and remembered the lyrics of the songs. Direct observation indicated that magic tricks increased their attention. Qualitative data indicated that preschoolers were able to share the messages at home with their siblings and caregivers. Overall, stories, music, dance, and magic tricks should be considered as an educational reinforcement tool for preschoolers.
and basic needs concerns of both DRM and Home Economics. The critical science paradigm of Home Economics gives a comprehensive understanding of family vulnerability, resilience and well being pre and post-disaster.

**CONCLUSION**

DRM literature shows the need for disaster related home economics researches for more evidence-based information that determines how and why families and communities are affected by disasters and how they can be empowered to respond to, recover and resist the adverse effects of disasters. These would provide much needed inputs for more effective government programs and policies on DRM.

**METHODS**

The study used descriptive survey research design. It was carried out in Anambra State, Nigeria. The population was 338 beneficiaries of the scheme trained on tailoring. Snowball sampling technique was used to draw a sample of 103 of them. Two duly validated instruments (a questionnaire and a Focus Group Discussion guide) were used for data collection. Internal consistency reliability co-efficient of the instrument (.780) was determined using Cronbach Alpha. The data were analyzed using: frequency, percentage, mean and standard deviation including t – test and Chi-square that tested two hypotheses at 0.05 level of significance.

**RESULTS**

Beneficiaries possess 9 tailoring competencies (x = 2.38) out of 28. There were no differences in income earnings of beneficiaries before and after participation in the scheme, income expenditure were on meeting basic biological and social needs and 15 challenges facing the scheme and basic needs concerns of both DRM and Home Economics. The critical science paradigm of Home Economics gives a comprehensive understanding of family vulnerability, resilience and well being pre and post-disaster.

**CONCLUSION**

Unemployment and poverty are very serious challenges in Nigeria. As a result, Nigerian government established many poverty alleviation programmes to abate the challenges, one of which is the School-on-Wheels (SOW) scheme. The scheme aims at equipping women with skills for self-employment in tailoring for increased income and well being. This notwithstanding, available evidence indicates that unemployment is still high in the state, implying that most of the scheme’s beneficiaries are still unemployed and neck deep in poverty. This makes the efficacy of the scheme in alleviating poverty to be questionable, hence the study. The study aimed at determining the level of acquired tailoring competencies of beneficiaries of the scheme, their income earnings before and after participating in the scheme, level of expenditure on needs and challenges facing the scheme. Four research questions and two hypotheses guided the study.

**AIM**

Unemployment and poverty are very serious challenges in Nigeria. As a result, Nigerian government established many poverty alleviation programmes to abate the challenges, one of which is the School-on-Wheels (SOW) scheme. The scheme aims at equipping women with skills for self-employment in tailoring for increased income and well being. This notwithstanding, available evidence indicates that unemployment is still high in the state, implying that most of the scheme’s beneficiaries are still unemployed and neck deep in poverty. This makes the efficacy of the scheme in alleviating poverty to be questionable, hence the study. The study aimed at determining the level of acquired tailoring competencies of beneficiaries of the scheme, their income earnings before and after participating in the scheme, level of expenditure on needs and challenges facing the scheme. Four research questions and two hypotheses guided the study.

**RESULTS**

Beneficiaries possessed 9 tailoring competencies (x = 2.38) out of 28. There were no differences in income earnings of beneficiaries before and after participation in the scheme, income expenditure were on meeting basic biological and social needs and 15 challenges facing the scheme (15) were identified.

**CONCLUSION**

The minimum tailoring skills acquired by beneficiaries of the scheme did not enable them to be in employment in tailoring occupation. There was no improvement in their wellbeing as their state of poverty remained the same.
Preliminary results confirm the first two hypotheses while providing partial support for the third. The unexplained part can, to a large extent, be attributed to institutional factors (e.g., economic, political, and legal). We verify three main hypotheses: a) a large part of (individual and intercountry) differences between objective and subjective indicators of poverty and health can be explained by levels of happiness; b) the differences between countries are similar no matter what indicator we analyse (health or poverty); c) the unexplained part can be largely attributed to institutional factors (economic, political and legal).

**AIM**

What extent can the differences between objective and subjective indicators of poverty and health be explained by levels of happiness.

**METHODS**

We verify three main hypotheses: a) a large part of (individual and intercountry) differences between objective and subjective indicators of poverty and health can be explained by levels of happiness; b) the differences between countries are similar no matter what indicator we analyse (health or poverty); c) the unexplained part can be largely attributed to institutional factors (economic, political and legal).

**RESULTS**

Preliminary results confirm the first two hypotheses while providing partial support for the third.

**CONCLUSION**

In conclusion we present policy consequences of our findings and provide recommendations for future research.
The Honduras Initiative, launched in 2013 as requested by IFHE, is a collaboration bringing home economists together to create home economics programs in Honduras, allowing youth to stay in Honduras by improving their well-being, health, and ability to thrive. Progress report and engagement.

Concurrent Session

Room 101

Family Stability and Happiness

Chair: John Brady (Seoul National University)

Republic of Korea

IP_0700

Hope in the Midst of Challenge: Refugees Economic Transitions

First Author (Main Author): Catherine Solheim (University of Minnesota)

USA

Co-Author(s): Juanita Mendenhall (Disaster Assistance Partnerships Council Committee)

USA

Presenting Author: Juanita Mendenhall (Disaster Assistance Partnerships Council Committee)

USA

Since the 1970s, Minnesota has been the resettlement location for many SE Asian refugee families from Laos, Cambodia, Vietnam, Burma/Myanmar, and Bhutan. Refugee families experience a myriad of challenges upon arrival in their new homes, one of which is establishing a secure economic base from which to raise their families and pursue their goals. Although they initially receive help from the government in the form of temporary economic assistance, this support is relatively short-lived and families must quickly become self-sufficient in many areas including housing, employment, healthcare, and basic living expenses. Additionally, they must repay their loans for airplane tickets. Most families also remit money to support family members who still reside in their home countries or refugee camps.

Although voluntary organizations provide initial support for newly arriving refugee families, the length of time they work with them is very limited. Families quickly find themselves navigating the US economic world without much guidance. We know little about the economic stresses faced by refugee families or how they achieve economic well-being over time. Therefore, the purpose of this paper is to identify challenges faced by refugee families and strengths they bring to the resettlement process and to make recommendations for educational interventions to support arriving refugee transitions.

Ten key informant interviews with key informants from staff from refugee-serving non-profit agencies, three focus groups with Karen young adults, and one focus group with Laotian adults provided insight on the financial acculturation needs of newly arriving refugee individuals and families. Preliminary analysis identified difficulties in understanding and accessing financial systems, and finding ways to meet family needs.

This article concludes with a discussion on the findings and suggestions for parents, schools, policymakers and future research.

IP_1047

Adolescent Mobile Phone Addiction and Health: Focus on Physical and Psychological Health

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Seoul, South Korea

Ui Jeong Moon (University of Maryland)

Wonsuk Yoo (Augusta University)

USA

Presenting Author: Jung Eun Kim (University of Maryland)

USA

This study will discuss the relationship between adolescent obesity, physical education classes in school, psychological aspects, and mobile phone addiction using a longitudinal analysis with two waves from the Korean Children and Youth Panel Survey (KCYPS), which has tracked the respondents since 2010. The authors use the middle school student cohort with the average age of participants being 13 in wave 1 (2010) and 16 in wave 4 (2013), respectively. The final sample includes 4,459 observations (1,175 girls and 1,176 boys in wave 1; 1,033 girls and 1,073 boys in wave 4).

The dependent variable, mobile phone addiction was measured with 5 questions from the KCYPS items regarding mobile phone dependency, and each item ranged from 1 to 4 (more severe). The estimate model covers (a) physical health related factors including obesity (ranging from 0 to 4 indicating more severe obesity) and weekly hours of physical education class in the school curriculum (0 - 4 hours), and (b) psychological and emotional factors such as parental attachment, self-efficacy, life satisfaction, and whether there is a parent at home after school were included. To see the relationship between mobile phone use and the level of addiction, the extent that respondents have used their mobile phone for calling, texting, and entertainment (photos, music, movies) were included, while other control variables (level of father's education, gender, household income, and year dummies) were inserted in the model.

The results from a random effects model showed that mobile phone addiction decreases as obesity becomes more severe, which was not consistent with previous research regarding media use (e.g., Council on Communications and Media, 2011; Jordan et al., 2008). The average number of hours of physical education class in school exhibited a significant and negative influence, which stresses the important role of school and teachers to prevent/decrease adolescents' addictive or excessive media use. Psychological factors were significant (e.g., Takao et al., 2009; Janero et al., 2007) except for whether a parent was home after school. Texting was a significant factor of mobile phone addiction, whereas other functions (calling and entertainment) were not (e.g., Hofferth & Moon, 2012). The level of father's educational attainment showed a positive influence, while household income was not significant. Girls were more likely to be addicted to mobile phones, whereas as respondents grew older, they became more addicted. A fixed effects model was also tested for comparison, and as the incidental parameter problem may still exist, the authors focus more on the random effects model.

This article concludes with a discussion on the findings and suggestions for parents, schools, policymakers and future research.

IP_1270

Processing Locust Bean Pulp into Some Variety of Food Items towards Economic Empowerment of Rural Women in Nigeria

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Nigeria

The locust bean fruits are very important source of raw material to most women in the rural areas in Nigeria. The fruit is made up of the bean and the pulp. The bean is processed as a food condiment called “dadawa” “iru” which is used to prepare a variety of local foods (soups, jollof, etc).
as well as sold to generate little income. The yellowish powder is used to enrich the locally made pap called “kunu”, and leaked as a sweet. It is obvious that the fruits of the locust bean tree are very useful among many rural households as a source of food and income generating activity. However, it is observed that the pulp is left without much economic uses resulting into waste. This paper therefore intends to examine the various possible ways in which the pulp can be harnessed for a variety of uses. Four (4) recipes namely; making African chocolate, toffee, chin-chin and spread were developed and tested for palatability and acceptability using simple frequency and percentage. Result obtained showed high acceptability hence the recipes were recommended for use in the food industries among which are confectionary stores. The research will also help drive the food manufacturing industries to seek for the locust bean pulp by using it to develop other new products thereby give hope of a market for the pulp. This will spur the women into entrepreneurial practice towards income generation and empowerment.

**CONCLUSION**

It is obvious that the fruits of the locust bean tree are very useful among many rural households as a source of food and income generating activity. It is important for the women to harness these natural resources for their benefit through a sustainable way. The use of the locust bean powder has potential to generate income and create employment opportunities especially for women,

**REFERENCES**


**CONTACT INFORMATION**

For further information, please contact the Researcher at locustbeanresearch@gmail.com.
Are Routines and Structure a Part of Happy Family Life? Developing a New Method to Family Work

**AIM**
How to have a happy and balanced life in a family with children? What are the basic elements for wellbeing? And how could we reach all that? The main objective of my paper is to present a new family work method that aims to improve the wellbeing of so-called drifting families, and especially of children in the families. The method is based on timing and structuring daily life so that children and parents can anticipate and prepare themselves better for the coming days and weeks, even for a longer time.

**METHODS**
The research data consists of team meetings where the project team members evaluate their work with families. The main focus in my research is the development of a working tool called sequence map. The sequence map is one part of the so-called sequence method that aims to empower family members so that they could find their capacities and be able to seek help outside the home if needed.

**RESULTS**
The key elements in the sequence method are doing together all kinds of household work that family members find difficult. The doing is based on the use of the sequence map, where daily and weekly chores are planned for certain time of the day. The discussions are the third element to support and to help the families. The discussions contain an evaluation of the cooperation process, reflections about targets and, achievements as well as discussing with all family members.

**CONCLUSION**
The data was collected in the context of a family work project by the Family Federation of Finland (Väestöliitto) during 2007-2010. The target group was families who face many kinds of difficulties with everyday life: children come too late to school or day-care, their basic needs are not fulfilled properly and many duties of the parents remain unattended.

**METHODS**
Databases including EBSCOHost, PSYChiPs, and Google Scholar were used to search for articles for this literature review.

**RESULTS**
The empirical studies reviewed for this article mainly focus on the characteristics that can be found in resourceful children, the programs that have been created to promote resourcefulness in both parents and children as well as their effectiveness, how resourcefulness is utilized and promoted in the areas of education and caregiving, and the benefits of resourcefulness. Some of the findings in the reviewed studies include:

- Individuals with high resourcefulness are able to deal with stressful situations more effectively and display more resourceful self-control behaviors.
- Resourcefulness is learned from childhood but it may also be learned in adulthood.

**CONCLUSION**
Two scales were developed to assess resourcefulness. Three intervention programs exist for the purpose of promoting resourcefulness. Various studies focusing on several populations have been done to test the factors influencing resourcefulness and to examine the positive outcomes of being resourceful. Further studies need to be conducted to verify the validity of the scales, as well as to examine the effectiveness of the existing programs.

**METHODS**
Raw and cooked vegetables were homogenized in a blender (Moulinex–France) for 2 min. Homogenized samples were analyzed for the determination of vitamins and antioxidant components including vitamin C, ß-carotene, flavonoids (hesperidins), and total antioxidant capacity, total phenolic. Lycopene level was determined only in tomato sample since it is not present in other tested vegetables.

**RESULTS**
Result showed that tomatoes cooked with a microwave device had higher retained lycopene content in the tissues than boiled tomato. Cooked vegetables using a microwave contained a higher vitamin C and ß-carotene content than boiled vegetables. The total phenolic content significantly (p < 0.05) reduced in most vegetables, although, a little increase in total phenolic of green haricot (23.28%, 16.72%) was observed in boiling and microwave cooking respectively. There was a significant decrease at p < 0.01 in the hesperidins content in artichoke, okra and pea, a significant decrease at p < 0.05 in hesperidins content for green haricot, squash and tomatoes cooked by boiling, while, no significant decrease is noticed with microwave cooking practice for green haricot, squash and tomatoes.

**CONCLUSION**
Cooking vegetables in microwave may be a good strategy to increase antioxidant intake. Compared to household budget, using microwave could avoid dependence on supplements, this is important inter-relationship between vegetable cooking by microwave and consumption of antioxidants that is of critical relevance to sustainability, this include economic dimension: particularly in view of supplements market, and indicating that there is considerable scope for food management at home to make a significant contribution to raise the level of family health.
During the past 20 years great efforts have been made in the creation of friendly and safe spaces for children to engage in outdoor play environments that contribute to their early education and development. The use of outdoor spaces has proven to be as valuable learning instance as classroom learning experience. Therefore, the correct assessment and design of these spaces in order to promote and enhance children’s cognitive, social, physical development skills is imperative. The purpose of this study is to assess the design of an outdoor model playground facility in the perspective of Universal Design. The example-case study is a park area located in a recreational-healing complex “shiaawase-no-mura” - Village of Happiness on the outskirts of Kobeshi, Japan which was built using universal design concept. The analysis of this case was carried out using 2 universal design model principles, 7 principles by the Center of Universal Design in North Carolina State University and 96 principles by Dr. Lee. The results showed that even though this playground which was built under a welfare vision, it only meets the minimum requirements for Universal design facilities. This is due to the fact that the concept of universal design as a Strategy or a movement has been in constant development ever since it was first used in 1970s. This implies that even though at the time of construction it was considered innovative, within the course of 20 years no further improvements have been made therefore a reform needs to be implemented. Since contemporary society is turning more culturally diverse the use of universal design in playground areas needs to be constantly updated allowing children to play together, regardless a disability, which is beneficial physical, cognitive, emotionally and socially for their development.

Key Words: Outdoor Environment Design, Playground Environment, Universal Design, Child Development.

**Table 1**

<table>
<thead>
<tr>
<th>First Author (Main Author)</th>
<th>Co-Author(s)</th>
<th>Presenting Author</th>
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<tr>
<td>Maria Victoria Paz (Yonsei University)</td>
<td>Yoonsak Lee (Yonsei University)</td>
<td>Maria Victoria Paz (Yonsei University)</td>
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**RESULTS**

Findings revealed that out of 519 respondents, 30% belong to cluster 1 (the disengaged); 20% in cluster 2 (the uncommitted); 35% in cluster 3 (the sensible), and 15% in cluster 4 (the devoted). Results show that respondents in cluster 1 have above average scores in knowledge, attitudes, and practices; cluster 2 have average score in knowledge but below average in attitudes and practices; cluster 3 have above average scores in knowledge, attitudes, and practices; and cluster 4 have above average scores in knowledge but above average in attitude and practices. An aptitude test on ecological solid waste management using the questions and logistic regression analysis was done on the data.
The tool could be used to assess the students, faculty, and staff’s level of involvement in ecological solid waste management activities.

CONCLUSION
Based on the findings, the following conclusions were drawn from the study:
1. Age is not a factor that influences environmental awareness.
2. Cluster Analysis results show four clusters of respondents: Disengaged, Uncommitted, Sensitive, and Devoted.
3. A solid waste management aptitude scoring instrument was developed as a result of the logistic regression analysis. This tool could be used to test the ESWM level of involvement of students, faculty members, and staff.

**IP_1306** Positioning Family & Consumer Sciences Education in the United States to Respond to a Hotter, Hungrier, More (dis)Connected Planet

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Ahlishia Shipley (University of Maryland University-College)  
USA

In the year 2050, there will be 9 billion people living on this planet who will need to be fed, clothed, sheltered, cared for, and protected in an economically and environmentally sustainable manner. These issues are global in scope, therefore, the burden to solve these grand societal challenges rests on all of us. Similarly, professionals across disciplines must continue to organize their collective expertise and innovate together consistently examining the strengths and influences of interlocking human and environmental systems. From this view, it is beneficial for home economists to cultivate and maintain a baseline of knowledge about issues in these systems in addition to our foundational academic focus areas. We should have working literacies of how issues in these systems affect the work we would like to accomplish with individuals, families, and communities in the local community or on the world stage.

University programs in the United States have the opportunity to prepare family and consumer sciences students to address these global challenges through identifying areas to bridge our coursework with public health, environmental sustainability, food security, agriculture, cultural competence and knowledge as well as leadership. AIMS: The paper will offer recommendations for expanding collegiate family & consumer sciences education programs to include training and experiential learning reflective of the global challenges related to health, hunger, poverty, the environment, and diversity while also observing the intellectual foundations of home economics.

**METHODS**

These recommendations will be based on an environmental scan of family & consumer sciences education programs at land-grant universities in the United States: a) examining curriculum requirements, b) opportunities for cross-discipline study, c) the scientific, technical, economic, social, and political trends relevant to this topic, as well as d) voices of professionals in the field on the future of FCS education.

**Room 104** Home Economics Education for Happiness

**Chair**  
Yoon-Jung Lee (Korea University)  
Republic of Korea

**IP_1361** Action for Happiness

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Ireland

This study was prompted by an interest in the extent to which Home Economics education in Ireland addresses the well-being of children and families in society. This interest led to an empirical investigation of key stakeholders’ perceptions of the role of Home Economics in developing life skills that contribute to a better home and social environment and the impact of Home Economics education on the well-being of children and families in society. The data collection primarily comprised interviews with a selection of teachers and students. The analysis of interview data revealed the subtle role of Home Economics education in the enhancement of well-being and impact of Home Economics education on student learning experience and outcomes.

**IF_0079** Spirituality: A Link between Crisis, Hope and Happiness in Home Economics

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In the face of adversity, how can a crisis become a catalyst for hope and happiness? In addition, how do home economists see spirituality as playing a role in the transition from crisis to hope? Very little is known about the impact that spirituality has on the personal and professional lives of home economists. Explored through a theoretical framework for understanding spiritual health and wellbeing, this research elicited home economists’ views and perceptions from cross-cultural backgrounds about their spiritual, religious and personal beliefs (SRPB) and perceived relationships with home economics ideology and practice.

**METHODS**

Data derived from a sample of 56 home economists’ written responses to an online survey and four confirmitory email interviews. Bricolage techniques revealed trends and themes in participant discourse.

**RESULTS**

The study discovered that SRPBs have a significant impact on the personal and professional lives of home economists. For example, crisis, hardship, and happiness were three themes that converged in the participants’ responses. Viewed through a spiritual lens, some home economists recognised that from a crisis, hope and happiness can grow. Other insights shared by the participants manifest as service to others in times of crisis in order to provide hope. Interestingly, participation in the study provided an opportunity for participants to critically reflect on an aspect of their home economics practice that they do not often think about or see as having a connection. Some participants expressed that participating in the study provided an invaluable opportunity to reflect on their beliefs which in turn facilitated articulating connections between home economics and spiritual health and wellbeing, including relationships with self, others, the natural environment and a global consciousness.

**CONCLUSION**

Home economists are encouraged to critically reflect on their SRPBs and the impacts their beliefs have on home economics ideology and practice.
Home Economics education has become microscopic in its curricula emphasis, focusing mainly on technical and factual knowledge (Gale, 1991). System of actions regarding communication of values within the family and society as well as the liberation of individuals, families and society from exploitative social forces, appear to have lost their foothold in most school curricula. This void in the curricula could cripple the discipline's mission to effectively facilitate the maturation of the individual's ego identity, which, according to Brown (1988), is paramount to building a person's capability for achieving personal happiness and their ability to contribute toward the happiness of others.

While there has been literary discussion on the importance for the subject to move toward 'global Home Economics education' (Gale, 1991) that would encompass all three systems of action, there is a lack of research on its actual implementation and the consequential impact the subject has on empowering personal happiness.

This paper will examine the evolution of the Singapore Home Economics syllabus over the years and the impact it has on student perception regarding the subject's role in achieving personal happiness at any one of the following three levels: pleasant, good and meaningful life (Seligman, 2002). Changes made to the curricula over the years were implemented with the intention to equip students with the necessary skills and knowledge that would enable effective living, moving toward and for the 21st century. However the development of the curricula does not appear to include the action systems that go beyond the inculcation of technical skills and factual knowledge. Thus students may not perceive the subject as instrumental in facilitating the achievement of personal happiness.

In conclusion, by examining the implementation impact of Singapore's Home Economics curricula, it would provide the fraternity with a simple insight as to how efficaciously Home Economics education today is truly fulfilling its mission of empowering individuals to experience, create and contribute toward happiness for all.

METHODS
The study adopted a survey design. Three hundred and six (306) married men and women were selected using simple random sampling method from six wards in Ondo West Local Government Area, Ondo State. Four research questions were posed to guide the findings of the study and two hypotheses were formulated and tested at 0.05 level of significance. Questionnaire was used for data collection. The data was analysed using frequencies, mean and t-test.

RESULTS
Couples have dual-career in the family in order to meet up with the demands within and outside the family as well as the social trends in the society, dual-career in the family has its own positive and negative influences on the well-being of the family in terms of responsibilities at work and home as well as economy; dual-career couples still have financial concerns; experience difficulties in home keeping, work responsibilities, child-rearing, setting priorities (family or work) and at times insufficient sleep.

CONCLUSION
Unlike what used to be obtainable in the society both men and women want an economic independence and stability as well as a broader view of life. This has prompted the outburst of dual-career family in the contemporary society. The influence of dual-career in family has not just been felt in the family in terms of economic stability, greater roles and responsibilities but also in the society. Dual-career has interfered with job efficiency and effectiveness of couples as well as the workload and conflict at work. Additionally, some dual-career couples despite their level of involvement in economic activities are faced with financial concerns, difficulties in home keeping and child-rearing, work-family conflicts, insufficient sleep and added complexity of managing household supports such as housekeepers and daycare providers.

IP_0801
Empowering Individual Happiness through Home Economics Education
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Co-Author(s) Joyce Mok Chiu Fui (National Institute of Education)
Presenting Author Mary Magdalene Stevenson-Yong (National Institute of Education) Singapore

Home Economics education has become microscopic in its curricula emphasis, focusing mainly on technical and factual knowledge (Gale, 1991). System of actions regarding communication of values within the family and society as well as the liberation of individuals, families and society from exploitative social forces, appear to have lost their foothold in most school curricula. This void in the curricula could cripple the discipline’s mission to effectively facilitate the maturation of the individual’s ego identity, which, according to Brown (1988), is paramount to building a person’s capability for achieving personal happiness and their ability to contribute toward the happiness of others.

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In conclusion, by examining the implementation impact of Singapore’s Home Economics curricula, it would provide the fraternity with a simple insight as to how efficaciously Home Economics education today is truly fulfilling its mission of empowering individuals to experience, create and contribute toward happiness for all.

IP_0618
Contributions of Home Economics in Promoting Individual Fulfillment and Quality of Family Life for More Stable Economy: The Case of Nigeria
First Author (Main Author) Patricia Mbab (Michael Okpara University of Agriculture Umudike) Nigeria
Co-Author(s) Ozioma Azubuike (Michael Okpara University of Agriculture Umudike)
Presenting Author Patricia Mbab (Michael Okpara University of Agriculture Umudike) Nigeria

Home Economics philosophy and mandate is to equip individuals and families with skill acquisition, integration of knowledge, and attitudes drawn from wide varieties of relevant disciplines that would help individuals and families to proffer solutions to daily practical problems of living emanating from home, family and society. The study examined the contributions of Home Economics in promoting individual fulfillment and instituting more stable economy to improve quality of family life in Nigeria. Two research questions were raised for the study and a descriptive survey design was employed in the methodology. The instrument for data collection was a structured interview. The sample size was 200, (100 individuals and 100 households) selected using multi-stage sampling techniques from Michael Okpara University of Agriculture Umudike, out of the population of 1362 of both academic and non-academic staff. Mean responses revealed that most of the items on the individual fulfillment had a mean of 2.5 and above and the items on quality of family life had mean of 3.45, 2.50 and 4.00 respectively which indicates that Home Economics is a discipline with potential attributes for skill acquisition capable of positive influence in promoting individual fulfillment and improving quality of life. The study recommended that adequate and regular advocacy from practitioners of Home Economics as a discipline to individuals and families so as to educate general populace on the benefits of Home Economics philosophy and objectives as contributions towards promoting individual fulfillment and quality of family life for more stable economy is very important. The study therefore suggested inclusion of a viable extension services/advisory as a core aspect of Home Economics curriculum in schools, colleges and universities.

Keywords – Individual, Fulfillment, Quality, Family, Life.
### Household Living Arrangements and Livelihood Generation in Ulundi, a Non-Urban Local Municipal Area in Kwazulu-Natal, South Africa

**First Author (Main Author)**
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Various household classifications or typologies have evolved over time, illustrating that households can be classified in many different ways, including socio-demographic and relationship-based livelihood in a complex concept encompassing many other concepts warranting investigation and discussion. In its simplest sense it means gaining a living, while it is more than just an income and encompasses assets, capabilities and activities.

In the first place the research aimed to describe the living arrangements of the households in terms of household composition, relationships between household members, and demographic and socio-economic dependency. Secondly, the research aimed to establish how households generate livelihoods by assessing all the activities households engaged in and all the resources and services they accessed and utilized to generate a living.

A total of 488 households were conveniently sampled from 11 wards in non-urban Ulundi local municipal area. A survey questionnaire was developed to collect demographic, socio-economic data at the level of the household and for some variables at the level of the individual. The questionnaire was pilot tested after which data were collected during 2013 and 2014 by means of interviews to improve the response rate and allow for variations in literacy levels.

Preliminary analysis of the data show significant demographic and socio-economic differences between male- and female-headed households as well as non-significant differences between households from different wards. Across the wards, significantly more households are headed by females, these households are bigger than male-headed ones and have significantly more demographic and effective dependents residing at their homesteads. Female heads are significantly older than their male counterparts, the majority of them widows relying on old age pensions as their main source of income. Households rely on child grants and old age pensions as a major source of income.

In conclusion it can be said that household boundaries are fluid and livelihoods extremely diversified.

### Happiness or Hindrance: Digital Competencies in Families and in Retirement Homes

**First Author (Main Author)**
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Canada

Although the need to develop digital competencies is widely accepted in countries where technology is available, how they are acquired at various stages of life is not fully understood. Precisely, our research aims to understand how digital competencies are acquired and transferred from one educational stage of life to another, namely from the home to kindergartens, from elementary school to high school, from high school to college, from college to the workplace and, finally from workplace to retirement.

### Home Economics Theory: Considering Household Life Course Practices

**First Author (Main Author)**
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Home Economics is essentially concerned with well-being and happiness in the everyday life of individuals and communities. According to the IFHE position statement from 2008, the academic branch of Home Economics assists in curriculum development as well as policy initiatives by providing empirical as well as theoretical insight on the everyday life of individuals and communities. The aim of this paper is to contribute a theoretical perspective on Home Economics philosophy, amalgamating theories of social practices and life course approaches.

The theoretical concept of "household life course practices" concatenates life course approaches with theories of social practices. It is thereby not only possible to trace socio-demographic trajectories and transitions associated with well-being and happiness of individuals and communities, but also to highlight the meaning and cultural significance of day-to-day activity. Life course approaches stress social stratification in social, economic and historical contexts following five principles: (1) agency and life-span development; (2) location in time and space; (3) linked lives (i.e. social networks); (4) Timing; (5) Trajectories. Theories of social practices on the contrary assume everyday activities to be located in a nexus of doings and sayings. The entity of social practice is considered to consist of particular elements, i.e. of (1) understandings, (2) procedures and (3) engagement.

The innovative theoretical framework of "household life course practices" extrapolates and stipulates the two theoretical streams of investigation and contributes to Home Economics theorizing in various ways. The framework accounts for everyday activity by searching for novel vistas on specific linkages, interfaces and mechanisms with regard to activities of individuals and communities.

### The Household Learning Present in the Life Stories of Women Providers in Fortaleza, Ceara, Brazil

**First Author (Main Author)**
Sande Maria Gurgel D’Avila (Universidade Federal do Ceara)
Brazil

**Presenting Author**
Margarida Diniz Demarchi (Brazilian Association of Home Economics)
Brazil

This article is part of the doctoral thesis in Sociology at the Federal University of Ceara in Fortaleza, Ceara, Brazil. It aimed to carry out a
Room 106

Happiness and Home Economics

Chae, Jung-Hyun (Korea National University of Education) Republic of Korea

IP 1146

Hope and Happiness - Break Down the Silos

First Author (Main Author) Ritu Sehji (Westlake Boys High School) New Zealand
Co-Author(s) Amanda McCloat (St Angela’s College) New Zealand
Presenting Author Ritu Sehji (Westlake Boys High School) New Zealand

Research area: B. Health, Nutrition and Food Science with links to D. Home Economics Education

BACKGROUND

Current teaching practice in New Zealand secondary education sector has shown a marked shift towards planning of courses to create opportunities for cross curricular links. Educators in NZ schools are looking for common ground to create such opportunities for their students. Although, this is a start, is it enough to build hope and happiness for 21st century learners and the society they live in? How can we leverage the potential of global connections, of digital tools and social media communities in purposeful ways to build hope and happiness? Most of the collaboration that is evident across curricular is at junior and junior high levels and are teachers able to sustain the collaboration and cross curricular links into senior classes. AIM to determine the effectiveness of cross curricular links between Health, Science, Home Economic, Food Technology and other disciplines in education in New Zealand schools. The presentation will focus on: * assessing prior knowledge and understanding of the same within our school and students, staff, parents * how well we currently encourage hope and happiness for all? How will we encourage hope and happiness for all in the future? * how important the cross curricular links are? * if the context, knowledge and skills covered at schools are preparing students for the 21st century and beyond?

METHODOLOGY

• Survey students, wider community at the start and end of study to gather data.
• Result, assessment data will provide evidence of in depth understanding.
• 21st century digital and collaborative learning

EXPECTED RESULTS

Heightened understanding of why healthy nutritional practices and educating others is important. Students engaging in higher orders thinking skills, achieving better grades, being aware of links with society and other disciplines.

EXPECTED CONCLUSION

Learning about healthy nutritional practices will have significant positive implications for our learners and their whanau’s overall well being (Hauora).

IP 1203

Recipes for Success: The Promotion of Home Economics in a Community Sports Setting

First Author (Main Author) Amanda McCloat (St Angela’s College) Ireland
Co-Author(s) Elaine Moorey (St Angela’s College) Roslin Lydon (St Angela’s College)
Presenting Author Amanda McCloat (St Angela’s College) Ireland

Adequate nutrition and food skills for young athletes are critical not only to their sporting performance, but more importantly to their overall health. Research demonstrates that despite a positive attitude towards nutrition, poor nutritional knowledge and dietary practices are observed in many players. The aim of this study was twofold. Firstly, to promote Home Economics in a community sports setting as a discipline which develops important life skills. Secondly, to develop food skills and nutritional knowledge among a group of young Gaelic football players. Initially a Recipes for Success Toolkit was designed and published by the research team containing daily menu plans, recipes and nutritional guidelines to optimise sporting performance. Subsequently, an intervention was designed and delivered by Home Economists for young sports players (n=220) in the community. Using the Toolkit, players completed a practical hands-on cookery session and completed a questionnaire post-intervention. Statistical analysis was conducted using SPSS version 22. Pearson’s chi-square test was performed to test for gender differences in nutritional knowledge, food skills and attitudes to learning. Multiple regression analyses were performed to adjust for possible confounding variables. Findings indicate that the majority players had not previously studied Home Economics however a positive attitude towards learning about nutrition and developing cooking skills were apparent. Home Economics classes and participants’ mothers were cited as the main sources of information and cooking skills. Although, the majority were reportedly confident in following a simple recipe, almost all players relied on their mother to prepare meals. Notably, all players reported to enjoy the cookery session and acknowledged learning that had taken place in terms of nutrition. Home Economists can utilise their food knowledge, skills and pedagogical expertise to work with athletes in designing and delivering appropriate nutritional education interventions in a community sports setting. The lessons learned from this food based intervention can act as a learning model for similar interventions.

IP 1234

Nurturing Home Economics Growth through Community Program Partnerships

First Author (Main Author) Lindsey Mazer (Manitoba Association of Home Economists) Canada
Co-Author(s) Diana Megen (Manitoba Association of Home Economists)
Presenting Author Diana Megen (Manitoba Association of Home Economists)

The Manitoba Association of Home Economists (MAHE) is supporting the practice of Home Economics in Canada by partnering with community programs that promote local food, value food security and provide hands-on nutrition and food preparation education to families. Farm to School is a not-for-profit healthy choice fundraiser that promotes healthy eating by supporting school and daycare nutrition policies. The program provides locally grown vegetables as a fundraising option to schools and licensed daycare centers throughout the province of Manitoba. MAHE started the program as a shared vision with the Manitoba government (provincial) and Peak of the Market, a grower-owned, not-for-profit vegetable supplier operating in Manitoba. The program started in 2010 with 68 participating schools. Now in its sixth year, a total of 1,369 schools and daycare centers have participated in the fundraiser. Fruit Share was also started in 2010 by a Professional Home Economist who recruited ten friends and neighbours to start a neighbourhood program to help minimize food waste. They adapted a model where homeowners with too much fruit request volunteer pickers to harvest...
### IF_0198
**Acceptability of Soy Fortified Gari: Implication for Food Security in Nigeria**

**First Author**
Felicia Okwulehie (Alvan Ioku Federal College of Education Owerri)

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**Presenting Author**
Stella Nigus Lemchi (Alvan Ioku Federal College of Education)

**AIM**
Gari is one of the major staple foods in Nigeria but has a drawback with regard to its crude protein content which is as low as 1%. The study therefore examined the general acceptability of gari fortified with soy flour.

**METHODS**
Improved Cassava TMS 318975 and raw Soybean seeds were used. Cassava was peeled, washed, milled, fermented spontaneously for five days and de-watered. Soybean seeds were boiled in 2.5% sodium bicarbonate for 20 minutes to remove beany taste, de-hulled, dried and milled into flour. The de-watered cassava mash and soy flour were mixed into six samples coded thus; CaS30, CaS50, CaS100, CaS150, CaS200 and CaS300. Two samples, Ca1 and Ca2 were used as control. Sensory evaluation was carried out with a twenty man panel using a nine – point hedonic scale. The data obtained were subjected to Analysis of Variance (ANOVA) to compare the means of the samples. The least significant difference (LSD) technique was used to separate the treatment means.

**RESULTS**
The result showed that the strong acid taste of gari which is desirable was not affected by fortification with soybean as there was no significant difference (P<0.05) in taste eaten as snack (soaked in cold water). Its consumption as either Fofo (Eba) or snack was generally accepted.

**CONCLUSION**
The fortification of gari with soybean flour to improve its nutrient content should be promoted both in the rural and urban areas as a means to reduce food insecurity in Africa where gari is a major staple food.

### IF_1114
**Hope and Happiness: Evidence of Home Economics Relevance through Publication and Scholarship**

**First Author**
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**Presenting Author**
Carole Makela (Colorado State University)

The purpose of this study was to explore the research and application articles from a selection of Home Economics journals and publications representing at least five countries from each of the continents as to the inclusion of studies to determine the extent to which the research topics identified for the 2016 Congress—hope and happiness of children and families in society, health, nutrition, and food science; clothing and design; housing and environments; home economics education; and government and policies—are being addressed in the published work in the journals. Content analysis explored the article titles, abstracts, and, when available electronically, the articles to determine inclusions and trends from 2010 to the present. It is estimated that the complete analysis will include more than 300 articles. Initial analysis suggests that the breadth of topics was greater than the six identified above and that an increasing number of studies are based on theories and frameworks that intersect across topics. Examples include sustainability, consumer behavior and choice, and quality of life, often related to two or more of the topics or to home economics in its totality. This research provides tangible evidence from publication and scholarship that Home Economists throughout the world are doing very timely and relevant research which continues to add to the body of knowledge and explore issues, theories, and frameworks, which are advancing the field. Recommendations include an ongoing international database of research and applications articles, greater inputs to assure access and availability to more students and professionals in more countries, and refined clarity of content in abstracts and titles to raise the challenges of productive searches for content of interest.
Impact of Nutrition Knowledge of Mothers on the Nutritional Status and Intellectual Development of Preschool Children in a Rural Area of Lagos State, Nigeria

**Presenting Author:** Funda Akamedolu (Yaba College of Technology)

**First Author (Main Author):** Tawo Omsona (Yaba College of Technology)

**Co-Author(s):** Patrícia Mba (Federal University of Agriculture)
Adesola Adegbite (Yaba College of Technology)

**AIM**
This study examined the relationship between mother’s nutritional knowledge and their children’s nutritional status and intellectual development.

**METHODS**
Descriptive survey design was employed. Validated questionnaire was used to collect both demographic and nutrient intake (24 hr dietary recall) information from 195 mothers and 206 (pre-school children 2-4yrs) from Ibeju Lekki LGA in Lagos. Anthropometric data were taken and analyzed using WHO/HCN standard. Developmental milestones were also used to determine the children’s intellectual development. The relationship between the diet and intellectual development was analyzed using chi-square and Pearson’s correlation.

**RESULTS**
Majority (37.5%) of the mothers have good nutritional knowledge. Their mean caloric intake was 1983 kcal with a range of (550-5450). Of the participants, 35.9% had the Daily Reference Intakes (DRI) for Protein, Zinc and Iron respectively. There was a very high prevalence (48.7%) of stunting, (35.9% mild, and 8.7% moderate). There was also a very high prevalence (28.7%) of wasting (20.4% mild, 33.7% moderate, and 3.9% severe). Prevalence of underweight was very high (26.7%). Majority (45%) of preschoolers (age 2) had low intellectual development, whereas, 15% of age 3 preschoolers and 49% of age 4 had average intellectual development. There was a significant relationship (p<0.05) between the children’s intellectual development and their nutrient intake.

**CONCLUSION**
The study provides evidence that the children in Ibeju Lekki have a high prevalence of stunting, wasting and underweight. It is therefore suggested that Nutrition Practitioners should plan and implement Nutrition Education programmes that can boost mothers’ dietary practices and thereby improve their children’s intellectual development.

Healthy Eating Indexes of Adult Women

**Presenting Author:** Ayşe Nur Songür (Ankara University)

**First Author (Main Author):** Ayşe Nur Songür (Ankara University)

**Co-Author(s):** Funda Pınar Çağrıcıoğlu (Ankara University)
Zeynep Büyükbaş (Ankara University)

**AIM**
In this study, it was aimed to determine the nutrition patterns of adult women with “Healthy Eating Index” used in measuring the total diet quality.

**METHOD**
The study was conducted with volunteer 125 adult women. Research data was collected with the help of questionnaire form. First part of it was composed of the general information in the second part, food consumption of the women was calculated with the method of “Remembering the Diet of 24 Hours”. Healthy eating indexes of the individuals were determined by identifying the diet patterns and food variety of individuals. Portion measures in “Nutrition Guide Particular to Turkey” were used in the calculation of Healthy Eating Index (HEI). Healthy Eating Index is composed of 10 diet components. Score was determined in the range of 0-100 for each component of the index. Maximum total score is 100 points. If the HEI score is above 80, between 51 and 80 and under 51, these scores are classified as “qualified”, “normal” and “insufficient” respectively. High scores show that recommended amount or portions in diets are consumed sufficiently. Moreover, women are evaluated in terms of nutrition variety. The nutrition variety which is consumed by women within the scope of their nutrition patterns was determined by considering 19 different nutrition groups. Nutrition variety scores were categorized as 0, 5, 10 and 15 points respectively. Those who consume 65, 16 and 16.1% of nutrition took 0, 5, 10 and 15 points respectively. SPSS Statistics Program was used in data evaluation.

**RESULTS**
Average age of the women participated to the study is 35.5 ± 5.5 (min 40, max 65 years old). It was determined that 29.6% of women is illiterate and 19.2% of them is literate; 48% of them had 5 years and 32% of them had 9-11 years education. Average Body Mass Index (BMI) value of the participants is 26.5 ± 4.3. Respectively, 4.6% of body mass index (BMI) were overweight, overweight, 1st degree, 2nd degree and 3rd degree obesity. Average healthy eating index score of participants is 52.0 ± 11.24. None of the participants have “qualified” eating score. On the other hand, 52.0% of them have “insufficient” and 48.0% of them have “normal” eating index score. Once again, none of the participants have 10 points in nutrition variety scoring rubric (average: 5.0 ± 4.5, min 5, max 10). The relation between age groups, BMI and education and HEI was statistically insignificant (p>0.05). The relation between education and nutrition variety scores was only statistically significant (p<0.05).

**CONCLUSION**
The result of HEI scores of participant women, it is concluded that their diets should be developed. Low scores in terms of nutrition variety supports current result. In previous studies, it is stated that nutrition variety is related to mortality of cardiovascular and cancer diseases and there is a positive relation between higher nutrition variety and low BMI in especially women. Thus, regulation of diet becomes one of the important part of protective and curative health services. Establishing a diet pattern in accordance with individual and social features help decreasing pathogenesis and increasing the life qualities of individuals. Health is the greatest happiness. Healthy people may make plans for future and be hopeful for their future.

**TABLE 1**

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<tr>
<th>IP_0692</th>
<th>Dieting Practices among Youth</th>
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<tr>
<td><strong>First Author (Main Author):</strong> Faiza Abd Alla (Ahfad University for Women)</td>
<td>Sudan</td>
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<td><strong>Co-Author(s):</strong> Sumiya Gutobi (Ahfad University for Women)</td>
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<td><strong>Presenting Author:</strong> Faiza Abd Alla (Ahfad University for Women)</td>
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**Case of: Ahfad University for Women's Students**

**AIM**
Overweight and Obesity are becoming big problems among youth. And so dieting is becoming a popular phenomenon among university students to achieve or maintain a healthy weight. A cross-sectional study using a questionnaire and anthropometric measurements for students was conducted to know the dietary practices and reasons behind dieting.
METHODS
All schools of Ahfad University for Women in Omdurman city, Sudan were involved. Validated questionnaires, anthropometric, dietary and physical activity behavior data were collected from 545 (female 17-26 years).

RESULTS
The study found that most of the students failed to achieve their goal due to many reasons: lack of knowledge about healthy diet and the type of food that serve their goal, haven’t enough time for following the diet, couldn’t continuing in the diet, or not haven’t enough money to offer the proper diet food. Also there were a number of obese students.

CONCLUSION
This pilot study show differences in attitude and knowledge among dieters in the different schools. It could be tested at larger scale among students of other universities.

RECOMMENDATION
1. Nutrition education should be implemented to all students
2. Teach the student’s about anthropometric measures and advice them to conduct regular weighing;
3. Nutritionist, physicians and other health professionals should incorporate the use of simple indices (weight, height, and waist circumference) into routine clinical examination or screening among adult population.
4. Information on managing lifestyle changes, in particular eating healthily and taking regular exercise should be available to students;
5. Ensure that the students learn that cooking their own food from their natural state is the best way to control what they put into their bodies
6. Make practical food education a compulsory part of the school curricula

AIM
The International Federation for Home Economics (IFHE), demands innovative actions for sustainable development. Currently the IFHE promotes diverse socioeconomic and environmental developments programmes that promote integration, coordination and coherency in its strategies at all levels, aiming at poverty eradication and the security of an enhanced well-being of families globally. A sustainable future requires social change that respects and protects human rights, cultural diversity, a healthy environment, a reduction in economic inequalities and achieve social inclusion everywhere.

In this dynamic and interactive workshop participants will discuss the challenges for families, home economists and the IFHE in the process of Transforming our world: the 2030 Agenda for Sustainable Development. The workshop will focus on the role of families, home economists and the IFHE in the process of Transforming our world: the 2030 Agenda for Sustainable Development.

METHODS
• As Chair of the PC Family, Professor Geraldene Hodelin will introduce the most relevant SDG’s to set the stage for the discourse
• Challenges for Transforming our world will be demonstrated by three IFHE experts from different regions of the IFHE
• Participants will be divided into groups to work on select themes. Groups will be chaired by Prof. Dr. Geraldene HODELIN, Prof. Dr. Sidiga Washi, Mary Hayes leader of the PC Family

WORKSHOP OUTCOME
The outcome will be suggestions, stimulation for individuals/organisational members of IFHE and allied professionals to get involved in the process of Transforming our world: the 2030 Agenda for Sustainable Development.

CONCLUSION
Output will be a collection of ideas for innovative actions for sustainable development creating the basis for a plan of action for the PC Family for next four years.
In today’s world, changes in society significantly impact families. In turn, decisions made by families impact social, economic, cultural, and demographic trends which reciprocate changes in societies as a whole. The United States has experienced diverse changes in race, use of technology, tolerance, marital status, and aging (Pew Research, 2010). Similarly, crime and the effects of the drug culture are apparent and affect families in the region of the Americas. Canada has also experienced demographic shifts in family structure, immigration, aging and poverty (Statistics Canada, 2015). Since the 2009 recession in Canada, many families are struggling financially. Nearly five million Canadians live in poverty unable to meet their basic needs (Statistics Canada, 2013). Consequently, many provincial governments, with the exception of British Columbia, have created regional poverty alleviation programmes. In Brazil and the Caribbean, similar programmes are aimed at easing families out of poverty and helping them to enjoy basic necessities. As a result social inequality in Brazil has decreased by 15% (Campello e Neri, 2013) but Brazil, like most of the Caribbean, continues to suffer from the impact of this ethical-political-financial crisis in which increases in the cost of living and easy access to credit has greatly increased the indebtedness of some families. As in the other regions, the Caribbean family continues to recreate itself as it is impacted by these global trends, more particularly the intra-regional changes in cultural, religious, economic and political policies and practices. Poor access to current statistics for the critical variables of familial roles and structure, immigration, repatriation and their impact on the family tend to diminish the magnitude of the changes, their effects and interventions to mere conjecture. This presentation will explore many of these recent demographic, social, and economic changes in the region of the Americas and discuss solutions and the implications for home economics towards improving the quality of life for families.
associated with higher risks of disability, nursing home placement and healthcare costs, there has been a lack of attention to how income affects personal long-term care planning. The goal of this study is to examine the relationship between long-term care planning by household income.

METHODS
A nationally representative telephone survey on current and future use of long-term care services and supports, was conducted with 714 adults aged 45+. Using chi-square, analysis of variance, and multiple regression techniques, intention to utilize long-term care planning was explored by income (< $25,000, $25,000 – $49,999, and $50,000+), age, living arrangement, race, self-rated health status, being alone, ability to take care of oneself, ability to drive, feeling a burden on one’s family, not being able to do things one likes to do, and not having enough money.

RESULTS
Household income alone was not enough to influence intention to use long-term care planning. For participants in the lowest income group, being alone contributed significantly to their intent to use. Age, not having enough money to stay in home, and not being able to take care of oneself influenced participants in the highest income group.

CONCLUSION
Findings suggest that financial counselors and planners should encourage their clients to include advanced care planning needs and costs into their long-term care planning and tailor financial advice in light of personal needs, concerns, and income.

IF_0053 An Exploration of Health and Household Saving Behavior
First Author (Main Author) Patti Fisher (Virginia Tech) USA
Co-Author(s) Sophia Anong (University of Georgia)
Presenting Author Patti Fisher (Virginia Tech) USA

AIM
Health has not generally been a focus of theoretical and empirical work on motivations to save. We use a lifecycle saving framework and data from the 2013 Survey of Consumer Finances to investigate the relationship between health and household saving behaviors.

METHODS
Using a method presented by Jackson and Lindley (1989), we decompose the existing difference in saving between households in poor/fair and good/excellent health, allowing the impact of the explanatory variables in the model to differ between those in poor or fair health and those in good or excellent health. This allows us to better understand the link between health and saving for the future and what factors are behind the difference in saving behaviors between those in poor/fair health and those in better health.

RESULTS
The results indicate that the difference in saving behaviors between households in poor/fair and good/excellent health comes from two sources: (a) differences in the relationship between independent variables and saving for the two groups, and (b) poor/fair health in and of itself. We find that the effects of private health insurance, being separated/divorced, and income uncertainty on saving behaviors differ significantly for households in poor/fair health and those in good/excellent health. The results show that those in poor health are less likely to save, which has implications for financial security.

CONCLUSION
Future research could further determine whether this is because medical expenditures are higher, income is lower, or households choose not to save because they do not think they will live much longer. It is important to include health in discussions of personal finance among home economics educators and researchers.

IF_0215 Linking Happiness, Home Economics, and Sustainable Development
First Author (Main Author) Nancy Granovsky (Texas A&M AgriLife Extension Service) USA
Co-Author(s)
Presenting Author Nancy Granovsky (Texas A&M AgriLife Extension Service) USA

AIM
Compare the term, “happiness” to the conventionally used terms in home economics, “well-being” and “quality of life.”

Examine the research methods reported in the 2015 World Happiness Report.

Share key research findings, educational materials and relevant policy examples that can be used to integrate the language and concepts of happiness, home economics, and sustainable development.

METHODS
(This will be an illustrated presentation). Rarely has the home economics profession utilized the term, “happiness” in descriptions of its mission, goals, or work, perhaps because happiness is perceived as a subjective concept, difficult to measure. As home economics researchers, educators, practitioners, and policy-makers, we have had a greater comfort level with the terms, “well-being” and “quality of life,” largely because measures of happiness have not been used in the past or have been used in ways that are not well grounded in theory and methodology.
Typical Breakfast & Lunch & Dinner in a Swiss Hospital

**First Author** (Main Author)  
Susanne Hofer (Zurich University of Applied Sciences)  
Switzerland

**Co-Author(s)**  
Gabriela V. Zuger (Zurich University of Applied Sciences, Institute of Facility Management)  
Franziska C. Honegger (Zurich University of Applied Sciences, Institute of Facility Management)

**Presenting Author**  
Susanne Hofer (Zurich University of Applied Sciences)  
Switzerland

**BACKGROUND**

Patients in Swiss hospitals receive three main meals a day, depending on their health condition.

**AIM**

Aim of this research was to detect the typical three main meals provided in Swiss hospitals.

**METHODS**

Mixed METHODS research design, underpinned by the pragmatism paradigm. The inquiry strategy was a multi methods case study. Case study entity is hospitals catering facilities – focusing on patient meals. Data collection method includes visual analysis of more than 1000 photographic data, taken by the researchers, of prepared patient meals. Data was primarily analysed using content analysis.

**RESULTS**

The research provides an overview of how patient meals in Swiss hospitals look like. Resulting in the representation of a typical breakfast, lunch and dinner. The last two meals predominantly consist of four terms soup, salad, a warm main course and dessert.

**CONCLUSION**

Swiss hospitals provide their patients an extensive range of food. This is can be questioned in terms of effective nutritional necessity and regarding resources spend to provide this offer. The findings add to the body of knowledge in the field of Home Economics by providing a basis to further investigate the nutritional necessity of this rather extensive range of food provided to patients and or to compare Swiss customs with other countries.

**Presenting Author**

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**Co-Author(s)**  
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Franziska C. Honegger (Zurich University of Applied Sciences, Institute of Facility Management)

**First Author** (Main Author)  
Susanne Hofer (Zurich University of Applied Sciences)  
Switzerland
This study aims to study students' consciousness on gender equality, views on citizenship, and the role of co-educational Home Economics environment for LGBT learners.

RESULTS
All of the results of T-tests showed significant differences between the groups. Fathers who had HEE in secondary school education recognized more HEE effectiveness and need for FLE than fathers without HEE in secondary school education. They also had more FLE opportunities and would like to participate in FLE more than fathers in the other group. Among FLE in social settings, "workplaces" showed the highest percentage of their choice in "FLE opportunity," "Need for FLE," and "Intention to participate in FLE." The results imply HEE in secondary school education would be effective for fathers. After finishing high school, in order to maintain the HEE effectiveness, continuing education about family life should be offered. FLE in social settings, especially at workplaces, would be great opportunities for fathers.

CONCLUSION
The findings identified that although students are trained to teach Home Economics courses in Secondary schools and if they are employed in equivalent and related industries and whether the University of Goroka produced sufficient graduates in Home Economics that is meeting the demands of the country in producing skilled people to teach in secondary schools. The research also aims to discover the challenges facing all Home Economics Teachers teaching Home Economics in Primary and Secondary schools in Papua New Guinea, challenges we argue are rooted within the ecological systems and social exclusion theory. The study focuses on male students undertaking Home Economics courses and male students who graduated with Home Economics as well as teachers teaching Home Economics courses in the Secondary schools in Papua New Guinea. The study uses a mixed method approach through the use of focus groups and quantitative.

RESULTS
The findings identified that although students are trained to teach Home Economics at the Secondary School in Papua New Guinea, most of them teach their second choice of course leaving the Home Economics subject being taught poorly in schools. Teachers not qualified in Home Economics are recruited to teach Home Economics. In addition, Home Economics facilities in the schools across Papua New Guinea are improper and are disintegrating leading to lack of interest in the course.

CONCLUSION
This study aims to study students' consciousness on gender equality, views on citizenship, and the role of co-educational Home Economics education (HE) currently, compared with the 1990s. A comparison is made between Japan and Sweden, both economically developed countries, but with differences concerning culture, school systems, ways of living, welfare policy, and gender equality.

METHOD
A survey is conducted among students aged 15–17 in 2014–2015, in Japan and Sweden. The same surveys were conducted about twenty years ago; therefore, differences in students' views between the mid-1990s and 2015 have been analyzed. Preliminary findings: This study does not depict a clear drop in students' gender bias currently, compared to twenty years ago. However, we argue that there seems to be a gradual decrease in gender bias. Girls' views are less gender biased than boys' views in both countries. However, Swedish students have a more gender equal view than students in Japan. Students with more gender equal views are more likely to do housework as well as act as responsible citizens in both countries.

ORIGINALITY/VALUE (ADDITION TO THE BODY OF KNOWLEDGE OF THE FIELD OF HE)
With this comparative study, we contribute to Home Economics knowledge and practice, by showing that home and family life, responsible citizenship, and gender equality are interconnected. This study confirms that co-educational Home Economics education has the unique potential to unite views on gender equality and literacy to facilitate being an active, responsible citizen in a holistic manner.
**Integrating Technology into Home Economics Classes**

**Chair:** Nansook Yu (Chonnam National University)  
**Republic of Korea**

**IP_1072**  
**Do We Need Campus? – Evaluation of Blended Education in Home Economics**

**First Author (Main Author):** Anne Selvik Ask (University of Agder)  
**Norway**

**Co-Author(s):** Margrethe Reed (University of Agder)  
Mona Linge-Ohnait (University of Agder)  
Ingebjørg Aarek (University of Agder)

**Presenting Author:** Anne Selvik Ask (University of Agder)  
**Norway**

**Introduction**

Online teaching and blended education are becoming more relevant. The University of Agder is offering online education in Home Economics with 2-3 gatherings of about 3 days at campus, blended education. In this subject, practical skills are important learning goals. To give students good practical education online is challenging. Different digital teaching aids, such as instructional videos and social media are used.

**Aim**

The aim of the project **Do we need Campus?** is to explore the advantages and disadvantages of blended education in Home Economics, compared to education on campus. We are trying to find answers to these questions:

- What are the success criteria for blended education?
- What are the learning outcomes for students in blended education in Home Economics?
- Is there a difference in learning outcomes in practical and theoretical subjects?
- How are the learning outcomes for online students compared to on-campus students?

**Method**

A questionnaire has been sent to students in Home Economics in two blended education courses (37 students), and to students on campus in (42 students). In-depth interviews are being conducted with chosen students. We also look at the evaluation of the courses.

**Results**

The results indicate that both groups have a high satisfaction score on the theoretical and practical teaching. The blended education students have a higher satisfaction score on both items. The on-campus students have a higher satisfaction score on the IT-training and administrative support. The in-depth interviews should explain more about the difference in the learning outcomes.

**Conclusion**

The presentation shows how we have organized the blended education in Home Economics and which digital teaching methods are used. The results indicate that both groups have a high satisfaction score on the theoretical and practical teaching. The blended education students have a higher satisfaction score on both items. The on-campus students have a higher satisfaction score on the IT-training and administrative support. The in-depth interviews should explain more about the difference in the learning outcomes.

**IP_0882**  
**Developing a Growth Mindset in the Home Economics Classroom**

**First Author (Main Author):** Louise Ruzic (Luther College)  
**Australia**

**Co-Author(s):**

**Presenting Author:** Louise Ruzic (Luther College)  
**Australia**

**Aim**

During our daily lives, we can either have a Fixed Mindset, where we let failure or success define who we are, or a Growth Mindset, where we see setbacks as opportunities to grow and improve ourselves. The research of internationally renowned psychologist Carol Dweck has demonstrated the importance of a Growth Mindset on student motivation and achievement.

Developing a Growth Mindset “the belief that abilities are malleable and not fixed” as opposed to a Fixed Mindset “the belief that intelligence is static” is critical to adopting a passion for learning. Its foundation is the idea that human qualities like intelligence and creativity can be cultivated through effort. Out of these two mindsets, which we develop from a very early age, springs a great deal of our behaviors, our relationship with success and failure in both professional and personal contexts, and ultimately our capacity for happiness.

Teaching a Growth Mindset in the Home Economics classroom creates motivation, productivity and improved educational outcomes for students. It helps students deal with criticism, be resilient to setbacks and increase their creativity. If a teacher or parent encourages effort and improvement rather than praise talent and discouraging failure, this will have a lasting influence on how the child views themselves.

“The moment we believe that success is determined by an ingrained level of ability as opposed to resilience and hard work, we will be brittle in the face of adversity.” Josh Waitzkin - Chess Grandmaster and Martial Artist

In this presentation I will share some strategies and approaches to engender and develop a Growth Mindset in the classroom and I hope to inspire others to model this mindset themselves.

**IP_0390**  
**Digi Dialogues - Case Studies of Using Digital Technologies in the Home Economics Classroom**

**First Author (Main Author):** Leanne Compton (Home Economics Institute of Australia)  
**Australia**

**Co-Author(s):**

**Presenting Author:** Leanne Compton (Home Economics Institute of Australia)  
**Australia**

**Aim**

To work with teachers and senior secondary students to create a digital publication to showcase how digital tools could be used in the classroom to enable learning and teaching in home economics-related studies. The SAMR (substitution, augmentation, modification and redefinition) model was used to explore how digital tools could be used in the classroom. Specific digital tools such as Mind Mapping software, comic strip creators, online polling, Google mapping and collage creators.

**Method**

- Collection of artefacts such as lesson plans and student work to showcase how digital technologies can enable learning and teaching.

**Results**

The development of a digital publication was published on an open website to showcase ways that digital tools could be used in the classroom. Specific digital tools such as Mind Mapping software, comic strip creators, online polling, Google mapping and collage creators.

**Conclusion**

Both teachers and students reported increased engagement when using digital technologies in the classroom and the use of Mind Mapping tools for some students, particularly males enabled a better understanding of the relationships of concepts to be exhibited in assessment tasks. Other tools used also afforded a range of benefits for learning and teaching in the classroom.

**Digi Dialogues**

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**Conclusion**

Both teachers and students reported increased engagement when using digital technologies in the classroom and the use of Mind Mapping tools for some students, particularly males enabled a better understanding of the relationships of concepts to be exhibited in assessment tasks. Other tools used also afforded a range of benefits for learning and teaching in the classroom.
technologies was mainly in the S (substitution) and A (augmentation) dimensions of the SAMR model but was considered beneficial for both teachers and students.

**IP_0207**  
**Global Perspectives on Mobile Learning in Home Economics/Family and Consumer Sciences in Secondary and Tertiary Education Programs**

**Presenting Author**  
Rosie Godfrey (Texas Tech University)  
USA

**Co-Author(s)**  
Sandra Duke (Texas State University)

**AIM**  
This study identified Home Economics and Family and Consumer Sciences (HE/FCS) educators’ perspectives regarding mobile learning and information and communication technology (ICT).

Mobile learning offers greater access to current relevant information, increases connectivity and improves access to people worldwide. Learning can take place anytime and anywhere. Home economists can integrate mobile technology in their educational environment to help individuals and families improve the quality of everyday life for their households and communities. A review of literature for HE/FCS programs indicated minimal use of mobile technology as an instructional tool.

**METHODS**  
A descriptive study was used to collect data to identify attitudes, characteristics and variables that affect the use of mobile technology by educators. Participants in this study were Home Economics professionals from twelve countries. An online survey was distributed to HE/FCS professionals from the International Federation for Home Economics (IFHE), the American Association for Family and Consumer Sciences (AAFCS) and the HomeEcConnect website. The study also highlighted both advantages and barriers to mobile technology use.

**RESULTS**  
The findings of this survey offer a preliminary understanding of how HE/FCS educators view mobile learning and the issues that play a role in the adoption and integration of mobile technology in the educational context. The adoption of mobile technology has been slowed by both the perception that mobile technology may be a distraction in the classroom and the lack of understanding of how mobile technology can be an instructional tool.

**CONCLUSION**  
The results indicate the importance of support and training for educators. This research sought to establish a baseline upon which future research and initiatives that incorporate HE/FCS content via mobile technology can be accomplished.

**IP_0073**  
**Development of a Mobile Learning Course to Unleash Households’ Business Potential - M-House Project**

**Presenting Author**  
Barbara Freytag-Leyer (Fulda University of Applied Sciences)  
Germany

**AIM**  
In developing an online course, the project wants to provide a means for household members to improve and raise the awareness of entrepreneurial skills gained by running a household as well as digital skills. Participants will be enabled to increase the exploitation of alternative employment pathways (e.g. entrepreneurship) and personal fulfilment.

**METHODS**  
The project partners determined 11 key learning situations (KLS) with the potential to train entrepreneurial skills faced by a household. 104 semi-structured interviews were conducted with different stakeholders in each partner’s country to ascertain the relevance of the 11 KLS and their contents. A usability test with contents of 3 prototype modules of the learning platform was done with 9 test persons in Germany. The modules were tested in 2 pilot runs with 46 and 45 learners from each partner’s country. In the course of the project, the modules have been revised and adapted continuously as a participatory cooperation of 8 partners from 6 European countries.

**RESULTS**  
8 KLS were chosen to be most relevant and the basis of the modules. The usability test provided the means to adapt the prototypes of the modules according to the test persons’ opinion. The experiences gained during the pilot runs served to adapt the modules ending in the completion of the online course.

**CONCLUSION**  
Involving many stakeholders was found to be a meaningful process because a wide range of different opinions and preferences could be implemented. The cooperation across different EU-countries helped to increase intercultural skills and provided new experiences for the project partners. However, matching and prioritising was a challenge. The course will be translated in each national language. Further measures are necessary to popularise the link of household and business skills.
CONCLUSION

On the whole, it was observed that there were no innovative practices in the implementation of internal quality assurance. It must be noted that quality assurance is a dynamic and continuous process; therefore, the end of one cycle marks the beginning of the next. Its effectiveness and efficiency in fostering improvement all depends on continuous monitoring and the development of innovative practices aimed at addressing weaknesses and striving for the best.

RESULTS

After the construction of the module, it was read and content-validated by seven experts from the MMSU College of Industrial Technology and College of Teacher Education, retired supervisors in Home Economics, and Department of Education with regard to objectives, content, instructional characteristics and practice test items using a rating scale. The module was found highly valid in all its aspects. Revisions were made based on the suggestions given.

The usefulness of the module was then assessed by twenty-five TLE students of the Mariano Marcos State University – College of Teacher Education. The evaluators found the material to be useful as revealed by their testimonials.

CONCLUSION

Thus it was concluded that the material was more effective than traditional classroom teaching strategy. It was recommended that this validated module be used to supplement the existing material being utilized by the students and teachers to help them develop the required competencies and further master the content and skills required of a TLE teacher.

The research focuses on developing Finnish Home Economics Education for diversities at both university and compulsory school levels in order to effectively contribute to implementing the aims of the new university degree requirements and the national curriculum for comprehensive schools 2016. In this study, these new documents are scrutinized in dialogue with pupils, teachers, and teacher students. The research combines quantitative approaches to study of learning outcomes, qualitative student-voice research and school-based action research aiming at teacher professional development. Data for the study is drawn from the recent National Assessment of Home Economics learning outcomes, curricula texts for Home Economics education, students’ essays and feedback from University courses and school-based action research. Through the project, shared knowledge on diversities in Home Economics education is constructed amongst researchers, teacher students and practicing teachers. The integral connection to Home Economics Teacher Education ensures an immediate impact on teacher education development. By connecting the research with the National Learning Assessment and the work of Finnish Home Economics Teachers’ Association, the research will support collaboration among national and local actors. The study contributes to research based development of Home Economics Education and enhances the role of Home Economics in supporting sustainable futures.

In this research, a particular focus is on diversities related to cultural background and gender. As a school subject characterized by collaboration and communication, Home Economics provides a favorable context to learn the skills needed in an increasingly diverse world. To benefit from this potential, Home Economics teachers need both theoretical and practical tools that help them to better understand the ongoing changes in society and to work with diverse learners. In this research project hosted by the Department of Teacher Education, University of Helsinki, Finland, student voice and collaborative approaches to teacher education development are utilized to create a shared space for knowledge construction on critical aspects of diversities in relation to teacher professionalism.
**Blended Learning in Home Economics and Livelihood Education (BEEd-GC Content Course) for Pre-Service Elementary Teachers in St. Mary’S College of Quezon City, Philippines**

**First Author (Main Author)**
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**AIM**
Distance education for teacher training was cited in numerous studies with positive results. However, it was not a cheap substitute due to the use of multimedia or ICT. Thus, blended learning is more common in traditional colleges today.

**STATEMENT OF THE PROBLEM**
How can blended learning be done in a traditional General Education HELE class? How can GE HELE class be designed and developed to make it blended learning? What course model or framework for General Education HELE can be used? What could be the difficulties or challenges that the teacher or the students encounter in the implementation of a blended learning course?

**METHODS**
Michael Power’s BOLD was adapted for the course design. The ADDIE, horizontal course syllabus, lesson plan template, course calendar, survey questionnaires and interview were also used.

**RESULTS**
There were 12 students who responded to the pre-course survey and 11 students for the post-course survey. They were able to utilize print, Web-based and computer-based resources, e-mail, chat/messenger, wiki, and mobile communications.

**CONCLUSION**
The blended learning course was beneficial to students learning. The horizontal course syllabus, videos, online learning sites, and slide presentations were very helpful teaching tools to diverse students. Limited amount of classroom time and the students’ difficulty to absorb the lessons immediately contributed to dissatisfaction to some students. Computer skills and access to the Internet were necessary for blended learning.

To improve this blended learning course:
There should be brief slide presentation for each module.
The Computer Laboratory should be used every meeting to hone the ICT skills of the students.
Activity sheets and checklist of requirements should be prepared for the students.

**IP_0430**
Blended Learning in Home Economics and Livelihood Education (BEEd-GC Content Course) for Pre-Service Elementary Teachers in St. Mary’S College of Quezon City, Philippines

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**AIM**
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How can blended learning be done in a traditional General Education HELE class? How can GE HELE class be designed and developed to make it blended learning? What course model or framework for General Education HELE can be used? What could be the difficulties or challenges that the teacher or the students encounter in the implementation of a blended learning course?

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To improve this blended learning course:
There should be brief slide presentation for each module.
The Computer Laboratory should be used every meeting to hone the ICT skills of the students.
Activity sheets and checklist of requirements should be prepared for the students.

**IP_1035**
Pursuit of Good Relationship! An Altruistic Approach Curriculum Design for Improving Interpersonal Relationships in NTNU

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**AIM**
This study is designed to develop an altruistic approach curriculum to enhance interpersonal intelligence and quality on interactions among college students. Interpersonal relationship is one of the most important learning issues for college students. After considering how current college students interact problems: over-individualism and struggling in poor interaction qualities with others. Applying relevant theories, this curriculum is based on altruistic approaches. Both philosophical and course of action altruistic approaches were implemented to the curriculum.

**METHOD**
In the curriculum, students were guided to find a key person as his object (mostly family members). Besides reading papers and discussing about interpersonal relationships issues, applying this theory for 8 consecutive weeks, students must utilize the language according to the altruistic approach to interact with the object. All actions were recorded and analyzed for any changes in the relationship by themselves. To effectively assess the achievements of this study, using a perception scale (16-items interpersonal relationship skill, α=.85) was converted into quantitative data to validate the outcomes of the curriculum. Meanwhile, qualitative data from students’ reaction paper about their altruistic action.

**RESULTS**
Through qualitative and quantitative data analysis, content analysis procedures and interpersonal intelligence and ability questionnaires were used to collect data for the study. The effects are significant: (1) baseline measures taken before and after the curriculum showed that students’ scores in interpersonal intelligence and ability at the end of the course revealed a significantly higher effect (reached the .001 level of significance) post curriculum (2) qualitative data showed the vast majority of students experienced unfamiliar and awkward feelings at the beginning of the study. Later in the study, students showed higher approval and willingness to continue using techniques of interpersonal intelligence.

**CONCLUSION**
Based on these results, the altruistic approach curriculum for interpersonal relationships can enhance the quality of personal relationships in college students.

Key words: altruistic approach, curriculum design, interpersonal relationship
**METHOD**

The questionnaires on recognition and consciousness of gender-equal society, the programs of childbearing leave and nursing leave are asked for 1,473 university students and 600 companies in Gifu area and analyzed.

**RESULTS**

As a result, most of women students are interested in work and childbirth, childbearing. More men are interested in law and society. More students tend to choose full-time workers and have interest to continue their job when their mother work full-time, which means the working style of their mother have strong influences on children’s lifestyle. More than 90 percent of students want to use the system to have holiday for childbearing and nursing parents. As for companies, major firms have those systems and workers are receive benefit from systems, however in small and medium-sized enterprises, the system itself is not established even related laws are already enacted. Although the companies where systems are established, only 30 percent of employers use these systems properly.

**CONCLUSION**

It is important to promote gender-equal society and utilize Child Care and Family Care Leave Law in all firms. For this, it is important to work on two sides, teach students and guide companies. Students who will work after graduation should have more interests on gender-equal society, so education on gender-equal society becomes urgent. Also local government should guide especially small and medium-sized enterprises toward gender-friendly society.

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**IP_0176 Does Adolescent Mobile Phone Use Really Have a Positive Effect on Academic Achievement? Evidence from Panel Data**

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**Presenting Author**
Jung Eun Kim (University of Maryland)

**AIM**

Mobile/smartphones are ubiquitous in children’s lives. In the US, 72% of children under 8 have used smartphones (Rayman, 2013), while 85% of elementary students own smartphones in Republic of Korea (Kostat, 2014). Previous studies are indeterminate regarding the effects of smartphone use on academic achievement; some reported a negative relationship with reading ability (Levine et al., 2007), whereas others argued a positive association (Hofferth & Moon, 2012). This study examines the relationship between smartphone use and academic performance using longitudinal/panel data to clarify the effects of adolescent media use.

**METHODS**

This study used Korean Youth Panel Survey (KYPS) data, accumulated for 6 years from 2003 with subjects at the time being 8th graders in Seoul and 11 cities/provinces. The final sample size using the 1st to 4th waves was 11,640 individuals (boys=5,808; girls=5,832; strongly balanced). A panel regression analysis was performed to see changes over time.

The dependent variable was respondents’ scores in Korean, English, and math (1=lowest; 5=highest). Whether the main purpose of smartphone use was texting (1=always) was an independent variable. For control variables, how hard respondents studied for course (1=very hard), whether respondents received private instruction (1=yes), and time spent on the course (hours/week) were included, as were academic stress (a known correlation to school performance) and self-esteem (reported as a factor of school performance and/or media use). Gender, household income, and father’s education were used for the SES variables.

**RESULTS**

The results revealed that a majority of the vendors have chosen this profession in order to have a regular source of income, whereas a few felt that they were forced into hawking by their family. The main challenge faced by these women is extortion. And commuting for purchase and sale of their wares was incidentally the primary stressor.

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**IF_0256 Problems Faced by Women Hawkers**

**First Author**
Roopa Rao (University of Mumbai)

**Presenting Author**
Roopa Rao (University of Mumbai)

**AIM**

(i) To identify the reasons that influence women to take up hawking
(ii) To gain knowledge about the challenges faced by women hawkers in Mumbai
(iii) To learn about work related stress problems faced by the women hawkers in Mumbai city and its suburbs.

**METHODS**

This study is based on primary data to probe the status of women hawkers in Mumbai city and its suburbs. The sample size is 141 (109 street and 32 train) female hawkers chosen through purposive sampling technique. A self-constructed questionnaire was used to collect personal as well as demographic data of the women hawkers. Personal and group interview method helped elicit information on savings/investments, occupational health and primary stressors.

**RESULTS**

The results revealed that a majority of the vendors have chosen this profession in order to have a regular source of income, whereas a few felt that they were forced into hawking by their family. The main challenge faced by these women is extortion. And commuting for purchase and sale of their wares was incidentally the primary stressor.

**CONCLUSION**

The diatase of activists, journalists and municipal authorities towards this section of the community is obvious! Though there is a provision for granting licenses, most women street vendors in Mumbai are denied this. The literacy levels of these hawkers is very low and the average monthly income is about Rs. 5500 (Rs. 5447.29).

Street vendors in Mumbai, especially those in the central business district and the affluent residential areas in the city (and suburbs), work under constant threat of eviction. If there are no authentic reasons for eviction, and if Hawking is legal as per the 1989 Supreme Court judgement... it is then justified that every individual has the right to earn a livelihood as a fundamental right.
Empowerment of Ethnic Minority Women in Denmark through Food and Health Literacy

First Author (Main Author)  Irene Norlund (Metropolitan University College)  Denmark
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This presentation addresses social inclusion and empowerment of ethnic minority women living in Denmark. The specific thematic focus is how ethnic minority women perceive food and health promotion activities. The paper takes departure in an ongoing research project based on the following research question: How do ethnic minority women from the perspective of sense of coherence, social inclusion and empowerment perceive their health, eating habits and well-being? The research is based on a study of a women’s group of Moroccans living in Denmark for 3-4 decades.

The methods used to retrieve data include qualitative, narrative based interviews about life stories and participatory action-oriented research. The participatory, action-oriented research is based on commonly decided activities in making and understanding food and taking part in yoga lessons and physical training. The cooperation has lasted for more than one year.

Migrants started to arrive in Denmark in the 1970s. Mostly men came to seek employment and their young wives joined them. The public policy at that time did not encourage women to learn Danish nor to take work. Among the target group of the 17 Moroccan women most of them are able to speak proper Danish and read and write; however, a few are illiterate. The women have created a network providing them with a platform to share knowledge, skills, and information about living in the Danish society. The paper provides insights into the dual identity of the Moroccan women who have lived and learned in an alien culture balancing between their Moroccan and Danish customs through their food and health understandings.

The presentation is based on a project developed in co-collaboration between ethnic minority women and researchers from Metropolitan University College.

Disabilities, Home Accessibilities, and Residential Satisfaction of US Seniors Living Alone

First Author (Main Author)  Hyun Joo Kwon (Purdue University)  USA
Co-Author(s)  Eunju Hwang (Virginia Tech)
Presenting Author  Hyun Joo Kwon (Purdue University)  USA

AIM

In 2010, about 29.3% of older non-institutionalized persons age 65 and over lived alone in the US (Administration on Aging, 2011). It is predicted that between 2015 and 2050 the number of seniors living alone will nearly double (Joint Center for Housing Studies, 2014). Seniors living alone tend to be poor, to feel lonely and isolated, to have mobility issues and housing problems, and to show lower residential satisfaction. Residential satisfaction has been recognized as an important predictor of older adults’ well-being in housing environment. However, it is still unknown how home accessibility contributes to residential satisfaction for the senior living alone. The purpose of this study is to identify the relation between disabilities, home accessibility features and problems, and residential satisfaction among seniors living alone.

METHODS

This study analyzed the 2011 American Housing Survey data with a sample of 7,310 seniors living alone aged 65 and over. The dependent variable was residential satisfaction. The independent variables included four major parts: 1) socio-demographic and housing characteristics; 2) disabilities; 3) home accessibility features; and 4) home accessibility problems. T-test, one-way ANOVA, and correlation were used for data analysis.

RESULTS

Lower-income, non-white and female seniors living alone showed lower residential satisfaction and had more disabilities and lived in less accessible housing. Participants with greater disabilities perceived more home accessibility problems and expressed lower residential satisfaction. Those who lived in housing with more home accessibility features reported higher residential satisfaction.

CONCLUSION

This study revealed empirical evidence that accessible housing can improve the residential satisfaction of senior residents. This study provides useful information for housing planners, designers and policy makers in improving residential satisfaction and quality of life of seniors living alone. Particularly, since seniors living alone with greater disabilities are more likely to have limited financial resource, these vulnerable senior households will need cost-effective modifications and accessible solutions to improve their quality of life.
### Financial Well-Being of North Carolina (US) Elderly Homeowners with Limited Resources

**AIM**
This was a case study of factors influencing financial well-being of elderly, limited resource homeowners. In North Carolina (NC), USA, over 80% of those aged 65 and older are homeowners (Institute on Aging, 2013). Yet, little research exists on their financial well-being, particularly for those with limited resources.

**METHODS**
Between June 2013 and May 2014, personal interviews with 30 limited-resource NC homeowners, aged 55 and over, who had completed home modifications, were conducted regarding financial and future housing plans. Responses were taped and transcribed for qualitative data analysis.

**RESULTS**
Most participants (average age of 73 years) were female (29), single (28), living in one-story, single detached housing (29) of two to three bedrooms (28), with income of less than $25,000 (29). Eighteen lived alone; nine lived with children or grandchildren. Half had reported their education level as high school graduate or less. The majority was dependent on government resources, especially Social Security or Social Security Disability Insurance (18). Half had a mortgage payment (15), and most had no financial resources for emergencies. Their informal support network (family, church, friends, or neighbors) was important for financial well-being, independent living, and health. Few elders had any support network. Religion was important when interpreting their financial well-being. Few had any plan for their future, especially aging in place or managing a health crisis.

**CONCLUSION**
Factors influencing financial well-being of poor elders include government benefits and informal or community support. All participants had completed home modifications suggesting a desire to age in place, which can benefit their community's economy. This study suggests need for financial management skills, knowledge of community resources, and access to government assistance to increase financial well-being of elderly homeowners with limited resources, particularly those having caregiver burdens, poor health conditions, and single-females.

### Rural Women, Food Security and Agricultural Cooperatives in Nigeria

**AIM**
To investigate how culture and illiteracy hinders women freedom, social interaction and productivity.

**METHODS**
Study area was Abia State, Nigeria. Out of 17 Local Government areas, 5 LGAs were randomly selected for the study. 30 rural women who are actively involved in agricultural production and members of registered cooperatives were selected, bringing the total to 150 respondents. Data were generated through the use of structured questionnaire and participatory observation. Data collected was analyzed with simple descriptive statistics.

**RESULTS**
Result showed that in terms of ratio of membership of women in agricultural cooperatives, the percentage is rather low. The result further showed that their contributions to other sector of the economy remained concealed and unaccounted for. Consequently, they are generally invisible in plans and programmes. They also lack access to productive resource which will eventually enhance their social and economic contributions to their society.

**CONCLUSION**
If women will come together and form women cooperative societies, it will jointly give them access to productive resources, thereby enhancing their household food security. Based on these premise there will be hope and happiness in their communities.

### Benchmark Practices in the Area of Home Economics

**AIM**
AIM and potential benefits of international collaboration: We seek for international collaboration to exchange expertise in the area of benchmarking practices within the field of home economic services. This enables to question the topic from different perspectives. Benefits is knowledge expansion from different approaches and challenges in the area of benchmarking practices.

**METHODS**
Between June 2013 and May 2014, personal interviews with 30 limited-resource NC homeowners, aged 55 and over, who had completed home modifications, were conducted regarding financial and future housing plans. Responses were taped and transcribed for qualitative data analysis.

**RESULTS**
Most participants (average age of 73 years) were female (29), single (28), living in one-story, single detached housing (29) of two to three bedrooms (28), with income of less than $25,000 (29). Eighteen lived alone; nine lived with children or grandchildren. Half had reported their education level as high school graduate or less. The majority was dependent on government resources, especially Social Security or Social Security Disability Insurance (18). Half had a mortgage payment (15), and most had no financial resources for emergencies. Their informal support network (family, church, friends, or neighbors) was important for financial well-being, independent living, and health. Few elders had any support network. Religion was important when interpreting their financial well-being. Few had any plan for their future, especially aging in place or managing a health crisis.

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Factors influencing financial well-being of poor elders include government benefits and informal or community support. All participants had completed home modifications suggesting a desire to age in place, which can benefit their community's economy. This study suggests need for financial management skills, knowledge of community resources, and access to government assistance to increase financial well-being of elderly homeowners with limited resources, particularly those having caregiver burdens, poor health conditions, and single-females.

### Financial Well-Being of North Carolina (US) Elderly Homeowners with Limited Resources

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### Rural Women, Food Security and Agricultural Cooperatives in Nigeria

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### Benchmark Practices in the Area of Home Economics

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**IF_0058**
**Financial Well-Being of North Carolina (US) Elderly Homeowners with Limited Resources**

**IF_0093**
**Benchmark Practices in the Area of Home Economics**

**IP_0204**
**Rural Women, Food Security and Agricultural Cooperatives in Nigeria**
Clothing & Textiles for Family Happiness

**AIM**
This study was designed to assess the various methods adopted for clothing management by literate and non-literate homemakers in Makurdi metropolis for family happiness. The study adopted a survey research design. Specifically, the study 1. identified specific clothing terms that require special care by homemakers, 2. determined various methods adopted for clothing management by literate and non-literate homemakers, 3. identified problems associated with clothing management by literate and non-literate homemakers and 4. assessed level of awareness of homemakers on contemporary clothing management techniques. Four research questions guided the study: A sample of 400 respondents made up of 200 literate homemakers and 200 non-literate homemakers. Questionnaire was used for data collection. Data were analyzed using frequency and percentage. Findings include among others: Jewelries, hand bags and foot wares need special care. Washing is the most predominant means of cleaning clothes by homemakers. The hypotheses were tested using T-test. There is no significance difference between the method adopted for clothing management by literate and non-literate homemakers, P>05. Based on findings, four recommendations were made including: Home Management extension workers should include clothing management in their programs to disseminate information to homemakers on clothing management.

**METHODS**
The study adopted a survey research design.

**RESULTS**
Findings include among others: Jewelries, hand bags and foot wares need special care. Washing is the most predominant means of cleaning clothes by homemakers. The hypotheses were tested using T-test. There is no significance difference between the method adopted for clothing management by literate and non-literate homemakers, P>05.

**CONCLUSION**
Both literate and non-literate homemakers need training in clothing management.

### IF_0129 Clothing Management by Literate and Non-Literate Homemakers for Family Happiness

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### IP_0184 Happiness Is to be Comfortable and Well Dressed in Your Working Clothes even if You Are Middle Aged!

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**AIM**
To determine the middle aged working women's perception of the availability of suitable working clothes in Bloemfontein, South Africa.

**METHODS**
A phenomenological research study was decided on because this type of study is more in the hands of the participants than those of the researcher. The aim was to understand the perceptions, perspectives and understandings of this specific situation. To represent the target market of middle aged working women a sample of 58 participants were used. They consisted of multi-racial working women who represented various workforce environments. Questionnaires were used to collect the data. A comparison of the information given was the main method of analysis. Result were indicated through tables and charts. Data were also analysed by using the ANOVA analysis of variance.

**RESULTS**
The results proved that middle aged working women do struggle to get fashionable suitable clothes. Ninety eight percent of the ladies experienced body changes and sixty two percent indicated that they are not satisfied with the available working clothes. They consider style, fit and comfort as the three most important qualities to be well dressed and to still feel comfortable and fashionable in their clothes.

**CONCLUSION**
The world’s population is growing older and specifically there are more middle aged women in the workforce today. But designers still focus on younger working women while there is greater need for more suitable working clothes for middle aged ladies with a physical changed body.
A Case Study: Fashion Design and Merchandising Core Assessment to Improve Overall Future Curriculum

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**AIM**
The fashion industry is ever-evolving, thus educational institutions are faced with the challenge of staying current in their curriculum while instilling traditional core knowledge. "To continue in patterns of the past is not good enough; denial does not divert change," (Lauglin & Kean, 1995, p. 196). The assessment was necessary due to recent updates that were implemented in the Fashion Design and Merchandising (FDM) core curriculum. The purpose of this research is to assess the sophomore level students' foundational knowledge and skills required for both design and merchandising majors. The results of this study will improve overall core curriculum for incoming students and raise the standard quality of current students. The research questions guiding the study assessed the foundational knowledge retained, the difference between design and merchandising majors, as well as the level of core knowledge of transfer versus non-transfer students.

**METHODS**
Over the course of 2 ½ years, the researchers have developed a comprehensive exam concerning the pedagogical focuses of the FDM core curriculum: color theory, fundamentals of fashion, apparel analysis, fabrics, and fashion technology (i.e. Adobe Suite). After two pilot tests, the assessment exam questions were finalized encompassing a total of 112 questions which included 99 core curriculum questions and 13 demographic questions. Data was analyzed using SPSS.

**RESULTS**
Results revealed that less than 50% of students had correct answers for 19 questions. The majority of these questions were concerning basic knowledge of fabric and apparel analysis. Design major students scored higher than merchandising students on 12 questions that were related to technology, fabric, and garment construction terms. Non-transfer students scored higher on three questions regarding color theory and apparel analysis terms compared to transfer students.

**CONCLUSION**
This study's contribution offers a model that others can utilize to in hopes of enhancing curriculum and building a vision for the future.

Challenges Facing Teaching and Learning of Clothing and Textiles as a Subject in Abia State Secondary Schools

First Author (Main Author) | Anthonia Obeta (IFHE)
Co-Author(s)
Presenting Author | Anthonia Obeta (IFHE)

**AIM**
To identify Challenges Facing Teaching and Learning of Clothing and Textiles in Abia State Secondary Schools. Specifically identified by the study are Challenges facing teachers and Students and suggested possible ways of amelioration. Three research questions guided the study.

**METHODS**
Design Survey research. Sample of 298 subjects was purposively selected and used for the study. Instrument was structured questionnaire. Data collected was analyzed with frequency, percentages and mean.

**RESULTS**
Challenges facing the teachers among others include lack/inadequate instructional materials, no incentives while challenges facing students include incompetent teachers, time and financial consuming nature of the subject. Possible ways of amelioration among others include adequately equipping clothing and textile laboratory, financing practical lessons by school authorities, giving incentives to hard working teachers and prizes for outstanding performing students.

**CONCLUSION**
If the above efforts are put in place, teaching and learning clothing and textiles will be enhanced in the state.
**WS_1209 IFHE and the United Nations**

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IFHE is an International Non-Governmental Organisation having consultative status with the United Nations and the Council of Europe. IFHE representatives participate in meetings and conferences at the UN headquarters in New York, at the UN offices in Geneva and Vienna as well as UN agencies in Paris, Rome and at the Council of Europe in Strasbourg. Their role also includes presenting statements and preparing reports on behalf of IFHE and working with other International Non-Governmental Organisations. Activities are concerned primarily with programmes related to the wellbeing of the family and its members, particularly women.

This information session will provide you with information about the structure of the United Nations, its agencies and departments and the networking role of INGOs. You will also have the opportunity to hear first-hand from our IFHE representatives about their role, how a Home Economics perspective can contribute to UN objectives and how UN involvement provides a platform to advocate for improved quality of life.

**SP_0789 Research and Teaching in the Area of Housing and the Residential Environment for Emerging Consumers in the United States**

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USA

Our society and workforce are both becoming more diverse. There is growing research and public policy interest in understanding diverse consumers and their home environments in the United States. Nevertheless, current challenges include: a) better understanding of the pathways in which home environments influence the needs of emerging and diverse consumers; b) valid and reliable measures of housing needs among special segments of population; and c) developing and sustaining interdisciplinary teaching mechanisms linking housing students, researchers, design professionals, and industry. This symposium consists of four presentations addressing some of these challenges. The first presentation discusses housing behavior of emerging baby boomers by analyzing the past, current, and future housing needs of residents 55+ living in multifamily housing. This study identifies the unique characteristics of multifamily housing in seeking a viable housing option for aging-in-place. The second presentation examines housing satisfaction and affordability of Hispanic families and elderly single-person householders who represent the recent demographic trend in the US. This presentation discusses the association of socio-economic, housing, health, and financial factors with their housing perceptions. The third and fourth presentations are based on development of teaching tools addressing cultural diversity and emerging consumers in residential environments and design classes. A sizable percentage of students in the US are not native. Teaching strategies incorporating cultural diversity in residential design classrooms and the unique challenges of rapidly increasing numbers of international students are shared in the third presentation. The fourth presentation examines the ability of trans-institutional cooperation between faculty and industry in a kitchen design studio class to address the needs of emerging consumers such as multi-generational families, families with autistic children, and aging adults in the US. Finally, the symposium closes with discussion on potential challenges of conducting research and teaching in the area of housing and environment in a diverse society.
The United States has become diverse. As a result, curriculum and accreditation requirements can focus a class to an understanding of residential design from the perspective of various cultures, lifestyles, and life stages. Recognizing cultural uniqueness and identifying various abilities across the lifespan is a start. To show how the authors brought diversity in residential design classes, three case studies will be presented from multicultural aspects and engaging with local communities. In the first case, the process of developing multicultural housing projects will be discussed. In the second case, the examples of factors that can exacerbate the challenge of non-native student learning in residential design classrooms will be discussed. These include: family structures and sizes that influence common house designs; social and religious customs and lifestyle factors that influence relationships of spaces in the home; foods prepared and eaten in the home; technology and its role in the home; house forms influenced by factors such as climate, terrain, available materials, and historic events; policies that determine codes for individual residential buildings as well as neighborhood and community planning. Finally, the third case will provide the strategies how to work in an integrated design team approach to improve local multifamily housing community’s accessibility and walkability. To provide more inclusive and welcoming learning environments, techniques successful for the authors include: using global housing policies and styles for class examples, clarifying where American residential design practices have been influenced by diverse global and regional influences; coordinating class activities with campus diversity events; encouraging students to share their own cultural or family heritage; engaging with diverse local communities for projects; organizing group projects on multicultural or lifespan housing design. Committing to integrating diversity into residential design classroom takes time, but it is very rewarding experience both for instructors and for students.

The increase of older single-person households and the Hispanic population are two of the most significant demographic trends in the U.S. that influence housing markets, policies, and designs. This presentation focuses on housing satisfaction of older single-person households in rural areas and housing affordability of Hispanic households in the urban areas, along with each group’s housing (environmental and demographic) characteristics. For both studies, a secondary dataset, the 2011 American Housing National Survey (AHS) was employed.

Study 1. Older single-person householders in rural areas: This study focused on a hypothesized relationship between older single-person rural householders (N=13,080) housing satisfaction and their personal, physical, financial, and environmental characteristics. The results of simultaneous multiple regression showed that personal (age and gender), physical (health status), and environmental (age of house, structure type, and unit location) factors had effects on their housing satisfaction; and that health status was the strongest factor impacting on their housing satisfaction. The findings can help in developing a robust framework in understanding the housing satisfaction of single elders in U.S. rural communities.

Study 2. Hispanic householders in urban areas: This study tested a hypothesized relationship between Hispanic householders (N=15,891) housing affordability and their demographic and housing characteristics. The results of logistic regression revealed that Hispanic householders in U.S. urban areas were less likely to afford their housing if they were younger (age variable); did not complete high school (education); lived in the West (census region/unit location); were not married (marital status) or female (gender); were not U.S. native citizens (U.S. citizenship status); had larger structure size (structure size); or were renters (tenure status). This study highlights the present housing challenges of Hispanic families living in U.S. urban areas.

Aging population is rapidly increasing as baby boomers grow older in the United States. In 2030, the number of people age 55 and older will be more than 30% of the total U.S. population. Single-family housing has been recognized as the U.S. housing norm which accounts for 79% of the total U.S. housing type. However, recently multifamily housing (e.g., apartment or condominium) provides attractive services and amenities for senior residents such as 24-hour maintenance, and a fitness center and a business center. Moreover, most multifamily housing community is located near local services such as a medical center and grocery shopping which is one of the most important features for older adults. This presentation discusses housing behavior of emerging baby boomers by analyzing the past, current, and future housing behavior of seniors 55+ living in multifamily housing in the United States (N = 431). The results showed that almost half of the participants lived in a single-family housing in the past. The most frequently mentioned reasons for moving into the current housing were related to multifamily housing community, location and housing unit. From a segmentation analysis based on reasons for choosing multifamily housing, three types of multifamily housing seekers were identified: neighborhood seeker, upscale housing seekers and affordable housing seekers. Almost half of the participants wanted to remain in the current multifamily housing for their later life. Particularly, participants who were older, lived in a larger and more expensive housing unit which was recently built and located in a city showed higher residential satisfaction and more likely to stay in the current multifamily housing in the future. This study identifies the unique characteristics of multifamily housing in seeking a viable housing option for aging-in-place.
Effect of Parent-Child Relationship Patterns on Adolescent Conflicts among Families of Secondary School Students in Abuja and Nasarawa State, Nigeria

**AIM**
The study aimed to determine the effect of Parent–Child relationship patterns on Adolescent conflicts among families of secondary school students in federal capital territory and Nasarawa state of Nigeria.

**METHODS**
Descriptive method of research was used, obtained from the six area council of federal capital territory (Abuja) and the three educational zone of Nasarawa state. The population for the study comprised of 41,400 adolescents and 16,000 parents from 385 secondary schools from the study area. Proportionate sampling technique was used to obtain the sample size of 414 adolescents (students) and 165 parents giving a total number of 579. Two set of questionnaire was designed for the adolescent students and their parents respectively. Statistical treatment employed were the mean, standard deviation, t-test and the Pearson product moment correlation (PPMC) set at 0.05 alpha levels. All computations were done using SPSS software.

**RESULTS**
Findings among others were that all the four parenting patterns have significant impact on the adolescents, for example strict and rigid parents but fair in reason when taking decision helps more in the reduction of conflict. In addition the level of conflict of the boys was significantly higher than that of the girls.

**CONCLUSION**
The four parenting patterns have significant impact on adolescent conflicts.

Risk and Stratagem for Child Abuse among Middle Childhood Years

**AIM**
The Modern concern about child abuse is not the product of some epidemic increase in the nature of the problem but it is rather the result of a broad social movement and a historic moral transformation. It is global issue which is ruining hope & happiness of children and their families. The main aim of the study was to conduct exploratory study on child abuse effect on developmental pattern of middle childhood years.

**METHODS**
A sample of 35 respondents selected from socially protected homes (child protection welfare bureau Faisalabad (Government of Punjab, Pakistan)), through simple random sampling technique. The interview schedule was developed in the light of research objectives. Descriptive analysis such as mean frequencies and percentage were used for interpretation of the data.

Cluster Analysis on Developing Course of Self-Determined Motivation on Learning: Effects of Parental Behavioral and Psychological Control

**AIM**
Self-Determination Theory (SDT), however, casts doubts about the effectiveness of such parenting. Empirical works suggests that ‘autonomous-motivated students thrive in educational settings’ (Reeve, 2002), and motivationally facilitative environments support individual’s autonomy, providing choices and minimizing controls (Deci & Ryan, 1985). This study investigates the effects of parental control on the developing course of children’s self-determined motivation on learning. Barber (1996)’s categorization which differentiates behavioral control from psychological one corresponds most closely with SDT’s structural dimensions (Grolnick & Farkas, 2002), we explored the distinct effects of each type of control on developing motivation. Behavioral control was expected to positively affect the motivation in that it provides structures which allow the experience of competence, in contrast, psychological control was expected not to affect the motivation in that it threatens the autonomy (e.g. Steinberg et al., 1992). Participants were 2,014 children in Korea Children and Youth Panel Survey (KCYPS) who were in age of 10 in 2010. The study utilized self-determined motivation on learning reported in 2010, 2012, and 2014 to analyze the developing course. Perceived parental behavioral and psychological control were reported in 2010. We first conducted cluster analysis to generate clusters among developing courses of motivation. Multinominal logistic regression was then conducted to investigate the course-predicting power of both controls.

Four clusters of developing courses were identified high-maintaining (522), high-low decreasing (638), low-high increasing (657), and low-maintaining (197). Analysis of variance and post hoc tests verified the suggested groups. Result in regressions demonstrated that the psychological control predicts high-low decreasing compared to high-maintaining (B=0.205) and low-high increasing (B=0.207). Behavioral control predicted high-maintaining compared to low-maintaining (B=435***) and low-high increasing (B=315**). Especially interesting was that high behavioral control also predicted high-low decreasing compared to low-high increasing (B=327**), implying the growing negative effect of psychological control which offsets the positive influence of behavioral control along the timeline.

**RESULTS**
Result were consistent with our hypothesis psychological control exerts negative effects on children’s self-determined motivation on learning while behavioral control has opposite effects. In addition, their effects are longitudinal child-reported parental control in 10-year-old predicts the developing course of motivation in next 5 years. Implications for current parenting was discussed with regard to SDT.
How Mother’s Affection Could Improve Character of Children? A Study among Rural Families in Bogor, Indonesia

Mother’s affection could be predicted through its warmth dimension (Rohner, 1983). The study was conducted among children ages 4-19 years old, living in rural areas in Bogor, West Java Province Indonesia, involving 400 children and their families. Majority of families work as employee on agricultural activities or as a small vendor. Parental education were less than 7 years and 44.5 percent of families were classified as poor with income less than Rp271,978 per month per capita as poor families (National Statistic Bureau, 2013). Parental Acceptance-Rejection Questionnaires (Rohner, 1983) used as instrument to measure acceptance of mothers toward their children. A correlation test and Regression Analysis was applied to analyze variables under study. Result showed that score of parental acceptance classified as low with average index ranged from 55.95 up to 69.11, while the score tend to decrease as age of children get increase. The study found that boys tend to have lower character than girls, and as they got older, mothers’ affectional expression and practice to discipline and guide children become fewer. The study revealed that the more affection of mother and the less neglect of mother it was likely the better character of children. It was recommended to improve parenting knowledge and practice of mothers, especially for those having a teenage children to help improve their method of parenting through communication and verbal expression, direction and guidance. Challenge to be a good parents also identified in this study, especially in regulating and selecting proper activities and plays, which include limiting access to media and games (online or offline) which becomes more accessible to the rural teenagers since there were a list of internet and playstation common in their neighboring area. Meanwhile mobile phone ownership also make it easier for the children to get information, play (game) and entertainment.

Developing Home Economics Teaching with Developmental Collaboration

Homes and the society at large, including its trends and advances in education, provide new knowledge and make new demands with regard to learning and teaching. In Finland, the national curriculum that provides basis for teaching, also changes about every ten years. The changes of society and learning theoretical changes to the curriculum present a challenge to Home Economics (HE) teachers, as new ways of teaching and learning are required in daily teaching. In order to help teachers in developing their teaching, an in-service education course was organized for HE teachers. This in-service education was intended to help teachers to learn and create new knowledge for their HE teaching work.

The research focuses on the teacher team’s processes of collaborative knowledge-creation during the first session of the in-service education course. The theoretical grounds for the research is based on Vygotsky’s concept of the zone of proximal development. The research data were videotaped during the teachers’ group discussions at the in-service education session. The research method was a data driven, systematic qualitative analysis of the content of the discussion. The analysis focused on finding how new knowledge can be created and how new ideas are developed in a peer-to-peer teacher collaboration setting.

According to the research results, new knowledge was created, as defined in this research, through developmental collaboration. This process can be described as a theory-based further development of ideas with questioning and refining of ideas in symmetrical peer-to-peer collaboration. Nevertheless, the research results also indicate that peer-to-peer setting may be difficult, and therefore in-service education courses are needed to help the development of HE-teaching. Further development of in-service education for HE teachers is needed in order to support the development of HE-teaching.

Comparative Analysis of Current Home Economics Curriculums Worldwide: Focusing on Competencies and Peer Learning System among Teachers

In the 2000s, competency-based educational reforms were performed in many countries. In these reforms, problem solving, critical literacy and reflective thought are becoming increasingly important for students to acquire. Along with these perspectives, good practice of everyday lesson became more important and the peer-learning system among teachers to improve their lesson is more focused than ever. The purpose of this research is to perform a comparative analysis of current home economics curriculums worldwide, especially focusing on competencies and peer-learning systems that help teachers create better lessons.

The features of the curriculum were divided into the following four types: (1) Ensure that students acquire knowledge and skill about home and family; (2) Ensure that students learn about problem-solving literacy (the U.S., Japan, Korea, and the Philippines), (3) Ensure that students learn about food and textile focusing on the technological perspective, and contents on family, financial management, and other items are included in other related subjects (the U.K., Australia, and Hong Kong); and (4) the others (Canada, etc.).

1. In almost all countries, food and nutrition were important learning fields. The fields of individual, family, child development, and welfare are included in home economics in the U.S., Japan, Korea, and the Philippines; however, these fields have been shrinking or included in other subjects in the U.K., Australia, the Nordic countries, and some Asian countries. 2. Competencies to implement practical knowledge and skills in daily life were frequently required within home economics in all countries. 3. Decision-making and problem-solving literacy seemed to be more emphasized in the U.S. and Japan, while independence, citizenship, and living culture are more focused in the Nordic countries. 4. The peer-learning system among teachers, named “lesson study” is very common in Japan. This helps teachers formulate lesson plans by obtaining advice, being observed, and reflecting on lessons together with observers. The survey indicated that the peer-learning system was quite rare in other countries. However, several free writings demonstrate an interest in peer-learning, and positive comments willing to implement it in their own countries.

Conclusion

New educational reforms have an impact on home economics curriculums that clarify competencies to be nurtured, and evidence-based assessments are more focused upon than ever. Considering these trends, it is important that teachers create effective lessons in which students...
obtain these competencies. From this perspective, a peer-learning system to formulate better lessons has a greater possibility to empower teachers, and we need to implement it through an international network.

**IP_0659**  
**General Academic Ability Fostered by Home Economics Lessons Developed in ‘Lesson Study’: Evidence from Elementary, Junior High, and High School Reports**

<table>
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**AIM**

Home Economics is compulsory for all school levels in Japan. The subject encompasses a wide range of content about life as a whole. The content is divided into several categories in the Course of Study, and it is the task of teachers to plan lessons covering knowledge and skills in each category, and also to teach family life as a whole by making connections between the various categories. That is why lesson study is actively done and several national home economics teachers’ organizations hold annual conferences about ‘lesson study.’ The aim of this study is to clarify the characteristics of lesson study and the abilities fostered in the lessons in home economics by analyzing reports of lessons in elementary, junior high and senior high school levels.

*Lesson study refers to a professional development process that Japanese teachers engage in to systematically examine their practices with the goal of becoming more effective.

**METHOD**

- The brochures of three different annual home economics conferences from different national organizations were assembled, including an elementary school organization: 2014, a junior high school organization: 2013, and a high school organization: 2012, 2013, and 2014. The number of lessons analyzed included nine for elementary school, twelve for junior high school, and eleven for senior high school.
- Five abilities were determined as the object of analysis by referencing the key competencies identified by the OECD’s DeSeCo project and the ‘key abilities needed for the 21st century’ as defined by the National Institute for Educational Policy Research in Japan.
- The five abilities are 1) The ability to use skills, 2) The ability to use knowledge and information, 3) The ability to use critical thinking, decision making and problem solving, 4) The ability to communicate and cooperate, and 5) The ability to plan and practice for a better life.

**RESULTS**

The main results of analyzing the lessons are as follows:

- Lessons developed in ‘lesson study’ were in line with the annual research themes.
- The ability to use skills: The range of skills needed in elementary to junior and senior high school were fostered. Those include the traditional cultural skills which students are encouraged to practice in daily life.
- The ability to use knowledge and information: Students are encouraged to use a variety of sources of information in all school levels. The scope of knowledge is family for elementary students, community for junior high school students, and sustainable society for high school students.
- The ability to use critical thinking, decision making and problem solving: These abilities were barely found in elementary school level, as expected. However, the ability was fostered in many lessons in junior and senior high school levels.
- The ability to communicate and cooperate: This was emphasized in all school levels. In addition, group activities were often used as teaching methods in order to experience cooperation with others.
- The ability to plan and practice for a better life: This was also emphasized in all school levels. And students were encouraged to practice learned knowledge and skills in daily life.
This paper focuses on how taste is used in contemporary food education. Furthermore, the focus is on how taste is used in a specific food education program in Danish schools. By critically discussing a sample of academic studies that design and evaluate taste education programs for children, the paper argues that most of the research literature on taste education has a very reductive understanding of taste and is essentially totalizing and deterministic concerning children’s taste. Taste is seen as a barrier for ‘correct’ eating habits and not as an important sense, a source to pleasure or happiness or a central way of sensually understanding and approaching the world. In other words, taste literacy in general becomes a tool to push children towards ‘hegemonic nutrition’. In addition, the paper presents results of a new quantitative study that investigates school students’ work with taste in relation to their own expected learning, viewed in the light of three didactic elements: motivation, student participation and innovation in school. The method is a survey based on questionnaire among students (N= 769) who have participated in a cooking competition that forms part of the subject ‘Food Knowledge’ in the national Danish school curriculum. The connection between taste and learning is a relatively unexplored field, and the analysis indicates that students’ experience of working with taste and learning that is equally positive—or even more so—as that of known didactic elements like student participation and innovation. The paper concludes that food education building on ‘hegemonic nutrition’ and traditional didactic elements do not necessarily condition the best learning outcome; food education that balances between traditional didactic elements and incorporate taste as a didactic approach enables students to achieve new competencies of cooking and food knowledge.

The aim of this presentation is to showcase the implementation of a food literacy programme for Aboriginal school aged children in a remote Aboriginal community setting in Australia.

Food literacy means having the knowledge, skills and the capacity to source, prepare and cook food in a sustainable manner to promote a healthy and balanced lifestyle. Food literacy is also about individuals understanding the role that food plays in communities and cultures. (Home Economics Victoria, 2013).

Aboriginal people and communities are frequently associated with obesity, diabetes, poor food choices and food poverty to name a few. Aboriginal youth are particularly vulnerable in this situation with their limited food experiences, particularly in a community setting. Today more than ever Aboriginal communities need to change behaviors related to health and nutrition.

The food literacy programme to be delivered allows learners to draw on and enhance their rich and diverse knowledge of traditional Aboriginal foods and flavors, and develop the food literacies required to knowledgeably, skillfully and sustainably source, prepare and cook food which encourages a healthy and balanced lifestyle.
The education of women to produce food for families is the focus of this research. Especially the education of simple food production in order to use it in rural development is studied here. Multicultural women have come to Finland for different reasons. Many of these ladies have not had previous experience of food production in new Finnish culture. They have come to Finland for different reasons e.g. studies, love, work, as refugees, as family members. There is a new group of foreign women who have come to Finland seeking asylum protection. They all of them want to be happy in the new culture in Finland. Most of them want to get back to their home starting country in peace. They have come to Finland for different reasons e.g. studies, love, as refugees, as family members. There is a new group of foreign women who have come to Finland seeking asylum protection. All of them want to be happy in the new culture in Finland. Most of them want to get back to their home starting country in peace. They are missing the culture where they are familiar but eager to learn this peaceful different Finland.

The first step is to teach them how to adapt new culture of food. In this regard was shown the food stuffs available in shops, and how to grow a crop from seed to flowering stage or to produce potatoes, the most commonly eaten vegetable in Finland. The women are from societies where they take care of feeding families as it is difficult to buy foodstuffs from the shop. The study is about educating the newcomers to produce themselves foodstuffs in the vegetable garden. Forward is the idea to let women teach their learned systems to their families in their own original countries. The education works among the immigrants themselves. Usually the education works when the workers / teachers are sent to underdeveloped countries. This study is about the opportunity to teach multicultural women here in Espoo city for rural development. The aim is to educate women to profit the Finnish society.

The side line result is to teach them the more developed European issues in small scale agriculture, at least food production, in order to be independent for achieving food security. The traditional advisory work in home economics and consumer economics made by the women’s organizations is very much in demanding issue in Espoo city Finland.

The results indicate that having cooking skills or learning how to cook may be important to health and wellbeing as it increases confidence and independence in participants. Furthermore, engaging in cooking activities improves social skills and nutritional status through a more varied dietary intake.

CONCLUSION

The results from present studies are in progress.
**Couple’s Relationship and the Enneagram: An Optimistic Step towards Happiness**

**AIM**
This study investigated whether the Enneagram personality system improves the quality of couples’ relationship.

**METHODS**
A mixed method was employed, wherein couples married or living together for less than 5 years completed a pre and post questionnaire and participated in individual semi-structured interviews. The participating six couples received three weekly educational sessions on the Enneagram personality system. The quality of the relationship was measured with the Locke Wallace marital adjustment test.

**RESULTS**
Although the results show that the knowledge of the Enneagram personality system does not have a significant effect on the quality of the relationship, the semi-structured interviews show that it contributed to positives changes in the couples’ relationship.

**CONCLUSION**
This research conveys an optimistic step towards hope and happiness. In fact, recommendations include using a larger sample, increasing the number of educational sessions or their format, creating partnerships with family oriented organisations to facilitate recruitment.

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**Husbands’ Contribution to Domestic Labor: Are Wives Satisfied?**

**AIM**
Do husbands with working wives share domestic labor more equally than husbands with housewives? Is the husband’s contribution sufficient enough to satisfy his wife? These questions have long inspired many researchers to find ways to more accurately estimate husband’s domestic contributions and narrow the emotional gap following the different threshold of satisfaction within couples, but not without some limits. This study attempted to figure out an answer to the above-mentioned subject by using time diaries of Korean married couples with a preschoo as their first born child and relying on the typology of husbands’ sharing of housework and childcare, which allowed me to overcome some limitations of prior research. I analyzed a total of 1,716 diaries of 856 married couples from 2014 Korea Time Use Survey with descriptive statistics, cluster analysis, and multinomial logit. Result showed that husbands in dual-earner households did share domestic labor more equally than husbands in single-earner households, but there were different types of husband’s contribution depending on time they spent in housework and childcare. While more than half of husbands with employed wives shared more than or less than ten percent of domestic labor, the rest were divided into one group of husbands who shared both housework and childcare more heavily and evenly, and another group who were mainly involved in childcare duties. It is interesting that husbands who made the least contributions to domestic labor were not the ones with the lowest level of satisfaction with their sharing of household labor, whereas their wives were deeply dissatisfied, leading to a huge emotional gap within couples. Identifying factors associated with the three different types allowed me to find a point of intervention to narrow the emotional gap that is likely to harm the marital relationship if left unattended.

**METHODS**
Aim of this research was to detect, present and evaluate offerings, pricing and infrastructural atmosphere of catering facilities in Swiss hospitals.

**RESULTS**
Food Services in hospitals are an important source of relaxation for employees. Catering facilities not only need to provide consumers with a suitable range of food and beverages at reasonable prices but also to offer a comfortable atmosphere. So far there has not been any study looking at these factors in Swiss hospitals.

**CONCLUSION**
Catering facilities are acknowledged to be an important image factor for hospitals. The findings correspond with literature stating key points for successful catering services. This adds to the body of knowledge in the field of Home Economics by providing a sound argumentation basis to set up and maintain competitive catering offerings in Swiss hospitals.
**IP_1091**

**Exploring Hospitality Competencies in a Hospital Meal Context and Introducing Hospitality Competencies in Bachelor’s Degree Program in Nutrition and Health**

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**AIM**
To explore hospitality competencies among healthcare professionals in a hospital meal context and to consider how hospitality competencies can be strengthened in Bachelor’s Degree programs in Nutrition and Health.

**METHODS**
The conceptual framework is based on philosopher Demid’s hospitality approach in combination with an ontological position which acknowledges public meals to be socio-emotionally constructed. The empirical data is based upon a six-month ethnographic study of hospital meals served in the departments of gynaecology and cardiology at a Danish hospital in 2012. The empirical data is based on observations, visual methods and 22 semi-structured interviews with healthcare professionals and patients. The learning strategy is based upon Dewey’s concept of learning by doing.

**FINDINGS**
Hospitality practices were based upon non-articulated culturally learned practices and revealed a need for strengthened hospitality competencies among professionals. Hospitality competencies include ability to co-create meal experiences in shifting atmospheres and evocative events. This includes ability to create opportunities for shifting host-guest roles and to perform culturally learned aesthetic form symbols in embodied practices. It also comprises a focus on open-ended planning processes that allow hospitality to be unpredictable.

**CONCLUSION**
Based upon findings from a hospital context, hospitality competencies are sought strengthened in the educational context of Bachelor’s Degree program in Nutrition and Health. In the teaching module of food culture 17 students were asked to create self-selected hospitality meal events which had to be held outside the university setting. Students were asked to reflect on their own hospitality performances as hosts and guests. This provided a platform for discussions on hospitality competencies as culturally learned and unpredictable.

**IP_1196**

**Survey on Eating and Cooking Habits of University Students Living in Student Residence : Implications for Food Literacy and Health Education**

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**AIM**
This study investigated boarding university students’ perceptions of food choices, eating habits, food preparation experiences, and their tendency to consume ready-made or self-prepare meals with a view towards helping young adults achieve better quality diet and lifestyle.

**METHOD**
An online questionnaire survey was conducted through the Moodle platform of the Hong Kong Institute of Education (HKIEd).

**RESULT**
Findings revealed that more than half of the respondents agreed that taste and food hygiene are their prime concern in food purchase (60%) and they will always look upon the price when they purchase food (53%) but not so many of them (22%) consider nutritional needs as important. Most of them have some experiences in using the residence hall kitchen facilities to prepare meals (44% <5 times a week and 38 % 6-12 times a week), and are confident in making up a simple meal. About two third of them (67%) believed that they are capable in modifying recipes to provide varieties in meals. The major reasons for those who seldom cook in the residence hall include inconvenient procurement of ingredients, lack of time, feeling troublesome, unsatisfactory food storage and limited facilities provided. Respondents also consume fast food and restaurants meals outside the campus (69%) and takeaway meals in the residence halls (54%) about 5 times a week. Up to 3 quarter of the respondents (75%) thought that their current eating habit in the dormitory has posed adverse effects on their health. The sample (68%) generally believes food literacy courses provide in HKIEd would help them live a healthier lifestyle.

**CONCLUSION**
Findings inform significance of food literacy education in the HKIEd general education curriculum to help improve diet quality of boarding students, and provide evidence base reference for policy implementation regarding facilities and environment in residence halls that support healthy eating lifestyle.

**IP_1126**

**Nutrition Knowledge and Food Safety Practices of Food Handlers for National School Nutrition Programme in Esikhaleni and Kwa-Dlandezwa Schools**

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The aim of the study was to investigate the nutrition knowledge and food safety practices of food handlers participating in National School Nutrition Programme. Nutrition knowledge is knowledge of nutrients and foods. An adequate knowledge is needed to arrange and prepare a balanced meal which is essential to maintain the body by providing growth and physical wellbeing. Deficit in the knowledge of nutrition may affect dietary intervention resulting in unbalanced meal and when continued for an extended time frame, it may affect the body physiological processes leading to malnutrition.

Non experimental quantitative and qualitative approach was used in an interview schedule across twenty-eight schools in Esikhaleni and Kwa-Dlandezwa schools. Purposive sampling method of research survey was used involving sample size of 89 respondents (food handlers). Questionnaires were used as instrument for data collection. The questionnaire has three sections namely socio-demographic, nutrition knowledge and observational questions. Data was analysed using Microsoft Excel and Statistic Package for Social Sciences (SPSS).

Majority of respondents said they have worked for school feeding programme over the years and it seem not to be a prerequisite for sound knowledge. Few of the food handlers have been involved in food-related training and majority have not been trained. Majority of the food handlers lack adequate nutritional knowledge, while food safety practices are not adequate. Based on observations, personal hygiene is practiced by the food handlers, but there is lack of cleanliness in preparation areas. Risky practices were shown during hand washing, storage of food, cleaning of utensils and wearing of appropriate uniforms.

In conclusion, knowledge needs to be improved, as majority of the respondent’s demonstrated moderate to poor knowledge of the various question asked during the course of the study. Nutrition education or food-related training program may be of help for improvement.
Information about food and culture in countries around the world can inspire and lead to better understanding of people and places throughout our world. The purpose of this research was to investigate relationships among various aspects of culture in countries around the world and to identify some foods and relate them to the culture in their country. Methods used were: 1. correlation analysis to determine the relationship of an important measure of the economy (per capita gross domestic product) to health and wellbeing of people as indicated by life expectancy of males and of females and by infant mortality rate; and 2. to identify, depict, and describe a key dish from each of various countries around the globe and relate the dish to the culture of its country. Key dishes were a national dish of the country if one has been identified, possible national dish, native dish, specialty, and famous dish. Results for the 196 countries in the world were shown in figures depicting the relationships between the economy and life expectancy and between the economy and infant mortality rate. Some key foods, including 25-30 national dishes, were identified, depicted, and described, and the relationship of each dish to its country's culture was described. In conclusion, relationships between the economy and the health and wellbeing of people in countries around the world were reported and some important foods of some of the countries were presented and discussed in relation to the culture of their country. The information can inspire us and increase understanding of people and places throughout our world.

Since 2007 Fiskesprell have offered activities to inspire, motivate and stimulate increased seafood consumption among children and adolescents. Fiskesprell is a collaboration between the Ministry of Health, Fisheries and Coastal Affairs and the Norwegian Seafood Council. Fiskesprell is a part of the preventive public health work, and aim to help to reduce social inequalities in diet. Public health in Norway is good, but there are big differences in how long each individual can expect to live in good health. Therefore, it is important to facilitate equal opportunities for all children and youth.

Most Norwegian children attend kindergartens and SFO (After-school service), and have many meals during growing up here. Therefore Fiskesprell wants to provide employees who work in kindergartens and SFO knowledge and skills that enable them to facilitate a good food supply, where seafood has its natural place.

Oslo and Akershus University College of Applied Sciences, in cooperation with Akershus County Council, have offered free day courses and materials for kindergarten and after-school staff. The courses provide an introduction to topics related to children's diet and health, with special focus on seafood. Participants also receive a practical introduction to cooking seafood on the child's terms.

My presentation will deal with some of the participants’ experiences with the use of fish in their kindergartens and SFO after their attendance at the course. What promotes and what inhibits to implement use of fish in the kindergartens after they have attended the course? Do children eat more fish afterwards? Have food in kindergarten become healthier?
using descriptive statistics. The research will be conducted in autumn term 2015 by a group of four students studying facility management with focus on hospitality services in institutional households.

RESULTS

An evidence based word cloud displaying characteristics attributed to the term “Home Economics” by professionals of the IFHE member countries. It is anticipated that there are differences in terms of geographical origin of these attributes.

CONCLUSION

The word cloud provides a current overview of which attributes the term “Home Economics” is perceived. This adds to the body of knowledge in the field of Home Economics by stating its variety and importance for society.

IP_0270  Role Performance of TLE Supervisors: Its Implications to Supervisory Practices in University Setting

First Author (Main Author)  Mark Limon (University of the Philippines)  Philippines

Co-Author(s)

Presenting Author  Mark Limon (University of the Philippines)  Philippines

AIM

The main purpose of this study is to better understand the practice of instructional supervision by examining supervisors’ perspectives about how they conceptualized and conceptualized instructional supervision.

METHODS

A descriptive survey and research development were the method used. Data gathered from a questionnaire, interviews, and policy documents on the role of supervision. Items for the questionnaires and interviews were guided by aspects of their roles as supervisors from the literature and included both traditional practices such as monitoring and evaluating teachers’ work as well as more contemporary practices such as coaching and mentoring. The questionnaire included 34 Likert scale items. For each Likert scale item, participants were asked to answer how often they experienced a particular practice as well as the extent to which they agreed that it should be practised.

RESULTS

There is perfect positive correlation between mean responses of supervisors of colleges and laboratory schools. This study’s findings also highlight a number of problems which are likely to negatively affect the conduct of instructional supervision in the university, thus, the researcher ventured him to develop a supervisory manual to fill in the gaps.

In the development of the supervisory manual, the researcher followed the research and development (R and D) cycle called research-based development technology.

The usefulness of the supervisory manual was then assessed by the respondents from the MMSU. The respondents found the material to be useful as revealed by their testimonials. Thus, it was concluded that material is suitable in preparing, guiding TLE future supervisors.

CONCLUSION

It was recommended that the school leaders use instructional supervision to improve teaching and learning by providing practicing teachers with on-going support and guidance after their initial teacher training programs, support supervision in their endeavors like graduate studies. The validated material be used to supplement the existing material being utilized by the supervisor to help them develop the required competencies and further master their roles and skills required of a supervisor.

IP_1041  Procedural Hedonics: An Alternative Approach to the Economics of Happiness Exemplified with Japan’s Life Satisfaction Paradox

First Author (Main Author)  Grzegorz Mardyla (Kindai University)  Japan

Co-Author(s)

Presenting Author  Grzegorz Mardyla (Kindai University)  Japan

I propose a new exploratory approach for analyzing individual happiness, which unifies the hedonic and eudaimonic views of subjective well-being within a framework based on one of the most orthodox tools of modern economic analysis – intertemporal dynamic optimization.

Happiness is thought to be related to the complexity of intertemporal problems a decision maker faces and to the extent to which the decision maker has been successful at solving them, i.e. to the formulations and arguments of one’s objective functions and to the measure of one’s performance at solving the corresponding optimization problems relative to the optima. Preliminary empirical tests applied to OECD’s life satisfaction data for Japan point to a tentative combination of this approach. The theory has implications for policies related to household consumption behavior and financial literacy education.

IP_1307  Life History of Cancer Patients Assisted by the Association of Friends of the Integrated Regional Centre of Oncology (CRIO) in Fortaleza, Ceará, Brazil

First Author (Main Author)  Sammya Sand Coelho Dos Santos (Universidade Federal do Ceara)  Brazil

Co-Author(s)

Presenting Author  Margarida Demarchi (Brazilian Association of Home Economics)  Brazil

The Association of Friends of CRIO (ASSOCRIO) is a non-profit organization, created by employees and patients of CRIO, and their friends. CRIO is an institution specialized in cancer care, which offers chemotherapy, radiotherapy, hormone therapy, and specialized clinical consultation. CRIO has an interdisciplinary team of professionals who focus mainly on quality and humanization of treatment. CRIO’s mission is to assist and support individuals with cancer and their families, prioritize the most needy, and seeking their bio-psycho-social wellbeing. The ASSOCRIO facilitates special projects aimed to build human capacity through social activities, assistance and social reintegration. Most patients of CRIO are from the public health system (Sistema Unico do Saude) – SUS, and present socioeconomic difficulties, in addition to coping with the disease. They live in precarious conditions because they are constantly out of the labor market, have high levels of misinformation and limited access to health services. Contact with ASSOCRIO led to the qualitative research about the life stories of men and women who receive cancer treatment and benefit from this service. The age range of patients is from 45 to 87 years old. Ten women and ten men from municipalities in the State of Ceará, Brazil, were interviewed. They had a high level of illiteracy due to the need to work in agriculture since childhood to provide for the family livelihood; they lacked resources to fund treatments as well as access to information about the disease. This precarious condition of life makes the disease even more painful. The study concludes that this kind of philanthropic work is essential for improving the quality of life of the people accessing the service.
A Comparison of Three Pilling Measurement Methods for Knitted and Woven Fabrics

**AIM**

The purpose of the study was to compare knitted and woven washed garments by three methods of pill measurement.

**METHODS**

Three methods were used for the reported study. First, the researchers made visual comparison of the garment against the ASTM images for 3512-02 (Subjective). The second method used comparison of scanned images of the pilled specimen (600 dpi, dots per inch) against the ASTM images for 3512-02 (Semi-Objective). The third method compared the scanned images against the “Automatic Pill Classifier” developed by Ponnusamy (2010) and was treated as objective. Overall, 250 woven and 260 knitted samples were used from knitted and woven garments that had been washed at least five times. One way Analysis of Variance and t-tests were used to analyze the data. Level of significance was selected at .05 level.

**RESULTS**

Findings revealed that differences were significant for three measurement methods for both knitted (F2,775 = 104.882, p<.001) and woven (F2, 744 = 392.892, p<.000) garments. Post hoc analysis indicated that differences were significant between the actual garment and the ASTM images, the scanned images and the ASTM images, and the scanned images and the “Automatic Pill Classifier”. Ratings were highest for the scanned images followed by the actual garment and the “Automatic Pill Classifier”.

**CONCLUSION**

Research showed that methods impact the outcome of an experiment. Both consistencies and inconsistencies were found with the previous research. The study attested that the differences between subjective and objective methods cannot be ignored. Within fabric construction, differences (types of weaves and knits) and fabric count could also be examined. Scanning of images for varying dpi could also be studied. Future research could discuss number and size of pills. Study has methodological implications for extension of this work. Overall, the reported study will contribute positively toward quality control knowledge that can yield useful information for manufacturers of textiles and apparel, and consumers as well.
**Comparing Breaking/Slippage Strength and Seam Efficiency of Three Lining Fabrics**

**First Author (Main Author)**  
Usha Chowdhary (Central Michigan University)  
USA

**Co-Author(s)**  
Mominul Hoque (Graduate Student)

**Presenting Author**  
Usha Chowdhary (Central Michigan University)  
USA

**AIM**

Quality is of utmost importance for every business to get increased and repeated sales and consumer satisfaction. Durability and aesthetics are valued by consumers. Therefore, breaking/slippage strength and seam efficiency of three lining fabrics were determined using ASTM standards in pre and post laundered stages.

**METHODS**

Acetate, nylon and nylon/polyester were selected as lining materials because they have been historically used for lining the garments in ready-to-wear. Fourteen hypotheses were developed to compare three lining materials for breaking strength/slippage and seam efficiency using ASTM D-1683 and ASTM D-5034 tests before and after laundering. All specimens were conditioned in the environmental chamber (68-72°F temperature and 63-67% relative humidity) prior to testing. ANOVA and t-tests were used to test the hypotheses.

**RESULTS**

Data analysis revealed that six of the fourteen hypotheses were rejected and eight were accepted. Acetate showed significant differences between washed and unwashed forms. However, differences were not significant for the other two lining fabrics compared in the study. Seam efficiency was highest in warp for nylon/polyester blend in warp and acetate in weft direction.

**CONCLUSION**

Comparison of three lining materials revealed that the nylon/polyester blend was the strongest of three lining fabrics and acetate was the weakest. So, was true for the seam efficiency in the warp direction. However, acetate had the highest seam efficiency in the weft direction. Breaking strength was highest for the blend followed by polyester and acetate for both directions. Findings have implications for enhancing quality of lined garments using results from the reported study. The findings also provide support for shift from acetate to polyester by the apparel industry. The study may be extended to include other fiber contents, structural and performance attributes, and seam slippage.

**Workshop**

**Room 205**

**Sustainable Development Goals**

**Chair**  
Carol Warren (Home Economics Victoria)  
Australia

**Presenter(s)**  
Geraldene Hodelin (IFHE)  
Jamaica
Sidiga Washi (Ahfad University for Women)  
Sudan
Anne v. Laufenberg-Beermann (IFHE)  
Germany
Elisabeth Leicht-Eckardt (IFHE EC)  
Germany
Re Imoto (Kagawa Nutrition University)  
Japan

**WS_1208**

**Sustainable Development Goals**

**First Author (Main Author)**  
Carol Warren (Home Economics Victoria)  
Australia

**Presenting Author**  
Carol Warren (Home Economics Victoria)  
Australia

The United Nations Post-2015 Development Agenda addresses the official agenda for Sustainable Development outlining 17 Sustainable Development Goals and 169 targets, which replace the Millennium Development Goals. Adopted in September 2015 by the 193 countries of the UN General Assembly, these goals define the 2030 Development Agenda entitled Transforming our world: the 2030 Agenda for Sustainable Development.

As an International Non-Governmental Organisation having consultative status with the United Nations and the Council of Europe, IFHE supports initiatives of the UN as they connect to the Home Economics profession. This roundtable session will identify key SDGs and targets of relevance to Home Economics, discuss their significance to the profession and identify actions for IFHE to support the goals. IFHE President Carol Warren, Chair IFHE UN Council Committee will chair the session with expert moderators to lead table discussions. Ideas generated will assist the IFHE UN committee, IFHE Programme Committees and IFHE members in countries around the world to identify actions to contribute to the 2030 Agenda for Sustainable Development.

**Room 206**

**Art from the Heart**

**Chair**  
Anita Ferron (IFHE)  
USA

**WS_0206**

**Art from the Heart**

**First Author (Main Author)**  
Anita Ferron (IFHE)  
USA

**Presenting Author**  
Anita Ferron (IFHE)  
USA

**AIM**

In the United States, teach at Daniel Hand High School in Madison, Connecticut and am advisor for FCCLA (Family, Career, and Community Leaders of America). Our club focuses on service projects to help our community. Nine years ago, Tina Gantry, a volunteer at Smilow Cancer Center, asked if we would like to become involved with Circle of Care, an organization founded in Connecticut by three mothers who had children diagnosed with cancer. Circle of Care gives support to children with cancer and their families (informational, emotional, financial, practical).
We work with an organization within Circle of Care called “Art From the Heart.” “Art From the Heart” is a community service project where we provide a “dream bedroom makeover” for a child with cancer. Working with a local Oncologist, we select a child from a nearby community, through a random drawing. This is where we become involved.

METHODS
We work in conjunction with Joanne Noonan, the Family Consumer Science teacher in the neighboring town, Clinton. Each room is completed on a budget. Through fundraising and donations, the students solicit involvement from the whole community. Students are involved in planning, designing, purchasing, and creating. Then all volunteers come together to renovate the room on one weekend. We have redesigned bedrooms for nine children from nine different communities.

RESULTS
This presentation will show how two Home Economists in neighboring towns have facilitated student involvement in bringing hope and happiness to a child and their family in a time of crisis. Students, teachers, parents, and local businesses come together to support a family and a child in need.

CONCLUSION
This project has helped build communication and friendship between two high schools. Students have shown responsible citizenship by helping someone in need in a surrounding community. The joy brought to the family is overwhelming.

### Concurrent Session

**Room 101**

**Child Development and Outcomes**

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<th>Chair</th>
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<td>Ji Young Ha (Woosong University)</td>
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**IF_0188**

**Developmental Changes in Sleep Schedule: Influences of Mother’s Time Use**

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<th>First Author</th>
<th>Yuka Sakamoto (Naruto University of Education)</th>
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<td>Yuka Sakamoto (Naruto University of Education)</td>
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**ABSTRACT**

In 2010, it has been found that around 1/3 of Japanese preschool children go to bed after 10 p.m. Some of the empirical evidences support the negative effect of delayed sleep schedule emotional or academic development. This study shows developmental changes of Japanese children in sleep schedules from 0 to 15 years of age, focusing on the influences of their mothers’ time use.

**AIM**

In 2010, it has been found that around 1/3 of Japanese preschool children go to bed after 10 p.m. Some of the empirical evidences support the negative effect of delayed sleep schedule emotional or academic development. This study shows developmental changes of Japanese children in sleep schedules from 0 to 15 years of age, focusing on the influences of their mothers’ time use.

**METHODS**

Data used for this study were derived from a web questionnaire survey conducted in September 2013. The sample is consisted of women having husband and children (under 15 years old), who reside in the Tokyo metropolitan area. In order to correct the potential bias of the registered monitors, we adopted stratified random sampling based on job status and the age of the smallest child. The valid sample size excluding quite short time response and/or inappropriate answers was 502.

**RESULTS**

The averages of going to bed time during 0-9 years old are between 9:00 and 9:30 p.m. and shifted later from 10 years old. Children’s sleep schedules of employed mothers significantly later than non-employed mothers during ages from 0 to 12. However, sleep schedules had not fundamental change of Japanese full-time employees work schedules so as to retrieve children’s sound life.

**CONCLUSION**

To prevent delayed sleep, it is important that mothers can get home earlier and fathers do more child care. Receiving support from grandparent has double-edged effects; support from non-resident parents are more likely associated with delayed sleep. This study speaks to the need for a fundamental change of Japanese full-time employees work schedules so as to retrieve children’s sound life.

**IP_0851**

**A 2-Year Interval Longitudinal Analysis of the Effect of Adolescents’ Physical Health on Peer Relationships in Korean Adolescents**

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<th>First Author (Main Author)</th>
<th>Boram Lee (Seoul National University)</th>
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<td>Hye-jun Park (Seoul National University)</td>
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<tr>
<td>Presenting Author</td>
<td>Boram Lee (Seoul National University)</td>
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**ABSTRACT**

The number of adolescents who have chronic diseases like obesity, diabetes, asthma, rhinitis, atopic dermatitis have rapidly increased in Korea. Individuals with chronic diseases should adapt to the changes in lifestyle since such chronic diseases have an unpredictable progression and ongoing medical management(Shin & Chi, 2012). Especially adolescents with chronic illness, because of constraints on the activities due to illness, may have difficulties in daily interactions and school adjustment. However, their school life is very important not only academic achievement but also making friendships. Success in forming and maintaining peer relationships during adolescence is positively implicated in social and psychological adjustment and achievement(Stanton, Revenson, 2011).

According to previous researches, adolescents having chronic diseases could have emotional-behavioral problems and troubles in learning. These problems may in turn affect on social activities. However, there are many chronically ill adolescents still remain productive and happy despite the significant stressors of diseases. Then what are the protective variables making good peer relationships to adolescents with chronic diseases? One protective variable we can imagine is perception about their health states. If they understand their illness and think about their health states positively, they could control the disease better (Lee, Hamiwa, Sherman, & Willett, 2008). Other protective variable is self-esteem. High self-esteem helps them adjust to changing lifestyles and cope with the difficult course of treatment(Shenyamz, Leventhal, & Leventhal, 2004). So we made hypothesis model that predicts the relationships between adolescents’ physical health and peer relationships considering mediation effect of self-rated health states and self-esteem. Also using longitudinal panel data, we would like to check the phenomenon could be lasted over time.

We used the samples of first-year middle school students’ first and third wave data from the Korean Children-Youth Panel Survey. Using maximum likelihood estimation with Amos18, structural equation model was tested. The sample includes 2,351 adolescents (boy 50%, girl 50%). Among them 48.1% have chronic diseases, rhinitis 62.89%, atopic dermatitis 29.88%, obesity 25.64%, asthma 5.53%, heart disease 1.24%, diabetes, 0.27%, and others 8.13%. Specifically, 32.53% of adolescents with a chronic disease have more than one disease. We classified into three groups according to presence and extent of chronic diseases; ‘no diseases’ 51.9%, ‘having diseases, but never disturbed’ 12.1%, ‘having chronic diseases and having difficulties’ 36.9%.

The hypothesized model had a good fit to the data: 21, N=2251, chi-square=89.75, p=.00, CFI=.99, TLI=.99, RMSEA=.037 (90% CI .030-.045). The results of structural equation models confirm that adolescents’ physical health states have effect on peer relationships. If adolescent have chronic diseases and they have more difficulties in daily life, their peer relationship would be seriously affected. However, we found that self-rated health states and self-esteem have mediating effect. Moreover, we found this phenomenon could be lasted over time using 2-year interval of longitudinal data. In short, even if the adolescents have a chronic disease, they could maintain positive peer relationships when they perceived their physical health state better and their self-esteem higher.

**RESULTS**

This presentation will show how two Home Economists in neighboring towns have facilitated student involvement in bringing hope and happiness to a child and their family in a time of crisis. Students, teachers, parents, and local businesses come together to support a family and a child in need.

**CONCLUSION**

To prevent delayed sleep, it is important that mothers can get home earlier and fathers do more child care. Receiving support from grandparent has double-edged effects; support from non-resident parents are more likely associated with delayed sleep. This study speaks to the need for a fundamental change of Japanese full-time employees work schedules so as to retrieve children’s sound life.

**IP_0851**

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Adolescents’ Experience of Daily Mother’s and Father’s Support and Daily Happiness: The Mediating Role of Daily Self-Evaluation in the Context of High and Low Parental Warmth

A warm and supportive parenting has consistently been found to be associated with adolescents’ happiness. Such positive environment is not a default setting but the result of conscious and continuous daily effort. However, to date, this daily processes have not been explored extensively. By using data from a panel study on daily life, this study analyzed the impact of parental warmth and daily self-evaluation on adolescents' happiness. The analyses revealed that a higher level of parental warmth was associated with a higher level of daily self-evaluation, and that daily self-evaluation had a positive influence on adolescents’ happiness.

Co-Author(s)
Grace H. Chung (Seoul National University)

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Yuen Mi Cheon (Seoul National University)

Girl’s Clothing: An Eye into Early Eroticization

Children’s clothing has changed over time, even before the construction of childhood. Clothing was already used as an element of control and discipline for children. With the evolution and adaptation of human needs, clothing has changed its presentation and expanded its functions, to more than just covering the body. The market has added value to clothing products, incorporating features to attract the attention of children and parents, and those responsible for purchasing within the family. This study was conducted with parents of girls in the age group of 3 to 10 years old, to investigate their decisions when purchasing clothes for their daughters, taking into consideration the protection of the childhood experience. The analyses revealed that a higher level of parental warmth was associated with a higher level of self-evaluation, and that daily self-evaluation had a positive influence on adolescents’ happiness.

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Generation 50+ – Doing Aging – Active Aging. Life Quality and Life Designs of Generation 50+ in the Federal Republic of Germany (FRG)

A warm and supportive parenting has consistently been found to be associated with adolescents’ happiness. Such positive environment is not a default setting but the result of conscious and continuous daily effort. However, to date, this daily processes have not been explored extensively. By using data from a panel study on daily life, this study analyzed the impact of parental warmth and daily self-evaluation on adolescents' happiness. The analyses revealed that a higher level of parental warmth was associated with a higher level of daily self-evaluation, and that daily self-evaluation had a positive influence on adolescents’ happiness.

Co-Author(s)
Jürgen Just (Kooperationsrat der Damenberufe)

Presenting Author
Hiltsaud Just (German Association of Sociology Section Gender Research/Home Economics)

Home is What You Make It

This research explored a radio series, “Home is What You Make It (HWYM)” that ran on the National Broadcasting Company (NBC) during and after World War II. Beginning in 1944, HWYM was a collaboration among the American Home Economics Association, the General Federation of Women’s Clubs, and the National Congress of Parents and Teachers. The series was produced by Jane Tiffany Wagner, a pioneer female broadcast director, and was released on radio, television, and in a book format.

First Author (Main Author)
Catherine Amoroso Leslie (Kent State University)

Co-Author(s)

Presenting Author
Catherine Amoroso Leslie (Kent State University)
reports produced between 2008 and 2014 were taken into account in the qualitative, subject-oriented secondary evaluation. The secondary evaluation of representative and qualitative studies on Generation 50+ focuses on their self-reports and evaluation of their life quality, i.e. social situation, life goals and lifestyles, but also on their being able to realise their life goals/age concepts in our welfare state and liberal democracy.

Secondary analyses were performed based on subject-oriented action and resource theories: - of Home Economics by Rosemarie von Schwerin (Giessen School) - the sociology and philosophy of Jürgen Habermas “Communicative Acting” (Frankfurt School) - French sociology and social psychology of Pierre Bourdieu “Social Field and Precariat Analysis” (Collège de France, Paris)

RESULTS

According to the Federal Statistics Office (2014) the percentage of people above 50 is 40.9 % of the FRG’s population (Results of the May 9th, 2011 census). Demographic Facts: In all studies about 50+ a life-long self-determined, high-quality life in their private households were aspired to by the elderly. Demands must be made to home economists wishing to act with ethical responsibility in home economics to further self-determination, the own sense and self-efficacy of Generation 50+, actively assisting in private households and advocating them in society and social politics.

CONCLUSION

This requires well-founded knowledge about the life context of the Generation 50+ and communicative and social competence to avoid “power problems” inherent in the prevailing power, the “Help-Authority logic”. Socio-psychological and communicative competences are indispensable in research and teaching within universities and in further professional Home Economics qualifications.

**IP_1087**

**Home Economics Science Students Envisioning the Future**

**First Author (Main Author)**

Hannah Benyaba Edjah (University of Cape Cost)

Ghana

**Co-Author(s)**

Hille Janhonen-Abruquah (University of Helsinki)

Finnish

**Presenting Author**

Hannah Benyaba Edjah (University of Cape Cost)

Ghana

This paper seeks to throw light on Ghanaian and Finnish Home Economics Science students’ thinking on the lives and homes of individuals and families in the future beyond 2020 in order to guide students as they navigate through their professional lives as home economists. The data was collected through a modification of empathy-based story method. Both researchers first gave introductory lectures to first year home economics students about home economics as a field of study and then a short You-Tube video clip on ‘House of the Future, 1957’ was shown to students. A short introductory script was then written by the researchers based on the future studies mega trends (Scenarios 2015) and UN sustainable development goals (SDGs) to inspire students envisioning. Twenty stories were then after written by 140 Ghanaian and 40 Finnish participants. Ghanaian students worked in groups of 7 and Finnish students worked in pairs. Students were asked to make projections of five probable trends in 2030 bearing in mind their own role as home economics professionals.

Interestingly, we found out that students are able to envisage the future scenarios but they need to be encouraged to do so. This study is probably an exercise that has the capability of enhancing students’ critical thinking skills. Students should thus be encouraged from the beginning of their studies so that they don’t take educational knowledge as a given but understand their role as future developers of the field. In other words, students need to take an active role in thinking, criticising and creating useful knowledge for themselves and the future generation of home economics. We also noticed that even though the cultural context is different, the students shared similar hopes, wishes and threats regarding family life and their role as home economist in ensuring sustainable lives in future.

**IP_1874**

**Korean Home Economics Curriculum in Relation to the ‘Four Social Hazards’**

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The purpose of this study was to examine Home Economics (HE) curriculum in relation to the ‘Four Social Hazards’ (gender, poverty, urban violence, and family crisis). To achieve this purpose, the contents of HE curriculum documents were analyzed in relation to the ‘Four Social Hazards’. The results of analysis were verified by six experts in HE education.

The results of relation between HE contents and the ‘Four Social Hazards’ were as follows: The contents of Korean HE curriculum have strongly been related to preventing the ‘Four Social Hazards’ and HE curriculum documents have contained the contents to develop amicable relationships with opposite sex, to develop self-control and learn how to solve the problems that face an adolescent, and to make decisions regarding pregnancy and delivery. Regarding ‘School Violence’, they have contained the contents to develop amicable relationships with friends and classmates and learn how to reprimand others with dignity and consideration. Regarding ‘Family Violence’, they have also contained the contents to form a equal-gender value of family and accept role-shifting among its members by means of understanding the value of family, to understand the significance of effective communication, to form a desirable family relationship, and to learn appropriate values for family, spouse, and marriage. Regarding ‘Unsanitary Food’, they have contained the contents to lead a healthy dietary life by means of preparing menus concerned with family health, and being cautious of nutrition and hygiene standards, and to select and prepare a meal for the sake of family health.

To conclude, HE is one of the most adequate subject matters to prevent the ‘Four Social Hazards’. The result indicates...
that HE education is to be effective and useful to the ‘Four Social Hazard’ prevention.

**Room 103**

**Evaluation and the Development of New Food Products**

**Chair**
Kathryn McSweeney (St. Angela’s College)
Ireland

**IF_0155 Development of a Sensory Acceptable Nutritious Vegetable Chip for Pre-Schoolers, Aged 4-6 Years, in South Africa**

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**AIM**
Children’s liking of non-nutritious foods and vegetables were 64% and 7%, respectively. These unhealthy food choices put them at increased risk of malnutrition and obesity, as their choices are based on taste preference, rather than nutritional content. The aim was to develop a potato-based vegetable chip that would be acceptable to pre-schoolers (4-6 years) in South Africa.

**METHODS**
A basic choux paste was prepared, in which flour was replaced with dehydrated potatoes and water with vegetable juice extracted from carrots, green beans, beetroot, butternut, sweet potato, cauliflower, sweet corn or cabbage. Vegetable fiber was returned to the mix, where after it was shaped, cut and either air-fried, deep fried or oven baked. A paired preference test was done and all vegetable chips were ranked for preference by one hundred 4-6 year olds.

**RESULTS**
According to the paired preference test, children preferred the picture of potato chips to pictures of green beans and beetroot, but not carrots. No preference was found for cooking procedure and oven baking was chosen, as it was the healthiest and cheapest method. The sweet potato chip was the most preferred vegetable chip. There was no preference between olive or sunflower oil, or between powder and crumb enrobing, before baking. There was no preference between the 50% and 100% chickpea flour chips. The 100% chickpea flour replacement sweet potato chip had the highest score of 4.56, indicating ‘like a lot’ on the hedonic scale.

**CONCLUSION**
These findings proved that children’s food could be improved in a healthier way and still be acceptable and preferred.

**IP_0852 Identifying Discourses of Food in Relation to Health in Home Economic Syllabi**

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Food and health have long had dominant positions within the subject of Home Economics (HE) in Sweden. However, what constitutes a proper diet, and how it is associated with a healthy lifestyle changes over time. In this article, a discourse analytic approach combined with a didactic perspective are used as the theoretical frame. The aim is to explore how food in relation to health has been constructed within the syllabus of HE. Six HE syllabi from 1962 to 2011 were analyzed. From the results three different discourses were identified and named after their main areas of focus; (i) the medical discourse, (ii) the consumer discourse and (iii) the human ecological discourse. Each discourse represents a different way of constructing food in relation to health, and different representations have dominated over the past fifty years. The construction of food in relation to health is thereby seen in its historical and cultural context according to what this knowledge content includes or excludes.

**IP_004 Acceptability and Proximate Analysis of Three Indigenous Dishes from Northwest, Nigeria**

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Nigeria

The study was conducted as an attempt to produce empirical evidence on the nutritive value of three traditional dishes from Northern Nigeria (steamed wheat grits/dashishi (SWGD), Hungry Rice Porridge/fatenacha (HRPF) and Steamed Wheat Dough/Vallubus (SWDA)). It has two objectives, to prepare and assess the organoleptic qualities and general acceptability of three traditional dishes from Northern Nigeria and to determine the nutritive values of the dishes. Multiple research designs were adopted first, the experimental research design which involves the practical preparation of the dishes and laboratory analysis of samples, secondly the survey research design to determine organoleptic qualities and general acceptability of the dishes. The dishes were prepared and a panel of 60 untrained students was randomly selected to carry out the sensory evaluation to assess the organoleptic attributes of the dishes. Proximate composition was determined using standard assay method of AOAC (2000) while mineral and vitamins estimated was done using wet digestion and the values were read in an atomic absorption spectrophotometer. Data collected were statistically analyzed using means and Standard deviation, one way analysis of variance (ANOVA) was used to test for treatment effect. The result showed that all the three dishes have high lipid (9.16 – 24.9%) and protein (3.50 – 7.00%) contents. The dishes are excellent sources of vitamins A, B1, B2, B3, B6, and E. Results of sensory evaluation also reveal high mean ranks for all three dishes. By implication it reveals general acceptability of all three dishes. It is recommended that Home Economics Professionals and Nutritionist should carry out more empirical researches to reveal the nutritive value of African tradition dishes.

**Key Words:** Nutritive values, Traditional dishes

**IP_1819 Success Story of Developing a New Food Product: Multicultural Concept for Local Market**

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When developing a new food product, a product designer pass through various steps of product development, concept validation, formulation, sensory analysis, focus groups, financial analysis, and marketing analysis, design of packaging concept and industrialization of the entire production process. Have you ever wondered; How far the developer’s own taste can affect your product formula? Can you separate your own sensory analysis, focus groups, financial analysis, and marketing analysis, design of packaging concept and industrialization of the entire production process. Have you ever wondered; How far the developer’s own taste can affect your product formula? Can you separate your own
None of them belong to! This is a story of 7 multinational emerging food product designers developing an inspired Chinese, English-like food product for the French market! This experience shows how cultural and social identity of the team members can impact the final product, from the author’s perspective.

**Room 104 Strategies to Balance Work and Family Lives**

**Chair**
Etsuko Saito (Ochanomizu University)
Japan

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**AIM**
Fukui prefecture is known as the happiest region in Japan. Fukui prefecture is located in the middle of the Sea of Japan side. The population is 785,000. In Fukui prefecture, the rates of three generation families living together, dual income families and women’s full-time employment are much higher than the national average. We have focused on dual income and full-time working wife's time allocation. The purpose of this research is to clarify their styles of housework from a socialization viewpoint.

**METHOD**
We conducted time use surveys and questionnaires from June to July 2015. The subjects of the surveys were 37 full time wives and their families. Time-use surveys were conducted for two days (a working day and a day off). The questionnaires were about the outsourcing of housework and usage of home electronic appliances.

**CONCLUSION**
Concerning the outsourcing of housework, 30% of subjects have experienced outsourcing. This was higher than the national average. The most used home appliances were dishwashers, 60% of subjects have it, the half of the owners used every day. Washer dryers were used by 50% of subjects, 40% used them every day. Cleaning robots were used by 20% of them. They used it once or twice per week. In the case of cleaning robots, 10% of the users asked their child to turn on it. As for the evaluations of usage, we found tendencies that dishwasher owners requested dishwashers that were as efficient as hand washed dishes. Washer dryer owners requested dishwashers that were as efficient as standard hand washed clothes. Washer dryer and cleaning robots were not expected the same level of efficiency. These results indicated outsourcing of housework and usage of home electronic appliances had big impacts on subjects. It may have a direct relation with the high level of happiness and quality of life for the families in Fukui prefecture.

**IP_0015 The Portrait of the Value and Management of Family Time**

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As the socio-economic changes and developments in information technology, Indonesian families demanded more dynamic and more able to manage their resources of time to achieve the family's goals. This study aims to elaborate on family time and routines, as well as family time management on some of the family groups. This study is a desk study using secondary data from several studies related to family time according to the diversity of family economic aspects (poor and non-poor), the type of wife's employment (formal-informal), stable unstable.

**Room 105 Human Resource Development and Happiness**

**Chair**
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Sweden

**First Author (Main Author)**
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Global health and sustainable human development is about expanding people’s choices and enhancing capabilities, having access to knowledge, a decent standard of living and participating in the life of the community and decisions affecting their lives. In this session we will share inspiring stories of community projects promoting global health and wellbeing in Cambodia through the work of the Australian Lutheran World Service (ALWS: NGO). These stories were gathered from a student learning and service tour of Cambodia that I participated in during 2015.
ALWAYS partner with Life with Dignity in Cambodia and their work is based on the Integrated Rural Development through Empowerment Program. Here, people in the villages are given the necessary training and support to make their own decisions about the development which happens in their village. Having ownership of and responsibility for everything that happens, the community develops the confidence to work their way out of poverty and can feel excited about creating their own future.

Some examples of projects which are taking place in Cambodia are:
- Training in disaster preparedness
- Construction of wells and household latrines for families
- Building of spillways or dams to help irrigate crops
- Setting up and managing Village Banks, including rice, pigs and chickens
- Training for Village Development Committees to equip them with the skills to manage their own future development
- Training in Human Rights
- Providing educational scholarships
- Building and equipping of school classrooms and health posts
- Construction of wells and household latrines for families
- Training in disaster preparedness

The session will incorporate a photographic journey of the country which extends well beyond the usual tourist trail. Sustainable human development practices will be shared; the aim of which is to preserve human dignity.

### IP_0788

**Education for Ethical and Responsible Consumption - A Relational Perspective**

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This paper presents a philosophical study that contribute to Home Economics knowledge and practice by showing how practice in education, in this case consumer education within Home Economics, is influenced by ideas of the individual, of education, of the society, and of sustainability. Further, we discuss criticism of instrumental and normative education and present a possible alternative based on a relational perspective, i.e. education that is non-essentialist, non-dualistic et cetera.

The society of today has been described as a consumer society, and as characterized by differentiation, fragmentation, in constant and rapid change, and as forcing people to make an increasing number of decisions and choose among several possible options. In such society the individual is above all a consumer with never-ending desires and needs, caught in what has been called the ‘iron cage of consumerism’ in such a situation there is a risk that the individual feels insecure, confused, unhappy, rootless, fragmented and without hope. At the same time issues of climate change, human environmental impact, and sustainability are on the agenda, locally and globally. So are issues concerning education for sustainability. In this study we focus on the following questions: How can Home Economics contribute to the education of the consumers, in relation to the ongoing debate on sustainability? What can Home Economics do for the individual to not feel lost, without context and hope?

To discuss these questions we first reason about education for ethical and responsible consumption, and the criticism made against it for being rationalistic, instrumental, and normative, and that it is missing what people, according to research, actually think is important when handling the issues of sustainability, such as questions about loss of community, loss of respect for each other and for the environment. Secondly, we discuss these issues that people highlight as important, in other words, community, respect, equity, justice, responsibility et cetera, and how it is possible to think about and act to meet these specific interests within an educational context. To do this we draw on pragmatist and feminist research and thus we regard individuals as marked by time and context, and present a relational perspective as a basis for our discussions.

Finally, we focus on Home Economics teaching and learning, and whether and if so how, instrumentalism and normativity should be avoided, and how issues such as community, respect and responsibility can turn out be expressed in Home Economics education.

### IP_0966

**Family Demands of Selected Micro and Small Business Entrepreneurs in Metro Manila**

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Philippines

The study aimed to identify family demands that have perceived negative and positive influence on different aspects of managing a business, and to describe the strategies used by the owners of these businesses to cope with these demands. Married female entrepreneurs from Metro Manila who owned micro or small enterprises were selected to participate in the study. Qualitative data was gathered through in-depth interviews using open-ended questionnaires. The resulting data from the interviews were analyzed using content analysis.

Results show that the common family demands that positively influenced business management include purchasing food supplies, maintaining the house, preparing meals for the family, paying household bills, budgeting expenses, spending quality time with the family, and attending family gatherings. On the other hand, family demands that influenced businesses in negative ways include managing household utilities,
### XXIII IFHE World Congress 2016

**Extraction of Adult Men’s 3D-Body Image Factors Derived from Men’s and Women’s Groups in Japan for Wear Selection Support Information**

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**Presenting Author**
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**Room 106**
Socio-Psychology, Marketing & Production

**Chair**
MI Young Son (Korea National Open University) Republic of Korea

**AIM**

Men’s 3D-body shape images to facilitate the selection of well-fitting and well-suited garments were captured in terms of both Men’s and Women’s groups in Japan.

**METHODS**

The Japanese sixty-three adult men’s 3D-body models (mean age = 40.61) were evaluated using 6 full-length (A) and 19 partial (B)’s 3D-body image key words by Japanese Men’s and Women’s groups.

**RESULTS**

Five principal components in Men’s group (cumulative contribution: 80.15 %) and six principal components (cumulative contribution: 85.68 %) in Women’s group were extracted. The common images of Men’s 3D-body shape in both groups were represented by four principal components (cumulative contribution: 70.9% and 77 %), A6. Overweight – A1. Underweight figure with A3. Ideal figure and A4. Standard figure images, A2. Feminine – A5. Masculine figure images, Balance images of vertical length between B4. Leg and B5. Trunk, and B12. Posture with B11. Spinal curvature images. The features of A2 – A5 Men’s 3D-body image, synthesized more strongly from B’s principal components, were recognized more clearly, in contrast with the corresponding Young and Elder Women’s 3D-body image in previous researches. The mainly common images in both groups by means of Cluster Analysis were as follows: A6 with Large sizes, Sloping Shoulder inclination, and Stooped back Spinal curvature images (40% of models), A1 with Small sizes, Slapping Shoulder inclination, and Stood back Spinal curvature images (16% of the models), A5 with slightly Ideal and Standard figure images (25% and 10% of models), Backward leaning posture with slightly Straight back and All Small size of Underweight figure with Poor Proportion of Proluding Abdominal appearance images. Some mean values of A5. Masculine figure image were recognized as significant differences, in three cluster combinations, between the two models. (16% of the models), A5 with slightly Ideal and Standard figure images (25% and 10% of models), Backward leaning posture with slightly Round Body shape images (40% of models), A1 with Small sizes, Slapping Shoulder inclination, and Stooped back Spinal curvature images (16% of the models), A5 with slightly Ideal and Standard figure images (25% and 10% of models), Backward leaning posture with slightly Straight back and All Small size of Underweight figure with Poor Proportion of Proluding Abdominal appearance images (12% and 13% of models).

**CONCLUSION**

Some mean values of A5. Masculine figure image were recognized as significant differences, in three cluster combinations, between the two groups. Differing masculine figure image evaluations are possibly explained by the respondents’ gender differences.

### Development and Testing of Pant Blocks for Female Youths in Nigeria for Large Scale Production of Garments

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**AIM**

The main purpose of the study was to develop block patterns for pants in three size categories (small, medium, and large) and to test the fit of the garments constructed from the blocks.

**METHODS**

The area of the study was Enugu state of Nigeria. The study was carried out in two phases. The first phase was the development of blocks for the subjects in three size categories – small, medium, and large. The second phase involved the testing of the fit of the garments constructed from the blocks. Three models were used for the evaluation of the fit of these garments (pants). Purposive sampling was used to select 30 judges. The evaluation instrument, a five point rating scale was used for scoring the fit of the garment constructed from the developed blocks. Data generated were analysed using Mean, ANOVA, and the Duncan’s New Multiple Range Test (DNMRT).

**RESULTS**

Three sets of block patterns comprising front pant block and back pant block in each set were developed for the three size categories. There were no significant difference in the mean ratings of the judges on the fit of the garments for most of the variables used for the assessment. The fit of the garment, were rated very satisfactory by the three set of judges on nearly all the variables tested.

**CONCLUSION**

The findings of this study will adequately empower garment makers with a technology for large scale apparel production for the target group.
Clothing industries as well as professional tailors and seamstresses trained in the use of commercial patterns should be able to use patterns developed from the blocks for mass production of garments for both uniformed and non-uniformed professionals. This will create jobs for Nigerians, ensure success competition in the international market and at the same time make the citizens self-reliant in apparel productions. The implementation of the results of the study will also help in the realization of some of the objectives of the medium term economic development package of the Federal Government of Nigeria in the pursuit of hope and happiness for individuals and communities now and in the future which includes reducing poverty, creating wealth and generating employment.

**IP_0202**

**Development and Validation of Patterns for Fashionable Apparels towards Promoting Hope and Happiness of Pregnant Career Women in Universities South East Zone, Nigeria**

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**AIM**

The study focused on development and validation of patterns for construction of fashionable formal pregnancy apparels towards promoting hope and happiness of pregnant career women in universities in South East zone, Nigeria. Specifically the study: determined the mean body measurements required to draft block patterns for pregnancy apparel, drafted basic block patterns for the selected clothing designs using large size category; fitted the garments (first modeling) for corrections; modified the basic block patterns; adapted patterns for the fashionable formal pregnancy apparel; constructed and fitted the fashionable pregnancy garments on models (prototypes); evaluated the fit, fashionability, appropriateness of the prototype garments on the models (final modeling); produced the final patterns in line with validates’ corrections.

**METHODS**

The study was done in three phases involving research and development (R&D) design. Two sets of population comprised of all academic and non academic pregnant staff of ten universities in the South East zone of Nigeria and judges comprised of twenty lecturers and professionals drawn from Vocational Teacher Education (Home Economics Unit) and Home Science Nutrition and Dietetics departments of University of Nigeria, Nsukka. Body Measurement Guide (BMG) and a 5-point rating scale were used for data collection in phases one and three of the study. Data generated in phases one and three were analyzed using descriptive statistics. Analysis of variance (ANOVA) tested one hypothesis and means were compared with Duncan’s New Multiple Range Test (DNMRT) will be used at 0.05 probability levels.

**RESULTS**

A set of average measurement of subjects required for drafting bodices front, back, sleeve, skirt front and back were determined for large size category. The fit, fashionability and stability of pregnancy apparel designs constructed were rated satisfactory by the evaluators.

**CONCLUSION**

The patterns developed and validated for fashionable pregnancy formal apparel will contribute in no small measure to improving positive self image, personality and life style of pregnant career women. It will enhance their productivity and interpersonal relationships, thereby promoting hope and happiness.
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Decisions to Buy Green Products among Saudi Families

This research aims to identify the factors that affect the decision to buy green products, to work towards preserving the environment, or to make it a safe place to live, with the aim of protecting consumers and educating them in the field of green product consumption.

In modern society, happiness is an important factor in determining the value of one’s life. Happiness becomes the ultimate goal of one’s life as a member of society, and therefore in-depth studies that enable one to understand hope and happiness are more important than ever, because happiness will provide new forms of intangible assets for our future.

A descriptive and analytical approach has been used in conducting this study. Questionnaires have been utilized to collect data; the questionnaires were distributed electronically to a sample of 52 Saudi families.

The results found that the sample did not lack the culture of purchasing green products, but families’ behavior in buying green products was weak, due to their high prices, the difficulty in obtaining these products, the small number of stores selling them, and poor promotional efforts. There were statistically significant differences in the responses of different members of the sample regarding their decisions to buy green products. These differences related to the variables of age (from 40 to less than 50 years), the income category ($3,000 to less than $6,000), and the level of education (university or higher). This recommended that the researcher focus on officials from families with a high level of education as being the primary source of motivation and drive to change the culture of consumption towards more environmental awareness.

The Ministry of Commerce is working to stimulate the companies that sell green products to provide these products with attention and purchasing decisions.

Key Terms: sustainable development, green products, consumption, and purchasing decisions.

Consumer Awareness and the Right to Information in Terms of Product Labels - Focused on Medicine -

— PT_0165 —

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Co-Author(s) / Seonghyeok Cho (Andong National University)

Presenting Author / Jeonghee Kim (Andong National University) / Republic of Korea

As information industry has developed rapidly, consumers become well informed through all sorts of mass media, yet the quality of the information leaves much to desire. Especially in case of medicine consumers must exercise great caution, as the managing needs professional training and the misuse may critically harm consumer’s health and even their lives. With this in mind, this study is intended to identify consumers’ perception of and demand for general consumer awareness, right to information, and complaint behaviors about medicine labels. It also aims to present problems and ways to address them. This study will thus provide basic information in concern with current situation on medicine label and consumers’ perception on it, and act as preliminary one for further studies.

AIM

METHODS

This study distributed 548 questionnaires to male and female subjects in the 20s to the 60s, and reselected them. Excluding 34 questionnaires that responded improperly, this study utilized 514 questionnaires to analyze the data. This study analyzed the data using various statistical methods such as frequency analysis, t-test, one-way ANOVA, cross tabulation analysis, and regression analysis.

RESULTS

1. Referring to the confirmation level of medicine labels, the subjects showed the score of 3.18 out of 5 on the average. However, regarding the matters such as confirmation of ingredients of medicines and confirmation of tablet imprint code system, the subjects scored 2.82 out of 5 on the average.

2. In relation to the perception of the right to information and regulations about medicine labels, the subjects respectively scored 2.75 and 2.48, which means that they do not know much about the right to information and regulations about medicine labels.

3. Gender made a statistically significant difference in confirmation of medicine labels at the level of p<0.05. Also, marital status was found to make a statistically significant difference in the items of right to information and perception of regulations of medicine labels at the level of p<0.05 and p<0.001 respectively.

4. Experiences of harm and inconvenience caused by incorrect medicine labels were found to make a statistically significant difference in complaint behavior at the level of p<0.001. The group of those who experienced such harm or inconvenience blamed themselves or filed complaints to the consumer right center as part of complaint behavior.

5. The perception level of the right to information was found to make a statistically significant difference in the awareness level of regulations of medicine labels at the level of p<0.001.

6. The perception level of the right to information was found to make a statistically significant difference in the level of confirmation of medicine labels at the level of p<0.001. The consumers who strongly perceived the right to information were found to confirm medicine labels better than those who didn’t.

CONCLUSION

These results suggest the following. Current medicine labels should be changed so that they are more readable, noticeable, and comprehensible. Also, improvements on general system should be made so that there are more channels for information acquisition and communications. Proactive promotion and consumer education are also necessary. Thus, the manufacturers and the government should provide sufficient information on medicine label and provide enough consumer education to keep them well informed.

Aids and Care of AIDS Patients

— PT_0497 —

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Co-Author(s) / Ann Vall (Kentucky University)

Presenting Author / Vivian Tackie-Ofori (University of Ghana) / Ghana

AIM

The aim of the study was to explore how caregivers of aids persons and managed resources in poor communities in Ghana, and the role that Home Economics play in supporting families with critical health conditions at home.

METHODS

A qualitative research approach was adopted, because very little is known about this subject. In depth interviews, direct observation and photography were used to collect data from twenty-five informative and their care recipients and from a matched sample of twenty-five to compare the socio-demographic characteristics of the study population. Using grounded theory method of analysis, the data generated into themes.

RESULTS

The results were presented in two different but complementary styles: case study reports that were unique and key themes that were representative across the entire study. Key results showed that participant’s perception of care for persons with AIDS was dependent on the use of household resource. Caregivers perceived caring as activities that depended mainly on the availability of resources and how resources were expanded when supporting a sick person. Caregiver took decisions daily on family resources; women combined care with commercialization activities.
2. In the lesson with improved worksheets and teacher delivery there was a deepening in student understanding and an increase in the number of students who could complete the menu planning task.

3. There was an increase in the number of students who realized the possibility of creating low-cost meals.

CONCLUSION

Students understood the possibility of creating low-cost and nutritionally balanced meals. However, a large number of students found it difficult to put this understanding into practice in everyday life. Repeated instruction in home economics lessons is required.

PT_0716

Consumer Citizenship Education for Fostering Consumer Legal Literacy

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AIM AND BACKGROUND

In 2012, Japan enacted the Act on Promotion of Consumer Education. This law promotes education in order to create a just and sustainable consumer citizen. This law states that Consumer Education must be implemented, but lacks concrete guidelines about what to teach students or how to nurture that learning. To become consumer citizens, consumer literacy is necessary. Consumer literacy includes various forms of knowledge and several abilities, one of which is consumer legal literacy. This report proposes educational content, pedagogy, and other areas so that current legal literacy of students can be increased.

METHODS

1. International Baccalaureate programs and Australian national curricula were examined for content, teaching methods, and assessment methods.

2. Japanese national moral education curricula and law-related educational curricula were examined. From these sources, general concepts about consumer legal literacy and justice were chosen.

3. Educational and developmental psychology views of justice and moral education were investigated and educational objectives divided by school level were decided.

RESULTS

1. Legal literacy is not only problem resolution, it is also the ability to foresee and avoid risks. Therefore, to create a just and sustainable society and market, it is necessary to have knowledge, practical skills, general understanding of law, and general understanding of information sharing.

2. Five general concepts of justice were chosen: moral awareness, justice, rights and responsibilities, social solidarity, and ethical considerations.

3. It is also necessary to instruct students how to consider various aspects, negotiate, and make informed purchases, so that mutual agreement and understanding can be reached.

4. We selected these educational themes for elementary, junior high, and high school curricula.

CONCLUSION

This report has proposed educational content and pedagogical methods to foster consumer legal literacy. To achieve this, suitable and age-appropriate materials are necessary. We plan to develop these materials in the future based on these findings.

This work was supported by JSPS Grant No.258125.

The Effect of Elderly Householders’ Type of Participation in Economic Activity on Economic Preparation for Old Age and Overall Satisfaction

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Social issues regarding the employment of the elderly are coming to the fore with the elderly accounting for a growing proportion of Korea’s population and the life expectancy of the elderly rising. As a result, there is a need to know the effect of economic activity of the elderly on economic preparation for old age and overall satisfaction. Therefore, this study divided householders into three types according to their participation in economic activities: participants in economic activity, voluntary retirees, and involuntary retirees, and researched how the three groups prepared economically for old age. In addition, this study examined how householders are preparing economically for old age according to their economic activity, and if they are not preparing for old age, we tried to know why. Finally, this study analyzed the effect of demographic factors, financial factors, and the household’s type of participation in economic activity on their economic preparation for old age and overall satisfaction. For this study, the data from the 5th analysis of the 2013 Korean Retirement and Income Study conducted by National Pension Research Institute were used. The sample consisted of 2470 householders over the age of 50. For statistical analysis SPSS (Ver. 21) was used. The statistical methods used included frequency and percentile, mean and standard deviation, Pearson’s correlation, and regression analysis. The results are as follows. First, we analyzed the differences in economic preparation for old age according to the type of participation in economic activity. The proportion of subjects who were not preparing for old age was 70.2% for involuntary retirees, 66.3% for voluntary retirees, and 57.8% for the economically active. Therefore, those not preparing for old age accounted for the biggest share of each of these types. Second, this study tried to identify the method of preparing economically for old age according to the household’s economic activity, and if they were not preparing economically for old age, this study tried to know why. The study found that all types of subjects chose the National Pension Service as the top means of preparing for old age, and this illustrated the importance of the National Pension Service in preparing for old age in Korea. Those who stated that they couldn’t prepare for old age because they didn’t have the ability accounted 82.1% of voluntary retirees, 65.0% of involuntary retirees, and 47.8% of participants in the economy. Third, an analysis of the effect of demographic factors, financial factors, and the type of economic activity done by the household on a household’s economic preparation for old age found that less economic preparation for old age was done when people were participating in the economy than when they were retirees. Fourth, we found the following effects of demographic factors, financial factors, and the type of economic activity done by the household on a household’s economic preparation for old age on a household’s economic and overall satisfaction. Overall satisfaction was higher for people when they were participating in the economy than when they were retirees, and this suggests that economic activity has an effect on overall satisfaction. In conclusion, to increase the satisfaction of the elderly with their lives, elderly individuals need to increase their participation in the economy and the government needs to increase employment programs.

PT_0806

The Influence of Food Risk Communication on Consumers’ Attitude to Food Safety and Satisfaction with Dietary Life

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AIM

This study examined food risk communication-related information by using 3Ms (Message, Mediator, Media), the components of FADS risk communication (2006). Therefore, this study aims to identify the useful information for consumers in the information age, form their attitude to food safety in a positive way, and ultimately, prepare ways to improve their satisfaction with dietary life.

METHOD

This study was conducted with 342 Korean adult consumers. The scale used for the questionnaire is based on consumers’ general, food risk communication (3M), attitude to food safety and satisfaction with dietary life. For data analysis, SPSS 22.0 program was used to conduct analyses for frequency, multiple regression and pathway.

RESULTS

The causal relationship of relevant variables in terms of satisfaction with dietary life was confirmed using an independent variable of food risk communication and a parameter of attitude to food safety. It was confirmed that the variables that have a direct effect on satisfaction with dietary life were attitude to food safety and Media (One-way, Two-way communication) among the components of food risk communication. Message (general, specialized information) and Mediator (Public specialized institution) among these components had an indirect effect on it by a medium of the attitude to food safety. Media had both direct and indirect effects on it.

CONCLUSION

This study confirmed the effect of the 3Ms of food risk communication on consumer’s attitude to food safety and satisfaction with dietary life. Therefore, it is believed that providing food risk-related information by public specialized institutions to consumers will be an effective approach to form consumers’ attitude to food safety and improve their satisfaction with dietary life.

Key words: Food safety information, Public specialized institution, Food risk communication, Attitude to food safety, Satisfaction with dietary life

PT_0814

A Comparative Study on Consumption Behavior for Managing Appearance between Perceived Economic Status and Perceived Self-Confidence Status

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AIM

As a student, College students who are eager to consume have limited economic resource on consumption. Besides economic status to figure out how they make to consume things, we added the self-confidence status and compare them to identify the influence on consumption behavior. In Republic of Korea for managing appearance college students purchase things like apparel, cosmetic, hair style related product but also information searching and
using behavior of them are conducted. Therefore on this study consumption behavior is defined as combination of purchasing, information searching and using behavior and from now on CBMA is abbreviation of consumption behavior for managing appearance. Perceived economic status and perceived self-confidence status are measured by specifying on CBMA. As a decision making process of CBMA, the past consumption behavior, the attitude, the intention are included. The survey is distributed by online research institute and participant is random (Likert scale is used). 337 respondents are analyzed. The findings are described below. First, the average of perceived economic status on CBMA is 3.33 and perceived self-confidence status on CBMA is 3.57 and the difference is significant (t-test toward CBMA(N=397.702) is affected by both perceived economic status=[−1.54] and perceived self-confidence status=[−2.66]). The significant factor that affects the past CBMA(T=83.710) and the intention toward CBMA(T=117.875) is just perceived self-confidence status=[−0.61](P=0.076). The findings of this study reveal that, the more college students have perceived self-confidence on CBMA, the more favorable their past CBMA and attitude toward CBMA and intention toward CBMA. Unlike perceived self-confidence status, perceived economic status has negative effect on attitude toward CBMA. In short, this study shows that perceived self-confidence status on CBMA is more affecting on CBMA than perceived economic status on CBMA among college students in Republic of Korea.

**An Analysis on Consumption Trend Features According to Female Adult Consumers’ Trade Capability**

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Co-Author(s) Eun Il Hong
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The purpose of this study targeting female adults is to look into the co-relational structure among consumer’s trade knowledge, attitude and practice, which are sub-factors of consumer’s trade capability, categorize targeted female adults with these factors as characterizing factors and analyze their by type consumption trend. In March, 2015, an online survey was done nationwide, a total of 190 questions were posted and the collected date went through Pearson’s product-moment correlation analysis, multiple regression analysis, Ward’s hierarchical clustering analysis, One Way ANOVA, Duncan Test and so forth, using the statistical tool of SPSS 18.8. Major results of this study are as follows;

First, in consumers’ trade capability, their trade knowledge, attitude and practice all showed positively significant correlation and especially their trade attitude and practice showed very high correlation.

Second, they were sorted into four groups based on their trade capability; ‘type 1’, which was named ‘aggressive practicers’, was low in trade knowledge but a bit high in trade attitude and practice; ‘type 2’ which was named group with low capability was low in all of trade knowledge, attitude and practice; ‘type 3’ which was named group with high capability was high in all of trade knowledge, attitude and practice; ‘type 4’ which was named passive practicers, was a bit high in trade knowledge and attitude but very low in trade practice. Third, According to the result of analyzing the difference in consumption among the five consumers’ trade capability types, their environmental protection trait (ρ=.1379, p<.001), impulse consumption trait (ρ=.520, p<.01) and resources-planned consumption trait (ρ=.636, p<.01) showed significant difference. Their environmental protection trait and resources-planned consumption trait were high in ‘group with high capability’, while they were low in ‘group with low capability and passive practicers’. Impulse consumption trait, however, was the highest in group with low capability while it was relatively low in ‘group with high capability, passive practicers and aggressive practicers’.

The results of this study shows the need to diagnosis consumption features according to consumer’s trade capability levels, improve consumers’ trade capability according to group status and form programs training consumers’ capability so that consumers may have positive values of consumption in an intention to cultivate female adult consumers’ trade capability.

Although the issue of generation gaps isn’t unique to China, the gap between the generations of young people in China is strikingly wide. For instance, the post-1980 generation refers to people born in the 1980’s, while the post-1990’s born in 1989. These two generations have been raised in a modern society after China’s economic reform and thus are thought to share similar background as consumers. However, due to the fast changing speed of its economic and cultural development of China, a lot of scholars and companies started to believe that the two groups have significant differences in their values, consumer psychology and consume behavior characteristics. Based on this background, this study aims to analyze the impact of consumption propensity between post 1980s and post 1990s generation in China and discover the impact of diverse variables on consumption propensity. Questionnaires were distributed to a randomly chosen internet panel of five cities in China during March of 2012, which yielded a total of 722 valid responses that were used in the study. The results provide specific implications for academic and business sectors in understanding the Chinese consumers.

**Comparison of Consumption Propensity between Post ’80s and Post ’90s Generation in China**

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The study investigated the factors that hinder effective domestic energy management practices (EDEMP) for the happiness of the individual within households of urban and rural areas of Abia State Nigeria. Specifically, the study identified the different types of domestic energy utilized within the households. It also determined the factors that hinder Effective Domestic Energy Management Practices. (EDEMP) for the happiness of the individual in the family. Two research questions and one hypothesis tested at 0.05 level of significance guided the study. The study adopted the descriptive survey research design. The study was carried out in Abia State of Nigeria. The population of the study comprised of 442, 693 households in the study area. The sample size was 400 households which were purposively drawn from the population. 30 other homemakers were drawn for the Focus Group Discussion (FGD). Questionnaires and FGD were used for data collection. The instrument was face validated. Cronbach alpha reliability coefficient index was used to determine the internal consistency of the instrument. The internal consistency yielded an overall coefficient of .89. Data were analyzed using mean for the research questions, while T-test and ANOVA were used to test the hypotheses at 0.05 level of significance. The Scheffe post Hoc test was used for comparison of means of items that were significantly different. The findings include elasticity, kerosene, coal, charcoal among others and 22 factors that hindered effective domestic energy management practices for the happiness of the individual family members. Recommendations were made based on the findings of the study that when these factors are successfully handled domestic energy management will be easy and this will lead to the happiness of the individuals in the households and the larger society.

KEYWORDS: Factors, Domestic, Energy, Management, Practices and Households
PT_1223
Trend of Time Distribution of Married Workers in Korea, 1999-2014
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The purpose of this study was to analyze the trend of work-life time distribution of married workers during fifteen years(1999-2014) by day of week and gender. Data were used KATUS(Korean Time Use Survey) of each year. Samples were married workers who were from the ages of 20s to 60s. First, overall, paid work time of married workers was decreased, essentials for living time increased, and leisure time and household work time decreased slightly during fifteen years. Second, there were no big changes during the weekdays in 15 years, however paid work time, household work time, and leisure time were decreased slightly and essentials for living time increased slightly. On Saturday, paid work time of married workers was greatly decreased and leisure time and essentials for living time increased. On Sunday, paid work time was also greatly decreased and household work time and leisure time increased slightly, but essentials for living time greatly increased. As a results, decreasing of paid work time led to increasing of essentials for living time during last fifteen years. Third, there were big differences between work-life time distributions of married male workers and those of married female workers. Married male works had more total work time than those of married female workers, however married female workers had more total work time than that of married male workers. Paid work time of married male workers was decreased, household work time increased slightly, and essentials for living time increased greatly. Total work time of married female workers was decreased and leisure time and essentials for living time increased during last 15 years, so the work-life balance of married female workers in 2014 was better than that of in 1999.

Fandom as Consumer Activism: Profiling the Consumption Behaviors of the Gen-Y Females Fascinated with Younger Male Idols
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Co-Author(s) Suyeon Kim (Yonsei University) Ae-Ran Koh (Yonsei University)

Presenting Author Suhyyoung Ahn (Yonsei University) Republic of Korea

Fandom is a significant cross section of contemporary Korean consumer culture, as a social phenomenon and cultural practices. Numbers of negative aspects of female fandom had been widely discussed in previous studies, but this study addresses the research gap by exploring the fan behavior among the millennial female fandom associated with their consumption culture. Subjects of this study are 25 to 35-year-old Gen-Y women born in 1980s and 90s, having fandom experiences previously for a decade ahead and are grown to take more influential roles in fandom society. Most of them have achieved financial independence and they also are characterized as children of affluent baby boomer parents and raised in a highly commercialized culture mostly exposed to the mass media and the material consumerism. The researchers have involved in EKD fandom community and observed to conduct in-depth interviews with 10 selectively chosen participants identified as Gen-Y women who enthusiastically attend the fan conventions and activities. Interviews were conducted from Sep. 2015 to Dec. 2015. Female Gen-Y’s consumption behaviors in EKD fandom were majorly categorized into the following four characteristics. First, attraction toward the idols were connected to their consumption on the products and services that they wore or even mentioned. Financial ability of these young adult fans enabled them to nurture and activate their interests in active cultural consumption and activities. Second, participants considered themselves as a fosterer rather than consumer of mass culture. Participants tended to think that they contribute to their group’s success with their consumption on idol-related products. Third, the hyper-real experiences were found as an escape from reality sometimes. Participants tended to recreate the image of their beloved idols as a representation of their desire in the fantasy world. Active consumers of fandom reassembled and elaborated the image of their idols with their own desire represented, and then consumed them in their own mirror image. Fourth, participants tended to conceal their fan identity to the ordinary others who are not involved in fandom, called "toughgals". Not free in the social pressure of age-appropriateness, they completely covered the fact that they were a fan of a male idol who are younger than them.

Domestic markets for traditional foods are increasing, but the growth rate is gradually downward trend because of low preference of younger generation for traditional foods and higher price. Further, value creation of a farm-scale producer is low due to lack of customer management and service mind. In this study, we conducted online survey targetted 150 consumer who have experienced purchasing traditional fermented soybean product, ‘Jang’, from farm-scale producers. The contents of the questionnaire was structured as follows: demographic characteristics, purchasing route, their critical factors on purchasing, merits and dements in purchasing of products, and the usefulness of web sites. Most of the subjects were middle-aged housewives and were middle class living in the metropolitan area. They’ve purchased at least once, ‘Doenjang’ (fermented soybean paste), ‘Cheongukjang’, and ‘Ganjang’ in order. Important certificates on ‘Jang’ were ‘HACCP’, ‘excellent agricultural product certification’, ‘master traditional food quality certification’, and ‘processed food KIS certification’ in order. Major purchasing route were ‘aquaintance’, ‘Internet’, and ‘publicity in the media’ in that order. In terms of producer’s service, they gave highest score to the assurance of quality and safety, but gave lowest score to individual attention to customer. The critical factor of purchasing traditional ‘Jang’ was ‘two ingredients and quality of product’ and ‘merits were safety of food’. They seldom visit the web-sites, but they responded that it was helpful in making purchase decisions. As a results, consumers were satisfied with the quality and safety of the products, but not satisfied with price or services. Consumer services are considered as critical factor in current marketing practices. Therefore, producers should be focused customer management to success their business.

Exploratory Study on User Acceptance of New Technology: The Case of Wide Field of View (WFOV) Video
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AIM: Home environment is going through tremendous changes with the introduction of new technology including screens that provide more immersive view such as 3D, UHD or panoramic screens. For a technology to be successful in providing value to consumers, it is imperative that the technology be consumable from the consumers’ perspective. This study was conducted to investigate user acceptance of Wide Field of View (WFOV) video by change of screen.

METHODS: We recruited 32 college students in their early 20s with visual acuity of 0.7 or more and no video expertise. First, we investigated participants’ acceptance by analyzing their immersion experiences for four screen sizes: (S1) 4k x 2k, (S2) 5k x 2k, (S3) 8k x 2k and (S4) 32k x 2k. Second, we evaluated user preferences for WFOV video (8k x 2k) to UHD video (4k x 2k) by absolute and relative preferences. We analyzed the effect of video contents on acceptance by screen with four different contents.

RESULTS: First, the average immersion scores by screen size were 3.18(S1), 3.62(S2), 3.86(S3) and 4.08(S4) respectively, which differed significantly (p<0.001). The S4 showed a significantly higher immersion than other screens. Second, the average preference for S4 was significantly higher than UHD in terms of ‘excitement’ (4.08 vs. 3.76, p = 0.071), ‘overall satisfaction’ (4.01 vs. 3.61, p = 0.006), ‘intention to use more’ (3.96 vs. 3.77, p = 0.001), ‘intention to recommend’ (3.83 vs. 3.29, p = 0.002), ‘intention to use’ (3.83 vs. 3.27, p = 0.002), which differed significantly except for ‘excitement’. In addition, 51.6% of the respondents appeared to prefer the WFOV to UHD videos. The video contents appeared to significantly affect both user immersion and preference.
The Usage of Mass Media on Increasing Total Fertility Rate in Korea -Focused on TV Child Care Programs-

**AIM**

The significant decline in total fertility rate is becoming a growing problem in Korea recently. It dropped from 1.52 in 1997 to 1.19 in 2013. It is imperative that necessary steps should be taken to remedy this situation, yet numbers show that there is a critical failure in current government policies to do so, and the ways of promoting them are less than effective. Interestingly, while it is clear that more people are losing interest in giving birth to and raising their own child, their interest in TV child care programs - entertainment shows in which celebrity children on changing people’s perception on childbirth in the long run.

**METHODS**

1. Three separate focus group interviews (FGI) were conducted with unmarried female undergraduate students and staff, both in their 20’s, from A University in Korea. Each session was held with 6 participants.
2. The participants were first shown materials on Korean TV child care programs - entertainment shows in which celebrity children show how they raise their children - seems to be enjoying booming upturn in Korea these days. Such contradicting yet closely related phenomenon can be utilized together to solve the issue.

**RESULTS**

FGI results were as follows;
1) The participants agreed that the current government policy to boost total fertility rate was not enough. They especially thought that financial incentive such as government subsidy was a nice try, yet too small and too hard to get.
2) The participants said that the government’s current ways to promote its policy lacked effectiveness and persuasiveness, mainly because they were too unilateral and unrealistic.
3) Most participants had negative perspective on giving birth to and raising children in the beginning, yet after watching TV child care programs they showed temporary change in their perspective. Similar change in perspective followed after watching the video clip that utilized scenes from TV child care programs to promote government policy.
4) The participants pointed out that while TV child care programs had positive effective on them, such programs needed improvement; they couldn’t appreciate them as such programs were focused on the ‘high lives’ of the celebrities and lacked actuality.

**CONCLUSION**

While the participants negatively reacted to giving birth and raising their own children in the face of real-life issues, the effectiveness of TV shows to change their perspective - even temporarily - and encourage them to act was clearly present. It is possible that utilizing TV shows with highly positive reputation in public campaign for boosting total fertility rate can be a start to accumulate quick and effective results. As the research lacks implications on long term basis, follow-up studies are necessary to see the effectiveness of utilizing celebrity children on changing people’s perception on childbirth in the long run.

**G1 in their young adulthood affects the current financial support G2 provided to their adult children (G3). The level of financial support for college education, for wedding and housing expenses, and for child-birth related expenses were used respectively to measure the parental financial support behavior during transition to adulthood.**

Data were collected from middle-aged parents with at least one married child (N=419). Dependent variables were the level of financial support G2 provided to G3 while the main independent variables were the financial support G2 received from their parents (G1s) in each type of support. Frequencies, percent proportions, means, and OLS regression were used for the analysis. Sociodemographic characteristics of G2s and G3s were included as control variables.

Results show that G2s who had received higher levels of financial support for wedding and housing expenses from their parents (G1s) provided more support to their adult children (G3s) for wedding and housing expenses (β=0.196, p<0.001), even after controlling for resources that G2s currently have. Also, G2s who had received more financial support for child-birth related expenses from parents tended to give more financial support for their children (G3s) transition to parenthood (β=0.387, p<0.001). However, the intergenerational transmission linkage was not found for providing support for educational expenses; almost all the G2s provided support to G3s for the college education even if they had not been supported for college education from G1s.

In sum, results of this study show that the parental support behavior not only springs from current resources but also derives from past experiences with the family of origin. In conclusion, this study supports the intergenerational transmission hypothesis of parental support behavior.

**METHOD**

The participants of this study consisted of 115 Korean adolescents who were at high schools from the 2012 panel seventh data of the Korea Welfare Panel Study (Korea Institute for Health and Social Affairs & Seoul National University, 2012). The scales used for this study were 7 questions of the CBCL, (Child Behavior Checklist, Achenbach & Edelbrock, 1983) for adolescents’ depression and 20 questions for five dimensions of school adjustment (participation in learning, compliance with school rules, peer attachment, teacher attachment, and academic achievement) influenced depression of adolescents from low income families. In addition, previous research suggested that there have been significant gender differences in the prevalence of depression (Conley & Rudolph, 2009) as well as expectations of school performance. Thus, we also examined the effects of school adjustments on depression in adolescents from economic disadvantages differed in male and female adolescents.

**RESULTS**

The result indicated that different dimensions of school adjustment explained depression in male and female adolescents from low income families. That, peer attachment (β = -.62, p < .001) and compliance with school rules (β = -.54, p < .001) had negative impacts on male adolescents depression whereas the level of participation in learning (β = .38, p < .05) negatively influenced female adolescents depression. In contrast, both peer attachment and teacher attachment had no significant effect on their depression.

**CONCLUSIONS**

The results of this study revealed that the influences of school adjustment on depression for adolescents from economic adversity differed by gender. It would be possible that important indicators for school adjustments are different for boys and girls having few behavior problems regarding rule-breaking and positive relationships with peers for boys and adjustment active participation in learning for girls. These findings suggested that promoting school adjustment of adolescents from low income families is important in prevent or decrease their depression and that it is necessary to address the depression of adolescents with economic disadvantages in a different way by gender.
As Korea rapidly enters into the super-aged society, problems of the elderly poverty grow severer. Particularly, as familial weaknesses due to the phenomenon of nuclear family, the awareness of supporting parents as well as the intimacy between family members has reduced and the recognition that the social supporting, not by family, is necessary is getting higher. Thus, this study will discuss measures of resolution for the elderly economic poverty, through the reality of economic preparation of those over 65 and their economic activities. To investigate the reality and awareness of the elderly economic preparation of Korea, this study researched the reality with statistics of DB constructed by the Ministry of Health and Welfare for 3 years, from 2011 to 2014. As for the research method, the frequency analysis was conducted to investigate the reality of the elderly economic activities and satisfaction of their economic state, and AHP (Analytic Hierarchy Process) to investigate the order of priority of the reasons they worked.

The major results of the study are as follows. First, as a result of analyzing the reality of economic activities of those over 65, the major problems are identified as follows: the awareness of necessity of preparing their old age, the lack of knowledge about financial products, and lack of consciousness of diversified investment. Second, the awareness and the recognition of paying for their old age by themselves is considerably low. Almost all of them prefer to receive support by the social security system or family members. Third, the awareness of preparing old age to participate in the father education programs are discussed. Effective strategies that encourage fathers to participate in the father education programs are discussed. In terms of the structure of programs, all 866 fathers who had participated in the father’s education program in Healthy Family Support Centers in Seoul were recruited for the survey between May and November, 2015. Questions about the fathers’ preferences were included. The results are as follows. Fathers were interested in participating in the father’s education program, although fathers not already involved in the programs were not part of this study. Regarding the content of the program, the fathers were interested in “ways to be a good parent” and “adoptive activities of my child.” In terms of the structure of the program, they preferred a small class with only 11-15 people and they preferred to attend the programs on Saturday mornings. In addition, the fathers preferred two sessions with one and half hour per session. Effective strategies that encourage fathers to participate in the father education programs are discussed.

Key words: father’s role, father program, needs assessment, Healthy Family Support Center

In order for fathers to benefit from father education programs in Healthy Family Support Centers, the programs must be structured based on the fathers’ program needs. The purpose of this study was to examine the program needs of fathers including the content and structure of programs. All 466 fathers who had participated in the father’s education program in Healthy Family Support Centers in Seoul were recruited for the survey between May and November, 2015. Questions about the fathers’ preferences were included. The results are as follows. Fathers were interested in participating in the father’s education program, although fathers not already involved in the programs were not part of this study. Regarding the content of the program, the fathers were interested in “ways to be a good parent” and “adoptive activities of my child.” In terms of the structure of the program, they preferred a small class with only 11-15 people and they preferred to attend the programs on Saturday mornings. In addition, the fathers preferred two sessions with one and half hour per session. Effective strategies that encourage fathers to participate in the father education programs are discussed.

Key words: father’s role, father program, needs assessment, Healthy Family Support Center

The purpose of this study was to investigate product element experiences of smartphones, overall affects caused by them, and the effects of product element experiences and affects on consumer delight in order to further understand contemporary consumers who yearned for emotional, sensible, and creative experiences. An on-line survey was conducted with 345 male and female smartphone users in twenties through fortes in Korea. Smartphones do not only offer technology-intensive functions, but also promote a variety of affects in daily lives. The SPSS Win 21.0 was used for reliability, validity, and statistical analyses. The AMOS 18.0 was used to analyze the confirmative validity, the causal relations, and the size of influences among variables. The summary research findings are as follows:

First, of the 33 product element experiences of smartphones, camera functions, camera resolution, display size, and display sharpness turn out to be expected and surprisingly wonderful experiences. The exploratory factor analysis with the 33 items reveals that the product element experiences are categorized into five: contents/service, functionality/practicability, video/image quality, sense/aesthetics, and battery/voice. Second, an exploratory factor analysis with nine affects produced by product element experiences divides those affects into two: calming affect and activated affect. Finally, the effects of product element experiences and affects produced by the experiences on consumer delight were tested with a structural equation model. As a result, all the paths of product element experiences, calming affect, and activated affect, and consumer delight are significant. There are direct, indirect, and total effects among the latent variables of the structural equation model. Based on these findings, this study reached the following conclusions: First, technical products such as smartphones provide various product element experiences arousing many types of affects and, consequently, consumer delight which is above the level of consumer satisfaction. This implies that not only services but also products can raise the level of consumer delight and, ultimately, consumers’ welfare. Second, product developers need to put more efforts in designing products with not just functional oriented perspective but with mind touchable perspective. Secondly, highly activated level of affects from product element experiences can provide more consumer delight, which means that various product elements can arouse activated affects and eventually consumer delights. This implies that product elements directly influencing consumer delight should be carefully considered in product design for contemporary consumer’s happy lives.

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Traditionally, the ultimate goal of consumer education tends to focus on enhancing consumer's rational decision making capabilities. In the academic field of consumer science, utility maximizing rational decision making is treated as good and promising concept to be adopted in almost every consumer's daily decision making. However, contemporary consumers tend to involve in much emotional and instinctive decision making. From the traditional academic perspective, these are treated as irrational and to be fixed with consumer education.

Dual-process theory insists that there are two distinct systems in human thinking. Consumers are not simply utility-maximizing individuals (Russell 2008), but instinctive and emotional individuals. Cognitive scientists have proposed strong claim that there are two quite separate cognitive systems (Evans 2003). The dual-process of reasoning is evidenced by the wider application to decision making (Gickowski & Griffin 2002).

This study reviews wide literature on this dual process theory. Stanovich and West (2000) distinguished the two systems, sometimes expressed as System 1 and System 2, as, or intuition versus reasoning. System 1 processing is described as rapid, parallel, automatic, effortless, associative, slow learning, and emotional in nature. On the other hand, reasoning process in System 2 is described as slow, serial, controlled, effortful, rule-governed, fast learning, and make use of the central working memory system (Baddeley 2000; Gathercole 2003). Information processing in the two systems is assumed to differ from basic perceptual processes (Evans 2003). The outputs of System 1 may be described as intuitive impression; the outputs of System 2 are judgments that can be based on deliberate reasoning. Despite consumer has limited capacity of recognition and slow speed of operation, System 2 permits hypothetical thinking that cannot be achieved by System 1 (Blattman & Laura 2013). Thus, there is no intuitive response is generated by System 1, judgments and behavior are entirely computed by System 2.

This study provides theoretical background for consumer education and, further, the field of consumer science, to help consumers not just in their rational reasoning, but in their effective intuition process. This study also gives clues for shifting conservative rational perspective of scientists in this conference of IFHE, from rational reasoning to emotional intuition processing.

How can we help the community using home economics? One freelance home economist and some mothers tried to set up NPO and did volunteer work to predict people's needs in everyday living, create projects to help our community, and improve the well-being of individuals and families. Some cases of our activities were already reported in IFHE Council. This time, we will focus on the discussion of benefits and difficulties faced in the management process and the possibilities of home economists as entrepreneurs in the community.

We made a volunteer group in February, 2011 in Toyohashi, Japan. Talking with some mothers, their thoughts and needs in everyday life triggered our action. We arranged many programs from 2013 through 2014 from funds we received from the local government. We used a vacant store in the shopping district to operate out of. For example, we arranged some programs there such as seminars on child development and bullying for families and teachers, an integrated learning activity in the shopping district on “how we can contribute to our community” for Junior High School students, and an international exchange program through ICT for after school students and teachers.

Through managing these activities, I noticed there are various problems and needs of the people and schools. (e.g., the stress of isolated nuclear family, better program for students to experience active learning in real community) which don’t get filled by the government and corporations. This may show the importance of NPO. There were many difficulties to keep NPO running (e.g. how to build the better system to manage lack of fund and people, imitation of volunteer work). Also I felt that home economists as entrepreneurs in the community who are trained have many possibilities to improve quality of life for individuals, families, and communities.
Practice and Evaluation of the Father-Child Camping Program for the Reduction of Childcare Anxiety among Mothers

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Features of the modern family, which has become more common around the 1960s in Japan, are the following.
1. The nuclear family due to the increase of working families.
2. The collapse of the life community that subsumes life functions remained undifferentiated.
3. Externalization and individualization of the family function.
4. The gender role division of labor (man to work outside, woman to the housework at home).

In order to consider the mothers’ stress and the assistance related to childcare, we carried out a questionnaire survey. It has revealed that what and how mothers have parenting stress, and the mothers were trying the various kinds of refreshment. Mothers were trying to talk to mothers with children in the same age for their refreshment and they go shopping to get refreshed.

We have designed a program to reduce the childcare anxiety among mothers since 2008, and have attempted to analysis by questionnaire survey and semi-structured interview for its effect. From the result of the analyses of the mothers, it would be said that the perception and actual ability to childcare and housework of their husband have had a great influence on the anxiety score of the mothers.

In consideration of this result, we designed and practiced a program that the fathers stay out with their child (away with the mother) and play with, make meals with the child in 2013, including lectures for the father. We carried out pre- and post-questionnaires to participate fathers to the program and follow-up questionnaire to the mothers waited at home, and are analyzing those data. It is considered to have been effective, but it is difficult to continue the program.

High-School Students’ Learning Experience about Infants’ Characteristics and Child Abuse

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Kyoko Kubo (Kanagawa Institute of Technology)

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AIM
This study aimed to clarify to what extent high-school students had learned infants’ characteristics and child abuse.

METHODS
A workshop titled “Safe way of taking care of babies - to prevent shaken baby syndrome (SBS) -” was held for 23 high-school students who were interested in nursing. After the workshop, an anonymous, self-administered questionnaire survey was conducted.

RESULTS / FINDINGS
Twenty-two questionnaires were collected. As for the understanding degree of the lecture, 19 answered “comprehensible,” and three, “slightly comprehensible” As for the degree of interest, 19 answered, “felt an interest”; two, “felt a little interest”; and one, “felt not much interest.” Concerning the learning experience about babies’ characteristics, 12 answered “had learned in junior high school”; one, “had learned in high school”; and four, “had learned, but not remember when.” As for the learning experience about child abuse, one answered “had learned in junior high school”; five, “had learned, but not remember when”; and three, “had not yet learned.” As for the learning experience about child abuse, one answered “had learned in junior high school”; five, “had learned, but not remember when”; and five, “had not yet learned.” As for recognition of the SBS, one answered “had already recognized the SBS.” The SBS is a typical child abuse observed in infancy. To learn these themes early is considered contributory to child abuse prevention.

What Home Economics Can Do for a New Society with Diversity

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Presenting Author  Yui Nakajima (Nagasaki University)  Japan

AIM
This presentation aims to figure out what problems the way of disaster prevention and disaster education in Japan hold and to rethink what home economics can do for the education. Recently, disaster risk has been increasing, for example because of natural hazards frequently occurred such as earthquakes and volcanic eruptions, and human-induced environment destruction. In a time of such disasters, the vulnerable as women, foreigners, the elderly, and the disabled are more easily exposed to risks. In Japan, academic studies on the Great Hanshin-Awaji Earthquake in 1995 have pointed out the vulnerability of these people.

We conduct document analyses on the Courses of Study designed by the Ministry of Education (MEXT) and other national and local government documents regarding education and disaster prevention, especially established by twenty major cities in Japan. Since Japan has always confronted the possibility of earthquake, disaster prevention appears in the Courses of Study in a fashion. Although schools usually conduct emergency exercises as special activities, disaster education has not been associated with subject education. Moreover, the disaster education has not given consideration to the diversity of victims. Also, it has ignored the lives of victims. In conclusion, we, first, suggest the significance of new disaster prevention plans that embrace diversity in the level of local governments. In order to put the plans into practice, second, in school education, disaster reduction education from the perspectives of diversity should be included to cultivate citizens who recognize they themselves can be stakeholders in hazard. In these senses, the risk of home economics becomes quite significant. Home economics could be the most appropriate subject for introducing the diversity and lives of victims.

Difference in Grandmotherhood and Grandmother’s Capacity between Japan and China

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AIM
A survey was conducted to discuss the difference in grandmotherhood and grandmother’s capacity between Japan and China as part of the study aiming to develop a grandchild-care support program by making efficient use of grandmother’s capacity to support grandchild-care.

METHODS
A questionnaire survey.

RESULTS / CONCLUSION
1 Factors of “Grandmotherhood”
Common to the Japanese and the Chinese grandmothers, two factors were extracted “pleasure and relief brought about after having a grandchild” and “restrictions on one’s own life after having a grandchild.” Both groups were found to recognize the state of being a grandmother in the same way.
2 Factors of “Grandmother’s capacity”
Two factors extracted from the Japanese grandmothers were “to take general care of a grandchild and the grandchild’s family” and “to dote on a grandchild like a pet,” the latter meaning an emotional relation with a grandchild, including ‘to play with a grandchild’ and ‘to buy clothes and toys for a grandchild.’ On the other hand, two factors were extracted from the Chinese grandmothers: “to support for a grandchild” and “to help grandchild’s family with general chores,” specifically including ‘to help grandchild’s family with their...
The Government founded the “Certified child care center” as unified facilities of the kindergarten and day-care center in 2006. Enhancement of local child care support including the support to the full-time homemaker family having childcare burden can be expected. However, actually, in the non-depopulated with many waiting-list children of day care center, private kindergartens tend to promote transition to certified child care center because they want to improve the shortage of the children and management efficiency.

In Japan, the number of children who live in poverty or under abusive conditions at home, who are affiliated with allergics, or who are thought to suffer from developmental disorders is increasing. To nurture the growth of children bearing these difficulties, it is necessary to train highly motivated and skilled kindergarten teachers and childcare workers. Naturally, a university education will lift the expertise of childcare specialists, but the potential for career enhancement also depends on their undergoing in-service training after they find work. So, for kindergarten and nursery school principals, kindergarten teachers, and childcare workers, the question is to what extent such training is necessary and how it can be practically implemented.

Four findings became clear from our investigation: (1) Kindergarten and nursery school principals as well as active kindergarten teachers and childcare workers feel that in-service training is necessary. (2) Yet, securing the necessary hours for in-service training is not easy, and it is especially difficult at childcare facilities where aides work long hours due to a shortage of hands. (3) Since wages in this field tend not to rise, there is a poor incentive and flagging will to undergo in-service training even if doing so could enhance one’s career prospects. (4) To stem the loss of new workers, many kindergartens and nursery schools enthusiastically strive to devise training programs for them. As many kindergartens and nursery schools struggle by trial and error with how to set up training programs, there is also the opinion that the cooperation and understanding of parents and guardians will be needed to secure training hours. To boost childcare-expertise levels and to prevent the outflow of talented people, it will be necessary to prepare effective in-service training after they find work. So, for kindergarten and nursery school principals, kindergarten teachers, and childcare workers, the question is to what extent such training is necessary and how it can be practically implemented.

METHOD

A one-on-one interview survey was conducted with 64 5-year-old children who attend a kindergarten in the Tokyo suburbs. The survey was conducted in November 2014.

RESULTS

We presented 5 illustrations concerning happy settings and unhappy settings in the relationship with the family then asked about how happy or unhappy they were in these settings. “The Happiest Setting” for more than half was “When my family bought me what I wanted”, and “The Unhappiest Setting” for approximately 30% was “When I was left alone”. We presented 4 illustrations, for example “When my family is tired” “When my family is sick” as a setting for them to perceive concerns for their family then asked about how they think and behave. We totaled the scores for the 4 concerns for the family, created “Scores for concerns for the family” and divided these into 3 groups (low, average and high scoring group). The low scoring group for concerns for the family had very low scores for happiness “When my family played with me”, and “When my family listened to me”. In addition, the scores for concerns for their family at times “When my family bought me what I wanted” had a higher percentage of responses with the low scoring group.

CONCLUSION

Children felt happy about getting something when the relationship with the family was weak, while children were perceived to be happy about setting where they shared their hearts such as when parents and children spent fun times together and the parents listened about settings where they shared their hearts such as when parents and children spent fun times together and the parents listened.

The Effect of Parental Attachment and Parents of Marital Relationship on the College Life Adjustment by Chinese Students in Korea: Focused on Mediating Effect of Dispositional Optimism

Since initiating market reforms in 1978, China has experienced rapid economic and social development. According to the National Bureau of Statistics of the People Republic of China that at the end of 2011, the number of private cars was 6240000 and it was 7 times of 2001. The rapid increase in car ownership especially ownership of private car became the main influencing factors of city traffic problems. At the same time the phenomenon of picking up children to and from school becomes more and more popular, resulting in an increasingly worsening of traffic situation in areas around schools, and making it taking long time for children to commute between home and school.

This paper is to make clear that how the traffic congestion affects children and their families. The research method include literature review, questionnaire, face-to-face interviews. Based on an analysis of the survey statistics.

Firstly, it can be said that traffic congestion on child’s commute to school takes big influence on their living time and lifestyle. Secondly, it becomes clear that picking up a child to and from school has influenced parents’ work and their living time. Thirdly, because of the traffic congestion, a new kind of lifestyle of family which lives in rented house near school on weekdays and goes back to home at weekends is appeared. Furthermore, the economic pressures of these families are bigger than average families. Above all, the traffic congestion on child’s commute to school affects almost of families and their daily life.
Associations between Adolescents’ Perceived Parental Attachment and Mobile Phone Usage: The Mediator Role of Dispositional Optimism

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The results indicate that positive parental attachment and mobile phone usage are positively related, whereas dispositional optimism mediates this relationship. Adolescents with higher optimism tend to use mobile phones more positively, even when they have strong parental attachment. The study highlights the importance of considering dispositional factors in understanding technology use.
Protection of Abused Children - Focused on Follow-Up Service for Abused Children and Abuser

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As child abuse became a serious social issue, the attention and awareness of the issue, and, therefore, the number of relevant reports are increasing every year. Considering abused children can grow to become an abused to their children in the future, it is important to prevent and discover cases of child abuse in order to prevent future child abuse and build a healthy society. Particularly, to prevent the risk of recurrence, continuous follow-up management of the abused child and abused is essential, and active policy and intervention on a governmental and social level is needed. Therefore, this study examined types of child abuse and follow-up measure related to abused children and abuser, and discussed preventive follow-up measures.

To investigate the current state of abused children protection, statistics from a database built by Ministry of Health & Welfare based on a survey conducted by a child protection organization in 2014 was used for this study. As a research method, AHP (Analytic Hierarchy Process; a structured technique for organizing and analyzing complex decisions) and frequency analysis were performed to examine the priorities including abuse cases and services. The result of the study was as follows: first, the most common forms of repeated child abuse were multiple abuse, neglect, emotional abuse, physical abuse, and sexual abuse in the order. Second, the number of reported child abuse is increasing. In 2010, 2011, and 2012, the numbers of reported child abuse were 3,612, 4,043, and 4,876 respectively. Third, as for the relationship between the abused and the abuser child, the biological parents – biological father (45%) and biological mother (32%) - accounted for the highest percentage, followed by child care staff (2%), stepmother (2%), and relatives (2%). Fourth, most common forms of follow-up service for abused children were organization counseling (17%), individual counseling (16%), psychotherapy (20%), and others (1%). Most common forms of follow-up service for abuser were individual counseling (15%), organization counseling (11%), psychotherapy (6%), and home support service (2%). This study can be used as basic data for establishing various policies for abuse children protection. Most of all, in order to reduce damage to abused children, it is necessary to make report legally mandatory and reinforce education to prevent child abuse at different stages of life cycle. Also, efforts must be made to make parenting education mandatory to prevent domestic problems. Furthermore, this study suggests continuous, systematic, and mandatory follow-up management of both abused children and abuser is necessary.

Reality of Teenager’s Sexual Practices and Experiences on Acquiring Sexual Knowledge and on Discussion of Sexual Concerns with Parents

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The following research will investigate teenagers’ experiences of sex education by their parents and increasing tendency of the parents as the advisors of sexual concerns based on the research DI data of sex culture, which has been conducted by Seoul city and Aha Sexuality Education & Counseling Center for Youth since 2004 for three years cycle.

The research targets are 1,078 middle school second graders in Seoul. For the research method, the frequency analysis and AHP (Analytic Hierarchy Process; a structured technique for organizing and analyzing complex decisions) were used in order to comprehend the priority among acquisition channel of sex knowledge and experience of sexual problem.

The major results are follows. First, the number of sexual problems that teenagers are suffering is increasing. According to the result of the study, increased 3 times for girls and 2.2 times for boys compared to that of the 2007. Sex contagious diseases have increased 4 times for girls and boys. Accordingly, people can assume that there is increasing tendency of the number of sexual problems that teenagers are suffering.

Second, there is inequality between the contents of sex education and the contents demanded. While the contents of sex education conducted in 2013 were puberty, secondary growth, sexual harassment prevention and gender equality, the actual demands of teenagers were adjusting sexual desires, love and date. In addition, appropriate education for gender is required due to the differences needs of boys and girls.

Last, there is increasing case of acquiring sexual knowledge and confessing sexual concerns through the parents. There is a 5 times increase for boys between 2004(4%) and 2013(20%) and girls rate has also increased; it was 1.6% in 2004 and 2.9% in 2013. Accordingly, parents need to attain appropriate sexual knowledge that fits to their children. Moreover, parents rank higher than school or sex educator as the advisors of sexual concerns for teenagers, which indicates there are increasing role for parents as sexual advisors.

This research can be utilized as a crucial foundation for grasping different demand of sex education contents for children by gender and development of domestic sex education program in the future. Add on to that, the research probed that there is increasing number of sexual problem for teenagers and increasing role for parents as sexual advisors and educator to prevent and solve the sexual concerns. To conclude, the research is deemed to be substantial in a point that it has raised the need of parents’ sex education.

Key words: Teenager, Sex education, Sex knowledge, Sexual concern, Abortion, Sexual contagious disease.

The Relation between Parental Behavior and Adolescent Happiness : Testing the Mediating Effects of Self-Esteem and Academic Stress

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Co-Author(s) Mee Sik Park (Sookmyung Women’s University)
Presenting Author Jeun Kim (Sookmyung Women’s University) Republic of Korea

This study aims to establish cause and effect relationship between the direct/indirect influence of adolescent academic stress and self-esteem based on theories and advanced research, and it reviews suitability and the effects of individual factors.

Data came from the 7th Korean Welfare Panel(2012) and the present study utilized a subset sample 496 of adolescents. SPS 23.0 and Amos 23.0 were used for SEM.

The major results of the study are as follows:
A Class for Students in the Home Economics Teacher-Training Course Using Everyday Items (2): Dyeing with Tomatoes

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**AIM**
The purpose of this study was to help students, who are in training to become elementary school home economics teachers, realize that home economics is daily life science in a way.

**METHOD**
The objects were 10 students, two males and eight females, in the freshman year in the teacher training course at Joetsu University of Education. All of them chose “Tomatoes and Life” class out of the 12 hands-on learning classes offered in our college. Tomatoes were used in this class in order to make the most of tomato raising experience, which is mandatory for all students in our college in the first semester. The class was carried out from June to November 2015. The total number of hours is 10 and each class was 2-hour hands-on learning class, respectively “1. Getting to know tomatoes”, “2. Cooking tomatoes”, “3. Preserving tomatoes”, “4. Dying with tomatoes” and “5. Living with tomatoes.” This presentation reports how they responded to “4. Dying with tomatoes” class and the analysis of their feedback.

**RESULTS**
1. Though it was the first dyeing experience for many of them, they actively took part in it in general.
2. Many of them mentioned their surprise when they found that the tomatoes, which they raised for themselves, could be used as dye.
3. Some of them mentioned their regret that the cloth was dyed only faintly while they knew practically was emphasized in hands-on learning classes.

**CONCLUSION**
They seemed to enjoy working on the class, which involved an element of experiment. That is probably because they used the tomatoes they raised for themselves besides tomatoes are something they are familiar with in everyday life. This class shows teachers need to keep exploring capabilities of everyday-life items and take them up in their own classes.

**PT_0759**

**Attempting to Deal with Relationships with Consumer Culture as Life Problems -Based on the Evaluation of Teaching Materials by University Students in Japan and Korea-**

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**PURPOSE AND BACKGROUND**
This study focuses on the effect of consumer culture surrounding children (e.g. fashion, music, comics, animation, and video games) on the management of various resources such as private time, household finances, and human relations. There is little research on market influences on the consumer and consumer culture for example the processes by which problems have occurred based on reflections on past behaviors and addressing negative aspects. These evaluations clarified the necessity of showing these processes and developing teaching support manuals expounding actual conditions and problems of consumer culture when making animated teaching materials.
This work was supported by JSPS Kakenhi Grant No. 26381267.

**RESULT & DISCUSSION**
Japanese students evaluated the materials by citing examples based on their own experience. Citing engaging design and appropriate expressions, they were able to consider the effectiveness of these teaching materials in their adaptability to student levels at teaching. They did not go so far as to evaluate how children would learn about their relationship with consumer culture through the materials.
The Korean students focused on comprehensibility and design. They evaluated with equal importance the relationship between consumer and consumer culture for example the processes by which problems have occurred based on reflections on past behaviors and addressing negative aspects. These evaluations clarified the necessity of showing these processes and developing teaching support manuals expounding actual conditions and problems of consumer culture when making animated teaching materials.

**PT_0784**

**Home Economic Education Extension Course in Junior High School: The “Love Bank”**

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The aim of this study is design “The Love Bank” course to help students improve their relationship within their families. “The Love Bank” course is a lesson about family relationships, which can be a part of the topics of home economics education in Taiwan. This course combines Gary Chapman’s “the 5 Love Languages” with Lin’s and Wei’s ideas. First of all, a learning sheet will be given to students to help them figure out how much they love and care about their families. Also, it can make students realize how family relationships is important. Then let them know that there are many ways to express their love within family members.
The course was executed in 3 junior high schools from 2013 to 2014. 1068 students had taken the course, 663 of them learned “The 5 Love Languages” in the class and the other 405 students learned on the sheet by themselves. Students had to practice the 5 love languages at home for three weeks or so. Each one wrote down their feelings and recorded the feedback that their parents gave them on their learning sheets. Finally we received 831 learning sheets. The results show that among the 5 languages, students use the “acts of service” most, and the “receiving gifts” least. In a family, students give the love language to their mothers most, and mothers are also the one who gives the children love language most. After “The Love Bank” course most students realize that it is important to love and to care about their family. Also the course fuels the interests of students in learning the topic of family relationship. Overall, “The Love Bank” course do make students love to and to care about their family. Therefore “The Love Bank” course is worth popularizing.

**Issues Concerning Teaching Students to Fix a Meal in a Home Economics Class**

**First Author (Main Author)** Nora Watase (Iwate University) Japan

**Co-Author(s)**

**Presenting Author** Nora Watase (Iwate University) Japan

According to the National Health and Nutrition Survey in Japan (2012), the dietary habits of today's young generation are poor. The Ministry of Health, Labor and Welfare of Japan recommends a “healthy eating pattern” based on Japanese food culture and that people should eat “a combination of staple foods, main dishes, and side dishes.” In Japan, home economics is a mandatory subject from Grade 5 onwards, and this “healthy eating pattern” is expected to be taught in home economics classes. This study examines the relationship between elementary school teacher training course students’ healthy eating habits/attitudes/nations and their self-assessment on teaching healthy food habits and cooking to children. The study also highlights an important challenge concerning the home economics teacher training course. In this study, questionnaire surveys were conducted among teacher training college students in 2011 and 2014. The first survey consists of four parts: students’ dietary records, 2. Self-assessment of their cooking skills, 3. Self-confidence in teaching cooking to elementary school children, 4. Planning and evaluating lunch menus. In the second survey, the questionnaire items included “show/paint your idea of a healthy lunch menu.” The survey revealed that about 90% of the respondents enjoy cooking, although only 20% of them are confident in seasoning dishes to their taste. This result suggests that they do not establish the practice of tasting their dishes. Many of their ideal lunches consist of three or more dishes in a Japanese-style meal, but their ideas do not represent their actual dietary records. Many college students are anxious about giving children explicit guidance on cooking, particularly, using a knife and measuring ingredients. The study clarifies the existence of a wide gap in the self-awareness of their cooking proficiency and their ability to offer home economics lessons on cooking to children.

**Student Stages of Concern Using Mobile Phones in Home Economics/Family and Consumer Education**

**First Author (Main Author)** Rose Godfrey (Texas Tech University) USA

**Co-Author(s)**

**Presenting Author** Rose Godfrey (Texas Tech University) USA

The purpose of this study is to identify students’ stages of concern in using mobile phones in Home Economics/Family and Consumer Sciences Education.

Relevance: Of the world's 7 billion people, 6 billion have mobile phones (“UN News Centre”, 2013). When cell phones were first introduced, people thought they were only to be used for communication, but cell phones are much more than that. Today, cell phones are mobile phones and can be miniature computers. Mobile phones can provide instant knowledge and skills that can help students with their school assignments, daily jobs and learning 21st century thinking skills. Today’s young people called “Digital Natives” are carrying these tiny computers in their pocketbooks, pockets, and backpacks (Prensky, p. 2, 2004). Mobile learning is no longer the next big thing—it is the big thing and many educators are encouraging students to bring their mobile phones to class (Koschak, 2012). Mobile phones can provide auditory, visual or textual information. Today's phones can alert students to demand answers and research; record oral reports, take pictures and videos, and respond to polls and quizzes (Nelson & Webb, 2011, Introduction, par 1). Although the use of mobile phones in the classroom is becoming more common in different content areas, age groups and geographical locations, research is lacking in Home Economics/Family and Consumer Sciences student attitudes and perceptions of using the mobile phone in the classroom.

Need for the Study
How students feel about and perceive the use of mobile phones for educational use will determine whether learning takes place or not.
Globalization and the Curriculum for Home Economics Education - Classroom Plans on Family Study -

**AIM**

As globalization proceeds, the family in Japan is exhibiting a variety of forms. Emerging issues relating to the family include the declining birthrate and aging population, poverty of single mother households, and international marriages. The purpose of this research was to clarify classroom plans for the study of "family" by introducing a global perspective in home economics education.

**METHOD**

(1) Identify issues of globalization and the family from areas such as feminist politics, pedagogy, and educational methodology.
(2) Analyze, based on surveys in Canada and Belgium, the features of family support and curriculum incorporating a global perspective.
(3) Conduct action research on the implementation of classes on family study in home economics in Japan.

**RESULTS & CONCLUSION**

In classes on family study in home economics, students learn about social support for changing family models, and the best approaches for families to take to live in a diverse society. Key points include: (1) Considering the family as a form of security for human beings, (2) Rethinking the systems of society from the standpoint of care.

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Elementary School Children's Emotional Changes Raising Pigs to Slaughter

**AIM**

In classes, there is a need for a plan which focuses on dialog, using the text as an intermediary. The results here suggest there is a need for an anxiety-free classroom, and a space where opinions can be made visible and shared.

**METHOD**

We analyzed children's essays (N=36, 5th grade of an elementary school in Joetsu City, Niigata) using text-mining approach and interviews their teachers (N=2) . The Fundamental Act of Education and national curriculum guidelines mandate cultivation of zest for living and education of respect for life. In response, some schools teach children to raise animals, ship them to slaughter, and eat them; yet no one has studied its emotional impact. Therefore, our purpose was to identify issues arising in their actual experience of teaching it. About 50% of parents believed it should be taught at home, and 28% thought it should be taught in schools. It includes hand sewing education, in which the students created useful crafts from a piece of cloth, is considered to be important. However, in the current scenario, there are fewer opportunities for hand sewing education in schools in developed countries. Under compulsory education, the Japanese students are taught hand sewing education in 'Comfortable Clothing and Housing' subject. It is accepted that such subjects include woodwork and metalwork. It is accepted that such studies develop certain abilities in students. Thus, the aim of this research was to analyze the current curriculums regarding hand sewing in schools in Denmark and Finland and to develop a learning model.

**RESULTS**

From waste to consumption. The early years of consumer education in Home Economics textbooks that have been used in Korea in middle schools, beginning with the first curriculum and the revised 2009 curriculum.

**CONCLUSION**

The purpose of this study was to analyze the content of consumer education in schools with the aim of proposing guidelines for community-oriented consumer education (Consumerism 4.0). Today, it is important to emphasize consumer education with a community orientation over consumer choice based on the efficiency and rationality of individual consumers. Why is consumer education important for the community? How should a happy consumer be defined? The current study examines the content and methods of community-oriented consumer education.

**METHODS**

An in-depth content analysis was conducted of twenty Home Economics textbooks that have been used in Korean middle schools, beginning with the first curriculum and the revised 2009 curriculum.
A Class for Students in the Home Economics Teacher Training Course Using Everyday Items (1): Food and Tomatoes

Tuesday August 2 09:00 ~ 17:00

First Author (Main Author) Yukari Sato (Joetsu University of Education) Japan

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Presenting Author Yukari Sato (Joetsu University of Education) Japan

AIM ‘Experiential’ learning is learning that aims for a fundamental experience, to form the basis for the creation of educational activities such as those within the education curriculum and special activities in school education. ‘Experiential’ learning comprises shared experiential learning and elective experiential learning. The shared experiential learning is titled ‘Mini-tomato cultivation’, while the effective experiential learning has twelve content topics, including ‘Tomatoes and daily life’. The aim of this study is to establish classes targeting students undergoing teacher training with the aim of becoming elementary school teachers in the future. Using the perspective of the fixed domain of Home Economics, the students in these classes experienced and studied about tomatoes which had been cultivated by them through a shared experience. Using Home Economics as the academic background, these classes attempted to foster an understanding about Home Economics Education as a life science.

METHOD The subjects comprised 10 students (2 males and 8 females) who had enrolled in the first-year of the teacher training course. Each of these students had selected the topic ‘Tomatoes’ and daily life from the list of elective experiences. There were 10 class hours in total, divided into 2 hours for each of the following classes: 1. ‘About tomatoes’, 2. ‘Cooking with tomatoes’, 3. ‘Storing tomatoes’, 4. ‘Dying using tomatoes’, and 5. ‘Living with tomatoes’. This presentation reports the analysis results of the outward appearance and sentiments of the students when the following three above-mentioned subjects were being explained in the class: 1. ‘About tomatoes’, 2. ‘Cooking with tomatoes’, and 3. ‘Storing tomatoes’.

RESULTS 1. The class on the nutrition and content of tomatoes incorporated hands-on learning such as comparing tomatoes by observing and tasting them. Notes were maintained to record the students’ surprise at the differences in taste among tomatoes, their understanding of the nutrition provided by tomatoes, and so forth. 2. Notes were also maintained for the class on ‘Hands-on learning on the topic’. These topics indicated that when experiencing lessons on Home Economics Education as a life science, it is important to base the lessons on the topics and methods pertaining to Home Economics.

A Class for Students in the Home Economics Teacher Training Course Using Everyday Items (2): Food and Tomatoes

Tuesday August 2 09:00 ~ 17:00

First Author (Main Author) Akiko Kaneyasu (Kyushu University) Japan

Co-Author(s) Yukie Yanagisawa (Wayo Women’s University) Japan

Presenting Author Akiko Kaneyasu (Kyushu University) Japan

There are 2 purposes for this research. The 1st is to make the reality of the network of a home economics teacher clearer. The 2nd is to make it clear what kind of influence the network is having on class improvement of a home economics teacher. The process of the teaching improvement is made clear by paying attention to the teaching materials a teacher chooses in particular. In Japan, most of junior high schools have only 1 home economics teacher. The preceding research work points out the importance of the formation of a network between the home economics teachers. There is a lot of discretionary power of a teacher about a class in Japan. Therefore it’s possible to do the same school every year without improving the class, and there is danger. Methods chose a survey by questionnaire and an interview investigation to a junior high school home economics teacher. It was investigated targeted for 363 people of a public teacher junior high school and secondary education school in 344 school 16 prefectures in Japan, 2014 by a survey by questionnaire. The effective answering ratio was 29.5%. An interview investigation was performed targeted for 8 junior high school home economics teachers. More than one time, I conducted and went from August, 2014. 2 points became clear big as a result. The 1st point is the case that a junior high school homemaking course teacher forms a network with between the homemaking course teachers in an area and a predecessor in a duties school. The 2nd point is the case that used teaching materials are changing by influence of an exchange by a network between the home economics teachers. It’s also necessary to consider a negative aspect of a network as future’s problem.
**Title:** Development and Application of the Teaching-Learning Process Plan of Senior Cohousing for Independent Later Life

**First Author:** Ji Myoung Na (Korean Home Economics Education Association)

**Co-Author(s):** Jaronso Cho (Korean Home Economics Education Association)

**Abstract:**

The purpose of this study was to develop and evaluate the teaching-learning process plan of senior cohousing to improve understanding of active and independent living in later life through Home Economics subject. The plan consisting of 5 lessons has been developed and implemented according to the ADDIE model. The overall objective was to improve the practical competency of independent later life by understanding senior life as well as senior cohousing based on 2011 and 2015 national home economics curricular and 9 textbooks. Each of the 5 lessons included various motivating methods such as mind map drawing, games, quiz, case study, etc. and group activities were encouraged for students to cooperate to accomplish the tasks. Various activity materials (28 individual activity sheets, 2 working sheets, and 26 teacher’s reading texts) and visual materials (4 sets of pictures & photos and 10 moving pictures) as well as questionnaire were developed for the 5-lesson plans. The plans were implemented to 6 classes 150 freshmen of P high school in Jeju-do during August 17th to 3rd of September, 2015. Students were highly satisfied regardless of gender with the whole 5 lessons in the aspects as the level of participation in the lesson, understanding of the contents, adequacy of materials and activities, and usage in their future life. The mean of 6 items ranged from 4.05 to 4.20 with the total of 4.12 out of 5-point likert scale. Students reported that they highly accomplished the goal of each of the 5 lessons in the aspects as the level of participation in the lesson, understanding of the contents, adequacy of materials and activities, and usage in their future life. The mean of 6 items ranged from 4.05 to 4.20 with the total of 4.12 out of 5-point likert scale. Students reported that they highly accomplished the goal of each of the 5 lessons.

**AIM**

To improve the practical competency of independent later life by understanding senior life as well as senior cohousing based on 2011 and 2015 national home economics curricular and 9 textbooks.

**METHOD**

1. The seventy of the multiple disasters-the earthquake, the tsunami, and the accident at the nuclear power plant-was unprecedented in Fukushima prefecture.
2. It is natural that high school students in Fukushima prefecture tried to recognize problems in their lives. Accordingly, the number of opinions concerning what measures should be taken in response to a disaster was greater in Fukushima than in other areas.
3. By analyzing problems that occurred in different areas, I have proposed a plan to include disaster preparation as part of the home economics curriculum.

**RESULTS**

The March 11, 2011, earthquake and tsunami caused unprecedented damages in Japan. As a result, many people’s lives were changed in unexpected ways. My aim is to analyze how the content of high school home economics classes can help people recover.

**CONCLUSION**

Experiencing the disaster in 2011 made high school students recognize the importance of preparing for such unexpected events. I have concluded that risk management is an indispensable part of home economics education.
This study aims to find out how “tradition” is represented in technology-home economics textbooks by analyzing how “tradition” and its meanings are represented in technology-home economics textbooks. For this purpose, this study utilized discourse analysis. The analysis texts were the family-related sections of 31 textbooks (11 7th-grade tests, 11 8th-grade tests, and 9 high school tests) and the 2009 revised curriculum manual. First, the researchers extracted all scenes which mentioned “tradition.” Next, we grasped the aspects of “tradition” that were used and which words were used with “tradition.” Finally, we could figure out how “tradition” and its meanings were represented in technology-home economics textbooks. The results of the analysis are as follows: First, “tradition” indicated our traditional country, traditional family, and traditional society by being frequently used with “our country,” “society,” or “family.” There were many texts in which “tradition” could be deleted or replaced with “the past,” and there would be no difficulty in understanding that “tradition” was represented in such a way as to have no particular time and said universal past time, and was used for contrasting with present time. Second, when “tradition” appeared for the explanation of some contents, it was understood as the traditional family is the same as a patriarchy or an extended family of the Confucianist family after the 17th century. In other words, “tradition” meant “the patriarchy of Confucianism after the mid-period of the Joseon dynasty,” so “tradition” represented not inclusive past time but a specific past time when “Confucian family values” were strengthened. Besides, there was no operational definition for “tradition” meaning for the “after the mid-period of the Joseon dynasty.” It is contradictory to the former intent that “tradition” cover all past time. Thus we should be careful not to misunderstand that “tradition” means all inclusive past time, despite it just intended a specific time. Third, the “modern family” was placed right after the “traditional” family. Textbooks contrasted the “traditional” family and the “modern family” without any consideration of the social, economic, and historical backgrounds of the “traditional” family. It is almost as if “tradition” was dismissed as a negative thing or a thing to be rebuked. Therefore, textbooks should give an opportunity to students to understand and discuss the past-present-future family in depth. It can allow students to form their own perspectives and develop their critical thoughts about family, so they can manage their own healthy family life autonomously.

Based on these results, the next revised technology-home economics textbooks ought to clearly define what “tradition” is, help students to understand the traditional family, and help pass down some valuable family culture to posterity.

**The Necessity of Career Education about Child Care Specialists by Home Economics in Japan**

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**AIM**
Many university students studying early childhood education and care change their images on child care after they start studying and experiencing practice teaching in early childhood education and care. The study will reveal how their images change and how Home Economics education in middle school and high school affect their images.

**METHOD**
Paper survey targeted at 60 university students who studied child care and experienced practice teaching in early childhood education and care. Analyzing what is written in home economics textbook, especially child care section. The study period was in October 2015.

**RESULT**
1. Student survey: (1) About half of the students thought that working at day nursery involve just playing with children. Others thought the job was fun and involved taking care of children. They also thought the job is suitable for people who like children. (2) Almost the students changed their images after studying or practice teaching in early childhood education and care. They became more aware of the job responsibility and the existence of child care schedules. 2. Analyzing textbooks: Almost all the textbooks teach how to contact with children, but do not mention the job outline and the job responsibility.

**CONCLUSION**
In Home Economics education in Japan only makes students aware of how to play with and interact with children. Teaching the responsibility and the actual situation of childcare specialists will educate students better about early childhood care establishments and systems as a citizen. This will help them make more informed decisions for selecting their future course.

**Development of Family Well-Being Indicators in Thailand**

First Author
Yu Son Lee (Dongguk University)

Co-Author(s)
Mi-Kyung Jun (Dongguk University)

Presenting Author
Yu Son Lee (Dongguk University)

**AIM**
Objectives of this study were to review past studies and documents related to the development of any kind of indicators for family well-being in Thailand, and also to develop a set of indicators for family well-being in Thailand.

**METHOD**
There were several steps to the development for family well-being in Thailand, starting from documentary research to analyze the domains for family well-being. Then we arranged the interviews, focus group discussion and data collection with families from different background and various parts of the country.

**RESULT**
Results indicated three domains of family well-being indicators, including family functioning, family relationship, and family self-sufficiency. Each domain consisted of five key indicators. A self-assessment form for family use was developed and tried out. It was found that such form needed to be revised for easy understanding. There should be home visit by local people in order to get accurate data collection from family members.

**CONCLUSION**
Family is the smallest and yet the most important social unit of society with high impacts on children development and other social units. It is the first place where children are trained and are formed of how their behaviors become their character and subsequently to be their personality. Thus, family well-being reflects the quality of lives in the family. The more we are able to assess family well-being, the more assistance we can get into that family. The findings in this study

**ANALYTICAL STUDY OF THE USE OF THE TERM ‘DIVORCED FAMILY’ IN TECHNOLOGY-HOME ECONOMICS TEXTBOOKS**

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**AIM**
This study aims to understand the way ‘Divorced Family’ is explained and what the terminology implies in Technology-Home Economics textbooks. Whether the descriptions carry appropriate universal validity in terms of the textbooks being the source of public education in Korea will be looked into.

**METHOD**
The data used for the analysis are 11 kinds of Technology-Home Economics textbooks for Grade II students that were revised according to the 2009 education curriculum, and the ‘Diverse Families’ part of the 2009 education course manual. In order to analyze the descriptions expressed in the two data source that cover information on diverse families in modern society, we first extracted the term ‘Divorced Family’ and all related sentences, illustrations, and activities. Among the extracted data, we analyzed the common characteristics shared by the illustrations depicting ‘Divorced Family’, the implications entailed by the texts explaining the illustrations, and the perspectives and intentions the writer must have had while writing those texts.

**RESULT**
The major findings are as follows: First, the term ‘Divorced Family’ is being used as a concept contrary to ‘Normal Family’ or ‘Ordinary Family’ throughout the data, the term ‘Divorced Family’ was used to carry the meaning of ‘a family in need of protection’ and in such uniform way that does not reflect the diversity within the group of different divorced families; Second, there was no textbook that accurately described ‘Divorced Family’, not to mention the lack of efforts in reflecting the change in social identity of divorced families in reality. Moreover, there seemed to be an implicit danger lurking to reinstate the prejudice of regarding the absence of a parent in the family as a deficiency; Third, biased views in which ‘Divorced Family’ is described as having social dysfunctions were found on many occasions. One should keep in mind that such texts bear the risk of causing psychological withering in children of divorced families; Fourth, there was no information on practical activities or definitive measures in support of ‘Divorced Family’ that are frequently referred to as ‘a family in need of support’. What was found instead were texts or illustrations loosely implying that ‘Divorced Family’ is a social group requiring help.

The young children growing up in divorced families deserve the chance to learn how to respect individual choices of each family member and to acquire open-minded perspectives and attitude towards the changes that occur to a family upon divorce. For this, there is an urgent need for complete revision of the textbooks so that they have more accurate and at the same time more educational explanations for ‘Divorced Family’ as well as ‘Diverse Families’.
Intergenerational Solidarity and Psychological Well-Being among Korean College Students

**AIM**
Based on Bengtson's intergenerational solidarity model, the aim of this study was to examine the associations between six dimensions of intergenerational solidarity and two aspects of psychological well-being among Korean college students. This study is one of the few studies to investigate all dimensions of intergenerational solidarity in one model.

**METHOD**
The data came from 415 college students aged 18-25 years old (M = 20.19), had at least one parent, and were registered at one of nine universities in four regions of Republic of Korea. We conducted two sets of multiple regression analysis controlling for age, gender, and family income. Our independent variables were intergenerational solidarity (i.e., frequency of contact with the mother and father), affectual solidarity (i.e., affection for parents, attachment anxiety toward parents, attachment avoidance from parents), consensusal solidarity (i.e., conformity to parental expectations), functional solidarity (i.e., financial support from family), normative solidarity (i.e., familial kinship), and structural solidarity (i.e., living arrangement). The dependent variables were life satisfaction and depressive symptoms.

**RESULTS**
The model predicting life satisfaction, affection for parents was the only significant factor (β = .264, p < .001). Greater affection for parents was associated with a higher level of life satisfaction. As for depressive symptoms, three variables were significant. Affection for parents was negatively related to depressive symptoms (β = -.202, p < .001) and conformity to parental expectations (β = .108, p < .001) were being more important for Korean college students. It is also interesting that conformity to parental expectations (β = .108, p < .001) was more important for Korean college students.

**CONCLUSION**
The findings suggest that certain dimensions of intergenerational solidarity (e.g., the affectual dimension in this study) may be more important for Korean college student's psychological well-being than other dimensions. It is also interesting that conformity to parental expectations contributed to more depressive symptoms, which implies that promoting autonomy rather than intergenerational solidarity needs to be the focus of professional efforts when working with Korean emerging adults.

The Recognition of Discipline and Abuse in University Students of the Faculty of Education in Korea and Japan

**AIM**
The purpose of this research is to examine the recognition of discipline and abuse in university students of the faculty of education in Korea and Japan.

**METHOD**
We have conducted a questionnaire survey on “consciousness of discipline and abuse” targeting university students belonging to teacher training courses. In Japan, we have collected 1,219 valid responses among 1,761 surveys between September 2013 and January 2014. In Korea, we have collected 1,194 among 1,510 between October and December 2013.

Following are the main questions:
1. What do you think about punishment for discipline?
2. Do you think, scolding, locking up in closets and rooms, not feeding, leaving the child home alone, included in the 23 actions are considered as abuse or discipline?
3. Have you received any of the 23 actions from your parents?

**RESULTS**
1. More than 40% of Japanese students and 88% of Korean students allowed punishment for discipline. However, more than 90% of students of both countries believed that, though aimed for discipline, hurting the child’s mind or body should be considered as abuse.
2. Out of the 23 actions, more than 70% of the students considered: only scolding (Japanese), and scolding and slapping on hands (Korean), as discipline. More than 90% of the students considered: 7 actions including giving burn marks (Japanese), and 5 actions including slapping with belt (Korean), as abuse.
3. More than 30-40% of students of both countries have experience of getting slapped by their parents during childhood. Korean students considered either abuse or discipline depending on the body part they were slapped on, and Japanese students believed most of it was discipline.

**CONCLUSION**
Our findings suggest that certain dimensions of intergenerational solidarity (e.g., the affectual dimension in this study) may be more important for Korean college students. It is also interesting that conformity to parental expectations (β = .108, p < .001) was being more important for Korean college students. It is also interesting that conformity to parental expectations (β = .108, p < .001).
to be happy (including goal-focused activity, recreational activity, community activity, activity with family & friends) and quality of life were assessed using self-report questionnaires. The data were analyzed using descriptive statistics, paired t-tests and multiple regression analyses. First, husbands’ and wives’ levels of orientations to happiness, happiness enhancing activities and quality of life were different. Specifically, husbands showed relatively higher level in endorsement of seeking meaning. Husbands spent more time in goal-focused activities than wives did, while wives spent more time in activities with family, community and friends than husbands did. Also, husbands showed higher level in quality of life than wives did. Second, orientations to happiness and happiness enhancing activities of husbands and wives affected each other’s quality of life, but in different ways. That is to say, when wives endorsed happiness through seeking engagement more, their husbands tend to have lower quality of life. When husbands spend more time in community activity, their wives tend to have higher quality of life. On the other hand, activity with family and friends was a common factor which positively affected spouse’s quality of life. These findings suggest that not only there are differences in orientations to happiness, happiness enhancing activities and quality of life between the married couples, but also the spouses who spend more time with family and friends tend to have better quality of life. Therefore, these differences and reciprocal effects should be considered when promoting quality of life for married couples.

A first random sample of Matsuyma City’s population aged 18-64, a time use diary from each day, locations, and social contacts were collected. The number of respondents was 1502 in the 1972 survey, 1275 in the 1991 survey, and 847 in the 2013 survey. This study analyzed part of each of the three surveys.

RESULTS

1. The time use difference by gender tended to grow less significant over the 40 years, although women still spent more time in housework and men spent more time in paid work. Married people showed this time use difference more significantly than unmarried people. 2. The married men spent more time alone and with children than the married men did. The married men increased time with children on Sundays over the 40 years. 3. The number of married people who spent time with their family was high when they ate, watched TV, or did housework. 4. Gender role recognition slightly affected married women’s housework time.

CONCLUSION

The time use of the Japanese in Matusyama City gradually changed toward expressing gender equality, in terms of how time was spent. The social contacts of married people tended to be family-centered, although this change might not be positive for all members of the family.

PT_0877
How the Japanese Use Their Time for Family and Housework: Analyzing Data from 1972, 1991, and 2013 in the City of Matusyama
First Author (Main Author) Noriko Kishi (University of Teacher Education Fukushima) Japan
Co-Author(s) Michinori Hirta (Hiroshima University)
Presenting Author Noriko Kishi (University of Teacher Education Fukushima) Japan

AIM

Spending time with family is one element of home economics education in Japan. The objective data of time use for family is useful for teaching the contents of home economics education. However, there is not a great deal of research and data on family time. This study explores how the Japanese spend their time with family and in housework, focusing on gender.

METHODS

In 1972, the Economic Planning Agency in Japan conducted a time use survey following the survey method of Szalai’s multinational comparative time use research. Follow-up surveys were conducted in 1991 and 2013 in the same city, using the same method. The leaders of the follow-up surveys were members of the first survey. In 1991, the number of respondents was 1275 in the 1991 survey, and 847 in the 2013 survey. This study analyzed part of each of the three surveys.

RESULTS

1. The time use difference by gender tended to grow less significant over the 40 years, although women still spent more time in housework and men spent more time in paid work. Married people showed this time use difference more significantly than unmarried people. 2. The married men spent more time alone and with children than the married men did. The married men increased time with children on Sundays over the 40 years. 3. The number of married people who spent time with their family was high when they ate, watched TV, or did housework. 4. Gender role recognition slightly affected married women’s housework time.

CONCLUSION

The time use of the Japanese in Matusyama City gradually changed toward expressing gender equality, in terms of how time was spent. The social contacts of married people tended to be family-centered, although this change might not be positive for all members of the family.

PT_0983
The Meanings of Doing Housework for Japanese Husbands
First Author (Main Author) Junko Takeda (Ochanomizu University) Japan
Co-Author(s) Junko Takeda (Ochanomizu University) Japan

AIM

The purpose of this study is to explore the meaning of doing housework through the interviews of husbands who are involved in meal preparation. In recent years, nuclear families and double-income families have increased in Japan. This change requires husbands to be more involved in housework. The time husband spend on housework is increasing, but it sometimes become problem that male do housework in a different way from female. For example, the meal prepared by male is sometimes called the ‘’manly‘’ cooking. In this study, I consider the meanings of housework for Japanese male through the framework of a gender model.

METHODS

I conducted the semi-structured interviews from May to Oct. 2012, with 11 husbands who prepared meal more than once a week. They

The research would figure out how the degree of recognizing conjugal relations creed have effects to the recognition and the satisfaction of the positive behaviors of the spouse, aiming for Korean couples. The research was conducted by conveniently sampled 248 Korean couples who has more than one child. The research utilized descriptive statistic, t-test, ANOVA, and multiple regression analysis by using SPSS WIN 16.0

First of all, the research implies that the average of boundary standard between a husband and a wife is 48.71 point, the average of power-control standard about spouse is 45.00 point, and the average of investment standard in couple relationship is 106.18 point. In the second, the research implied that the lower average of power-control standard about spouse and investment standard in couple relationship, higher expectation of housework the spouses are. Also, the research implied that the higher of boundary standard between a husband and a wife, higher satisfaction of affective, positive behaviors of the spouse have. And the research implied that the lower of boundary standard between a husband and a wife, lower quality of life of the spouses have.

CONCLUSION

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PT_1002
The Influence of Couple Relationship Standard Cognition upon Perception and Satisfaction with Positive Partner Behaviors in Korea
First Author (Main Author) Jungsoo Park (Chung-Ang University) Republic of Korea
Co-Author(s) Yujin Jeon (Chung-Ang University) Sunhak Cho (Chung-Ang University)
Presenting Author Jungsoo Park (Chung-Ang University) Republic of Korea

AIM

The aim of this study is to explore the change of household work remaining from using nursery schools. Child care work is socialized by using nursery schools, and a part of the household work is transferred to nursery schools. However, using nursery schools create extra work in the household, such as the application procedure to nursery schools, picking up and dropping off children, and preparing children’s belongings. It is necessary to examine what kind of work emerges from the socialization of childcare, and who is engaged in it. This study focuses on the application procedure to nursery schools, and clarifies the actual situation of working parents whose children are attending them.

METHODS

The semi-structured interviews were conducted from June to August 2013, with 12 mothers, 1 father, and 2 married couples. These subjects were parents of children attending nursery schools, who live in the same ward. They were asked how they had prepared for their children’s acceptance to nursery schools, and who mainly did the household work.

PT_1001
A Study of Household Work Arising from Using Nursery Schools: Focusing on the Application Procedure to Nursery Schools in Japan
First Author (Main Author) Mika Omagari (Ochanomizu University) Japan
Co-Author(s) Junko Takeda (Ochanomizu University) Japan
Presenting Author Mika Omagari (Ochanomizu University) Japan

AIM

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METHODS

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**An Impact of Dietary Life and Health Related Factors on Life Satisfaction in Elderly Households**

**First Author** (Main Author) Soon Mi Kim (Chungnam National University) Republic of Korea  
**Co-Author(s)** Soon Young Kim (Seoul National University) Yun Hee Oh (Chungnam National University)  
**Presenting Author** Yun Hee Oh (Chungnam National University) Republic of Korea

**PURPOSE**
There is an increasing interest in elderly with increasing life expectancy of elders and percentage of ageing population in Korea. Particularly in elderly households, single households and couple households separated from their children are increasing and making various efforts to maximize their satisfaction with elderly’s life. However, low-income elderly households were difficult to maintain basic living compared to high-income ones and their health status was not good as well. This study is to identify the impact of dietary life- and health-related factors on life satisfaction in low-income elderly households and seek to maintain their life satisfaction in the long term. Specifically, it compares dietary life related factors including well-balanced diet, food expenses, and support of medical expenses, health related factors including health status, health care payment, and support of medical expenses, and life satisfaction in single vs. couple households and investigates the effects of dietary life- and health-related factors on life satisfaction.

**METHOD**
In this study, the data from 2014 Korea Welfare Panel Study conducted by Korea Institute for Health and Social Affairs were used. As a sample, 1,918 elderly households with household head aged 50 years-old and higher in low-income households earning less than 60% of median equalized income were selected and classified into 1,130 single households and 788 couple households. SPSS program (Ver. 21.0) was used. As statistical methods, frequency and percentile, mean and standard deviation, Pearson’s correlation, and multiple regression analysis were used.

**RESULT**
First, in dietary life related factors, monthly average expenditure of single vs. couple households was $221.19 and $347.29($/70/Korea Won($US)) and monthly average food expense per person was $221.19 and $173.63. The percentage of balanced diet was 74.8% and 80.1%, respectively. The percentage of single vs. couple households supported living expenses was 89.1% and 85.2%. Second, in health related factors, monthly average medical expense of single vs. couple households was $726.06 and $143.27. In health status, the percentage of unhealthy vs. healthy group in single households was 54.6% and 15.8% and that in couple households was 47.8% and 20.0%. The health status of couple households was better than that of single households. In supported medical expenses, 86.4% of the single households did not receive and 87.9% of the couple households did. Third, in the impact on life satisfaction, the variables influencing the life satisfaction of single households were balanced diet, food expenses and health status, while those of couple households balanced diet, health status, and supported medical expenses.

**CONCLUSION**
The findings that single households showed a higher life satisfaction when they were supported living expenses, when they spent more food expenses, and when their health status was better and couple households showed a higher life satisfaction when they were supported living expenses, when their health status was better, and when they were supported medical expenses suggests that there is a need to establish other welfare support plans depending on the household type of low income elderly.
**Methods**

A questionnaire was composed in order to collect responses to dependent and independent variables. Social skills were considered a dependent variable, whereas the independent variables were community, friendship, educational status, and other. The questionnaire was distributed to 596 sixth-grade elementary school students in Takasaki, Gunma, Japan. The students were surveyed and analyzed according to three groups: city (30.4%), suburb (38.2%), and rural areas (31.4%). The survey period was from June 2014 to July 2014. The resulting data was analyzed using SPSS version 22.0 for the following statistical analysis techniques: mean, frequency analysis, factor analysis, one-way analysis of variance, and multiple regression analysis.

**Results and Conclusions**

Three factors were extracted from the 18 items gathered by factor analysis. We named them "problem-solving thinking abilities" (five items), "relationship formation abilities" (five items), "relationship

**Poster PT_0441**

**Instruction for Table Manners in School Lunch—Research from Teacher Training Course Student’s Actual Condition**

First Author (Main Author) Yoko Suzuki (Nara University of Education) Japan

Co-Author(s) Kaitlin Grable (Former Master Student from Texas State University) USA

Presenting Author Yoko Suzuki (Nara University of Education) Japan

**Purpose**

There are table manners taught over many years in Japan. For example, it is how to have chopsticks and usage. Upbringing for the table manners in a home is important. However, since there is a home which has lost the educational function occasionally, the class teacher instructs table manners in school lunch. Although the home economics education is also giving table manners, there is a little treatment compared with other contents of study. On the other hand, it is not certain whether the student of a teacher’s training course has the right table manners. The opportunity for the student to study the table manners in the stage of training of teacher is not guaranteed.

**Methods**

In this report, in order to identify the existence of the necessity for manners instruction for the students, the teacher training course student’s consciousness and the actual condition over the table manners were investigated. Furthermore, based on these results, the check sheet for the table manners was created and investigated the effect.

The subjects of survey are 94 students of the teacher training course in 2 universities. And 203 students replied to the check sheet.

**Results**

All student accepted the necessity of instructing for the table manners in elementary school. As the reason which needs the table manners, 64% answered the consideration for the others. Although it had answered that 80% of students had the table manners, the student who can be sure of own behavior was 71%. 54% students had answered that they could instruct the table manners for children. 78% students had answered that they would improve their manners by having filled in the check sheet.

**Conclusion**

The check sheet created by this report was effective in the improvement of table manners.

**Poster PT_0445**

**Hope and Happiness: Accredited Programs Prepare Students for Professional Careers**

First Author (Main Author) Carol Anderson (IFHE-US) USA

Co-Author(s)

Presenting Author Carol Anderson (IFHE-US) USA

**Purpose**

The American Association of Family & Consumer Sciences accredits baccalaureate degree programs. Benefits of accreditation include: advancing academic quality, demonstrating accountability, and continuous improvement. A case study highlights the benefits of accreditation including updated curricula and equipment as well as remodelled facilities.

**Methods**

Aim: The purpose of this study is to clarify to what extent community influences children’s social skills.

**Methods**

A questionnaire was composed in order to collect responses to dependent and independent variables. Social skills were considered a dependent variable, whereas the independent variables were community, friendship, educational status, and other. The questionnaire was distributed to 596 sixth-grade elementary school students in Takasaki, Gunma, Japan. The students were surveyed and analyzed according to three groups: city (30.4%), suburb (38.2%), and rural areas (31.4%). The survey period was from June 2014 to July 2014. The resulting data was analyzed using SPSS version 22.0 for the following statistical analysis techniques: mean, frequency analysis, factor analysis, one-way analysis of variance, and multiple regression analysis.

**Results and Conclusions**

Three factors were extracted from the 18 items gathered by factor analysis. We named them “problem-solving thinking abilities” (five items), “relationship formation abilities” (five items), “relationship

**Poster PT_0816**

**The Influence of Local Community on the Social Skills of Elementary School Children**

First Author (Main Author) Yoko Kobayashi (Gunma University) Japan

Co-Author(s) Kanami Saikai (Takasaki Technical High School) Myoko Nagatsu (Gunma University)

Presenting Author Yoko Kobayashi (Gunma University) Japan

**Purpose**

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A questionnaire was composed in order to collect responses to dependent and independent variables. Social skills were considered a dependent variable, whereas the independent variables were community, friendship, educational status, and other. The questionnaire was distributed to 596 sixth-grade elementary school students in Takasaki, Gunma, Japan. The students were surveyed and analyzed according to three groups: city (30.4%), suburb (38.2%), and rural areas (31.4%). The survey period was from June 2014 to July 2014. The resulting data was analyzed using SPSS version 22.0 for the following statistical analysis techniques: mean, frequency analysis, factor analysis, one-way analysis of variance, and multiple regression analysis.

**Results and Conclusions**

Three factors were extracted from the 18 items gathered by factor analysis. We named them “problem-solving thinking abilities” (five items), “relationship formation abilities” (five items), “relationship

**Poster PT_0875**

**Sustainable Water Behavior: A Focus on Hispanic Households**

First Author (Main Author) Jiyun Kang (Texas State University) USA

Co-Author(s) Kariin Grable (Former Master Student from Texas State University) Gwendolyn Hustvedt (Texas State University) Mijia Xin (Texas State University)

Presenting Author Jiyun Kang (Texas State University) USA

**Purpose**

Sustainable water behavior is complex and understanding the beliefs and attitudes that precede the behavior can be an efficient way to change or reinforce the behavior. This study aims to explore the role of Hispanic households’ beliefs related to drought and water resources in shaping their attitudes and behaviors related to sustainable water consumption. We focus on Hispanic households based on their significance to the national economy and many of them live in regions that are facing serious challenges from droughts and water shortages. We have developed a comprehensive model that depicts how water beliefs (water utilitarian belief, water ecological belief, perceived drought severity, and water resource concern) affect water attitudes (general attitude, social norm, perceived control, and moral obligation toward sustainable water consumption), which in turn affect water behaviors (current behavior related to sustainable water consumption and future intention of adopting water-efficient technology). Data was collected using an online survey with a random sample of 825 Hispanics (410 from Texas and 415 from California). The results of path analysis indicated that water utilitarian belief negatively affected water conservation attitude but positively affected perceived control in water conservation. Water utilitarian belief negatively affected attitude but positively affected perceived control. Water ecological belief positively affected attitude, social norm, and moral obligation. Perceived drought severity negatively affected perceived control. Water resource concern positively affected all of water attitude variables. Water utilitarian belief, water ecological belief, and water resource concern directly affected sustainable water current behavior. Indirect effect tests suggest the significant mediating roles of water attitudes in the paths from water belief constructs to current behaviors and the mediating roles of water attitudes along with current behaviors in the paths from water belief constructs to future intention of adopting water-efficient technology. This study provides critical implications to home economists and policymakers charged with managing water conservation efforts especially for Hispanics in regions significantly impacted by drought.

**Methods**

A questionnaire survey was conducted in July. 2014. Participants were 564 Japanese junior high school students. The questionnaire included questions about family dinner, dinner preparation, dinner table communication, relationship with neighbors, traditional cuisine, and attitudes toward sustainable water consumption. We focus on Hispanic households based on their significance to the national economy and many of them live in regions that are facing serious challenges from droughts and water shortages. We have developed a comprehensive model that depicts how water beliefs (water utilitarian belief, water ecological belief, perceived drought severity, and water resource concern) affect water attitudes (general attitude, social norm, perceived control, and moral obligation toward sustainable water consumption), which in turn affect water behaviors (current behavior related to sustainable water consumption and future intention of adopting water-efficient technology). Data was collected using an online survey with a random sample of 825 Hispanics (410 from Texas and 415 from California). The results of path analysis indicated that water utilitarian belief negatively affected water conservation attitude but positively affected perceived control in water conservation. Water utilitarian belief negatively affected attitude but positively affected perceived control. Water ecological belief positively affected attitude, social norm, and moral obligation. Perceived drought severity negatively affected perceived control. Water resource concern positively affected all of water attitude variables. Water utilitarian belief, water ecological belief, and water resource concern directly affected sustainable water current behavior. Indirect effect tests suggest the significant mediating roles of water attitudes in the paths from water belief constructs to current behaviors and the mediating roles of water attitudes along with current behaviors in the paths from water belief constructs to future intention of adopting water-efficient technology. This study provides critical implications to home economists and policymakers charged with managing water conservation efforts especially for Hispanics in regions significantly impacted by drought.

**Results**

Interest and inheritance were significantly correlated (r=0.32). The results of multiple regression analyses showed that ‘studying about traditional cuisine at school’ was most significantly associated with both interest and inheritance. Another significant factor was ‘living in city’ related to interest and inheritance was ‘Enjoying helping prepare dinner’ as eating dinner alone was negatively associated with inheritance.
CONCLUSION
The results imply that “Concern for traditional cuisine” would be enhanced through school education. Thus, home economics is very important as a subject dealing with Japanese traditional cuisine. “Concern for traditional cuisine” is also raised at home. Preparing and having dinner with family members would be an effective way for junior high school students to increase their awareness of Japanese traditional cuisine.

PT_0937
The Impact of Quality of Dating Relationship and Image of Marriage That Unmarried Couples Perceive on Marriage Values in Korea

First Author (Main Author) Jeongyun Park (Chung-Ang University) Republic of Korea
Co-Author(s) Ah-Reum Won (Chung-Ang graduate school) Kee Hyeon Lee
Presenting Author Jeongyun Park (Chung-Ang University) Republic of Korea

This study shows how the quality of dating relationship and image of marriage could have impacts on marriage values of Korean unmarried couples related to rising issues, such as the reduction of marriage and birth rate.

The subjects of this study are 411 in-e-relationship unmarried men or women. SPS5 WIN 20.0 program is analyzed by descriptive statistics, t-test, ANOVA, and multiple regression analysis. First, related to overall tendency of related variables, we discuss the marriage values with 5 point Likert scale for each sub-factor. The result shows stable-romantic marriage 4.17 points, conservative-instrumental 3.30 points, passive-marriage 2.74 points. The awareness of quality of dating relationship is 3.98 out of 5.0, the average point is 5.53 out of 7.0 which is above the middle point. Second, from the result of examining whether there is a difference in marriage intention in accordance with demographic characteristics, there is no difference between stable-romantic marriage values and negative-exclusive marriage values. Conservative-instrumental marriage values in women, the group of people over 35 years-old, non-religious people, and other types of family other than nuclear and extended family show high marriage values. Third, from the result of examining the relative influence of factors related to marriage values, it was statistically significant from the fact that stable-romantic marriage 25.8% (F= 11.944, ***, p<.001), conservative-instrumental marriage 8.9% (F= 3.328, ***, p<.001), passive-marriage 21.46% (F= 9.234, ***, p<.001). Marriage values and quality of dating relationship equally show high influence on three types of marriage values. Therefore, we need to find the way to enhance subjective satisfaction about current dating relationship and positive perception of marriage as alternatives to low birth rate and fertility.

PT_1169
Understanding Employee Perceptions of Wellness

First Author (Main Author) Mia Russell (University of Maryland Extension) USA
Co-Author(s) Mia Russell (University of Maryland Extension) USA
Presenting Author Mia Russell (University of Maryland Extension) USA

Wellness is a comprehensive and complex concept that helps individuals make informed choices that promote a more satisfying lifestyle. The role and responsibility organizations have in creating and generating wellness at work, among employees, has received increased awareness. Workplace wellness has been defined as an organized, employer-sponsored program that supports and increases the quality of life of employees, and often their family members, while increasing the organizations’ bottom line. The literature shows positive relationships between wellness programs and organizational outcomes.

AIM
Using the dimensions of wellness framework, this study was designed to understand how employees define the meaning of wellness, by understanding these relationships and employee perspectives, organizations can help employees achieve and maintain wellness.

METHODS
This poster shares research on perceptions of wellness among employees (n=22) from urban, suburban, and rural areas of Maryland. Participants were diverse in gender, race, and age. Three focus groups, representing distinct industries as per the 2012 North American Industry Classification System (NAICS), were held onsite at the employees’ primary business location, in a private or semi-private area.

RESULTS
Most participants suggested that wellness was a highly individualized concept although many similarities existed among and between the individuals. Participants predominantly discussed wellness in terms of emotional, occupational, social, and financial wellness. Common, yet interesting and varying, themes of financial wellness emerged based on the employee rank and gender. Financial wellness was discussed in terms of achieving financial goals and objectives among many of the participants. An expected finding of the study was the association with financial wellness and retirement. Participants that were retirement eligible discussed financial wellness more frequently than younger participants.

CONCLUSION
Employee perceptions can be used to inform and advance employee wellness policies and programs that employers may seek to offer. Programs that promote employee wellness have been shown to encourage and promote positive organizational outcomes. Understanding these relationships and implementing policies and programs that create a more satisfied, engaged and productive workforce is an organizational competitive advantage.

PT_1207
Using Strengths to Build a Stronger Future

First Author (Main Author) Deborah Tippett (Meredith College) USA
Co-Author(s) Deborah Tippett (Meredith College) USA
Presenting Author Deborah Tippett (Meredith College) USA

As one of the nation’s largest and most respected women’s colleges in the United States, Meredith College spent 2011-2012 focusing on testing and articulating what it is that we do best: educate women to build on their strengths to create lives of impact and distinction. Using the brand, “Gearing Strong,” we sought ways to build a new strategic plan that would challenge us to use our institutional strengths to ensure our future. At the heart of this success is a new program for our undergraduate students, StrongPoints™. Knowing that women often route on what is wrong with themselves (intellect, skills, body), Meredith faculty and staff seek to flip that script from students’ very first day at Meredith, when new students first take the StrongFinder® assessment. From there, faculty/staff and peer advising have a new way to talk with students. Rather than asking what they want to major in, these coaches now get to know the students by asking how their strengths have served them and how they might use their strengths to develop their passions. From those conversations, students begin to build their individual StrongPoints©, a four-part planning/coaching model that recognizes the power of planning in women’s lives in the areas of academics, experiential learning, financial literacy and careers. The college has invested in personnel with training, certifications from StrongFinder© and workshops for all faculty and new staff. The college has also made financial support programs and changes to the curriculum. The results are an increased enrollment (second largest class in 125 years), improved retention at 80%, a strong graduation rate (60%) in four years, and increased endowment, with $50 million in gifts in the last three years.

CONCLUSION
Tray color b4 was shown as the most useful color for visual perception for low vision subjects. Tray colors Bk, GY3.5, R188, D88, B12, D24, b2, dp4 and b4 were shown to be most appealing by the SD method, using 36 anechoic acoustic pain. The visibility perceived by the color contrast between the tray and dishes were performed by using the color chart instead of the trays with the dishes on a LCD screen.

RESULTS
Tray colors b4, b6, b1, pill and u8 were evaluated most favorably in terms of visual perception for low vision subjects. Tray colors Bk, GY3.5, R188, D88, B12, D24, b2, dp4 and b4 were shown to have high visibility.

CONCLUSION
Psychological Effects of Meal Tray Color on Visual Palatability of Meals for Low Vision

First Author (Main Author) Keiko Tomita (Kindai University) Japan
Co-Author(s) Misato Yasuoka (Kindai University) Maya Inamura (Kindai University)
Presenting Author Keiko Tomita (Kindai University) Japan

AIM
Cooking and eating for dietary control under low vision is difficult. However, most color schemes which represent an important factor in appetite, for tableware made for individuals with low vision only come in combinations of black and white. This study examined the psychological effects of meal tray color on the visual palatability of meals for individuals with low vision.

METHODS
Meals on trays that created a good color scheme together (not including dishes on the tray) were selected using SD method from 218 meals served for approximately 2.5 months in a nursing home in Japan. The colors of the trays with the meals found to be most appealing by the SD method were converted to 18 colors on the PCCS on a LCD screen. Participants comprised university students (n=30; color) who sat in front of an LCD screen onto which the 10 colors of trays were projected. After viewing, subjects answered a questionnaire. Results were compared between two groups: a low-vision group in which subjects wore low-vision simulation glasses; and a healthy group without glasses. The questionnaire comprised the following 3 sections: attributes, physical and/or mental condition, and image of the dining space. Images for each tray color were defined by the SD method, using 36 anechoic acoustic pain. The visibility perceived by the color contrast between the tray and dishes were performed by using the color chart instead of the trays with the dishes on a LCD screen.

RESULTS
Tray colors b4, b6, b1, pill and u8 were evaluated most favorably in terms of visual perception for low vision subjects. Tray colors Bk, GY3.5, R188, D88, B12, D24, b2, dp4 and b4 were shown to have high visibility.
Influences of Past Dietary Experiences on Zest for Living of Female Undergraduate Students ~ A Comparison between Japan and Korea ~

**AIM**

The world has become an intensely competitive place due to declining economies and the spread of globalization. With the arrival of a knowledge-based society in Japan, there is a demand for the enhancement of personal qualities such as intelligence, creativity and decision-making ability, prerequisites for success in such a society. In other words, acquiring a ‘zest for living’ is needed to thrive in a competitive society. However, there is a concerning decline in zest for living among young people around the world. Very few studies have focused on the relationship between diet and zest for living. Therefore, this study aimed to reveal the relationship between diet and zest for living targeting undergraduate students in Japan and Korea that share a common dietary culture within the same East Asian region.

**METHOD**

In Japan, 204 female undergraduate students (21.0 ± 3.0 years) from K University in Nara City completed the questionnaire survey between July and November 2012. In Korea, 64 female undergraduate students (22.5 ± 1.5 years) from U University in Gyeongju City completed the questionnaire survey in September 2013. The self-recording questionnaire survey consisted of the following 7 categories (total 114 items): personal attributes, past and current dietary experiences, parent-child relationship, relationship with friends, self-evaluation, childhood and the extent of these experiences (by life stage); 2) Investigation of presence or absence of specific dietary experiences from early childhood and the extent of these experiences (by life stage); 2) Investigation of individual degree of zest for life (Ready-made Y-G Personality Test); and 3) Investigation of the degree of stress tolerance (Ready-made S-H Resilience Test). Each questionnaire item was grouped by factor analysis and using the grouped items, the relationships between the items were examined by covariance structure analysis.

**RESULTS**

Analysis of principal components of all 107 items was performed and 23 factors were extracted. Covariance structure analysis was subsequently performed and it revealed the relationship between each of the factors that influenced zest for living. The investigation of common occurrences in Japan and Korea revealed that those who spend quality time with their families during meals tend to have favorable parent-child relationships as well as favorable relationships with friends. Also, those with favorable parent-child relationships and relationships with friends, have high self-esteem and strong zest for life. On the other hand, the analysis of negative factors of zest for living revealed a difference between Japan and Korea. In the case of Japanese female undergraduate students, low self-esteem lowered their motivation and consequently decreased their zest for living. On the other hand, when Korean female undergraduate students felt isolated due to unfavorable family time during meals, it had a negative effect on their self-esteem, which strengthened their fear towards failure and decreased their zest for living.

**CONCLUSION**

This study revealed that an important factor in nurturing zest for living is spending quality time with the family during meals.

Factors Related to Dietary Experiences That Affect the Cultivation of Zest for Life among University Students

**AIM**

This year marks the 10-year anniversary of the establishment of the Basic Law of ‘Shokuiku’ (Food and Nutrition Education), and various food and nutrition education promotional activities have been taking place throughout Japan. Food and nutrition education is valuable in forming a well-rounded character. It is especially indispensable in nurturing children’s zest for life. However, only limited research has been conducted on the specific dietary experiences which influence zest for life. This study aimed to investigate specific factors related to dietary experience that affect zest for life.

**METHODS**

A total of 290 undergraduate and graduate students were asked to complete the following three questionnaire surveys (total 157 items) between September and November 2015: 1) Investigation of presence or absence of specific dietary experiences from early childhood and the extent of these experiences (by life stage); 2) Investigation of individual degree of zest for life (Ready-made Y-G Personality Test); and 3) Investigation of the degree of stress tolerance (Ready-made S-H Resilience Test). Each questionnaire item was grouped by factor analysis and using the grouped items, the relationships between the items were examined by covariance structure analysis.

**RESULTS**

By the covariance structure analysis, the factor with the strongest influence on zest for life among female Japanese undergraduate students, was self-esteem. Further investigation into the specific factors of dietary experience that affect zest for life revealed that dietary experiences related to dietary culture at home enhance the appreciation of food and people, suggesting that this leads to enhanced zest for life. In addition, nurtured zest for life improved willingness to integrate into society, which is a developmental issue in late adolescence. It was also suggested that the more people value table manners, the more likely developmental issues of late adolescence had been resolved. Conversely, the study indicated that isolation and depression negatively affect the willingness to integrate into society. Lack of mutual understanding within the family and a low stress tolerance were also shown to have an adverse effect on zest for life.

**CONCLUSION**

The zest for life was suggested to be influenced from pleasant dietary experience with variety persons.
POSTER

Wednesday August 3

09:00 ~ 17:00
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Consciousness Changes in the Young’s Interest for Fisheries and Fisheries

**AIM**

“The exchange meeting between fisheries and students” that I promoted local production for local consumption for university students to deepen understanding of the marine industry. I can hope that the understanding for the local fisheries by the interchange with fisheries and the students. Therefore, I performed questionnaire survey after enforcement to show the effectiveness of the meeting. I followed the consciousness of the students for four months after the enforcement. It was intended to show the effectiveness in exchange evaluating the effect of fish intake situation of university student’s consciousness about fishes.

**METHODS**

“The exchange meeting between fisheries and students” was carried out by 32 college students in August, 2014. After an exchange meeting, I did a fish and nourishment recognition and questionnaire survey about the intake situation of the fish. Furthermore, four months later, I performed the questionnaire survey in the same students. The contents are the consciousness for the fish and the intake situation of the fish.

**RESULTS**

Even if the consciousness for the fish of the student had a feeling of resistance that a fish small and slim hatched from a questionnaire result, they seemed to choose fish cooking among consciousness to be good for the health. Most of the fresh fish experienced that there was not a smell by having used the local fish. Interest in local fishes be good for the health. Most of the fresh fish experienced that there is a resistance that a fish smell and slime hated from a questionnaire intake situation of the fish.

**CONCLUSION**

Many students increased frequency to eat a local fish after an exchange meeting. It is suggested that I led to many fish intakes by

Life Cycle Inventory Analysis for Sustainable Wardrobe Management; Effect and Development of a Worksheet for Foreground Data Analysis

**AIM**

Owning superfluous clothing wastes resources and energy, and is accompanied by environmental impacts. To solve this problem, planned management of clothing is required. Therefore, in this study, I developed a LCA for solving this consumer problem from a home economics perspective.

**METHODS**

I developed a worksheet for foreground data (FD) in life cycle inventory analysis, and 21 college students tested it with their clothing. I investigated the relationship between the result of LCA and decision-making using AHP. Using the worksheet, students computed consumption, energy resources, and the environmental impact of manufacture, disposal, and recycling of their clothing. For washing their clothes, students computed their consumption of energy, water, and detergent, as well as environmental impacts (BOD). Consequently, they discovered a new cause; hence, they improved their clothing management. I investigated the relative importance of factors in their clothing selection among “design,” “comfort,” “quality,” and “resources and environmental consideration.”

**RESULTS**

Students owned clothing averaging 110 (36.2 kg) clothes. They also averaged 17 (5.0 kg) clothes that they did not wear. They could divide their clothes into two groups, the first group included consciousness of superfluous possessions, and the other group did not include such consciousness. The group with consciousness was reflected in decision-making after the LCA trial. As a result of AHP, the weight of “resources and environmental consideration” was considered important, changing from 0.061 to 0.220. The group without consciousness of superfluous possessions showed little change in the weight of “resources and environmental consideration.”

**CONCLUSION**

The FD worksheet was effective for discovering consumers’ wardrobe problems; additionally, in this research, the worksheet might help students improve their clothing management.

Commitments to MDGs by the Studies of Home Economics around the World

**AIM**

The United Nations’ proposal of Millennium Development Goals (MDGs) in 2000 has prompted the International Federation for Home Economics (IFHE) to adopt and work according to the POSITION STATEMENT ON MILLENNIUM DEVELOPMENT GOALS 2011. It is important for the IFHE to make policy proposals directly to the UN, but also the researchers in the IFHE should keep working on themes concerning MDGs.

In order to clarify what commitments home economists have made so far, this article aims to organize the previous research in the field of Home Economics related to MDGs which has been published in major journals in several countries.

**METHODS**

First the research papers dealing with MDGs from the journals of the IFHE and the Asian Regional Association for Home Economics (ARAAE), as well as nine other academic journals published in six countries from 2000 to 2014 were selected. Then, we classified them in three ways according to Country, Area of Home Economics, and MDG Goals. Finally, this study revealed their tendencies both quantitatively and qualitatively.

**RESULTS**

The ratio of research papers dealing with MDGs ranges from 3.4 to 290 percent, though there is some difference among journals or due to the area with which a particular paper deals.

**CONCLUSION**

When sorted in terms of which goal is addressed, the papers about Goal 7(Environmental Sustainability), Goal 3 (Gender Equality) and Goal 1 (Poverty) are the majority. This may be because these topics are closely related to research areas of Home Economics, and therefore these are, it is inferred, the specific areas to which Home Economics can and should commit itself.

A Newly Developed Home Economics Course Incorporating an Experiment "Solar Oven" from a Viewpoint of Education for Sustainable Development: Based on the Results from Trials in Junior and Senior High Schools

**AIM**

Education for Sustainable Development (ESD) is a globally important issue. To address this challenge, ESD was experimentally introduced into school education in Japan in the academic year 2008. This new curriculum added a subject matter pertaining to establishing life styles that consider the environment in home economics courses. This study focused on the essence of home economics—the relationship between one’s own self and his/her surrounding environment—to develop a course that considers why we have to conserve energy by utilizing exploratory learning theories. Here, we report on the results of trials in junior and senior high schools.

As a learning tool, we developed a “solar oven” using waste resources. Based on exploratory learning theories, the trial was structured in four parts to allow students to engage in three explorations with different topics (i.e., intuitive, analytical, and comprehensive): 1) energy and our home life; 2) the “solar oven” experiment—cooking cupcakes with appliances employing three different resources (i.e., microwave, steamers, and solar oven); 3) the need for energy saving; and 4) future energy sources and our home life. The “solar oven” experiment excited students’ interest, and they were able to personally explore the topic. Students analyzed the energy source for their lifestyle based on whether it was “on- or off-site” and “renewable or non-renewable.” Students then found three scientific solutions to these topics (“increasing monetary resources in our home,” “delaying resource depletion on Earth,” and “Restricting environmental destruction of the Earth”) as well as an important ESD concept (“the future livelihood for everyone on Earth depends on the decisions we make today”).
A Study on the Effect of Residential Occupancy of Elderly on Household Spending and Life Satisfaction

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"Residence" to seniors becomes everyday living space with great significance of their senescence, and moreover, it has great economical meaning as it takes a big portion among household assets of elderly households in Korea. This study classified elderly households into three as self-owned, lease, and monthly rent by residential type and investigated demographic characteristics, family economic structure, and differences in life satisfaction using information of the 5th KRais (Korean Retirement and Income Study) panel 2013, and analyzed the effect of residential occupancy on economic structure and satisfaction on all aspects of senior life. As a result of investigating the family economy structure by residential type, gross household income, gross household expense, consumption, and asset had significant relationship with the residential type, but non-living expenditure and debt did not have relationship. Specially, housing cost burden of elderly household by monthly rent was very high that the monthly rent in Seoul was an average of 38.9%, and monthly rent of 60's or older was 36.3% and single-elderly resident owner senior household showed higher satisfaction on the satisfaction level of life in general of seniors, and whereas residential occupancy of elderly and overall satisfaction in life(living, family relationships, household economy, leisure, healthy).

Research on the High-Risk Child Care Families in the Small Municipality of Japan – A Case Study of Tottori -

First Author (Main Author) | Yukiho Otani (Setsun University) | Japan
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AIM

The number of child abuse remains high and it has at high risk. The Regional Council for Children requiring protective care, has the responsibility to support in the early stages; however, the resources are very limited in the small municipality, therefore we suppose early support has not been enough. The aim of this study is to clarify the problem of requiring child measures in the small municipality which is lower than a population of 30,000 people.

METHODS

First, we have conducted a “Questionnaire concerning the management of the Regional Council for Children requiring protective care of all municipalities in Tottori Prefecture” (Child Protection Regional Network Tottori carried out, 2012). Second, we heard opinions in a workshop which is a study session of the staffs in charge of the Regional Council for Children requiring protective care of all 19 municipalities in Tottori Prefecture (2015/3/13, 5/20, 9/16).

RESULTS

1) Only 5 municipalities do have the budget for requiring Child protection Regional Council. There is no financial base in a small municipality.
2) When we see the analysis of the abuses occurred and the number of consultations the high-risk child care family are overlooked in a small municipality.
3) The person in charge is not an expert; the charge is alone in a small municipality. Thus, He is struggling.
4) The persons in charge of the small municipality got professional development and advice in the workshop.

CONCLUSION

There is a tendency for the small municipality of personnel to be isolated; therefore, workshop and network construction are necessary. Once the workshops are attended, we will verify the effect of the network.

The Pursuit of Happiness : The Multicultural Activity of Immigrant Family in Taipei City as an Example

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In recent years, more and more Taiwanese have been engaged with foreigners. Therefore, the issue of multi culture has become a hot topic in Taiwan. The Taipei City Government held a Multi-cultural Event on October 10th (the National Day of Taiwan) in the perspective of hoping to promote the interaction between new immigrants and local communities. They try to encourage the immigrants to learn Taiwanese culture as well as to show the culture of their mother country through different activities.

METHOD

The study aims to discuss the benefit of the Multi-cultural Event (four different activities) to promote immigrant family’s well-being by distributing questionnaires that included three parts (multi-culture program, the event planning, and immigrants living issues) and 17 items questions related this Event. The object of study is immigrants and local people who participated in the Event. There were roughly 2000 participants in the event. After whole day’s activities, we invited participants randomly filled out the questionnaire of this Event and 193 shares valid questionnaires.

FINDINGS

1. The interviewers show satisfaction of the event overall with the most rated multi-culture program as the "Parent-child Oral Reading Competition”.
2. The most satisfied part of the event planning is the attitude of the staffs.
3. The interviewers mostly regard that Taiwanese are friendly towards immigrants.
4. The interviewers think that the next generation of immigrants family should learn the language of their parents’ home country.

CONCLUSION

Based on research finding, this Event was a successful multi-culture interaction activities. Not just interviewees are positive about the event and they have proposed some specific suggestions about similar events in the future also. The result of the study will be given to the host for their reference.

About a Policy for Declining Birth Rate in a Local Government

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PURPOSE OF RESEARCH AND BACKGROUND

The population of Japan is being on the decrease. The declining birth rate, which is a big factor of a population decrease, is a serious problem. The cause of the declining birth rate various problems are intertwined in complex. In such situation, Local creation policy is put up as a national policy. The purpose of this policy is overcoming Population Decline and Vitalizing Local Economy in Japan. The purpose of this research is to grasp the current state of the solution for declining birth rate of a local government. And it’s to obtain a knowledge what kind of policy is effective in a solution for declining birth rate.

APPROACH

The research target is a local government in the whole Japan. The questionnaire survey was performed target for 1741 local government. Questionnaire is received 467 of the 1741 review, the recovery rate was 31.4 %. The question was classified into 4. First, it’s about an employment policy in the local area. Second, it’s about a move policy to a local area. Third, it’s about the child rearing environment of the local area. And, It’s about environmental development in a local area.

CONCLUSION

Most local governments are doing a child care support of early childhood. Nest a lot of ones are support related to primary industry employment. Although The bigger the local government, the more policy, we think that this is dependent on the revenue. The local government with the high birth rate tend to be putting the emphasis on early measure such as getting a job support in the local area and support area in time of the childbearing.
**PT_1049**

**Analysis of Unintended Effects by Policies of Residents Escaping from North Korea: From the Children's Rights and Family Policy Perspectives**

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With the increasing number of children of North Korean refugees, it is needed to concentrate on adaptation and development of children of North Korean refugees. Family environment for children's positive development and adaptation is important as children form foundation of their social and emotional development through the relationship with parents in the family that is the first environment children experience in their life. Children of North Korean refugees have experienced a process of family dislocation and reorganization during their journey from North Korea to Republic of Korea. However we can observe some evidences showing that family instability still exists in their life in Republic of Korea due to the unintended effect of Policies of Residents Escaping from North Korea. In this study, it is covered what effect Policies of Residents Escaping from North Korea show from the children's rights and family policy perspectives. We interviewed the persons in charge of government-related and private organization for North Korean refugees as well as the performing literature review. When North Korean refugees stay in Hanawon where they are educated for the life in Republic of Korea, adult men staying in the 2nd Hanawon are kept separated with their family staying in the main Hanawon hundred miles distant from the 2nd Hanawon. The policy for North Korean refugees was established for early stage of their settlement so that it has shown its limit in supporting their everyday life and social adjustment, even resulting in some anti-family effects. Therefore, for the purpose of healthy development of children of North Korean refugees, an approach by family policies is investigated that pursues a balance between the performing literature review. When North Korean refugees stay in Hanawon where they are educated for the life in Republic of Korea, adult men staying in the 2nd Hanawon are kept separated with their family staying in the main Hanawon hundred miles distant from the 2nd Hanawon. The policy for North Korean refugees was established for early stage of their settlement so that it has shown its limit in supporting their everyday life and social adjustment, even resulting in some anti-family effects. Therefore, for the purpose of healthy development of children of North Korean refugees, an approach by family policies is investigated that pursues a balance between

**PT_1113**

**The Effect of Financial Planning Horizon on the Purchase of Life Insurance**

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Managing mortality risk by purchasing a life insurance policy is important for the household in terms of preventing survivors from the financial hardship that eventually erodes family happiness. Previous research has explored the factors that influence the demand for life insurance; however, little effort has focused on the effect of the financial planning horizon which is crucial to develop an effective strategic plan. The purpose of the current study is to examine whether the financial planning horizon has an impact on the amount of life insurance purchased. Using data from the 2013 Survey of Consumer Finances (SCF), this study used a sub-sample of 3,061 respondents who have a term life insurance policy and reported the face value of their insurance contract. The amount of term life insurance purchased, the outcome variable, was measured by the dollar amount that the policy would pay in the event of death. The financial planning horizon, household income, total amount of savings, the total balance of checking accounts, and credit limit were selected for explanatory variables. The financial planning horizon refers to the time periods that the respondent regards most important in planning or budgeting their saving and spending. The long-term planning horizon was defined as the time period that is longer than a year (even longer than 10 years) while short-term planning horizon was defined as the time period that is less than a year. Age, gender, marital status, education, and household size were included for demographic features. The t-test was employed to examine how financial characteristics were different among respondents who have different length of planning horizon. In addition, the multiple regression was conducted to investigate the association between the amount of life insurance purchased and the financial planning horizon when controlling other variables. The amount of term life insurance and other financial variables were log-transformed for better prediction. The results of the t-test revealed that the respondents who have long-term planning horizon (n=2045) are in relatively better financial conditions exhibiting the greater amount of term life insurance, income, checking account, and credit limit than the respondents who have short-term planning horizon (n=1958). The results of multiple regression model show that the amount of term life insurance has a positive association with income, the total balance of checking accounts, and credit limit. Moreover, it increases when the age of respondents decreases. If the respondents are male, if they are married, if they have attended college or more, and when household size increases. Most importantly, long-term planning horizon has a positive effect on the amount of term life insurance. It means people who plan their budget with long-term perspective are likely to have the greater amount of term life insurance so that they can be better prepared against mortality risk. The findings indicate that financial education or financial counseling focusing on longer planning horizon would be helpful for the adequacy of life insurance purchases. The adequacy of life insurance mitigates the financial shocks from the loss of the main income earner and gives the hope of living for future to remaining survivors.

**PT_1135**

**New Aspects for Subsistence in Modern Society**

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**AIM**
Japanese old lifestyle was sustainable, had a good relationship with natural environment. However it can be described as a lifestyle in danger of extinction; because those old lifestyles are disappearing even in industrialised and developed countries. This is a trial survey to find the factors to make a better life in developed society.

**METHODS**
Hearing survey; the actual situation of the area of Tangoyura, Miyazu-city located in northern part of Kyoto prefecture and the participant's home history.

**RESULTS**
Using data from the 2013 Survey of Consumer Finances (SCF), this study used a sub-sample of 3,061 respondents who have a term life insurance policy and reported the face value of their insurance contract. The amount of term life insurance purchased, the outcome variable, was measured by the dollar amount that the policy would pay in the event of death. The financial planning horizon, household income, total amount of savings, the total balance of checking accounts, and credit limit were selected for explanatory variables. The financial planning horizon refers to the time periods that the respondent regards most important in planning or budgeting their saving and spending. The long-term planning horizon was defined as the time period that is longer than a year (even longer than 10 years) while short-term planning horizon was defined as the time period that is less than a year. Age, gender, marital status, education, and household size were included for demographic features. The t-test was employed to examine how financial characteristics were different among respondents who have different length of planning horizon. In addition, the multiple regression was conducted to investigate the association between the amount of life insurance purchased and the financial planning horizon when controlling other variables. The amount of term life insurance and other financial variables were log-transformed for better prediction. The results of the t-test revealed that the respondents who have long-term planning horizon (n=2045) are in relatively better financial conditions exhibiting the greater amount of term life insurance, income, checking account, and credit limit than the respondents who have short-term planning horizon (n=1958). The results of multiple regression model show that the amount of term life insurance has a positive association with income, the total balance of checking accounts, and credit limit. Moreover, it increases when the age of respondents decreases. If the respondents are male, if they are married, if they have attended college or more, and when household size increases. Most importantly, long-term planning horizon has a positive effect on the amount of term life insurance. It means people who plan their budget with long-term perspective are likely to have the greater amount of term life insurance so that they can be better prepared against mortality risk. The findings indicate that financial education or financial counseling focusing on longer planning horizon would be helpful for the adequacy of life insurance purchases. The adequacy of life insurance mitigates the financial shocks from the loss of the main income earner and gives the hope of living for future to remaining survivors.

**CONCLUSION**
Originally, the word ‘subsistence’ stands for living solely. Since the society is rapidly changing now, we need a new aspect of subsistence. Also, the environment is important for his unique lifestyle, so that we have found a great value of his community and the town.
Youth Financial Education and Entrepreneurship

**METHODS**
Youth participants were actively recruited through public schools, community college websites and direct contacts. Maryland is ranked within the top ten states for after school and summer program participation; therefore, reaching youth through these programs is an appropriate method. The program was delivered face-to-face, in 15 hours, over the course of one week. The program is comprised of a series of 5 lessons, usually taught during school breaks and in summer programs.

**RESULTS**
A pilot of this program was conducted in collaboration with a local community college and local school district. In 2014, fifteen sessions (n=47) were conducted. Through post-assessments, participants indicated 88.2% (n=41) can definitely distinguish between a dream and a goal, 67.6% (n=31) can definitely write a SMART goal, 53.8% (n=26) can definitely apply financial literacy vocabulary; and, 92.3% (n=26) indicate they have set SMART goals. The students also offered qualitative data: “In order to be successful in life, you have to know how to spend your money.” “Think before you spend,” and “(I)nly say for your parents to buy you things but when you buy your own things it’s very difficult.”

Youth financial education is an increasingly important tool to ensure youth are prepared for college, careers and responsible living. Children themselves are aware of the difficulties their own families and their neighbors are facing and are sincerely interested in learning about money management. Young people report that they currently care more about financial fitness than physical fitness. As youth develop financial acumen, they learn to manage their resources and plan for their future.

**AIM**
This poster will share a program, Business Planning for Teens and Tweens, and a curriculum, Financial Nuggets, which was used to actively engage youth through opportunities for real-world financial management practice and entrepreneurship exploration. The program seeks to improve the (1) financial knowledge and understanding, (2) financial skills and competence, and (3) financial responsibility of middle school youth. Core program activities are organized around five principles: earning, saving/investing, protecting, spending, and borrowing.

**CONCLUSION**
This program is designed to actively engage youth and provide opportunities for real-world money management practice, however, financial education has even greater implications. As evidenced by ongoing research commissioned by the National Foundation for Teaching Entrepreneurship (NFTE) and the Department of Labor, the effectiveness and impact of youth entrepreneurship programs demonstrated and increased interest in attending college, occupational aspirations, and leadership behaviors.

**BACKGROUND AND PURPOSE OF RESEARCH**
The purpose of research is to point out the current condition and issues of Japan’s policy on consumer education. In 2012, the Act on Promotion of Consumer Education was enacted and came into force in Japan. It defines consumer education as the support of consumer’ autonomy and clarifies the notion of consumer citizenship. Consumer Education organized by the local consumer affairs based on the idea of consumer protection, however, it became necessary for such administration to consider a rather global issue to create and implement a fair and sustainable society through consumer actions. This is based on the concept of consumer citizenship, developed in and introduced by western society in other words, the local consumer affairs administration were required to make a drastic change in their administrative direction.

**METHODS**
A youth and the elderly. The interviewees were either taking care of their children or had taken care of their children in either of the two cities. Higashi-Osaka and Daito- located to the east Osaka Prefecture were collected through in-depth interviews with 30 mothers having at least one child under 13 years old. It was revealed that a group of ‘orphans’ or children who were either taking care of their children or had taken care of their children in either of the two cities. Higashi-Osaka and Daito- are neighboring cities with markedly declining populations, especially, in the age brackets of 30-39, 40-49, and <5. This implies

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**RESULTS**
Korean Labor and Income Panel Study

**CONCLUSION**
This study focused especially on private education expenditure and its analysis using household income class. The study also focused on the employment status of mothers, and the relationship between the mother’s employment status and private education expenditure. Reason to pay attention to private education expenses are the public educational spend does not remarkable difference. Thus focus on private education expenses in order to explore the correspondence way of individual households. The 1998 KUSP study (first survey) provides data for this study. Data were obtained by studying 3000 households over a time span of more than 15 years. In this study, the 2013(15th year) data were used. The study analyzed 2,114 households that had children below high school age. I carried out the one-way analysis of variance (ANOVA) by using stata13. The household income level and mother’s employment status are used as independent variables, and the private education expenditure is used as dependent variable. And, also I had tried multiple regression analysis to explore which factors affect private educational expenditure by household income level. The main results are as follows. First, 73.7% of the households use private educational institutions. Second, the income level is divided by 5 classes, and the relationship between income class and private education expenditure is verified. As a result, income class and private education expenditure has a parallel relationship. Third, when the mother is employed, private education expenditure is ¥25,000, and when it is unemployed, it is ¥20,000. The mother’s income and private education expenditure show a parallel relationship like as household income class. Fourth, if the household total income is divided by 3 classes, the results show that the mother’s employment status has no effect on private education expenditure in the lowest income class. The other way, the middle and upper classes have lower private education expenditure when the mother is employed rather than unemployed. Household income level is considered to be a major factor in determining the relationship of private educational expenditure and mother’s employment status.

In the case of low-income class, for the increase of private education expenditure was expected to encourage the mother’s participation of the labor market in order to cover the price on the household budget. However, relation between the private education expenditure and mother’s employment status are not prove in the cross sectional data. In the middle and high-income class, even if private education expenditure was increased, employment of mother suggests could be a matter of choice rather than compulsory. Moreover, mother in relation to the child’s education is likely to be required role to collect information and to invest the time. Future studies will focus on changes in the mother’s employment status. On the basis of the panel data, the study will analyze the relationship between change in the mother’s employment status and private education expenditure.

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A Study on the Active Stage of Community Reform and Sustainability: Role of Neighborhood Associations for the Maintenance of Extremely Low Populated Small Villages in Mountainous Area of Kawanoe-District in Hiroshima, Japan

In Japan, with the depopulation in the past 2 decades due to aging, the population in rural mountainous area is getting rapid. With more 50% of population which are more than 65 years old, most of local communities are getting extinguished. There have been many trials to revive the local community by making use of original local networks of Neighborhood Association for the happy life of residents who had no choice except to continue living for the rest of their lives. Very few cases survived successfully by making use of local community, but most failed. To clarify this, the active stage of community design in extinguishing village to maintain the life in mountainous area, the activities and roles of Neighborhood Association in Kawanoe-district was studied. In Kawanoe-district, most of the villages had moved to urban areas for jobs after graduation from high schools, and only elderly people continued to live in the rural areas resulting in lower population of labor age. Kawanoe had 2198 people in 1946, but it has been reduced to a third of its population in 2000 due to deterioration of the local community as well as lost pride or love to their own community. In this study, we investigate the current style of money management in couples of Japan and the relation between the distribution of expenditures within the household and money management system.

METHOD
We collected samples from 1278 wave (2014 edition) of Japanese Panel Survey of Consumers (JPS), which started in 1993. The study sample is 1,358 married people ranging in age from 25 to 55 years. JPS included the amount of expenditures and savings for wives and husbands respectively. Anova was done with SPSS package.

RESULTS AND CONCLUSIONS
Two-thirds and one third of samples are dual-earner couples and male-breadwinner couples, respectively. 10% of the dual-earner couples adopted independent management system. The whole wage system and pooling system were used by 40% and 10% of the dual-earner couples, respectively. Husbands managed their households in 10%. In these 20 years we did not observe marked change in the distribution of dual-earner couples who adopted the independent management system, which is likely to be attributable to their higher contribution to the income of households. The portion of wives who do not keep household account books was as large as 78% in couples with independent management system. The survey indicated that such wives found difficulties in saving money, which suggested the importance of discussions in terms of their future financial arrangement.

A Study on Money Management System of Married Couples in Japan

INTRODUCTION
The money management systems of households have been discussed in the conjecture of their internal power balance. It is well known that wives are in charge of the money management in the most of households in Japan. It was pointed out that couples in UK were becoming individualized in their money management. In this study, we investigate the current style of money management in couples of Japan and the relation between the distribution of expenditures within the household and money management system.

METHOD
We collected samples from the 12th wave (2014 edition) of Japanese Panel Survey of Consumers (JPS), which started in 1993. The study sample is 1,358 married people ranging in age from 25 to 55 years. JPS included the amount of expenditures and savings for wives and husbands respectively. Anova was done with SPSS package.

RESULTS AND CONCLUSIONS
Two-thirds and one third of samples are dual-earner couples and male-breadwinner couples, respectively. 10% of the dual-earner couples adopted independent management system. The whole wage system and pooling system were used by 40% and 10% of the dual-earner couples, respectively. Husbands managed their households in 10%. In these 20 years we did not observe marked change in the distribution of dual-earner couples who adopted the independent management system, which is likely to be attributable to their higher contribution to the income of households. The portion of wives who do not keep household account books was as large as 78% in couples with independent management system. The survey indicated that such wives found difficulties in saving money, which suggested the importance of discussions in terms of their future financial arrangement.

Financial Beliefs and Dysfunctional Financial Behaviors of Korean Consumers

This study examined the relationship between financial beliefs and dysfunctional financial behaviors of Korean consumers based on a cognitive-behavior theoretical framework. The specific research objectives were as follows: (1) to identify the trend of Korean consumers’ dysfunctional financial behaviors, (2) to investigate the influence of consumers’ financial beliefs on their dysfunctional financial behaviors, and (3) to find out which financial beliefs have more explanatory power on the dysfunctional financial behaviors. The dysfunctional financial behaviors were measured using 67 items derived from Klontz Money Script Inventory (Klontz et al., 2012) and Financial Aversion Probes scale (Burchell, 2003). The financial belief variables were composed of a series of variables including Klontz Money Script Inventory (Klontz et al., 2011), Moneygrams scale (Burchell et al., 2014), materialism scale (Richins & Dawson, 1992), credit belief scale derived from Pattarins & Cosma (2012) and Lachance (2012), and financial attitude scale and consumption belief scale derived from Burchell (2012).

Data were collected using online survey, and the final sample consisted of 681 Korean adults aged between 20 and 59. Exploratory factor analyses and reliability analyses were employed to clarify the dysfunctional financial behavior and financial belief variable structures. After going through the verification process, the dysfunctional financial behaviors were categorized into seven components: Compulsive Buying, Pathological Gambling, Workaholism, Compulsive hoarding, Financial Aversion, and Underspending. The financial belief variables were also classified: four Money Script Inventory, four Moneygrams variables, four Materialism variables, two Credit belief variables, two Financial Attitude variables, and three Consumption belief variables. Descriptive and Regression analyses were utilized for the analyses.

Major findings were as follows. Mean values of dysfunctional financial behavior variables were distinguished from 1.63 to 3.01 in 6-point Likert scale, the result of Compulsive hoarding, Workaholism, Underspending, Financial Aversion, Compulsive Buying, Financial Aversion, and Pathological Gambling. This indicates that the Korean consumers’ Workaholism is a more common phenomenon than Pathological Gambling, and so on. Male consumers showed significantly higher tendency to have dysfunctional financial behaviors other than Compulsive Buying and Underspending, in which there were no significant differences identified between gender.

According to the regression analyses, all the financial belief variable categories showed significant effects on all the dysfunctional financial behaviors. Financial belief variables explained the variability in dysfunctional financial behaviors from 20% to 40%. Regarding Compulsive Buying, Workaholism, Compulsive hoarding, Financial Aversion, and Moneygrams variables showed the greatest explanatory power among financial belief variables. Credit belief variables explained Pathological Gambling, and Money script variables explained Underspending at most. These results indicate that a cognitive-behavior theoretical framework can be applied to explain the relationship between financial beliefs and dysfunctional financial behaviors.

Hope for the Flowers: A Parachute Wedding Dress

AIM
The U.S., 2.5 million weddings held annually in the US produce 62 tons of carbon dioxide and 500 pounds of waste (Sustainability Council, p.1). Wedding dresses are special and personal, often once-of-a-kind garment. This avenue of investigation will encourage exploring sustainable fashion and encourage research into alternative materials for the production of traditional wedding dresses. The aim of this study was to create a sustainable one-of-a-kind wedding dress inspired by the designer’s favorite aspects: sky, cloud and love. The concept of the dress was taken from the story of Hope for the Flowers, an ap-cycled project from a series of parachute dress experiments. These resulted in a marketable wedding dress using non-traditional materials.

METHODS
The original parachute was 30-feet in diameter. The circled-shaped parachute was divided into four sections; the skirt pattern was cut in a vertical direction from the single section with an arc shape to achieve the vintage look. The remaining top arc was used for the bodice of the dress, resulting in minimal material waste. In order to express the design theme, the bodice mimicked the original shape of the parachute, giving volume at the bust area.
RESULTS AND CONCLUSION
This resulted in an interesting shape, playfulness, and creativeness in the dress. The dress design incorporates a modern, chic, and modestly, while revealing a delicate sense of butterfly femininity. The blue tulle underdress to mirror the color of the sky, and the overskirt, clouds. The overskirt can be removable, expressing the metamorphosis stages of caterpillar to butterfly, which achieves the concept of the dress: Hope for the Flowers.

REFERENCE

**PT-1849**
Research on the Child Care Family Policy as an Alternative Low Birth Rate Phenomenon

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In this research, we will review the main solution to the low birth rate and discuss subsequent policy direction by looking at actual situations of child care policy from perspective of rate between work and family and legislation, which are barrier of low fertility. To understand current condition of the child care policy, This study investigated statistical data, which was developed, and yearly changed tendency of Data Base change by the Ministry of Health and Welfare (Childcare statistics), The Ministry of Education (Education statistics), and the National Statistical Office(MO. (Regional employment survey).

To summarize, the results of study are as follows. First, This study shows the total number of child care centers increases annually. The place of public child care centers also increases but the rate fell from 11% in 1995 to 5.7% in 2014. Private child care centers and family child care centers increased from 77% in 1995 to 87.2% in 2014. Second, the number of children who are using the child care center increased. The child care ratio of private and family child care center increased from 45.9% in 1995 to 76.4% in 2014. Private child care centers and family child care centers increased from 77% in 1995 to 198% in 2014. Third, The rate of using a child care center for infants has been steadily increased. In the child care center using rate of Infant, Korea is 34.1% higher than that is OECD 30 countries average 32.9%. Fourth, The reasons of career discontinuity of job discontinued women followed by ‘Marriage(16.9%)’, ‘Parenting(29.9%)’, ‘Pregnancy·birth(24.4%)’, ‘Family care(9.4%)’, ‘Children’s education(8.9%)’.

Firstly, The result of looking at the job retention rate for workers, the job retention rate for workers using a child care leave is growing. Sixth, The total number of child care person who is laid off are increasing, and though the number of patronity leaves show an upward trend recently, The total man in a ratio account for just 4.5% in 2014. Seventh, the number of child stearing in the family are 1,012,000, and this study show mainly baby(66.5%) up to 23months rear in the family. The result of this study, Though using universalistic approach in child care, In Special circumstance that can be limited to the family which need compatibility between work and family and also have children. That’s why should enhance government support.

Also, There will be need to improve care service in quality through diverses policies such as support for the great private child center, continuous expansion for public child care center in the next child care policy. Understanding the current situation in this study is significant to be able to establish and analyze the various family policies for currently under consideration.

**PT-1825**
A Study of Multicultural Adolescents’ Core Competencies for Building Official Development Assistance(ODA) Human Resources

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The purpose of this study is to propose specific policies to expand and promote the role of multicultural adolescents in Korea’s international development cooperation and in Official Development Assistance(ODA) programs. Current surveyed data shows that, population of multicultural adolescents are on the rising trend in Korea. However, significant portion of them experience self-identity confusion, school maladjustment, and deviant behavior despite their global competences, such as bilingual ability and bicultural backgrounds. Thus, it’s absolutely necessary to build a roadmap that can guide them to build their potential strength to become the next generation of global leaders.

For this purpose, we surveyed to find the required core competencies and also at which degree of them is needed to be the future ODA human resources. 10 participants were chosen from the ODA-related institutions and multicultural adolescents-related organizations who are the experts and managers of these organizations.

The study results indicated that the most required skills for multicultural adolescents to grow as ODA human resources were the local language and English. Other required skills were the cultural literacy of the local culture, understanding of international development and cooperation, knowledge about the region where they will perform projects, project implementation experience, and expertise about related projects, in descending order of importance. Therefore, the first priority should be to strengthen their linguistic competence, in order to nurture multicultural adolescents into competent ODA human resources, in the future. In particular, according to the FGI interviewees, multicultural adolescents have more tendency of having bilingual and multicultural sensitive characteristics than non-multicultural adolescents. Thus, we strongly recommend that education system and appropriate policy be implemented, in order to develop multicultural adolescents into global citizens, who has global competency.

**Key Words** Multicultural adolescents, Official Development Assistance(ODA), International Development Cooperation, Competency, Global citizens, Bilingual

* This study report results from the research and service report on, “A study on the promotion plan of the multiple participation in International Development Cooperation”, supported by Ministry of Gender Equality & Family(Korea).

1) Multicultural adolescents can be defined as person whose age is over 12 and below 24 years old and one of their parents is foreigner.
Thursday August 3 | 09:00 – 17:00

Residents’ Consciousness of Community Life in a Newly-Developed Residential Area: A Study on Life Support for the Elderly Living at Home by Community Work

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Japan is becoming a full-blown aged society that faces the challenge of building communities which support the lives of the elderly. As a result of our continuous research about the community work undertaken by the elderly, it has been found that community work contributes to promoting mutual relations among the residents, and providing opportunities to raise awareness in their community. However, it may become difficult to continue this community work, because few of the younger generation are involved in it. To examine the possibility that comparatively young residents in a newly-developed residential area take part in community work around the community, and to identify what helps them to take part in it, we conducted a questionnaire survey of all the residents. The questionnaire was constructed using basic attributes of the residents, relations with the neighbors, opinions about community work, and so on. The study subjects were 249 households and the number of valid responses was 180(62.1%). The purpose of this questionnaire was to promote the participation of the younger generation.

The results were as follows:
1) The respondents consisted of 47.4% of the younger generation (under 30 years old) (46.2% of the middle generation (in their 40s and 50s) and 46.4% of the older generation (over 60 years old). 2) The older generation tended to have weaker relationships with their neighbors compared to other generations, and they did not want to have closer relationships.
3) Community work had a high degree of recognition among the respondents and their evaluation of it was good. Although few respondents took part in community work, 30% of both the younger and the older generations, and 20% of the middle generation wanted to become involved in it.
4) The older generation had a high level of interest in community work and the middle generation also had a high motivation to participate.
5) The older and the middle generations may participate in community work but the way to promote their participation requires further consideration.

Wednesday August 3 | 09:00 – 17:00

Study on Characteristics of Children, Parents and Household Consumption Expenditure According to Economic and Physical Independence and Changes in Children

First Author (Main Author) Sunny Park (Seoul National University) Republic of Korea
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Due to the increase of unemployment problem, late marriage and singels in the rising generation, the proportion of the children who rely on their parents are being increased rapidly. The purpose of this study is to provide the implications of the reasonable household resources distribution structure by examining the status of adult children who cannot stand on their own feet from the parents and by comparing the general characteristics and the difference in the household consumption expenditures and further, to suggest measures to the increase of the family member by understanding the rapidly changing household structure widely.

This study is conducted the research subjects as 1261 first children who cannot stand on their own feet from the parents and whose parents age is between 50 years old and 70 years old as of the 3rd year (2010) and 5th year (2014) to examine the changes in the children’s economic and physical independence through the longitudinal analysis, it represented that 41.3% of the children who were reliant living together in 2010, kept representing as reliant living together in 2014, 39.6% were changed to self-reliance living together by standing alone economically, 5.6% were changed into reliant separated type by separate physically without economic independence and only 13.5% were changed into independence separated type by separating economically and physically from the parents.

Finally, in the results of examining the factors having influence on the economic and physical independence of the children with the logistic regression analysis, for the factor having influence on the economic independence of the children, the older, the age of the children, the more the possibility that the children shall become independent economically was increased if the parents have spousal and the characteristics of the household were represented as not statistically significant.

Wednesday August 3 | 09:00 – 17:00

Implementation and Effectiveness of Adolescent Coaching Education Program for Career Path Development and Character Building

First Author (Main Author) Hyeyeon Kim (Jeju National University) Republic of Korea
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Adolescents face difficulties in finding the right career paths for themselves due to their lack of knowledge and experience. In addition, some adolescents show socially unacceptable behavior since they have not established a sense of self-identity and are not emotionally stable. A highly competitive education environment makes the situation worse among the Republic of Korean adolescents. The Jeju Coaching Leadership Center at Jeju National University has conducted coaching education program for adolescent’s career path development and character building since March 2011 as a part of Community Service Projects under the Ministry of Health and Welfare. The program targets 7-15 year olds adolescents from households with a monthly income below the nationwide average. Two ninety minutes sessions are held weekly that include self-identity and career counseling, career consultation, company tours, and team activities for character building. A twenty questions survey was conducted before and after the program on the categories such as career plans, self-identity, self-confidence, self-control, planning and executing, and social relationships. The sample of the survey was 42 participants who had participated in the program for more than 6 months in 213/26 participants from the 1st cycle and 16 participants from the 2nd cycle. The number of participants in each cycle differs due to withdrawal from the program.
The Work-Life Balance Gaps in Aged People

Adherence to exercise regimens and attending social functions not only enables elderly population, in particular those residing in apartment based housing situated in urban setting, to improve their quality of home life, to allow these people to maintain fitness and health even in an environment where many types of activities, such as parks are limited. Also, to provide equivalent beneficial effects to society with cost effectiveness of providing sustainable elderly care but also enable this population to contribute their knowledge, wisdom and experience to the younger generation. With regard to the maintenance of fitness, it is often affected by level of exercise intensity and frequency, both of which are often altered as a result of perseverence, peer motivation, weather, and environmental conditions. Therefore, an Internet based multi-user virtual system is pertinent in providing this population with interactive healthy activity and social network functionality, whilst being easily manipulable by the elderly at home. This study aimed to verify usability of the fitness platform with multi-user virtual situations on smart TV service devices. The main modules of the platform included motion sensing interaction, graphical user interface, alternative 3D avatars and situations, synchronous interaction of multiple users, and interface of unified computing health data. A questionnaire was designed to evaluate the feasibility and usability associated with use of the virtual fitness platform. A total of 40 elderly users participated in the assessment of the content service. The results have showed 89% of them reported that the virtual fitness platform was enjoyment and satisfied with it for activation of life. The conclusion emphasize the platform not only active the health promotion of elderly but also allowed synchronizing and display of data with wearable devices, which further enhanced effectiveness elderly being able to maintain their healthy and fitness.

KEY RESULTS
The work-life balance gaps in every each life domains were varied according to gender and the generation (60s, 70s and 80s). “Community” could be taken first priority with men in their 60s and 70s, and women in 80s. In addition, “Work” could be taken first priority with both men in their 80s and women in their 60s and 70s.

CONCLUSION
Differences of the work-life balance gaps in every each life domains suggested that both men and women face various problems through their development. Policy and measures about work-life balance are needed to be considered from the aspects of the life span development and gender.

METHODS
A survey was conducted in Laos to investigate the living conditions of women in mountainous agricultural regions where risk of poverty is particularly high. The results of the survey were analyzed with an eye to developing and implementing a program for improving women’s lives. The program was tested in farming villages in mountainous areas of Laos.

RESULTS
A key issue among women living in mountainous and agricultural regions of Laos was found to be the risk of poverty attributable to lifestyle and economic factors. These risk factors were noted widely among pregnant women, mothers, working women and others. We interacted with the residents in the affected area at one of the temporary houses in Ishinomaki city, Miyagi prefecture. We conducted a fact finding survey on their current lives and investigating changes caused by the earthquake in the family structure and life styles. We gave lessons of handicraft to pursue their income from making name tags. Orders from Japan National Tourist Organization and could derive income from making name tags. This time we gave lessons of handicraft to pursue their income from making name tags. Orders from Japan National Tourist Organization and could derive income from making name tags.

RESULTS
1. Handicraft classes gave the residents the opportunity to interact each other.
2. The victims concentrated their attention on handicraft, which helped them forget the disaster and find their hope for future.
3. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive income from making name tags.

METHODS
1. Holding handicraft classes which we believe are one of the ways to encourage women to be independent.
2. Contents of classes: braids, fashion accessories, interior accessories
3. Conducting a fact finding survey on their current lives
4. Investigating changes caused by the earthquake in the family structure and life styles
5. Investigating the demand for their future

RESULTS
1. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive income from making name tags.
2. The victims concentrated their attention on handicraft, which helped them forget the disaster and find their hope for future.
3. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive income from making name tags.

PT_0917
Support for Female Independence in the Affected Areas of the Great East Japan Earthquake: The Role Played by Handicraft Classes

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AIM
Although it has been five years since the Great East Japan Earthquake, some people still live in temporary houses and prospects for the future is dim. The aim of our activity is to support them to find their hope of living and to propose some activities which will help them health even in an environment where many types of activities, such as parks are limited. Also, to provide equivalent beneficial effects to society with cost effectiveness of providing sustainable elderly care but also enable this population to contribute their knowledge, wisdom and experience to the younger generation. With regard to the maintenance of fitness, it is often affected by level of exercise intensity and frequency, both of which are often altered as a result of perseverence, peer motivation, weather, and environmental conditions. Therefore, an Internet based multi-user virtual system is pertinent in providing this population with interactive healthy activity and social network functionality, whilst being easily manipulable by the elderly at home. This study aimed to verify usability of the fitness platform with multi-user virtual situations on smart TV service devices. The main modules of the platform included motion sensing interaction, graphical user interface, alternative 3D avatars and situations, synchronous interaction of distributed multi-users, and interface of unified computing health data. A questionnaire was designed to evaluate the feasibility and usability associated with use of the virtual fitness platform. A total of 40 elderly users participated in the assessment of the content service. The results have showed 89% of them reported that the virtual fitness platform was enjoyment and satisfied with it for activation of life. The conclusion emphasize the platform not only active the health promotion of elderly but also allowed synchronizing and display of data with wearable devices, which further enhanced effectiveness elderly being able to maintain their healthy and fitness.

AIM
The purpose of the research was to study and test a program for grasping the living conditions of women in developing countries and to help support the lives of women with the risk of falling into poverty.

METHODS
A survey was conducted in Laos to investigate the living conditions of women in mountainous agricultural regions where risk of poverty is particularly high. The results of the survey were analyzed with an eye to developing and implementing a program for improving women’s lives. The program was tested in farming villages in mountainous areas of Laos.

RESULTS
A key issue among women living in mountainous and agricultural regions of Laos was found to be the risk of poverty attributable to lifestyle and economic factors. These risk factors were noted widely among pregnant women, mothers, working women and others. We interacted with the residents in the affected area at one of the temporary houses in Ishinomaki city, Miyagi prefecture. We conducted a fact finding survey on their current lives and investigating changes caused by the earthquake in the family structure and life styles. We gave lessons of handicraft to pursue their income from making name tags. Orders from Japan National Tourist Organization and could derive income from making name tags.

RESULTS
1. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive income from making name tags.
2. The victims concentrated their attention on handicraft, which helped them forget the disaster and find their hope for future.
3. Younger mothers who acquired the skill of making braids received orders from Japan National Tourist Organization and could derive income from making name tags.

METHODS
1. Holding handicraft classes which we believe are one of the ways to encourage women to be independent.
2. Contents of classes: braids, fashion accessories, interior accessories
3. Conducting a fact finding survey on their current lives
4. Investigating changes caused by the earthquake in the family structure and life styles
5. Investigating the demand for their future
4. Many residents have lived in the different situation from how they lived before the earthquake. For example, their family structure changed.

5. In the areas where people who are not from the same neighbourhood, live in temporary houses, many of them would like to maintain the connection in the local community formed after living in the area.

CONCLUSION
Although the victims have settled down to their new lives, it is not easy for them to rebuild their lives as they were before the earthquake. It is clear that the victims cannot find hope and happiness which they experienced before the earthquake in their current lives. Material comforts do not necessarily bring happiness. Happiness can be obtained by living a meaningful life. Thus, support for the victims from the viewpoint of home economics can give them energy to live and bring them spiritual well-being and spiritual richness.

Analysis of Work-Family Coexistence Relations: Accordance of Marriage Satisfaction and Work Satisfaction

This theory model illustrates relationship between married couples’ satisfaction (cultural, physical, social, family activities), work satisfaction (wages, working hours), mutual positivity of work and family show how it affects each other positively and marriage satisfaction (satisfaction of marriage life, positive cognition of the husband, satisfaction towards fair distribution of housework chores and parental care with the husband). The subject of analysis are 1962 number of case studies of married women’s survey results 4th National Women and Family’s Panel investigation (2012), held by the Korean Women’s Development Institute. Frequency analysis, statistical analysis, and structural equation model were performed by using program SPSS 23.0 and AMOS 23.0.

Outcomes of model structures between hypothetical predictor are below (After checking the model structure, the chi square (χ2) is 2204.9, df (8) is 56, p-value=0.00, RMSEA showed 0.07, therefore confirms that the structure of the model is satisfactory).

It is shown that satisfaction level of marriage affects the statistics of work-familly mutual positivity (S.E=0.045, C.R=10.271, Standardized coefficient=0.41, p=0.000) The effect of work satisfaction effect towards work-family mutual positivity statistics are as following. (S.E=0.118, C.R=8.167, Standardized coefficient=0.349, p=0.000)

Moreover, it is illustrated that satisfactory level of marriage and work affects each other. (Correlation between couple’s level of satisfaction and work satisfaction = 0.75, S.E = 0.06, C.R = 12.335, coefficient of correlation=0.427, p=0.000) It is evident that work-family mutual positivity affects marriage satisfaction statistics (S.E=1.97, C.R=15.033, Standardized coefficient=0.661, p=0.000) therefore it is confirmed that work-familly mutual positivity plays a big role in a happy marriage.

Measures to enhance the satisfaction of marriages are: First, married couples must share leisure activities and take various activities to enhance their close relationships and intimacy. Second, working environment of married women, including wages and work hours must be enhanced. Corporation support such as flexible work hours, child care facilities within work are required to promote work-family mutual coexistence for women. Third, governments must provide educational programs for working parents to help understand that household chores and child care should be shared equally, leading to improvement of the couple’s satisfaction. Lastly, governmental support policies such as parental leaves, especially paternity leaves must be increased to enhance couple’s satisfaction. In order to do this, co-operation between families, works and societies is necessary with gender equality perspective.

Need Survey for Lao Women’s Economic Empowerment from Gender-Sensitive Perspective – Focused on the Trainers and Trainees of Women’s Vocational Training Center in Lao PDR

Women’s economic empowerment has become vital development subject globally because it can work as a precondition for sustainable development, the achievement of gender equality, the reduction of poverty, and integral economic growth, etc. However, women in developing countries are still experiencing exclusion from economic fields compared to those in other countries due to various sociocultural factors. Accordingly, having related skills for decent jobs through either official or unofficial vocational training is regarded as the core of women’s economic empowerment in the international society. However, even with the gender mainstreaming in the international society, the vocational training for women is still limited to traditional areas such as clothing, food and service, and women are commonly excluded in the major industry fields. In this study, we attempt to understand major demands of women’s vocational training to expand international cooperation in the field of women’s vocational training, on the basis of gender equality. We target for Lao PDR, one of the first support area of Korea, which has a demand for vocational training.

10 trainers and 29 trainees of central women’s vocational training center under Lao Women’s Union participate in this study. To analyze the priority of vocational training program, AHP (Analytic Hierarchy Process) and general descriptive statistics are conducted.

The main results of this study are as follows. First, as a result of analyzing the priority of capacity building program for trainers, professionalism of curriculum, positive thinking and passion on trainers, and effective teaching competence and promotion of interaction are identified in order. Second, in terms of vocational training program for trainers, a demand for sewing training is the highest (84%), beauty (28%), cooking and baking (20%), handicraft (17%) are identified in that order. Lastly, in terms of the priority of vocational training program for trainees, cooking and baking (31%) training is evaluated as the top priority, and sewing (22%), accounting (20%) are understood in sequence, unlike trainers’ demand.

This study can be used as an important basic data when Korea expands the international development cooperation for women’s vocational training in Lao PDR. Above all, this study has a significance in the sense that we confirm the effectiveness of gender perspective approaches by which we can understand the sociocultural status of Lao PDR as well as technical approaches, in order to sustain the effectiveness of women’s vocational training.

Use of Family-Friendly Workplace Policies and Parenting Stress of Employed Korean Mothers: The Moderating Role of Job Involvement and the Husband’s Participation in Childcare

AIM
Family-friendly workplace policies are known to alleviate the parenting stress of employed mothers. However, earlier studies have shown mixed results for the effect of actual utilization of these policies, and little is known about moderators between the use of family-friendly workplace policies and parenting stress. In this study, we aim to investigate whether employed Korean mothers’ utilization of family-friendly workplace policies are associated with a lower level of parenting stress and whether the association differs depending on their job involvement and the husband’s participation in childcare.

METHOD
The data came from 332 full-time employed mothers residing in Seoul who had at least one child younger than school age. Multiple regression with interaction terms was used after controlling for socio-demographic factors (age, education, household income), family factors (number of children, age of the youngest child, marital satisfaction, use of childcare by relatives) and work-related factors (working hours, employment status, occupational category). The utilization of family-friendly workplace policies was measured by having used at least one of the three workplace policies: Maternal leave, parental leave, or a flexible work arrangement.

RESULTS
The utilization of family-friendly workplace policies was associated with a lower level of parenting stress for employed mothers. However, the relationship differed by two moderators. First, job involvement moderated the relation between family-friendly workplace policies and parenting stress (β = 0.187, p < 0.01). The relation between family-friendly workplace policies and parenting stress was opposite depending upon the level of job involvement. Among those with low job involvement, use of family-friendly workplace policies was associated with lower parenting stress. Among those with high job involvement, however, use of family-friendly workplace policies was related to higher parenting stress. Second, the husband’s participation in childcare moderated the relation between utilization of family-friendly workplace policies and parenting stress (β = −0.140, p < 0.05). The negative relation between the use of family-friendly workplace policies and parenting stress was stronger when the husband had a greater level of childcare participation.

CONCLUSION
The findings indicate that the effect of utilizing family-friendly workplace policies on alleviating parenting stress of employed mothers differs by how much an employed mother is involved in her job and how much her husband participates in childcare. The positive effect of family-friendly workplace policies on employed mothers could be facilitated when the husband participated in parenting. However, among employed Korean mothers whose job involvement is high, their use of family-friendly workplace policies may worsen their parenting stress due to their desire to concentrate on their careers.
Recent advances in information and communication technology (ICT) have proven to be remarkably popular. According to The MIT Technology Review (DeGusta, 2012), smart phones went from a 10 percent market penetration in the United States to a 40 percent market penetration in under 5 years. Yet for all the phenomenal growth of the ICT devices, there is still a great deal we do not know about their impact on society, business, and families. This study proposes to fill some of the gaps in existing knowledge by examining issues related to ICT and families. In particular, the study will examine the uses that families have for ICT technology, the perceived benefits of the technology, and examine a number of problems that come with the spread of the technology.

Culturally, Korea, United States, China differ dramatically. According to The Hofstede Center’s website (http://geert-hofstede.com/), the United States and Korea are on opposite ends of the scale with regard to individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence. China and the United States differ in terms of power distance, individualism, long-term orientation, and indulgence. China and Korea differ only with respect to uncertainty avoidance and masculinity however each country has had a different historic experience in recent years. Based on the above issues, we have identified main research questions regarding ICT use by families and the role ICT plays in family process.

In early 2015, a survey firm in the United States was contracted to collect data from 500 participants in a panel. A firm in Korea was contracted to collect data from 542 Korean panel participants. Also, a firm in China was also contracted to collect data from 1,000 Chinese panel participants. Respondents were limited to those 18 years of age or over living in a household with at least one person to whom they were related by blood, marriage, adoption, or in a long-term committed relationship.

Gerontologists seek to explore the older persons’ experience of space, which is important for their maintenance of a sense of personal identity, self-control, and, ultimately, well-being. With urbanization and the age-grading of city spaces, however, the elderly become socially isolated from the community. As they become older, they experience their space as increasingly limited and come to attribute different meanings to it. Thus, we focus on the oldest old aged 85 and above, examining the way they use, perceive, and attribute meaning to the spaces that they experience in their daily lives. In-depth interviews and observations were conducted with 15 (mentally and physically functional) urban residents. Results show the spaces the oldest old experienced to comprise two main locales: home and senior citizen center (“Kyung-Ro-Dang”). For home, changes in filial obligation norms and family structure led the elderly to perceive home as a meaningless space where they felt trapped and uncomfortable, with simple daily routines, such as sleeping and eating interspersed with occasional (marital or family) conflict. Senior citizen centers were their most important sites for social interaction, where they spent most of their time and also where a distinct Korean culture could be found, with features such as gender-role separation. They described senior citizen centers as the most comfortable space but also as becoming feminized over time. Besides two main locales, some oldest old described religious institution or workplace as a place in which intergenerational connection was constructed and attributed more significant meaning to this than to senior centers. Overall, this research shows that the attribution of meaning to space for the elderly differs by age. This is important, since knowledge of the perception of space of the oldest old is vital to the provision of associated support and strategies suited to their needs and desires.

Gender inequality in leisure time is a common problem over all age groups. This research examines gender difference in leisure time and draws attention to how the determinants of leisure time influence differently for Korean male and female elderly.

The data used for this study were from the ‘2014 Time Use Survey’ conducted by the Korea National Statistical Office. The data from 3,016 male and 4,518 female aged 65 and over were analyzed using t-test and multiple regression analysis. Variables included for independent variables on regression analysis were socio-demographic variables and time variables. Gender, age, educational level, employment status, income, family type, health level, and attitude on sex role were analyzed as socio-economic variables. Work time and household work time were included for time variables.

The results show how leisure time differs by gender. Female elderly had 63 minutes less in leisure time per day than their male counterparts. Male had more time for mass media, sports, ritual activities, and other leisure activities than female and female had more time for helping/favoring favors for acquaintances, socializing, and religious activities than male. Variables analyzed as determinants of leisure time included employment status, gender, age, family type, and health level. Employment status was the most important variable among socio-demographic variables for both male and female, however several variables impact leisure time differently for male as compared to female. Work time was the most important variable affecting leisure time for both male and female. Work time was more influential for male than female, whereas household work time was more important for female than male.

Findings are discussed with respect to constraints on leisure for the elderly. Implications for reducing gender inequality on leisure time and improving the quality of leisure life, especially for female elderly, are provided.

Quality of life in old age is significantly depend on how to spend it and what to do in the rest of their life. But according to the survey results on the elderly life conditions in 2014, just taking a rest forms at close to 90.2% of their total leisure activities rate. This statistics means that the elderly spend their leisure time described as passive and dysfunctional leisure activities.

Therefore, in this study, we aim to understand the conditions and characteristics of leisure activities for the middle-aged people and discuss leisure activities policy direction.

To investigate the current condition of leisure activities of the middle-aged people, this study examined the statistics derived from a database built by Korea Institute for Health and Social Affairs on a survey conducted by Leisure and work in the transition to retirement in 2015.

The main results of this study are as follows. First, for the importance of leisure activities the middle-aged people recognized it as ‘Generally important (47.0%)’ ‘Very important (37.7%)’. Second, leisure activities reasons of the middle-aged people are ‘Quality of daily life (50.9%)’, ‘Health maintenance (28.3%)’, ‘Stability of mind and relaxation (12.6%)’. Third, the response results on the leisure activity participation of the middle-aged people are ‘NO (55.2%)’, ‘YES (44.8%)’.

Forth, the reasons of leisure activity absent of the middle-aged people are ‘lack of money (45.1%)’, ‘lack of willpower (13.6%)’, ‘tiredness (38.7%)’. Fifth, the current condition of leisure activities of middle-aged people by TYPE is categorized as Physical exercise (67.9%)’, ‘Entertainment activity (34.4%)’, ‘Cultures and art activities (22.2%)’. The details include ‘walking (13.9%)’, ‘hiking (10.9%)’, ‘bathing (9.7%)’, ‘watching movies (9.9%)’, ‘watching sports (8.9%)’, ‘shopping (7.0%)’ in order of priority.

As I mentioned above, from the result of this study we can assume that the middle-aged people are aware of the importance of leisure activities very well but do not participate in. And it seems that they are more participating passive and dysfunctional leisure activities than positive and functional leisure activities.
Physical, Chemical, and Sensory Properties of Glass Noodle Supplemented with Jerusalem Artichoke Flour

AIM

The objective of this study was to develop glass noodle with Jerusalem artichoke flour added to make products of high nutritional quality with low carbohydrate digestibility.

METHODS

The effect of mung bean flour substitution with Jerusalem artichoke flour was investigated in terms of the physicochemical, textural and sensory qualities of glass noodle. Five additional glass noodle were prepared by substituting mung bean flour with 10, 20, 30, 40, and 50% Jerusalem artichoke flour. The optimal ratio of glass noodle from Jerusalem artichoke flour was investigated using sensory qualities in comparison with the control (100% mung bean flour).

RESULTS

The results of glass noodle formula development indicated that as the amount of Jerusalem artichoke flour increased, the sickness of glass noodle decreased and the appearance became darker. The optimum formula consisted of 40% Jerusalem artichoke flour was used to investigate preparation methods and adding foam stabilizers, and changing concentrations of konjac and foam stabilizers.

METHODS

The concentration of konjac flour was varied from 0.5 to 5.0 wt%. Gum arabic, methylcellulose, pullulan and soluble soybean polyxyloolactone were used as foam stabilizers, and the concentration of these foam stabilizers was varied from 0 to 0.8 wt%. Konjac aqueous dispersions were prepared with or without foam stabilizers were prepared by changing stirring time. The specific gravity of konjac aqueous dispersions was measured, and the bubble content was calculated. It was found that there were no differences in the specific gravity of 0.5–3.0 wt% konjac aqueous dispersions prepared by changing stirring time. It means the amount of bubbles for the samples was not influenced. However, increasing the concentrations of konjac flour and adding foam stabilizers to konjac aqueous dispersions led to increase the bubble content of samples. Among four kinds of foam stabilizers, methylcellulose was the most effective in increasing the bubble content. Therefore, bubble contents of the konjac aqueous dispersions with various concentrations of methylcellulose was examined. It was found that adding 0.2–0.5 wt% methylcellulose increased the bubble content of 1.0–8.0 wt% konjac samples most effectively.

CONCLUSION

The specific gravity for the konjac aqueous dispersions containing methylcellulose was the lowest. Therefore, it was considered that methylcellulose was the most effective to make a new texture of konjac products.

Creating a New Texture by Controlling the Bubble Content in Konjac

AIM

There are many traditional gel-like foods in Japan such as tofu, kamaboko, agar jelly, rice cake and konjac. Among them, konjac has a characteristic texture, which is chewy and elastic. Many Japanese have enjoyed konjac and its variety of textures. In this study, controlling the amount of bubbles was considered effective in developing a new texture of konjac products. Therefore, the bubble content in konjac aqueous dispersions was investigated by changing preparation methods and adding foam stabilizers, and changing concentrations of konjac and foam stabilizers.

METHODS

The concentration of konjac flour was varied from 0.5 to 5.0 wt%. Gum arabic, methylcellulose, pullulan and soluble soybean polyxyloolactone were used as foam stabilizers, and the concentration of these foam stabilizers was varied from 0 to 0.8 wt%. Konjac aqueous dispersions were prepared with or without foam stabilizers were prepared by changing stirring time. The specific gravity of konjac aqueous dispersions was measured, and the bubble content was calculated. It was found that there were no differences in the specific gravity of 0.5–3.0 wt% konjac aqueous dispersions prepared by changing stirring time. It means the amount of bubbles for the samples was not influenced. However, increasing the concentrations of konjac flour and adding foam stabilizers to konjac aqueous dispersions led to increase the bubble content of samples. Among four kinds of foam stabilizers, methylcellulose was the most effective in increasing the bubble content. Therefore, bubble contents of the konjac aqueous dispersions with various concentrations of methylcellulose was examined. It was found that adding 0.2–0.5 wt% methylcellulose increased the bubble content of 1.0–8.0 wt% konjac samples most effectively.

CONCLUSION

The specific gravity for the konjac aqueous dispersions containing methylcellulose was the lowest. Therefore, it was considered that methylcellulose was the most effective to make a new texture of konjac products.

Effects of the Substitution Level of Freeze-Dried Angelica Keiskei on Functional and Sensory Properties of Bread

AIM

Aiming to aid in the prevention of lifestyle-related diseases, we attempted to develop functional bread using Angelica Keiskei (Arctotis), an umbelliferous plant native to Japan. In the present study, we investigated components of Angelica Keiskei and examined the effects of the substitution level of powdered Angelica Keiskei on the functional and sensory properties of the bread.

METHODS

Angelica Keiskei was freeze-dried (40°C, 24 hr) and milled into powder (250 μm). The structural properties of Angelica Keiskei components were analyzed using LC-MS and LC-NMR. Bread samples were prepared by substituting 1, 3, and 5 wt% of 400 g (i.e., 4, 12, and 20 g, respectively) of bread flour with Angelica Keiskei-powder and compared with control bread without substitution. The total polyphenol content was determined using the Folin-Denis assay. Antioxidant activity was determined using DPPH (1,1-Diphenyl-2-picrylhydrazyl) radical-scavenging assay. Sensory evaluation (color, flavor, hardness, adhesiveness, taste, total evaluation) was performed by 32 food specialists (29.9 ± 14.9 years old) based on scoring and ranking methods. Data were analyzed using Tukey-Kramer’s multiple comparison test or Newell & MacFarlane test (p <0.05).

RESULTS

The analysis demonstrated that chlorogenic acid was one of the major compounds present in Angelica Keiskei, and that this plant may contain quercetin and kaempferol glycosides. Both the polyphenol content and DPPH radical scavenging activity of Angelica Keiskei bread increased significantly (p <0.05) with increasing substitution. On sensory evaluation, bread with 5 wt% substitution received significantly (p <0.05) lower scores and was significantly (p <0.05) less preferred in the ranking test than that with 0 (control), 1, and 3 wt% substitution.

CONCLUSION

These results suggest that bread with 3 wt% or lower Angelica-Keiskei-powder substitutions can serve as a source of functional components that possesses favorable sensory properties.

Effect of Dietary Education on Eating Behavior and Self-Efficacy of Elementary School Students

AIM

It seems very important to start dietary education from earlier age because the cognitive processes of children from age of 10 onward are believed to become similar to those of adults. In Japanese elementary schools, there are unignorable amounts of students who don't have regular family meal or breakfast at all, which may cause them a lack of concentration, resulting in school life problems such as uncooperativeness and lower academic performance. To improve such situation, a variety of dietary education programs were developed for elementary school students. In this study, we investigated the influence of a dietary education to elementary school students on their eating behaviors, dietary habit and self-efficacy.

METHODS

Results from 97 sixth-grade students who had been receiving dietary education for six years were compared with those from 17 control students in the same grade of neighboring school. Students were subjected to the questionnaire on eating behavior and diet history. Self-efficacy was analyzed using the questionnaire based on the competence scale for children developed by Sakurai (1992), and meal frequency and estimates of dietary intake of foods, calories and nutrients were analyzed using brief-type self-administered diet history questionnaire (BDH10v).

RESULTS

Intake of beverages and ice cream by students of control school were significantly higher than those of dietary educated students. Control school students who eat snacks every day were took much more amounts of energy, fat, carbohydrate, saturated fatty acid and cholesterol. Furthermore significant correlations between eating behavior and self-efficacy such as “I have confidence in myself” or “I have much of which it can be proud” were existed in educated school students.
**Stress and Eating Behavior**

**AIM**

In recent years, there has been an increasing trend in stress among workers, and the effects of related mental health issues have on them, their family as well as society, are a growing problem. Furthermore, the number of periodic health examinations is increasing every year, and there is an urgent need for promoting better physical and mental health. This study intends to understand the current status of workers' lifestyles, eating behavior and stress levels and to discuss the relationship between stress, lifestyle and eating habits.

**METHODS**

In April 2011, a self-administered questionnaire was distributed to employees (836 people) of retail company A. Of 635 subjects (78.1% response rate), surveys with missing information were disregarded and 643 subjects (76.9% valid response rate) were chosen for analysis. The main content of this study is 1: Physical attributes (sex, age, 2: Stress (Mental fatigue, physical fatigue, sense of guilt and regressive fatigue), 3: Eating habits (Eating behavior, eating efficacy, etc.).

**RESULTS**

Results for eating or skipping dinner and eating efficacy for subjects working after 9 PM showed that those who work after 9PM had a higher level of distortion and a low value for eating efficacy. Similarly, results for eating behavior and eating efficacy in relation to sleep and stress, subjects with high sleep difficulty had a high distortion for eating behavior and a low value for eating efficacy. Findings showed that subjects with high levels of stress had a higher distortion for eating behavior and a low value for eating efficacy.

**CONCLUSION**

The current study indicates an interaction between stress level, eating behavior and eating efficacy of subjects that work after 9 PM. In order to reduce the distortion in eating behavior and increase eating efficacy, there is a need for improvements in sleep-quality to control stress and dietary support for employers working late hours.

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**A Study on the Taste-Modifying Phenomenon of Miracle Fruit That Is Native to West Africa**

**AIM**

Miracle fruit is a taste modifier. When sour foods like lemons are eaten after miracle fruit, they are tasted as sweet. In the present study, we selected foods that represent each of sweetness, sourness, saltiness, bitterness, and umami (such as granulated sugar, lemons, grain vinegar, salt, coffee, and dried bonito flakes) and miracle fruit produced in Miyazaki Prefecture, Japan, in 23 to 27 healthy young college women. The subjects were asked to rate each food on a seven-point scale. Paired Sample t-test in SPSS was used for analysis. Sugar content and pH of the foods were also measured.

**RESULTS**

Sensory evaluation was conducted using 12 different foods that represent sweetness, sourness, saltiness, bitterness, and umami. Surveys were taken every April (beginning of the school year) from 2007 to 2014 to investigate the cooking habits of 2,149 freshmen (age 18–20) in college. The respondents were categorized into several groups, e.g., gender, residence, major in high school, frequency of cooking, cooking attitude and having specialty or not. The results were statistically compared by chi-square test.

**CONCLUSION**

From these results, it can be considered that increasing the cooking opportunity are necessary for developing good cooking habits.
Health Literacy Needs of Vietnamese American Women with Limited English Proficiency

**AIM**

This project is to develop culturally appropriate intervention to improve cervical cancer knowledge among Vietnamese women. Vietnamese women experience proportionally more cancers of infectious origin, such as HPV which leads to cervical cancer. The purpose of the presentation is to discuss the unique health care needs of the Vietnamese American women with limited English proficiency.

**METHODS**

In order to identify the unmet needs of Vietnamese women, key informant interviews (n=3) were conducted with knowledgeable, community health professionals and advocates working with Vietnamese American populations. The majority (74.3%) of the participants reported that screening patterns for health literacy skills is not being conducted. Results indicate that current practices in healthcare organizations tend to allow those with limited language/communication skills, and those with limited health literacy skills to go through the system unidentified. In evaluating the existing cervical cancer educational materials available for Vietnamese women, seventy cervical cancer educational materials were collected from a variety of health organizations. They were evaluated for formatting (e.g., readability and basic design), and cultural sensitivity was assessed.

**RESULTS**

Schools are a fundamental part of the social environment that help to cultivate healthy eating habits among young people. School principals play crucial roles in the implementation of food, curricula policies, and services. This qualitative study was undertaken to elicit principals’ views about the current food and nutrition curriculum, school food policies and services and healthier alternatives.

**METHODS**

A snowball sampling strategy was used to recruit ten principals from English-speaking secondary schools in Kolkata, India. Face-to-face, semi-structured interviews were conducted between February and August, 2015. Participants were asked a series of open-ended questions based on a review of literature. Digital recordings were transcribed verbatim and thematically analyzed (via NVivo 10) based on the principles of template analysis. Ethics permission for the study was granted by Deakin University (HEC-171_2014).

**RESULTS**

Five themes summarized the principals’ views of the current food and nutrition curriculum. They were mainly restricted to Biology and Home Science which are not taught to all pupils, and there is little attention paid to life and food skills or the initiation of lateral thinking. Six themes encapsulated the principals’ views of the ongoing food policies and services in schools. Despite the lack of written food policies, several schools had tried to restrict the intake of certain energy-dense, nutrient poor foods and carbonated beverages within the school premises. But due to increased demand for certain unhealthy foods from adolescents and canteen personnel, several schools continued to sell those foods in their canteens. This indicates the discrepancy between the school food provision and its food curriculum.

**CONCLUSION**

Cancer education materials can be effective communication tools for the Vietnamese with limited English proficiency and lower literacy skills, but only if they are written at appropriate reading levels and is culturally sensitive. Implications for cancer prevention programs for people with limited healthy skills will be presented.

Effects of Air Bubbles on the Tufu Products with Japanese Yam and Their Applicability to a Dysphagia Diet

**AIM**

For the health maintenance and promotion of the elderly people, we tried to produce the tofu including air bubbles with Japanese yam, which has the excellent nutritional value and functionality. Then, we researched applicability as the dysphagia diet.

**METHODS**

Japanese yam was harvested in Fukushima Prefecture. Powder of freeze-dried Japanese yam added to water was stirred from 4 min to 16 min. Further, mashed tufu and seasonings were added and the mixture was mixed to be stirred at low temperature. The rheology of trial product was examined using a creep meter, and the observation was laser microscopy, and the antioxidant activity was H-ORAC (Oxygen Radical Absorbance Capacity) method.

**RESULTS**

The apparent densities of pre-heated samples and the trial product were decreased by stirring up to 16 min, and oppositely they increased for 18 min stirring. The sensory evaluation showed that the mixed bread with a fermentation time of 1 h had significantly higher textural acceptability than the non-fermented control bread. These results indicate that a softer germinated soybean flour bread could be developed by adding Bacillus subtilis natto.
fu is made from starch and gluten powder, the powder mixture is kneaded with water and fried in oil. There are many air bubbles in the inside of Abura-fu which are crunchy and soft. On the other hand, the Abura-fu crust is hard and brown. However, we do not have the detailed information about processing method. It is too difficult to make Abura-fu crunchy and soft. Therefore, we tested about water amount to the Abura-fu ingredients. Next, we tried to determine the best conditions for cutting and kneading of Abura-fu ingredients. We aimed at clarification and popularization of expert skill on Abura-fu production.

**METHOD**

We divided the test participants into the low scoring group and the other group based on their "dietary status score" on the pre-assessment. No significant differences in attributes (age, height, weight) were found between the two groups. However, men and women in the low scoring group had a better "dietary status score" compared to the nutritional improvement program. Moreover, "daily consumption of a dish cooked in oil" became more prevalent among men while both "daily consumption of staple foods" and "daily consumption of a dish cooked in oil" became more prevalent among women. The "dietary habits score" of men in the low scoring group also improved.

The nutritional improvement program was shown to be effective for participants who had a low "dietary status score," and may therefore contribute to preventive care.

**RESULT**

Abura-fu which was added 40 g of water swelled more than others. There are some big air bubbles in matrix with small air bubbles. Abura-fu which was added 60 g of water did not swell, and the inside air bubbles were small. Abura-fu which was added 50 g of water swelled moderately. The stress from compressive load of sections of the Abura-fu did not have the significant difference. No cut Abura-fu swelled a little, and there were moderate air bubbles inside. Abura-fu which was cut more than 100 times swelled, and had big air bubbles inside. The best cutting times would be 100 times.

**CONCLUSION**

The best condition to make Abura-fu is 50 g water to 25 g gluten and 25 g of starch. The ingredients were kneaded, and cut with knife into small pieces, and fried. Secondly, we tested whether Abura-fu depended on cut times which were 0, 100, 200 or 300 each. We observed the difference of the swelling state of the Abura-fu, and measured the stress from compressive load.

**Development of Teaching Materials Based on School Meals in Laos**

**AIM**

The experiences of the WFP in providing school meals in Laos have shown that school meals are a highly effective means of nurturing children, who represent the most important resource in the country. We aimed to investigate the ways in which the knowledge and experience regarding school meals and school health in Japan can be applied to the dissemination of school meals in Laos, and to develop effective teaching materials that meet the needs of Laos.

**METHODS**

A survey was conducted in 2014 at schools and other locations in Oudomxay Province, in northern Laos. Based on the results of this survey, a workshop on teaching materials and methods for school meals was held in 2015 by 30 personnel involved in school meals in three provinces adjacent to Oudomxay Province. After conducting group work, a questionnaire survey and an interview survey were conducted on workshop participants.

**RESULTS AND DISCUSSION**

Cards showing Lactant ingredients and nutritional balance were used as teaching materials for school meals. They checked nutritional role of the food which was generally used in Laos by the cards. Subsequently, participants were asked to create a nutritionally balanced school meal menu using a balance sheet. Each group created a well-balanced menu using locally produced ingredients. In terms of safety and hygiene, we focused on handwashing among school meal workers, and attempted to improve their awareness regarding safety and hygiene. Handwashing checking was used to check the workers’ daily handwashing methods, and experienced the correct method of the handwashing.

The teaching materials used in the workshop were confirmed based on the results of the interview and questionnaire surveys to be teaching materials for school meals that met the needs of personnel involved in school meals.

**Actual Circumstances Basal Metabolism Standard of Female Students in Fukushima Prefecture**

**AIM**

These days, young female people want to be more skinny, even if they are in normal frame. They prefer to skip meal and avoiding eating to lose weight. It is known that way of this dieting makes the basal metabolic rate decrease and also would reduce their biceps' strength. This time we are researching on the basal metabolic rate among young female people. Basal metabolic rate is mainly due to frame biceps, so we research grasping power for biceps.

**METHODS**

In this study, we analyzed third year senior college students who live in Fukushima Prefecture. Female students (n=55, 20 years, 158±4.4 cm, 54±7.8 kg, 21.9±2.8 kg/m²) participated in the study. MediGem conducted a hand-held indirect calorimeter test which was valid for resting metabolic rate. In this test, subjects are usually on a sitting position; it should also be done more than 4 hours after meals to avoid the influence of food. We divided physical activity level and weight avoiding their frame. In the basal metabolism rate the subjects should be awake and lying down. The basal metabolic standard was reckoned by resting metabolic rate/1.1 weight (kg).

Testing the grasping power is marked by the biceps connected to the whole body's strength.

**RESULTS**

Result of the basal metabolic standard was 22.5±2.7 kcal/kg which is same as Japanese average. In this study, diet is the subjects' experiences about as skipping meals or avoiding eating. People who did eat in the past (24.6±3.1 kcal/kg) was higher in basal metabolic standard than dieting standard now (21.4±2.5 kcal/kg) but weren't significant (p=0.06). What people generally believe, skipping meal or avoiding eating meant losing weight makes reduce the basal metabolism standard. In this case, the result wasn't significant. People who did eat in the past, their average rate was higher than the Japanese average. For us to give more sufficient information about this study, we will do our research more next year. The grasping power (24.8±4.9 kcal/kg) was significantly (p<0.01) under Japanese average (28.2±4.6).

**CONCLUSION**

It was suggested that there weren’t decline of basal metabolic standard, but there were reduced biceps among younger people in Fukushima.

**Development of Teaching Materials Based on School Meals in Laos**

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**Home Economics and Health – Natural Partners?**

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**The Importance of Well-being and Self-care**

The importance of well-being and self-care is currently highlighted in a variety of documents such as the Sustainable Development Goals, the IFHE’s 2008 position statement and the 2001 Primary Care Strategy for Ireland. In the midst of a surging obesity epidemic and an ageing population, the importance of Primary Care in achieving well-being is being emphasised. Primary Care aims to keep people in their homes and promotes preventative and rehabilitative care within the community. Providing information and resources are a priority in healthcare and often the key area of practical skills is overlooked. This research argues that Home Economics is ideally suited to add to the multidisciplinary team approach already employed in Primary Care, especially in the area of practical life skills.

The IFHE defines Home Economics as being “concerned with the well-being and empowerment of individuals, families and communities” (2008, p1). The role of Home Economics in promoting healthy nutrition is well established worldwide but this is just part of the discipline and can sometimes overshadow the other essential life-skills.
**PT_1814**

**Physical Status and Dietary Habits among Schoolchildren in Miyazaki**

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**AIM**  
Many common health problems such as a decline in physical strength, underweight, or obesity in Japanese children and adolescents are caused by their prolonged amount of exercise. The results of an in-school medical examination of locomotive organs have confirmed that in Miyazaki, 10% of children show signs of musculoskeletal disorders or dysfunction. The purpose of this study was to elucidate the physical status and dietary habits of schoolchildren.

**METHODS**  
From March to May 2015, the survey was conducted in 941 schoolchildren (469 boys and 462 girls aged 9–13 years) from nine schools in Miyazaki. Dietary habits and lifestyle were anonymously assessed through a self-administered questionnaire and brief self-administered diet history questionnaires. This study has been approved by the research ethics committee of the University of Miyazaki.

**RESULTS**  
The rate of “musculoskeletal disorder or dysfunction” was significantly higher in middle schoolchildren than in primary schoolchildren. No significant differences were found in the prevalence of obesity and underweight between the “musculoskeletal disorder or dysfunction group” (MD) and the “non-musculoskeletal disorder or dysfunction group” (non-MD). The scores of “interest in cooking” and “enjoying eating” were significantly higher in MD than in non-MD. According to each category score, the children were divided into high- and low-score groups. Compared with the low-score groups, the intake of “green, yellow vegetables,” “other vegetables,” “fruits,” and “fish and seafood” was significantly higher in the high-score groups for “interest in cooking” and “sleep early.”

**CONCLUSIONS**  
These results suggest that teachers and parents should work together to develop an “interest in cooking” and a healthy lifestyle in schoolchildren so as to promote their healthy growth and development.

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**PT_1815**

**The Effect of Curcumin in Breast Cancer Chemotherapy**

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**AIM**  
Homologous-recombinational (HR)-dependent repair defective cells are hypersensitive to poly (ADP-ribose) polymerase (PARP) inhibitors. Combinations of defective HR pathway and PARP inhibitors have been an effective chemotherapy strategy. We previously showed that knockdown of the WRN40 repeat containing protein, WIPF, is HR repair defective in mouse embryonic fibroblast cells and is sensitive to ABT-888, a chemotherapeutic drug commonly used for inhibiting PARP. Consistent with the HR defective mouse genetic study, here, we show that curcumin inhibits Rad51 foci formation and accumulates γ-H2AX in breast cancer cells. Curcumin treatment reduces HR repair and causes breast cancer cells to become hypersensitive to ABT-888 treatment. Moreover, curcumin, when combined with ABT-888, has the effect of delayed breast tumor formation in a xenograft model. Our study indicates that curcumin with PARP inhibitor treatment may be useful for the combination chemotherapy as a natural bioactive compound.

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**PT_1822**

**Hope and Happiness for Sickle Cell Anaemic Children on Dietary Management in Federal Medical Centre, Abeokuta, Ogun State, Nigeria**

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**AIM**  
The study assessed Hope and Happiness for sickle cell Anaemic Children in Federal Medical Centre, Abeokuta, Ogun State, Nigeria.

**METHODS**  
Descriptive design was used for this study. The population was made up of all 90 cell sickle children between the ages of 12–17 years that are attending the hospital from January 2014 to March 2015. Structured questionnaire was used to collect information from the parents, guardians and medical reports. The data was analyzed with frequency distribution and percentage. Chi square was used to test research hypothesis 0.05 level of significance.

**RESULTS**  
It was observed that majority 62 (68.9%) of the respondents had normal weights, 90 (96.7%) agreed that fruits such as carrots, oranges and watermelon are good for maintaining healthy life. Furthermore, 78(86.7%) of the respondents had access to vegetables like Pumpkin, amaratus, and cilantro drawing leaves that contains fibers which aid digestion and stimulate production of hemoglobin that supply red blood cells very frequently. 60 (66.7%) of the respondents had access very frequently to beef, 66(72.2%) of the respondents had access very frequently to snail meat while 48 (53.3%) had very frequent access to liver. Also, 74(82.2)% of the respondents agreed that they took breakfast, dinner and home-made foods regularly and 78(86.7%) also agreed that their foods are usually prepared in good condition. Furthermore, all 100(100)% of the respondents agreed that diets consumed lessen pain and
The Study of the Space Form of the Ethnic Miao’s Village in the Southwest of Hunan, China—With the Miao’s Village in Huaihua as the Object —

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**AIM**

The ethnic Miao village located in the southwest of China’s Hunan province, with its primitive simplicity, nativity and unique landscape, has been getting more and more attention in recent years. But at present most of the studies on the ethnic Miao village are mainly divided into Amdo, U-Tsang, Kham. Gartse Prefecture as the distribution center of Tibetan Kham, Tibetan Autonomous Prefecture has been influenced by other nationalities, such as ethnic corridor since ancient times. Tibetan people in Garze are divided into KANGBA and JARDING, and Tibetan Kham includes MUYA, PACUI, ZABA, YALONG and there are corresponding cultural districts. Each cultural district has different features, and they are arranged in a crisscross pattern, and also interlinked.

In the Article, we choose a MUYA village, a traditional Kham village, a JARDING village as examples. The investigation is as follows:

1. Compare the village’s historical backgrounds and present situations, and explore the differences.
2. Find the distributions of roads and discuss the similarities and differences of road patterns.
3. Figure out every village’s farmlands, pastures and religious facilities’ locations.
4. Analyse the whole village’s geographical environment and form (plane or slope).

Through the investigation, we analysed the differences and reasons of the planning and layout of Tibetan villages because of the different terrains, different climates and altitude.

The primary conclusions are as follows:

1. KANGBA Tibetan Villages: (MEIBA and SFONGDA) has a long history, and been rebuilt. They are located in highland plains or mountains at the altitude of 1500 m~4000 m. The distribution of the main road and by-pass is a tree form in the village. The villager believe in the Gelug-pa.
2. JARDING Tibetan Village (UNGBAE) has a long history, and well-preserved. It has been built on the inclined plane at the altitude of 2000 m~3000 m. Its main road and by-pass are arranged in a mesh form. The villagers believe in the Bon.

**CONCLUSION**

This study analyzes the historical development background of the three ethnic Miao-villages, and its space form features. And then this study obtains that based on the distribution of the housing and farmland, it can be divided into villages scattered, concentrated, surrounded by three types; While according to the changes of public space and the villagers’ lifestyle, it can also be divided into tradition maintenance type and tradition-development type. Finally, the study proposes with the full understanding of Miao-villages’ history and culture and lifestyle, to protect the village space form and the environment.

Key words: the Miao’s Village, the People’s Life, Space Form

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A Study on Living Space and Lifestyle of Mongolian in the Region of Horqin

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**ABSTRACT**

Before 17C, Mongolian led a nomadic life. From the end of the Qing Dynasty, Hodgou system was in effect by Qing Dynasty in order to prevent independence of Mongolians, since then the land was open, and Han Nationality who worked on a farm immigrated. Although even before they are nomadic race, under the influence of all of that, the cultivation began to appear in the Mongolian life, and the lifestyle was changed into settlement. The region of Horqin is including Tongliao City, Ulanhad City and Hingan Aeimeg, about 2,100,000km² in area, and has a Mongolian population of about 2,948,000. This region of Horqin was firstly changed at the beginning of the effect. This region has two-thirds of Mongolian, so become an important region. The research purpose of this paper is to clarify ① the effects on the recent occupation and lifestyle of the people who live by the agriculture and the stock. At the recent residential style and the construction and the utilization of the residence as subject of farmer and herdman’s residence in semi-agricultural and semi-stockbreeding of the Inner Mongolia Autonomous Region.

**METHOD**

From 11th to 18th June, 2012, we conducted interviews with regard to the 20th houses of Tongliao City suzun garen hooutu about occupation and lifestyle, and measurement of site and house

**CONCLUSION**

In this region agriculture and stockbreeding are important products, the fixed residence is gachaa which is semi-agriculture and semi-stockbreeding Engaged in agriculture and stockbreeding for one year, it is an important income, in addition to raising horses, dogs, chickens, the people also raise sheep, goats and cows in stockbreeding. Corn growing is not only people’s main food, but also become proceeds when the left corns were sold. Then, the people feed the livestock on stem and leaves of corn, so the residence are the one-stored house. All type of room’s entrance are facing southeast, no relationship with kind of room and location.

The houses can be classified into two-chamber, three-chamber, and several-chamber, and then the type of residence is also different by the utilization.

Through the participants’ opinions and surveys, it seems that we should consider that the Han Nationality had a impact on the residential condition and living environment of shepherds and peasants and that the result will be able to contribute to the Mongolian modern society culture and the development of residential cultural.

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Comparative Study of Network Residence in Japan and South Korea: Focus on Urban Areas

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**ABSTRACT**

It is difficult to understand current residential problems without considering changes in families and residences in contemporary society. Contemporary families satisfy their familial and residential needs through interrelationships with each other while living in a number of dispersed residences. The concept of a network residence is used to describe the situation in which families are reorganized into dispersed residences. The purpose of this study was to investigate...
RESEARCH BACKGROUND AND RESEARCH PURPOSE

Hulun Buir City of Inner Mongolia is located in the borders of Russia, Mongolia and China. It is a place where nomads have lived for generations in their traditional nomadic lifestyle. Besides Mongolians, there are 12 ethnic nationalities like Evenki, Daur living in this vast land. This research focus on the environment changes and lifestyle changes of Evenki people who has kept a herding life like Mongolians.

RESEARCH METHODS

We interviewed 20 Evenki families in Hui Sum of Evenki Banner and did the field investigation for their lifestyle and residence in September 2014.

RESULTS

Comparing with nomadic lifestyle of four seasons movements of Mongolians in New Barag Right Banner, Evenki people’s living region is limited in only summer camp and winter camp. Evenki people use Gachal’s common property freely instead of living in allocated region with fence. The spatial patterns and functions of Evenki’s Bashing house is different form it of Mongolians. For example, entrance is designed in the south part and sitting room is designed in the south part as well.

CONCLUSION

Influenced by various reasons like urbanization, settlement, Chineseization, nomadic lifestyle has been changing in recent years. This paper focuses on lifestyle changes and settlements of various ethnic nationalities in Hulun Buir of Inner Mongolia and tries to contribute to the related research area through precision analysis of the data.

Keyword: Lifestyle, Evenki Residential Inner Mongolia

The Human Responses on Thermal Environment at the Bedroom during Nocturnal Sleep of the Elderly and the Young in Japanese Summer

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The purpose of this paper is to investigate the elderly and the young in Japanese summer are very hot and humid even night, so large number of insomnia are reported in summer. In addition, it has been reported that the case of the elderly died from heat-related illness during sleep. To clarify safe and comfortable thermal environments for satisfied sleeping, we investigated the actual thermal environment in bedroom and physiological and psychological responses during night sleep in summer.

METHODS

Data on the bedroom temperature and the relative humidity were collected automatically using thermal recording devices, and data on thermal sensation, thermal comfort, and acceptability were collected from the young persons (9 males and 14 females) and the elderly persons (22 males, 4 females) during their daily life in summer. The data were measured during sleep at their own bedroom for 2 nights. The period of these investigations were the summers of 2012–2014.

RESULTS AND DISCUSSION

Almost subject was sleeping at higher bedroom temperature than recommended standard air temperature zone for healthy life in summer. In the case of higher room temperature than 25°C, the bedroom temperature decreased gradually from the wake-up time to the bedtime. As a result, the elderly became cooler and more comfortable condition in the wake-up time than in the bedtime. The other hand, the young reported to become warmer bedroom condition in wake-up time. The young who were sleeping in high bedroom temperature beyond 29°C had tendency to increase body movement during sleep. We thought this reason was the bedroom temperature risen during sleep by the timer use of air conditioning. The elderly were always poor sleep efficiency, and the body movement during sleep were many.

CONCLUSION

Summer bedroom thermal environment had affected the sleep. If more are not properly adjusted to room temperature and humidity, sleeping less elderly in sleep efficiency, there is a concern that has worsened more sleep.

Keyword: elderly, thermal environment, nocturnal sleep, daily living habits, bedroom

The Present Conditions and Problems of Crime Prevention in Elementary Schools Open to the Local Community

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Co-Author(s) Akiko Seta (Nara Women’s University)

The purpose of this paper is to investigate and clarify the present conditions and security problems of elementary schools as open spaces in local area. To know advanced cases of the school security, we researched community schools visited by local residents in all Japan. We sent the questionnaires to 1,234 elementary schools in all Japan in November, 2014, and we received completed responses by mail from 28.4% of these targeted schools. Findings and the consideration are as follows.

Many of the elementary schools implemented measures against intrusion by strangers.

More than 86% of the remaining elementary schools created emergency response plan and conducted emergency exercises.

Fewer schools implemented measures against intrusion by strangers to school premises compared to improvement in communication and awareness among the staff, children, families, and relevant external bodies. About 38% of the responding elementary schools answered that their measures against intrusion by strangers were good. Concerning measures for visits by local inhabitants, few schools separated open parts from closed parts or maintained security apparatus.It was difficult for the respondents to implement measures for securing school premises because of the cost and the structure of the schools.

We hope the residential in the area and the staffs of the schools structure systems to protect the schools effectively through simple communication and awareness.

The Different Residential Modalities and Consequent Lifestyles of Evenki People in Inner Mongolia

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Co-Author(s) Aiko Sato (Nara Women’s University)
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The purpose of this paper is to investigate and clarify the present conditions and security problems of elementary schools as open spaces in local areas. To know advanced cases of the school security, we researched community schools visited by local residents in all Japan. We sent the questionnaires to 1,234 elementary schools in all Japan in November, 2014, and we received completed responses by mail.
is prefabricated houses constructor by Japan prefabricated suppliers and manufactures association. The association consists of task force of standard and house. These groups supplied different temporary housing. Specifically, the placement of the shape of the window and the roof is different. These differences influence the life of the resident. 2) Wooden temporary housing was not constructed by local construction company. The reason is complexity of the supply process. Therefore, only a major manufacturer was able to supply a house. 3) Plot of building is one way for all house faces south direction. Therefore, the entrance do not meet it, and communication is hard to be born. A) At the time of entering, although community construction was concerned, a lottery method was adopted for big demand except for Okja peninsula. As a result, the community before the earthquake disaster was divided.

Evaluation of Sensibility and Absorbent Performance for the Disposable Sanitary Napkins

The purpose of this study is to provide preliminary data for the development of sanitary napkin with excellent sensibility performance and absorbent performance. This study clarified differences in preference, importance of performance, and satisfaction level of sanitary napkin according to the general and menstrual characteristics of the 548 healthy women by conducting ‘questionnaire survey’ on the usage of disposable sanitary napkin. ‘Sensibility performance evaluation’ was conducted on 100 women, and ‘absorbent performance evaluation’ on 448 women. Also, it is important to find an optimum value of length and thickness to satisfy both size fitting of users and absorbent performance. Among objective absorbent performances, it was necessary to decrease wet back to raise subjective absorbent performance, and it turned out that quick absorbency makes greatest effect on subjective absorbent performance through sanitary napkin wearing test.

Secondly, improving wearing sensation is most effective in improving sensibility performance of sanitary napkin, and it was identified that sanitary napkins with excellent tactile sense and stable adhesion have good wearing sensation. Development of sanitary napkin that considered characteristics by age was required as satisfaction level for sensibility performance was significantly different by age. Specially, development of customized sanitary napkin that improved sensibility performance by focusing on 30s women’s demand.

The results of this study are as follows.

In these days, university dormitories not only provide shelter for students, but also play a role as an educational and learning platform where the information and cultural exchange occur. Accordingly, the quality of the university dormitory in various ways significantly affects students living in dorm while at school and it still has more effects on future careers as well. However, there is a lack of systematic facility information in university dormitories and there is need of appropriate regulations for proving a better IEQ, through the extensive review of Korean indoor environment research. Therefore, the main purpose of this research is to find out the importance of FM service items in order to effectively improve campus FM service quality. FM service items are collected through intensive analysis of precedent studies regarding the performance evaluation of campus FM services. Secondly, items are modified and integrated by similarity analysis. Finally, Delphi survey has been conducted among campus facility managers to measure the importance of FM service items. This research will be useful for campus facility managers in making decisions for improving campus FM service quality. This work was supported by the National Research Foundation of Korea (Grant funded by the Korean Government, NRF-2015-S1A5043067)

The Importance of Service Items for the Effective Facility Management (FM) on Campus Facilities

University campus is composed of various facilities with teaching, research and support functions. It takes role as a basic hardware to consolidate competiveness and enable development in the global education market. Additionally, it is especially important that campus facilities include large-scale spaces, diverse people, tangible and even intangible assets and thus this makes difference from the ones general building complex has. Consequently, the university has to take securing competitiveness and financial stability into account through enhancement of research and education by establishing systematic facility management (FM) plan and providing high quality FM services. However, there is no standard in detailed procedures and scopes of FM services for campus FM in Korea.

Therefore, the main purpose of this research is to find out the importance of FM service items in order to effectively improve campus FM service quality. FM service items are collected through intensive analysis of precedent studies regarding the performance evaluation of campus FM services. Secondly, items are modified and integrated by similarity analysis. Finally, Delphi survey has been conducted among campus facility managers to measure the importance of FM service items. This research will be useful for campus facility managers in making decisions for improving campus FM service quality. This work was supported by the National Research Foundation of Korea (Grant funded by the Korean Government, NRF-2014R1A1A03023230).

In these days, university dormitories not only provide shelter for students, but also play a role as an educational and learning platform where the information and cultural exchange occur. Accordingly, the quality of the university dormitory in various ways significantly affects students living in dorm while at school and it still has more effects on future careers as well. Therefore, the main purpose of this research is to suggest the facility management (FM) service standards to improve the IEQ of university dormitory facilities. First, the minimally required levels of indoor environment are checked by reviewing the four laws and regulations related to domestic dormitory facilities. Secondly, in order for proving a better IEQ, through the extensive review of Korean indoor environment research. Therefore, the main purpose of this research is to find out the importance of FM service items in order to effectively improve campus FM service quality. FM service items are collected through intensive analysis of precedent studies regarding the performance evaluation of campus FM services. Secondly, items are modified and integrated by similarity analysis. Finally, Delphi survey has been conducted among campus facility managers to measure the importance of FM service items. This research will be useful for campus facility managers in making decisions for improving campus FM service quality. This work was supported by the National Research Foundation of Korea (Grant funded by the Korean Government, NRF-2015-S1A5043067).

The aftereffects of competitive society in industrialization era and the recent global economic crisis have expanded the disadvantaged class very rapidly and, particularly, the number of homeless has increased drastically, up to one million people. This caused worsening of social welfare crisis, even more in the period of low birth - super-ageing - low economic growth. Thereby, the needs to turn the life of those people who consume the much portion of national budgets to more autonomous and independent lifestyle. In an attempt to cope with this trend, Korean government has initiated R&D projects for housing welfare of the socially disadvantaged class.

The purpose of this study is to introduce two examples of attempts to promote housing stability, such as homelessness • Housing the homeless poor in Korea, non- • housing residents and seeks to share the implications of that building process. This study deals with two cases, one with supportive housing for mentally ill homeless and the other for residents living in densely built Gosiwon. For the first case, empty rooftop was used as the community garden through which interaction and healing programs were implemented.

For the second case, idle spaces were utilized after renovations to help them restle down securely by forming a community among them. By systematically analyzing supportive programs necessary for them, the final supportive system to enhance their quality of life was developed.

This study is meaningful as it has shown the means that can convert the social perception and prejudice otherwise, there is no suitable way to solve the poverty problems. Still more, this study can be an example that indicates the government can find out wisdom to continuously supply the rental houses under the budget constraint.

Keywords: Homelessness, Housing Welfare, Supportive housing, Social Exclusion, Stabilization

* This research was supported by a grant (16AUDP-096A8892-0400) from the presidential Environment Research Program funded by Ministry of Land, Infrastructure and Transport of Korean government.

* This research was supported by a grant (16AUDP-096A8892-0400) from the presidential Environment Research Program funded by Ministry of Land, Infrastructure and Transport of Korean government.
### PT_1919

#### Ways to Form Neighborhood to Promote Social Health of the Housing Community

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Congregation housing is not just a method to gather members of housing units on a limited area but is also expected to be the place for community promoting interaction among neighbors. On the contrary to these expectations, in fact there is almost no exchange in contemporary society. Social mix is necessary for healthy communities and individuals. Accordingly, a series of attempts have been made in Korea in order to establish socially integrated housing community. All these attempts, however, turned out to be failures in promoting social integration. Among various elements for social integration, economic class and age group have been prominent. To successfully actualize social integration, ways to combine such groups is critical. The purpose of this study is to present a way to establish an appropriate neighborhood relationship for social integration. This study introduces two research studies, challenged toward the purpose. The first attempt, the favorable distance among various households different in economic level and age are measured. For the second attempt, individual resident traits are measured in relation to special preference on privacy. As research method, the first study utilizes a questionnaire survey while second one uses both questionnaire and pen and pencil technique for personality measures. The result indicates that there are mutually beneficial households regardless of economic and age constraints which are quite different from conventional thinking and dilemmic experiences. This study is significant in showing housing design and arrangement can be an important means that can contribute to social integration.

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### PT_1064

#### A Study on Thermal Comfort of Protective Clothing

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Recently protective clothing has been provided for infectious diseases such as Ebola hemorrhagic fever and SARS at Japanese medical facilities. Also, following the nuclear power plant accident in Fukushima prefecture, wearing disposable protective clothing became required in all decontamination operations. As a result, the demand for protective clothing is growing in Japan. Thermal stress from wearing protective clothing can be expected very serious because the clothing made from nonwoven fabric. However, little research relating to protective clothing has been conducted. In order to evaluate thermal comfort and mobility of protective clothing, rectal temperature, skin temperature of 8 regions (forehead, chest, back, upper arm, hand, thigh, leg and foot), heart rate, clothing climate of 4 regions (chest, upper arm, back and thigh), and subjective sensation were measured. The subjects were three healthy young men. The subjects wore 5 types of protective clothing, which are disposable and commercially available (called TY, MO, TM, A2, and MEL, respectively) in a climate chamber controlled at 23°C and 50% RH. Measurements were taken after 20 minutes in a resting position, after a 20-minute stepping exercise, and again after 20 minutes in a resting position. The following results were obtained. Although no goggle or mask was worn, and work load was not so high in experimental temperature, the humidity in the clothing was extraordinarily high (nearly 100%), and the sweat rate increased. The 5 types of protective clothing had different characteristics in an permeability, moisture permeability and thermal insulation. Protective clothing that made inside material had high water absorptivity (TM) absorbed the largest amount of sweat. Moreover, high humidity in the TM was maintained during the rest period following the stepping exercise, and the subjects felt the most discomfort when wearing the TM.

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### PT_1337

#### Differences in the Impressions Associated with Yukata Worn at Events and Those Worn at Hot Spring Resorts, and the Differences in Yukata Preferences Based on Gender

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It has been studied that a compression garment improves sports performance and muscle recovery from fatigue during sports activities. Recently there is an increasing number of researches advancing further from previous kinematic + physiological evaluation into a more detailed analysis of effects of compression garments by measuring the EEG in static or dynamic state taking a compression level as a variable (Ishigaki & Kim, 2012; Shin & Chun, 2012; Kim et al., 2014). Therefore this paper explores a combined of brain science and apparel technology to search different compression levels of compression garments bolstering sports performance. It analyzed how design of a compression level affects brain information processing observing from where a movement response is stimulated. EEG is generated by using motor related cortical potentials (MRCPs). Subjects were given 4 types of compression garments which have different pressure levels and differential pressure designs (EG, SG, WSG, and WFCG) and wear them in accordance to Latin square order. Agility tests and EEG with movement measure were conducted. For agility test, side step test was adopted. For EEG with movement measures by BDS16 (Biobrain Inc, Korea), subjects were asked to touch a switch pad of an object by tip toe when hearing random beeps sound while sitting on a chair. The data was analyzed and standardized using Matlab.0.2 by setting sampling frequency to 250 Hz and band pass frequency to 0.3~50Hz. In addition, clothing pressure of the compression garments was measured by using clothing pressure sensor AME303-2 (AMI Techs, co, Ltd, Japan). Clothing pressure measured regions were mid thigh, mid arm, mid knee joint, mid hasting, and mid shin (exterior and interior) making them total 6 points. In statistical processing, SSPS 20 statistical program was used to produce means and standard deviations of all test variables. ANOVA was conducted from MRCPs composition data using garments as a variable. The results of clothing pressure measure were as follows: EG 0.44~1.65kPa, SG0.5~1.46kPa, WSG0.5~2.13kPa, and WFCG 2.2~3.68kPa. In side step test, wearing WSG showed the best increased result of an average increase of 21.59 steps. In pilot study, MRCPs results were not significant statistically, but mean differences according to the compression garments showed a significant result. Design of pants and top was supported by BK21 PLUS program through the National Research Foundation of Korea(NRF) the Ministry of Education(2282011110304).

**Purpose**

It is expected that the 2020 Tokyo Olympics will lead to an increase in the number of foreign tourists visiting Japan. With this in mind, this study focuses on the yukata (cotton kimono) worn at hot spring resorts as a type of in house clothing. Wearing them at resorts is a casual and easy way of experiencing traditional Japanese culture. Although there have been numerous studies on yukata worn at events, very few attempts have been made to study the effect of yukata worn at hot spring resorts. This study examines the differences in the impressions associated with two different types of yukata (those worn at events and those worn at hot spring resorts) and the differences in yukata preferences based on gender. This study also aims to clarify what color yukata people prefer and the effect of yukata-wearing as a type of fashion therapy.

**Methods**

This study was conducted through field work at Toyoacks (a day-trip hot-springs facility) and hot-springs facilities in Toiyama Prefecture. We also used questionnaires to survey 138 university students asking them to choose then preferred yukata (cotton kimono) from among 25 types. The survey was conducted from February through July 2015.

**Results**

1. When choosing their yukata from among the 25 types, females preferred those with floral patterns and color styles, while males preferred those with modern, geometrically patterned graphics.
2. Both genders preferred the following tones for yukata to wear at hot springs (in the order listed): bright, dark, blue, pink, yellow.
3. Males preferred the following hues for yukata to wear at hot springs, in the order listed: navy, blue, pink. Females preferred: 1) navy, 2) pink, 3) white.
4. The image the subjects (students) have of yukata worn at hot spring hotels and inns: Males: soothing (57.1%), Cool (as opposed to "warm") (57.1%), easy to wear (51%), Females: loose (52.6%), easy to wear (51%), comfortable, soothing, and cool (48.9%) each.
5. The image the subjects have of yukata worn at events: Males: soothing (51.7%), Cool (as opposed to "warm") (51.7%), easy to wear (51%). Females: loose (56.4%), easy to wear (51.7%), comfortable, soothing, and cool (48.9%) each.

**Conclusion**

Providing young people and foreign tourists with easy opportunities to try wearing yukata can deliver feelings of freedom and relaxation that contribute change from the everyday. This study showed that the choices of yukata available (the ability of guests to choose freely their preferred yukata) can stimulate hot-springs areas, make guests feel better, and help them to relax.
How Participation in Mini Fashion Shows for the Elderly Affected Their Mood and Feelings

**PURPOSE**
In an effort to energize the elderly and also provide them with preventive care, this research aims to create a system to help the elderly enjoy their everyday lives by making proposals on their clothing.

From the fused perspectives of clothing psychology and care studies (health/medical treatment), this basic study extracted sensitivity factors of the elderly’s mood/feelings and fashion behavior that affect their evaluation of the clothes they wore.

**METHODS**
Measured items in the questionnaire. Twenty adjectives showing the participants’ mood/feelings, such as “Depressed”, “Relaxing”, “Lovely”, and “Uneasy”, 11 items about the elderly’s self-evaluation of the clothes they wore; 27 items about the elderly’s fashion awareness and behavior, and four items about individual traits. These items were evaluated using a five-point scale (agree, slightly agree, slightly disagree, and disagree).

**RESULTS**
(1) The results show that a sense of tension was strong before the show, but that curiosity (expectations of fashion therapy) and interest in clothing increased after the show. It was also found that participating in the fashion show made the elderly positive about the pleasure of dressing up.
(2) About the mood/feelings before the fashion show, four factors (“Smile/positive”, “Graceful/energetic”, “Embarassed” and “Tense”) were extracted from among 17 adjective expressions, with a cumulative contribution rate of 65%.
(3) For “wearing evaluation”, five factors, including “curiosity”, regardless of age (“challenging”) and “low knowledge in brands”, were extracted from among 17 items, with a cumulative contribution rate of 78.4%.
(4) Forty-two subjects were divided into two clusters, based on a comparison of the mean values of each of four factors characterized as “fashion behavior”. The results showed that fashion therapy was more effective for those in Cluster 2 (13 subjects), whose factor scores were positive for emphasis on youthfulness (0.37), emphasis on functionality (0.37), and emphasis on sportiness (0.34), and negative for negative attitude (0.35) (this can be interpreted as positive attitude (0.35)) than it was for those in Cluster 1.

**CONCLUSION**
Thus, through the analysis of mini fashion shows whose participants were elderly people going to day care facilities, this study identified a cluster suited for fashion therapy, which will help prevent the need for nursing care.

**Dyeing of Silk and Cotton Fabrics Using Natural Dye Extracted from Blackcurrants**

**Aims**
Natural dye was extracted from blackcurrants and silk and cotton fabrics were dyed with the extracted solution using five types of mordant. The color and the properties of the dyed fabrics were investigated by various means.

**Methods**
500 g of frozen blackcurrants and 250 cm³ of water were mixed in a liquidizer and filtered. A piece of silk fabric “habutae (smooth silk)” or cotton fabric “kanakiri (unbleached muslin)” (10 × 5 cm²) was immersed into a dyeing solution (10 cm³), in which the liquor ratio of the fabric to dyeing solution was 1:40, at room temperature for 24 h. Then, the fabric was immersed into the mordant solution at room temperature for 1 h. Five types of metal ions (Mg²⁺, Ca²⁺, Al³⁺, Fe³⁺ and Cu²⁺) were used as a mordant. The color difference and transmission-ultraviolet and visible (UV-vis) spectra of the fabrics were measured using a color difference meter and UV-vis spectrophotometer, respectively. The bacteriostatic potency and color fastness of the fabrics were also investigated.

**Results and Conclusions**
The solution extracted from blackcurrants was acidic and was able to dye silk and cotton fabrics without a mordant at room temperature. Silk fabric dyed a deeper color than cotton fabric, and the tone of both fabrics became deeper as the concentration of the dye solution increased in mordant-free dyeing. Various colored fabrics were obtained by using five types of mordant. UV-vis measurements showed that the fabrics dyed with blackcurrant had strong UV absorption under 400 nm, that is, UV-shielding ability. Moreover, it was revealed that the fabrics dyed with blackcurrants had antibacterial properties. The storage conditions of the dyed fabrics and the use of a mordant in the dyeing process changed the color fastness of the dyed fabrics against light exposure.

**Effects of Kinetic Dynamics by Shoes on Posture, Gait and Joint Moments in Human Body**

In recent years, the number of women who wear high-heeled shoes even while commuting to work is increasing. Because they tend to wear shoes that are fashionable rather than practical, many complain of ailments affecting their feet, knees and back. In this study, we analyzed the effects of four common types of shoe – particularly, sneakers, pumps (heel height: 3cm), shoes for elderly and toning shoes – to determine how their shape and the presence of a heel affect joint moment and the angle of joints of the lower limbs in the gait cycle, and to investigate the kinetic dynamics that affect shoes have on the human body. We examined healthy young females by using three-dimensional motion analysis and floor reaction force, and calculated joint moment by interactive musculoskeletal modeling software. An examination of joint moment in one gait cycle showed that a hip joint moment increased at the time of heel contact, especially when the subject wore pumps. In addition, the peak values of hip and talar joint moment increased in the propulsive period, with the highest peak seen in shoes for elderly. It was therefore thought that shoes for the elderly soften impact in the contact period and aid propulsion even when worn by young people. We expect that result of this study will contribute to the design of highly safe and functional shoes and safer methods for wearing shoes.

**Color Characteristic of Japanese Cedar Extractanol**

The powder of Curcuma longa is used to dye fabric yellow or brown. However, although it is known that the fabric and paper dyed from this powder have an excellent insect resistance, there are very few studies showing its antibacterial or antifungal characteristics. The purpose of this study is to examine the antibacterial activity of Japanese cedar (Cryptomeria japonica) extractanol using standard bacterial strains. The extract was used to evaluate its antibacterial and antifungal properties, and to determine the most effective concentration for each strain.

**Methods**
Natural dye was extracted from blackcurrants and silk and cotton fabrics were dyed with the extracted solution using five types of mordant. The color and the properties of the dyed fabrics were investigated by various means.

**Results and Conclusions**
The solution extracted from blackcurrants was acidic and was able to dye silk and cotton fabrics without a mordant at room temperature. Silk fabric dyed a deeper color than cotton fabric, and the tone of both fabrics became deeper as the concentration of the dye solution increased in mordant-free dyeing. Various colored fabrics were obtained by using five types of mordant. UV-vis measurements showed that the fabrics dyed with blackcurrant had strong UV absorption under 400 nm, that is, UV-shielding ability. Moreover, it was revealed that the fabrics dyed with blackcurrants had antibacterial properties. The storage conditions of the dyed fabrics and the use of a mordant in the dyeing process changed the color fastness of the dyed fabrics against light exposure.

**Color Characteristic of Distilled Water & Ethanol Extracts from Curcuma Longa**

The Japanese cedar used in this study is used for various purposes in timber industry, and is known for its extract’s function of antifungal and anti-bacterial vitality. In this regard, to identify Japanese cedar extracts’ possibility of its use in natural daily materials, Ultraviolet-visible spectrum of extracts of leaves and each part of Japanese cedar is examined, and it was used to identify coloring characteristics of dyes made of each part’s ethanol extracts. For the extraction of color resources of each part of the wood, dried timber and leaves were soaked in ethanol in ratio of 1 to 10 for 48 hours under the room temperature, and were extracted 3 times. The extracts were filtered using filter paper until the sediments were not found and were concentrated under reduced pressure using rotary evaporator. Then, they were dried before the use. In order to examine color characteristic of each wood parts’ extracts, absorption wavelength of each extracts in wavelength’s range of 200~700nm was measured using UV-VIS spectrophotometer (5-3700, SCINCO, Korea). As a result, Japanese cedar’s wood extract revealed surface color of reddish purple, while its leaf extract revealed surface color of green. For the result in identifying the UV/VIS absorption spectrum of the wood, the maximum absorption wavelength was around 270nm, but it did not display clear absorption peak point at the visible region, which indicated that main substance of extracts is Tannin, and in visible region, chlorophyll peak was weakly identified at 450nm. The leaf extract also showed a strong peak point at 280nm in ultraviolet region, and weak chlorophyll a, b absorption peak at 420nm and 670nm in visible region.

This research was supported by Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Science, ICT & Future Planning (NRF-2014R1A1A10049955).

**Poster**

**Wednesday August 3 09:00 ~ 17:00**
Perilla frutescens is the leaves of an annual plant that belongs to the Lamiaceae (or abietaceous) family, which is also called beefsteak plant. It looks similar to perilla leaves, and the scientific name is Perilla frutescens. It is known that it has antifebrile, respiratory, stomachic, and detoxification effects, and especially the recent researches has verified its antiaging, anticancer, and antimicrobial effects as well. Although perilla frutescens has been often used to color foods due to its unique color, there have been very few researches to verify its dying property in fabric. Therefore this study has looked into the color features of perilla frutescens extract according to the survey, so that could be used as a basic research to prove availability of perilla frutescens in natural dyeing. Pigment of perilla frutescens was extracted by using distilled water, ethanol, and 3% NaOH solution. The extracted solution was analyzed after decompressing and concentrating with a rotary evaporator, and drying it. In conclusion, ethanol extract was light green with the naked eye. The peak was found at around 280nm, 410nm, and 660nm, and it was possible to recognize that tannin and chlorophyll were extracted. Meanwhile, the distilled water extract was brown with the naked eyes. The peak was found at around 200nm, 280nm, and 320nm, and it was confirmed that tannin and anthocyanin were extracted. However, the NaOH solution extract locis green with the naked eyes, but only the tannin peak was confirmed at around 200nm. The fabric dyed from the ethanol and 3% NaOH solution extracts were classified as the Group G and showed green color, while the one dyed from the distilled water extract was classified as the Group F and showed brown color.

This research was supported by Basic Science Research Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Science, ICT & Future Planning (NRF-2014R1A1A3A0404959).

**Color Characteristics of Perilla Frutescens Extract with Different Solvents**

**First Author (Main Author)** Qianwen Wang (Chungnam National University) of Korea

**Co-Author(s)** Jung Soon Lee (Chungnam National University)

**Presenting Author** Qianwen Wang (Chungnam National University) of Korea

**AIM**
Wearing comfortable and satisfying clothes can give happiness to the wearer. Wearing clothes that are appropriate to one’s natural and social environment not only enhances comfort and satisfaction but self-confidence as well. In this experiment, wearing comfortable and appropriate clothes can lead to happiness. Therefore, this research aims to develop comfortable clothing with a Korean traditional touch and prove its comfort through wearing test.

**METHOD**
Cotton plain fabric was dyed by Korean native persimmon and was imprinted with patterns to make a clothing material. Its physical characteristics were then compared with the original undyed fabric. And persimmon-dyed fabric and undyed fabrics were each used to make gaited (dyed dress) and white (undyed dress), with which comparative wearing tests were performed on 4 females in their 20s in a climatic chamber with 30°C, 16%/RH, and 0.2m/sec. In the wearing tests, micro-temperature, micro-humidity, and regional sweat rate were analyzed to measure the difference between gaited and white dress. The 80-minute tests were divided as 30-rest-30 walking on treadmill with 5° slope and 70m/min speed – 20’rest and the subjects’ physiological response and subjective sensation were measured.

**RESULT**
First, persimmon dyed fabric showed increased air permeability, moisture permeability, moisture regain, and UV cut ability compared to undyed fabric. Second, significant differences of physiological response were observed during the last 10 minutes of the 30 exercise interval of the wearing test. In gaited was lower compared to undyed dress by about 0.1-1.2°C, but the difference was not significant. During the last 10’when sweat rate most increased, the mean T5 decrease rate was higher for gaited by about 2%, showing significant difference. Micro-temperature and humidity on the chest and back were significantly lower in gaited subjects (p<0.01). This showed that persimmon dyed lowers micro-temperature and humidity, relatively improving microclimate and comfort of the garment. When thermal sensation, wet sensation, and comfort sensation of the subjects were investigated, it was found gaited was considered most comfortable and cool(-0.10). Because micro-humidity, sweat rate, and wear comfort are related, it seems gaited, which showed lower micro-humidity and sweat rate during the overall wear test, caused a more significant sensation.

**CONCLUSION**
When gaited is worn in a hot environment, it gives the wearer a more comfortable and cool sensation because of its relatively lower microclimate. Thus, gaited is recommendable for delivering satisfaction to people in hot environments. In a time when global warming is a worldwide problem, this research, which develops and proves the value of human body & eco-friendly clothing employing moisture regain and permeability of Korean traditional and natural persimmon dyeing, will inform people in and out of Korea about the benefits of gaited, make them experience the comfort of gaited, and provide further basis for people’s happier choice of clothes.

**A Study on the Features of Complementary Color Combinations in Marni Collection**

**First Author (Main Author)** Yong-ja Kwon (Chungnam National University) of Korea

**Co-Author(s)** Yoonmi Choi (Chungnam National University)

**Presenting Author** Yong-ja Kwon (Chungnam National University) of Korea

As consumers are sensitive to products’ color when purchasing the product, its color is a decisive factor. Accordingly, it is important for a fashion designer to harmoniously use the colors to complete its style. The purpose of this paper is to investigate the relevance to a color combinations and its effect. One of the top brands in Milano collection, Marni, which has a high level of recognition and sales figures, is chosen. Based on the Munsel Color Circle and Korean Standard Color (KAC015), the features of a complementary color combination harmoniously used in the works of its S/S collection are analyzed. The paper takes a theoretical approach from the preceding study on color harmony. These studies say the combination of a similar or same color give rather monotonous and dull effects, while that of complementary ones reeks of sophistication and style. The research includes the season’s S/S collection from Marni from 2000s to 2016 during which its works applying the complementary color contrast are analyzed. The results are as follows. First, the complementary color combination is used in the 104 pieces of the works out of 83% of total. The combination of a complementary color combinations are largely divided into three groups: complementary color (2-hue format), adjacent-complementary color(3-hue format), single-split complementary color contrast(3-hue format). Second, the most widely used contrasts in the works are the combination of blue with orange(complementary color), blue with yellow and red-single-split complementary color, blue with orange and yellow(adjacent-complementary color), blue with orange and red(adjacent-complementary color) in each groups.

Third, when dividing the adjacent-complementary color tone of each work into 4 categories like ‘vivid’, ‘light’, ‘dull’, ‘dark’, the order frequently used is ‘vivid’, ‘light’, ‘dull’. According to the analysis of the tone using the complementary color combination, the contrast combinations of vivid tone with dull or dark one are much more compelling and stylish than those with similar ones. In accordance with a color order analysis, though using many colors seems to be disorderad, adjacent-complementary contrast can cause quite more various and dynamic changes than the direct effect of two color contrast in color and tone.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(2012001113004).
material has been observed by the method developed by Ziegert & Keil (1998), measuring the percentage of extended fabric when a 500g load is weighed to the 28x20 cm material for 30 minutes. The method is convenient to use in the practical process of pattern making, however, it applies weight in one direction only and is not sufficient to reflect stretchability of knit which changes by multiple levels during movement depending on body parts. Deformation of knit on the body varies depending on the extra binding force, i.e. shoulders, crotch and arm pit, etc. Therefore this study applied Knit Shrinkage Gauge (Tokyo Senki Suisakusha Co., Ltd. JAPAN) to the measurement of knit deformation caused by the way of external force applied. The study adopted the following methods: draw the horizontal and vertical lines 1cm apart on the knit, fix a tricot fabric to Knit Shrinkage Gauge in multi-direction and 3D scan it to obtain data when gradually administered force in both directions. RapidForm XDR program is used to analyze the amount of change depending on the position of knit and external force applied. The ratio of longitudinal strain and lateral strain by vertical stress, called Poisson’s ratio was also observed.

Knit Shrinkage Gauge method does not require sewing to measure stretchability of material. It can measure various directions with one sample and can examine stretching properties in various directions according to purpose. By such analysis, the pattern reduction rates of the center of top, sleeve and upper bottom could be estimated considering the Poisson’s ratio and the amount of fabric deformation on the extra binding force.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113004).

** An Exploratory Study on the Success Factors of Small Fashion Business: Focus on Internet Fashion Shopping Mall **

First Author (Main Author) Mi Young Son (Korea National Open University)

Co-Author(s) Republic of Korea

Presenting Author Mi Young Son (Korea National Open University)

Entering 21st century identifying Information Society, small fashion startup has been increasingly established under favor of the creative ideas and practical experience in industrial field. Especially for a domestic solution to the chronic problem of youth unemployment, the Korean government have been offering a variety of government policies and support relating to entrepreneurship as the main keyword of the government policy i.e. ‘creative economy’. This study investigates what the critical success factors of internet fashion shopping mall sites impact the performance of the startup firms. In this study, the successful performance of startup firms was investigated by the average monthly net-income, duration and initial investment payback period of online fashion shopping mall site firms. The success factors are categorized into six groups: entrepreneur factor, business items factor, entrepreneurship funds factor, preparation factor, business management factor and internet shopping mall factor. The factors are sub-categorized into the personal characteristics of entrepreneur(desire for achievement, risk-taking propensity), the visionary mission(shear visions and goals of firm), experiential capability(expertise/career, business management/ administration experience), and the business management capabilities(the resource from network, sale/service management, business strategy).

The factors of business items were sub-categorized into the marketability of their business items(market entry, growth potential, price competitiveness, competitive environment), the profitability of items(clarity of profit model, estimated payback period of initial investment, risk on the investment), and the differential competitiveness of semicontinuous differentiation, functional differentiation, demand differentiation.

The factors of entrepreneurship funds were sub-categorized into government support, the amount and source of fund, funding strategy. The factors of business preparation were sub-categorized into startup education, feasibility study of business items, consulting expert advice, information collection and analysis, startup preparation period. The factors of business management were sub-categorized into capital controls, budgeting, product development and sourcing, pricing, promotion, cost savings, professional human resources. The factors of internet shopping mall were sub-categorized into ‘ease of obtaining information’, reliability and accuracy, and reliability of delivery, ‘design suitability’, ‘raising the level of value’, ‘after-sales service’, ‘Incentives’, ‘ease-of-order processing’.

** 3D Analysis of Commercial Winter Facemasks and Face for a Prototype of Optimal 3D Facemask **

First Author (Main Author) Ran-i Eom (Chungnam National University)

Co-Author(s) Republic of Korea

Presenting Author Ran-i Eom (Chungnam National University)

In winter, a facemask serves as a protective item for face. Nonetheless its role of face temperature keeping function deteriorates when the outside air comes in through a gap between the mask and face. Therefore it is necessary to design a facemask considering 3D shape of the face. In this paper, facemasks from the market were investigated to find current design problems and the prototype of an optimal pattern of facemask was suggested based on 3D facial shape. As experimental methods, three different facemasks with different patterns were selected and they were disassembled along the seam to obtain patterns of three types. Product A with a rectangular pattern, product B with a vertical center dart at nose and jaw and product C with horizontal center cutting line between face and jaw.

Next, 3D facial shape was obtained with and without the masks, and the 3D data was analyzed for fit evaluation of each mask in precise detail. Product A showed irregular fit, evoking uncomfortable wear. Product B gives insufficient tightness around cheek because of protruding parts near nose and mouth. Products C revealed even tightness along the face and better wear comfort. From the results, key design points of facemasks were selected as follows: It is highly desired that facemask should fit to the 3D facial shape especially at the outline, while securing the inner space for nose and mouth. The application of horizontal incision on the mask pattern is efficient for enhancing the fit. According to the selected design points, a knit and ergonomic facemask was designed and tested based on the 3D information of face.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113004).

** Firefighters’ Turnout Gear **

First Author (Main Author) Eunjin Park (Yonsei University)

Co-Author(s) Republic of Korea

Presenting Author Eunjin Park (Yonsei University)

Firefighters’ protective clothing is multilayer clothing system where each layer fulfills a specific requirements. They are usually made of at least three layers. The third layer is a thermal liner which plays an important role to protect the body from high heat transfer. The air is most effective insulator and many efforts have been made to increase the proportion of air in firefighters’ clothing systems. To minimize the thermal stress while offering protection from thermal hazards, an air gap was created dynamically between two layers of fabrics by incorporating SMA springs or using knitted 3D spacer thermal liner. The purpose of this study is to verify the effects of different thermal liners of the firefighters’ protective clothing using full-size garments and human subject tests. Six professional firefighters volunteered to perform the experiment. They followed the test protocol to rest 10min at room temperature of 40±0.5ºC and 65±5% RH, and ran on the treadmill at 7km/hr for 20min and took a rest to cool down. Physiological data (Temperature and relative humidity in the microclimate, sweat loss and sweat accumulation within layers), and perceptual data (subjective sensation of thermal, moisture, clingy and overall comfort sensation) were obtained. The turnout gear incorporating springs sweated less and less sweat was accumulated in the clothing than other two ensembles, 3D spacer one and conventional control. The average microclimate temperature and relative humidity between the layers of the combined clothing ensemble incorporated SMA springs remained significantly lower than other thermal liner types ensembles throughout testing. The perceived thermal and moisture sensations of spring attached thermal liners were generally scored lower than other two thermal lines.
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The relation of parental marital quality, home environment's stimulation and child's behavioral problem on child's negative peer-play behavior. Six years of 2,190 Korean mothers with their preschool children (mean age: 51.9 months) from the Panel Study of Korean Children by Korea Institute of Child Care and Education were analyzed using structural equation modeling. Child's negative peer-play behavior has been rated by teachers, with two sub categories of play disturbance and play disconnection, from Peer Perceptive Interactive Play Scale. Parental marital quality has been reported from mothers, and the measure consisted of two scales; marriage satisfaction and couple conflict. Home environment's stimulation was measured by mothers using Early Childhood HOME. Child's behavioral problem consisted of internalized and externalized behaviours, and measured by using Child Behavior Checklist. Each variable's confirmatory factor analysis showed the correlation coefficient below .85, which made satisfactory level of discriminant validity. The model fit to the data well, with acceptable level of indices (χ²=401.779, p=.000, df=74, TLI=.903, CFI=.932, RMSEA=.045).

When mothers reported better marital quality, better home environmental stimulation(β=.14, p<.001), and less behavioral problem of child(β=-.21, p<.001) path through home environmental stimulation to behavioral problem of children. Higher level of home environmental stimulation estimated negative peer play behavior of children through direct(β=.20, p<.001) and indirect path by behavioral problem of child(β=-.21, p<.001) path through home environmental stimulation to behavioral problem of children. All the indirect effects turned to significant by Sobel's test, which means parents' marital life estimate behavioral problem of child through home environmental stimulation(β=-.26, p<.01). Also home environmental stimulation estimated negative peer play behavior of child through behavioral problem of child(β=-.31, p<.01). All the indirect effects turned to significant by Sobel’s test, which means parents’ marital life estimate behavioral problem of child through home environmental stimulation(β=-.26, p<.01).

The survey examined the questionnaire research of citizens in Daito City, which is located in the eastern part of Osaka prefecture, in the Kansai area. This city faces difficulty maintaining government finances because of a drain in the younger population. The survey revealed that childcare service support factors do not have a direct effect on decreasing the distress of child-rearing women distress or increasing their willingness to become permanent residents. Rather, it has an indirect influence on decreasing their distress and increasing their willingness to reside permanently through the expansion of support networks and the construction of social capital. On the other hand, support networks for child-rearing women have a positive effect of decreasing distress. The evidence suggests that willingness to reside permanently in the area increased by a decline in the distress of child-rearing women.
The Inner Mongolia area is regarded as the traditional Mongolian settlement in China. In recent years, urbanization has influenced the Mongolian nomadic life. In particular, consolidation of schools are proceeded. Students who go to school leave their houses, because there is no school in their village where they can study. So, they can only go to schools of Han nationality. They are influenced by the Han culture more than their own culture, it causes the problem that they don’t feel strong attachment to their own traditional culture. In view of the above problem. My purpose of this study is continuing the inheritance of traditional culture among national students in Inner Mongolia, we would like to promote cooperation amongst people and national schools. In particular, using the national culture and local human resources. I would like to hand down traditional culture to students. Recently, curriculum in local schools, there are classes which have been made include local culture in the, and these types of schools are becoming widespread in Inner Mongolia. In this study, I put emphasis on traditional culture classes. I investigate classes and activities that are carried out by local people. I asked people who attended those activities, students, their parents, teachers and locals to fill in questionnaires, my main focus was children’s attitude towards their own traditional culture. It was important great opportunity for them to be aware of their traditional culture, but also serves to help them to be aware of their traditional culture, but also serves to help

RESULTS
The results show that Korean mothers’ home-based educational involvement significantly differ at their children’s school levels. Specifically, the levels of direct teaching, arranging study-time and cultural enrichment are the highest among mothers of elementary school students followed by mothers of middle school students and of highschool students. The level of controlling lifestyle is higher among mothers with middle school students than in elementary school. Next, home-based educational involvement are positively associated with mothers’parental efficacy. Third, the involvement domains associated with parental efficacy are different at school levels. Among mothers with elementary school students, stimulating studying environment, arranging study-time and gathering friends, are the main agent to integrate Korean society in the near future. For this to happen, multicultural acceptability of students is important, because they are the main agent to integrate Korean society in the near future. We attempt to examine the level of multicultural acceptability of high school students it related factors.

METHODS
For this purpose, we drew data from the Survey of Parental Socialization and School Involvement in Republic of Korea conducted by the Ministry of Education, Science and Technology (MEST) in 2015. A total of 1,338 mothers were included in analysis. Parental knowledge about children’s school life was measured on each of the following areas: classroom behavior, relationship with teachers, peer relations, and after-school activities. If mother is employed, the employment status is coded as one, if not as zero. Parental network was measured by the number of parents that they exchange casual greetings with. ‘Age of mother’, ‘mother’s education level’, ‘monthly household income’, ‘first child’s gender’, and ‘first child’s school level’ were included as control variables in regression models.

RESULTS
The results indicate that working mothers have smaller parental involvement and less knowledge about children’s school life than that of stay-at-home mothers. Both the employment status and the size of parental network have significant effects on knowledge about child’s school life. The results also show that the effect of mothers’ employment status on children’s school life is partially mediated by the size of parental network.

CONCLUSION
This implies that employed mothers are disadvantaged at developing parental network and have less source to collect information on their child. This explains partly why employed mothers have low level of understanding on their child’s school life.
Poster

PT_1242

Estimate Longitudinal Changes of Parenting Stress of Mothers with 0-3 Year-Old Children

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The purpose of this study is to investigate the integrated relations among variables which are mothers’ employment status, value of children’s emotional and instrumental value of children, maternal perception of husband’s involvement social support and maternal parenting stress and then examined the longitudinal changes of these variables. The authors analyzed the four waves (2008-2011) of data collected from 1754 mothers who raise infants or preschoolers aged 6 to 3 years old nationwide in Republic of Korea. This data was harvested from the Panel Study on Korean Children conducted by the Korea Institute of Child Care and Education. First, by using SPSS Win 19.0 program, the mean and standard deviation of variables were analyzed. Then, through the method of maximum likelihood estimation by applying hierarchical linear model 7/0 program, the changes of individual variation of maternal parenting stress for four years from 2008 to 2011 were analyzed.

The summary of the results was as follow: First, the result of unconditional model of hierarchical linear model showed that the total individual variance(=213.5, p<.001) and the changes based on time dimension(=294787.8, p<.001) of maternal parenting stress was significant. Moreover, the Intraclass Correlation Coefficient(ICC) of individual variance of the total variance of maternal parenting stress was 55.9%. Second, the results of linear model showed that the fixed effect of maternal parenting stress’s average initial status(β00 = 25.8, p<.001) and that of rate of changeβ10 = 1.29, p<.001) had significant effect on maternal parenting stress. Third, both the critical factors of longitudinal changes of maternal parenting stress, the findings of this study can be used as a baseline data for making diverse needful plan for dealing with maternal parenting stress in the near future.

PT_1270

The Effects of Children’s Executive Function and Peer Play Interaction on Preschool Adjustment

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This study was to investigate the relationships between children’s executive function, peer play interaction and preschool adjustment in controlled language ability situation. The participants were composed of 3- and 5-year-olds preschoolers(n = 120) and their teachers(n = 23). The main results were as follows: First, there was a significant relationship between children’s executive function, peer play interaction and language ability and preschool adjustment with each age. Second, the effect of children’s executive function on their preschool adjustment varied according to age. 3-year-olds’ cognitive flexibility turned out to have a significant effect on preschool adjustment. Third, Children’s peer play intensity, peer play disruption and peer play disconnection were identified as key factors of predicting 3- and 5-year-olds’ preschool adjustment. Finally, it was found that peer play interaction is the most effective, play disconnection is the second, play disruption is the third, and cognitive flexibility is the least factor on preschool adjustment. These results clearly indicated that children’s executive function and peer play interaction contribute to their preschool adjustment even under a controlled language ability situation, and the effect can vary according to children’s age.

This study examines the mutual dynamics of mothers’ and fathers’ parenting stress, parenting behavior and their effects on toddlers’ negative peer interaction. Constructing a healthy relationship with peers has long been considered as an important developmental task in toddlerhood (Rubin, Bukowski, & Parker, 1998). Also, the research findings indicate the heightened risks of negative peer interaction in children’s later adjustment problems such as bullying (Jung & Kim, 2011). Prior studies evaluating the associated parental roles have generally focused on mothers’ and fathers’ independent aspects. However, given that mothers and fathers not only influence each other; but can also buffer or complement partners’ effects on children’s development, it may be essential to acknowledge mother and father as a dyad. In consideration of research findings that indicate compelling effects of parenting stress on parenting behavior, as well as on children’s adjustment (Doster-Decker, 1998; Anthony et al., 2005; Crnic et al., 2005), there is a need to examine the relationship between parenting stress, parenting behavior and toddlers’ negative interaction that are both structural and interdependent. The authors used 4th and 5th year (2011-2012) data of the panel study on Korean children(FPSK), and their corresponding participants are 885 households total data. We analyzed upon the actor-partner interdependence model(APIM) using SPSS and AMOS program. In regard to the associations between parenting stress and parenting behavior, significant negative actor effects between fathers’ parenting stress and fathers’ affective parenting behavior were identified. Mothers’ parenting stress were also negatively associated with mothers’ affective behavior and mothers’ limit setting behavior. Moreover, mothers’ parenting stress were negatively associated with fathers’ affective behavior, indicating...
The Korean On-Line Version of Early Child Development Scale: A Validation Study

**AIM**
The aim of this paper is to compare similarities and differences in the tendency of familialism among Asian marriage migrant women in Korea. Familialism is a social norm which emphasizes family-centeredness, patriarchal image, first son preference, and separate gender relations. Asian culture is well known for their strong familialism under the influence of Confucianism. In this paper, we address the tendency of familialism among marriage migrant women, particularly Vietnamese, Chinese, and Japanese women who married to Korean men in comparison of Korean married women.

**METHODS**
Data were drawn from four different survey data sets. The data sets included information on family life and culture of Korea (n=250), Vietnamese (n=106), Chinese (n=309), and Japanese (n=239) women who married to Korean men. Because each data set has common questions on familialism, it allows a direct comparison. Their responses were compared controlling age and educational background of the women using an OLS model.

**RESULTS**
The findings show that the tendency of familialism differs by the nationality of married women. The familialism score was the lowest among Japanese women and highest among Vietnamese women even after controlling their age. Their tendencies also vary depending on the aspects of familialism. For example, women in the four groups tend to strongly agree on the priority of family over individual but have different degrees of agreement.

**CONCLUSION**
While it is expected that Asian women share similar values with respect to family, there are some dissimilarities in their tendencies in familialism. These results indicate that Korean husband and other members in multicultural families should not presume that their wives would have the same cultural norms on familialism. Cultural sensitivity should be emphasized in multicultural families.
Our findings clarify the mechanism of how maternal work predicted increased aggression (Z = 2.088, p < .05). Employers, self-employed, or unpaid family workers, which in turn led to less monitoring and less affection compared to those who were not in the workforce. Maternal work characteristics did not show a significant relationship with children's outcomes when examining the relationship between maternal work characteristics and children's outcomes. We used a subset of Wave 3 (2012) and Wave 4 (2013) data from the Korean Children and Youth Panel Survey (KCPS), a nationally representative longitudinal study. Our sample was 962 children who entered elementary school in 2010 and their mothers who had a job at both waves. Maternal work characteristics (hours of work, occupational status, employment type, standard work hours, working on weekends) and control variables (the mother's age, education, family income, family structure, children's gender, having siblings, paternal employment) were measured at Wave 3. In addition, parenting behaviors (monitoring, affectionate parenting, over-expectations) and children's aggression were measured at Wave 4. We employed structural equation modeling to evaluate the direct and indirect effects of maternal work characteristics on children's aggression and used Sobel tests to determine the statistical significance of the indirect effects.

The results of this study are as follows. First, it was found that mother's psychological wellbeing has a direct effect on the mother's parenting behaviors. This study showed that if mother's psychological wellbeing has a high point, Mother's compassion, nurturing and parenting behavior also have a high point, however mother's rejection, the sanctions and neglect attitude have a low point. Second, this study showed that the mother's parenting behaviors have a direct effect on the infant's emotional intelligence between the mother's parenting behaviors and the infant's emotional intelligence have a significant correlation. Third, this study showed that the mother's psychological wellbeing have a direct impact on the infant's emotional intelligence between the mother's psychological wellbeing and the infant's emotional intelligence have a significant correlation. Fourth, the mother's parenting behaviors have a direct impact on the mother's psychological wellbeing and the infant's emotional intelligence this part has a mediating effect between the mother's psychological wellbeing and the infant's emotional intelligence.

Through the results of this study make us know that the mother's psychological wellbeing affects the mother's parenting behaviors. In conclusion, the mother's psychological wellbeing develop the mother's parenting behaviors. In modern society, Infants are properly protected in important environments such as a home. And for a desirable development the mother's psychological wellbeing is also important. Eventually, mothers need to recognize that there are psychological wellbeing and help infants emotional intelligence by mother's positive and accepting behaviors.
Time-Poverty of Working Mothers and Fathers in Korea

AIM
The Family and Consumer Sciences body of knowledge (FCS-BOK) is the framework for the profession, and students’ familiarity with the FCS-BOK (Family and Consumer Sciences Body of Knowledge) has implications for the profession. This study aimed to assess United States HECS (historically black college and university) students’ familiarity with the FCS-BOK as they entered an introductory FCS course and upon completion of that course. Specifically, the researchers examined the effect of course instruction and purposeful assignments on students’ familiarity with the FCS-BOK.

METHODS
A survey on FCS-BOK was administered as a pre- and post-test to students enrolled in an introductory course, FCS 160: Introduction to Family and Consumer Sciences in the 2014 fall semester. The pre-test was given during the first week of the class (N=78) and the post-test was administered during the last week of the class (N=43). Participants rated their familiarity with 11 FCS-BOK statements using a five-point Likert-type scale, ranging from 1 (not at all familiar) to 5 (extremely familiar). Descriptive statistics and an independent samples t-test were used for data analyses.

RESULTS
In both pre- and post-tests, the highest mean score was found in the basic human needs statement (Food Concept) with M=4.46 (pre-test) and M=4.63 (post-test), while the lowest mean score was found in the human ecosystem statement (Integrative Elements) with M=2.53 (pre-test) and M=2.77 (post-test). From the 11 independent t-tests, significant mean (pre- and post-test) differences were found in 10 of the 11 FCS-BOK familiarity statements, that is, increased familiarity was reported with the body of knowledge after taking the course.

CONCLUSION
This present study provides strong evidence that such integration indeed increases HBCU students’ familiarity with the FCS-BOK, intimating familiarity with the philosophical framework of the profession. This study bodes well for future allegiance with and commitment to the FCS profession in the US.

FCS in the Middle: The Impact of Family and Consumer Sciences on the Career Development and Self-Efficacy of Eighth Grade Middle School Students

AIM
Career development is a topic pertinent to young people as they transition from elementary into secondary years of education. To progress effectively toward a career goal, the attribute of self-efficacy is essential. Many factors contribute to a student’s growth in self-efficacy, including relationships with family, peers, and teachers. This mixed-methods study focused on the effect Family and Consumer Sciences has on the self-efficacy of eighth-grade middle school students as they pursue career goals.

METHODS
To develop an overview of common certifications/labels used in hospitality services with a focus on catering in institutional households in Switzerland, Germany, Austria, Canada, and USA. The researchers examined the effect of course instruction and purposeful assignments on students’ familiarity with the FCS-BOK.

RESULTS
This study presents a new education program for university students to provide time-use policy implications for families with special needs. Several thresholds of absolute measure were composed of two areas, housework and family care, comparing with their counterpart of non-time-poor families. Data from the Korean time-use survey, including working mothers and fathers with children under 18, revealed by Statistics Korea. The major findings were as follows. First, about 20% of working mothers and fathers were the time poor with the relative measure using the threshold under 0.5 times of median values in paid work time; in addition, several thresholds of absolute measures were defined. Descriptive statistics and an independent samples t-test were used for data analyses.

CONCLUSION
This study examined the influence of course instruction and purposeful assignments on students’ familiarity with the FCS-BOK. The researchers found that increased familiarity was reported with the body of knowledge after taking the course. This present study provides strong evidence that such integration indeed increases HBCU students’ familiarity with the FCS-BOK, intimating familiarity with the philosophical framework of the profession. This study bodes well for future allegiance with and commitment to the FCS profession in the US.
Development of Lesson Study Packages for Support in Planning and Improving Home Economics Lessons

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BACKGROUND AND PURPOSE OF THE STUDY
Japan has fewer home economics teachers than for other subjects, meaning that instruction of junior teachers by senior teachers is more difficult, as is information exchange between fellow teachers. Therefore, there is a need for teaching materials of excellence in the form of lesson videos and teaching plans. However, amassing numerous lesson videos and teaching plans does not guarantee lesson excellence in every situation. Rather, teaching materials can be made more effective if, through lesson study, home economics educators can bring attention to specific areas of excellence and problem points. The purpose of this study is to develop lesson study packages. These comprise home economics lesson videos and a videos sharing system by which the comments of home economics educators can be viewed in synchronization with the videos.

DEVELOPMENT OF THE PACKAGE
Firstly, we developed VISCO (Video Sharing System for Supporting Collaborative lesson improvement). VISCO is a system by which comments on a video by multiple participants can be shared over the Internet. When a lesson video is watched using VISCO, comment balloons of multiple participants are displayed on it. We then collected videos of home economics lessons given at an elementary school, junior high school, and senior high school and edited them. They were then shared with home economics teachers from other schools who, using VISCO, made comments on them regarding such things as points of excellence, problems, and advice.

RESULTS
These, VISCO and home economics lesson videos, were then packaged as teaching materials and distributed to home economics teachers.

CONCLUSION AND FUTURE WORK
We developed lesson study packages as we intended. In our future research, we will use them and verify the validity. This study was supported by JSPS KAKENHI Grant Number 24531124.

Service Learning in Home Economics Education: The Practices in the U.S. and Japan

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AIM
The purpose of this study is to explore the possibility of taking advantage of service learning (hereafter: SL) in practice of home economics education. SL is experiential education that combines classroom instruction with organized service to the community, emphasizing civic engagement, reflection, and application of learning. I investigated the actual conditions of SL and considered the introduction and utilization of home economics education.

METHODS
1. Analysis of previous studies on SL in the U.S. and Japan
2. Conducting interviews with officials and relevant parties involved with SL in the U.S. and Japan
3. Examination of the challenges involved in practice of SL in home economics education.

RESULTS
SL is being put into practice in the U.S. in various fields. In the field of home economics education, it has been put into practice at numerous universities, high schools, and other educational institutions. In secondary education, a program involving SL practice has been nominated for the FCS Teacher of the Year Award. At the university level, its educational results are regarded highly and it is in the process of becoming an established educational methodology. In Japan, practice began in the first decade of the 21st century, under names such as community education and SL. Although educational results of SL were identified in fields such as education, childcare, and economics, none were apparent in the area of home economics.

CONCLUSION
SL has been practiced in many academic areas, and exchange activities have begun between universities in the U.S. and Japan. I believe it would be appropriate for home economics researchers to take leadership in SL in the U.S., because home economics is a practical science. But there is less awareness of SL in the field of home economics, especially in Japan. Activities to raise awareness of SL among home economics researchers are necessary.

Risk Management as Part of Home Economics Education

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AIM
The March 11, 2011, earthquake and tsunami caused unprecedented damage in Japan. As a result, many people’s lives were changed in unexpected ways. My aim is to analyze how the content of high school home economics classes can help people recover.

METHOD
I distributed a questionnaire to high school students living in the disaster area in Eastern Japan, consisting of Tokyo and five prefectures along the Pacific coast. I analyzed the regional characteristics of each area, the students’ recognition of problems in their lives, and their means of overcoming these issues. I also examined the content of home economics classes in these areas.
Development of Experiential Type of Educational Program Including Try-On Yukata in Home Economics for Junior or High School Students to Transmit the Kimono Culture to the Next Generation

**AIM**

The aim of this study is to evaluate the effectiveness of experiential type of education program including try-on Yukata for the junior or high school students to promote their honor to Japanese kimono culture by conducting teaching practice in home economics.

**METHODS**

Having a class of try-on Yukata for junior high school and high school students, and carrying out questionnaire about Yukata before and after the class. Having a class of lecture and try-on Yukata for teachers in the same way, and carrying out questionnaire and interviewing.

**RESULTS**

By conducting try-on Yukata class, we succeed to enhance students’ interests for kimono culture, and find difference in the level of understanding between junior high school students and high school students. We also find that it is important for teachers to have enough self-confidence about their knowledge and technique of Yukata, and to realize the importance of try-on Yukata class as a home economics class.

**CONCLUSION**

We need to consider what kinds of classes are effective after try-on Yukata, to apply it for daily life. We also need to take place teachers’ training with enough training contents.

**Development of Home Economics Lifestyle Culture Lessons in Japan**

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**AIM**

In modern Japan, the everyday life experience of youngsters is becoming impoverished. Japanese young people tend to lack ability to take initiative and act individually. To successfully interact in a multicultural and globalizing society, requiring maintenance and understanding one’s own traditional culture is important. The Japanese Central Council for Education 2008 report states, “The promotion of experiential education is required to plan the succession and development of traditional lifestyle culture”. The intention of this research was to study changes that have occurred in home economics teaching and textbooks since postwar Japan, and to create, perform and modify home economics lessons to promote teaching improvement.

**METHOD**

Courses of Study for lifestyle culture lessons and home economics textbook contents for elementary, junior and high school students were analyzed and examined. Then, lessons on lifestyle culture were given to junior high, high school and university students in home economics classes. The results of these classes were examined.

**RESULTS**

We found that course of study revisions on succession and promotion of Japanese lifestyle culture was limited. However, since the 1998 revision, teaching practices on lifestyle culture have shown positive tendencies. Since the 2008 revision, the teaching of local traditional food culture and cooking events has improved. Also, general increase in teaching concerning food, clothing and housing culture has been noted. According to these positive changes textbook contents have been adapted too. There have been various developments in classes with themes of ironing (folding) and “twuobi (tying).”

**CONCLUSION**

From our findings on transitions of textbook contents and study courses, it became clear that, matching generational changes, high importance is being placed on appropriate teaching of lifestyle culture again. With more practical lessons on lifestyle culture a noticeable change in attitudes and awareness of students towards lifestyle culture was recorded.

**Effect of Home Economics Education on “Assumed Competence” Based on Undervaluing Others: Cultivating Children’s Empathy and Happiness**

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**AIM**

The Japanese psychologist Hayamizu points out young people treat of maintaining their self-esteem by undervaluing others, calling it “assumed competence.” He demonstrated that it has a negative correlation with empathy, and a positive correlation with bullying. This study examines how Home Economics Education relates to “assumed competence” and discusses its potential in preventing children from acquiring this mentality. Controlling “assumed competence” means cultivating empathy and happiness. The study participants were 198 junior high school students and 194 high school students (199 males, 194 females). Participants considered Home Economics as they completed an “assumed competence” scale test. The results revealed a significant negative correlation between “assumed competence” and a sense of intimacy with Home Economics, including feelings of interest, respect and affection. Recognition of the importance of Home Economics Education had a lower “assumed competence” score, especially concerning the utility of learning how to use cooking knives, for example. This result suggests that Home Economics Education can affect children’s “assumed competence” irrespective of cause and effect, because there were some cases in a preceding study where the teacher’s acts changed the “assumed competence” level of students. These results were discussed in terms of “trust for life” “niru-chikara,” a goal supported by the Japanese Ministry of Education, Culture, Sports, Science and Technology. Students who use a kitchen knife very often have more empathy than ones who have seldom do. They also tend to be more independent and autonomous. In other words they have a “trust for life.” Today’s young generation devotes a lot of time to virtual world, with more than half million students estimated to be internet dependents. Heavy users tend to lose empathy and their trust for life. Home Economics Education has a positive effect on false competence and help students attain real competence.

**An Introduction to Teach “Life and Disaster” by Using Sewing Kits to Make “Hang in There” Gambappeshi Bags: Cultivating Empathy in Students and Hope in the Sufferers**

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A great earthquake attacked Japan on March 11th in 2011: the Great East Japan Earthquake (3.11). It wrought several disasters in the region, including Fukushima, where people have suffered radioactive contamination. The northeast area along the Pacific Ocean coastline was hit by a major Tsunami and many people still in temporary housing. “Minami Sanriku Sewing Machine Studio” was established after 3.11 for women who lost their houses or jobs because of the Tsunami. They make products from scraps of curtain cloth using donated sewing machines. Their trial products were small bags imprinted with “hang in there” to express their feelings. They called these bags “gambappeshi” bags. “Gambappeshi” is the northeast dialect for “gambarou: hang in there.”

Lucy Walker directed a short documentary “The Tsunami and the Cherry Blossom”, showing survivors finding “the courage to revive and rebuild as cherry blossom season begins” and say to themselves, “hang in there just like cherry blossoms.” After 3.11 the number of natural disasters has increased in Japan: eruptions of volcanoes, concentrated heavy rains and strong earth quakes. The number of earth-quakes higher than magnitude 6 is now more than 20% in spite of the country’s small landmass which is only 0.25% of the world. The person who started “Minami Sanriku Sewing Machine Studio” arranged sewing kits for junior high school students to sew “hang in there” bags easily and gave them a lecture titled “Life and Disaster” via the audio visual media. They could be conscious of the sufferer’s mind by seeing the words “hang in there” continuously during sewing lessons. This second year program is expected to cultivate the empathy of students, whose schools are located in areas only slightly damaged by the destruction of 3.11, and create a bond to the hope of sufferers.

**Courses, it became clear that, matching generational changes, high importance is being placed on appropriate teaching of lifestyle culture again. With more practical lessons on lifestyle culture a noticeable change in attitudes and awareness of students towards lifestyle culture was recorded.”**

**Effect of Home Economics Education on “Assumed Competence” Based on Undervaluing Others: Cultivating Children’s Empathy and Happiness**

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**Courses, it became clear that, matching generational changes, high importance is being placed on appropriate teaching of lifestyle culture again. With more practical lessons on lifestyle culture a noticeable change in attitudes and awareness of students towards lifestyle culture was recorded.”**
EXAMINING THE TEXT AND LEARNING ACTIVITIES OF KOREAN AND AMERICAN HOME ECONOMICS TEXTBOOKS

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The purpose of this study is to examine the text and learning activities of Korean and American home economics textbooks from the perspective of developing adolescent empowerment and to suggest an alternative framework for the textbook. An in-depth content analysis was conducted for the Korean and American home economics textbooks. We analyzed the text and learning activities in the textbooks on three levels of empowerment: Micro, Meso, and Macro. The micro-level empowerment is the individual empowerment (IE), which emphasizes personal competencies by one’s own effort. The meso-level includes not only individual empowerment (IE) but also group empowerment (GE), which is strengthened by interacting with group members. The macro-level includes not only IE and GE, but also organizational empowerment (OE), which is developed from the responsibility as a member of the society through community participation.

Major findings are as follows. First, in the case of Korean textbooks, the results showed that the three levels of empowerment were off-balance (IE: 15%, GE: 57%, OE: 6%). The educational contents in Korean textbooks were described in the Meso-level. In the case of the American textbooks, the results showed that the educational contents of IE (43%), GE (40%), and OE (17%) were relatively balanced. Therefore, the educational contents of the American textbooks were described in the Macro-level. Second, the learning activities in the Korean textbooks put a greater weight on IE at 66%, followed by GE at 29%, but OE at 9% only. The results showed that learning activities in Korean textbooks were presented in the Macro-level, but that the three levels of empowerment were significantly off-balance. In the case of the American textbooks, the results showed that the learning activities in Korean textbooks were comparatively well balanced at IE (24%), GE (40%) and OE (30%). Therefore, learning activities in the American textbooks were presented on a Macro-level. Based on the results, we suggested an alternative framework for understanding self as an adolescent unit, to build adolescent empowerment on a Macro-level.

Key words: Empowerment, Home economics textbooks, Text description, Learning activities

TRENDS OF HOME ECONOMICS RESEARCH IN THE JOURNAL OF HOME ECONOMICS SOCIETY IN THE WORLD

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This study aims at analyzing the research trends about all the Journals of Home Economics Society in the world and getting the materials about the perspective of Home Economics.

AIM


RESULT

Logging in the special fields of Home Economics papers show the changes of the local communities and the life needs. Etc. On the other hand, as the development of globalisation and informatization, there are more and more complicated special fields in Home Economics that surpassed the traditional framework. And we can see the trends of diversity in all the countries and regions. From 2000, the paper relations to UN Millennium Development Goals have been increasing too.

CONCLUSION

Under the expansion and complexity of living issues and on the subject for Home Economics is how to lead the people who respects their living and has global visions to the sustainable Hope&Happiness.

LESSON IMPROVEMENT THROUGH LESSON STUDIES AND EFFECTS OF COOKING PRACTICE EMPHASIZING LANGUAGE ACTIVITIES

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AIM

In recent years, with the aim of allowing instructors to provide better standards of class, the practice of lesson study—a system of conceiving, executing, and reflecting on lessons together with peers—has been garnering increased attention. Several organizations in Japan conduct home economics lesson studies. Focusing on students’ group-based lesson studies supported by governmental boards of education and education centers, we present an Osaka junior high school case study as an investigation of how such studies improved cooking practice lessons emphasizing language activities and effects on learners.

METHODS

This case was part of a project conducted by the Osaka City Education Center between 2011 and 2013. Other project members besides instructors were a governmental teacher supervisor, administrator, cooperating faculty member, and two university faculty members. The lesson study process consists of the following: 1) Instructors put forward a lesson plan; 2) Mutual discussions are held and the plan is revised in collaboration with project members; 3) The lesson is carried out and observed on a trial basis; 4) Further discussions and revisions are made in collaboration with project members following the trial; 5) The lesson is actually carried out and discussed by observers, and 6) A generic lesson plan is proposed taking into account reflections as a whole. The lesson theme was “cooking practice and reflection” to master cooking skills and use them in everyday life. To determine how lesson studies improved lessons and what effects improvements had, semi-structured interviews (1 hour) were conducted. Lesson plans and worksheets were also examined.

RESULTS

The lesson was structured as a cycle of preparatory study, cooking practice, and reflection. Practice sessions were held five times in groups of four or five. A different dish, ingredients, and cooking techniques were introduced each session. There were four different working roles and each student acted as leader for each role at least once. Reflections consisted of collaborative learning sessions emphasizing language activities incorporating jigsaw methods, with students divided by group and role.

Effects of lesson studies can be summarized as follows.

1. Feedback from members during lesson studies enabled instructors to undertake greater challenges. After observation and discussion of trial lessons, worksheets and teaching guidelines were edited and polished based on children’s actual learning, and plans were effectively revised.

2. When improved lessons were taught, language-based activity objectives became clear. Through improving the worksheet form, students consequently wrote more and were more focused in their writings. Information exchange using jigsaw methods resulted in stimulating intercommunication, and generated more “realizations” from various perspectives. This created a positive cycle leading to success in the next session.

3. Students’ understanding improved regardless of the purpose of home economics and cooking practice. Moreover, cooking practice tied theory to practice by building understanding of food characteristics and changes during cooking.

CONCLUSION

Through lesson study, lesson content, teaching methods, and worksheets were all improved. Thus, student learning motivation was raised, and results suggested a deeper understanding of the purpose of practical lessons and the potential for such lessons to foster cooking skills.

FIRST-AID TRAINING WORKSHOP FOR CHILDREN WORKERS EXPERIMENTALLY PROVIDED BY NURSES
A "Financial Education" Lesson for University Students and Its Effect on Achieving a Sustainable Environment and Consumption

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AIM

Despite the fact that fashion is by nature a global phenomenon, dressmaking, fashion-related consumption and business, and home economics education in Japan has been narrowly focused on Japanese people. However, in the process of globalization, with trends such as a declining number of young people pursuing fashion-related educational paths, there are calls for a review of fashion education and clothing and human life education. This research examined future directions for fashion education and clothing and human life education in home economics, based on trends in fashion behavior among female university students in Japan and Taiwan, and a survey of education in Australia.

RESULTS AND DISCUSSION

After the lesson, the awareness of the participants concerning the importance of "the correlation between consumer life and the global environment" and "the creation of a sustainable society" increased, which showed that the objective of the lesson was achieved. The research results also suggested that "the diversity of consumer life" is the most desired content among those of consumer education in the future. These findings revealed that the diversity of consumer life which is required for improving quality of life should be more studied.

CONCLUSION

Based on above-mentioned findings, certain keywords—mental health, sensitivity, and career—were identified as items which have been overlooked in Japanese fashion education and clothing and human life education. Reconstruct the curriculum based on these issues, and develop an effective curriculum by measuring educational effectiveness through actual practice in the classroom.
Evaluation of Sewing Lessons for Elementary School Students in an After School Care Program in a Local Tokyo Community

AIM

The objective of this study is to evaluate the effectiveness of sewing lessons for elementary school students in an After School Care Program in a local community in Tokyo, Japan. The lessons were conducted by home economics and university teachers who were motivated by the observation that students enjoy making bags, especially when fine motor skills were required, had been drastically declining.

METHODS

Two sewing lessons were conducted in two After School Care Programs for elementary school students (first grade to 6th grade) in Edogawa ward in Tokyo in August 2015. Home economics as the subject is compulsory only in the 5th and 6th grade in elementary school. However, the participants were mainly from the lower elementary grades. Teachers in the lessons were volunteers, and included home economics teachers, university teachers, and university students in a teacher-training course. In the morning, volunteers learned from each other, led by the more experienced designers, before the students had a positive assessment of coed Home Economics classes, and many students responded that Home Economics was essential training for everyday life and independent living. However, the students believed that the significance of coed Home Economics has to do with helping men to understand their mothers' and future wives' housework and to enable independent living.

CONCLUSION

The majority of respondents reported that they liked Home Economics and believed it to be useful, and all respondents had a positive assessment of coed Home Economics. However, students believed that Home Economics was important for acquiring the knowledge and skills needed to live an on one's own but not for living together with others.

This work was supported by JSPS KAKENHI Grant Number 26780493.

Developing a Teacher Training Standard for Home Economics Teachers

AIM

The objective of this study is to clarify the characteristics of consumer education in each subject. Therefore, the objective of this study is to clearly define the characteristics of consumer education in each subject, and search for a way to make use of each through linking.

METHODS

Collect case examples of consumer education and sort out distinctions in the number and content of approaches for each subject. Pick out the classes conducted along the same themes from among the many approaches to home economics and social studies, and compare the differences in content.

RESULTS

Consumer economics teachers face difficult conditions at schools in Japan. First, there is extensive content that teachers want to teach to students, however, there are very few lesson hours available in a year to do so. Second, there are both regularly employed teachers and also part-time teachers who teach home economics. Because many home economics teachers are the only person to teach home economics in the school, they tend to be isolated and face difficulties in having discussions with other teachers about the classes and curriculum. Third, home economics teachers are very busy every day because of the situation noted previously. Most home economics teachers take charge of all classes in a junior high school, which involves more than 20 units of time weekly. Second, there are both regularly employed teachers and also part-time teachers who teach home economics. Because many home economics teachers are the only person to teach home economics in the school, they tend to be isolated and face difficulties in having discussions with other teachers about the classes and curriculum. Third, home economics teachers are very busy every day because of the situation noted previously. Most home economics teachers take charge of all classes in a junior high school, which involves more than 20 units of time weekly.

RESULTS

Consumer education could be achieved through classes linking together all of these subjects. Therefore, the objective of this study is to clearly define the characteristics of consumer education in each subject, and search for a way to make use of each through linking.

CONCLUSIONS

It is suggested that home economics in early elementary grades might be effective for improving students' life skills. It is also suggested that such activities provide good opportunities for the younger teachers and university students in teacher-training courses to be trained by experienced teachers.

Consumer Education through Linking of Multiple Subjects

Objective

With globalization and the introduction of IT, issues surrounding consumption are becoming more complex and advanced. Given these circumstances, the promotion of consumer education in schools that cultivates the ability to take action as a consumer and avoid problems is now more in demand than ever. In Japan, consumer education is being incorporated into home economics, social studies, and information science, but it is felt that effective consumer education could be achieved through classes linking together all of these subjects. Therefore, the objective of this study is to clearly define the characteristics of consumer education in each subject, and search for a way to make use of each through linking.

METHODS

Collect case examples of consumer education and sort out distinctions in the number and content of approaches for each subject. Pick out the classes conducted along the same themes from among the many approaches to home economics and social studies, and compare the differences in content.

RESULTS

Consumer economics is the subject where consumer education is being implemented the most, followed by social studies. Based on the results of comparing the respective content employed in home economics and social studies classes, in home economics classes, actual purchases are hypothesized and importance is placed on learning to make use of this knowledge in daily life. In social studies, on the other hand, the focus is on comprehension of laws and socio-economic subjects.

CONCLUSIONS

It is suggested that home economics in early elementary grades might be effective for improving students' life skills. It is also suggested that such activities provide good opportunities for the younger teachers and university students in teacher-training courses to be trained by experienced teachers.
This study aimed at developing an education program for Republic of Korea middle school students on North Koreans’ family living culture so that the students become familiar with the values and everyday lifestyles of the North. Understanding of North Korean culture is considered important in prospect of future reunification as a foundation for social integration.

The contents of the program was developed based on a literature review and analyses of North Korean defectors’ interviews and media reports on North Korean culture. The program consists of 10 units of 40-minute sessions with the following topics: economy and consumption, leisure activities, family life, dating and spouse choices, fashion changes, clothing acquisition and care, local foods, dietary problems, housing, and neighborhood.

The program was implemented between December 21 and 30, 2015 in a middle school located in Seoul. A total of 62 students in two classes of grade 7 participated in the program. Evaluation was conducted by pre-/post-test comparison, with a self-administered questionnaire consisting of 34 items asking students to indicate their perceived levels of knowledge and skills about and attitudes toward North Korean family living culture on 5-point scales. A total of 34 matched questionnaires were analyzed.

The pre-test results revealed that the prior knowledge/skill/attitude level of Republic of Korea students was relatively low (m=2.78, s.d=0.86), which verified that reunification education is imperative. The pre-/post-test comparison revealed that self-perceived knowledge/skill/attitude was improved in general (m=3.83, s.d=0.89, paired t=7.70, p<0.001), as well as in all unit topics. Students’ verbal feedback was also very positive; they would recommend this program to other students because it helped them become aware of reunification issues and better understand North Korean culture. This program is expected to be useful in preparing the students as future leaders to create harmonious family living culture in the reunified Korea.

In 2013, the food insecurity rate of the US population was 14.3%, while the food insecurity rate in Oklahoma was about the national average with an overall rate of 17.0% and 26.0% for children, with poverty rates consistently higher than the national average. As the number of Oklahomans living below the federal poverty line continues to be a major concern, prevalence of low socioeconomic status manifests itself in poor nutrition habits and physical activity levels. Through the Expanded Food and Nutrition Education Program (EFNEP) and Supplemental Nutrition Assistance Program Education (SNAP-Ed), known as the Oklahoma Nutrition Education Program (EFNEP) and one program in our state, Oklahoma State University has helped individuals find the answers to planning and preparing healthy meals and expanding their food dollars. The EFNEP and one programs are two federal/state partnerships that support nutrition education for the improved health of limited-resource audiences. Both programs provide nutrition education to limited-resource individuals and families within their communities and are delivered using a learner-centered approach. Program graduates report increased knowledge, enhanced skills and abilities, and improved conditions related to nutrition, health, and well-being. This poster will focus on the use of paraprofessionals, referred as Nutrition Education Assistants (NEAs) indigenous to their communities to reach a large number of low-income participants to help overcome health challenges in Oklahoma.

In the interviews, subjects who previously made local dishes for both daily meals and special events said they had fewer opportunities to make those dishes after moving to temporary housing because of lack of space and cooking utensils in the kitchen. This suggests that regional food culture may cease. The cooking classes are opportunities not only for continuation of food culture and social interactions among participants, but also for the temporary housing residents acting as instructors to feel they were doing something worthwhile and involved in society. Most of the university students learned about Ishinomaki New Year’s dishes for the first time, and with attitudes of interest and respect toward local cuisine may make this food culture more recognized and sustained by introducing it to friends, family, tourists, and the next generation.

CONCLUSION
Young people’s participation is essential for regional vitalization. Activities related to nearby foods readily capture people’s interest and are likely to lead to continuation of food culture and regional vitalization. The cooking classes described herein may also help disaster victims gain a sense of fulfillment and satisfaction by playing a central role, and support a lifestyle revival.

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Soonhwa Chung (Korea University)
Soonhee An (Korea University Graduate School)
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**The Intake of Bean Products and Vegetables Associated with Mental and Physical Health of Japanese University Students**

**BACKGROUND AND AIMS**

It has recently been reported that food intake patterns are associated with mental health, and high intakes of soybean products and vegetables may decrease the depressive symptoms. In the present study, we investigated daily meals of female university students, that is, how much they daily take beans and vegetables in order to see the relation between intake of beans or vegetables and the mental state, life style, or body composition as physical status.

**METHODS**

Japanese 28 female university students (aged 20-23) participated in the study from winter to autumn of 2013-2014. A questionnaire on life style, or body composition as physical status is, how much they daily take beans and vegetables in order to see the relation between intake of beans or vegetables and the mental state, life style, or body composition as physical status.

**RESULTS**

There was a significantly negative correlation between amount intake of beans and CES total score (β=0.41, p=0.006). Analysis of Covariance was used by year, and all amounts consumed of them.

**CONCLUSION**

The results suggest that beans may be good for mental health, and vegetables may be good for physical health.

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**Analysis of Conjugated Linolenic Acid in the Seed Oil from Various Cherry Cultivars**

**BACKGROUND AND AIMS**

However, little is known about their CLN content. In this study, we compared their CLN contents.

**METHODS**

Japanese 28 female university students (aged 20-23) participated in the study from winter to autumn of 2013-2014. A questionnaire on life style, or body composition as physical status is, how much they daily take beans and vegetables in order to see the relation between intake of beans or vegetables and the mental state, life style, or body composition as physical status.

**RESULTS**

Polyunsaturated fatty acids, which have a conjugated double bond system, are thought to have cancer prevention effects. Natural seed oils of some plants (tung, karela etc.) have been reported to contain conjugated linoleic acids (CLN), which are isomers of linoleic acid with a conjugated trienoic structure. In our previous study, we found that the seed oil of Sata Nishiki, one of the various kinds of cherry cultivar (a type of Prunus) grown in Japan, contains CLN. However, little is known about their CLN content. In this study, we analyzed the fatty acid composition of seed oils of 25 cherry cultivars to compare their CLN contents.

The lipid fractions were extracted from the homogenates of seeds according to the Bligh & Dyer procedure. Fatty acids of the lipid fractions were methylated with trimethylsilyldiacetamide and sodium methoxide/methanol, and then analyzed by gas chromatography (GC). To determine the fatty acid composition, the lipid fractions were fractionated to neutral lipids, glycolipids, and phospholipids by silica column chromatography. The fatty acid compositions of the separated fractions were measured using gas chromatography.

As a result, α-eleostearic acid (α-ESA; 9c, 11t, 13t-18:3), a type of CLN, was detected from the seed oils from cherry cultivars used in this study. The lipid content of these seeds and a ESA content of these seeds were different among cultivars. The CLN seemed to exist as triacylglycerol because most of it was detected in the neutral lipid fraction.

**CONCLUSION**

The results suggest that beans may be good for mental health, and vegetables may be good for physical health.

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**School-Lunch Satisfaction Is Associated with Consumption of a Mid-Morning Snacking and Hunger Feeling in Adolescents**

**BACKGROUND AND AIMS**

Shifting food intake patterns have been reported to influence food consumption of the households and to determine how these factors are associated with food consumption in a Korean urban-rural complex region.

**METHODS**

The study was designed as a cross-sectional household study. We recruited 151 households (urban 99, rural 52) in a Korean urban-rural complex region from October 2012 to March 2014. We collected data related with food environments of food stores from a family member in charge of food purchases per household. Also the household’s primary food shoppers were requested to record all foods purchased or obtained for family members during a week, all foods purchased by bulk or used by year, and all amounts consumed of them.

**RESULTS**

There were significant differences between urban and rural areas in the characteristics of households and primary food shoppers, and households’ food purchase related factors. However, there was no difference in household’s food availability and food consumption between the areas. In multiple regression analysis, in rural areas, total food amount available was positively associated with household food shopper’s education level (elementary vs. middle school (β=16.5, p=0.013). Total food amount consumed was also positively associated with ease of food purchase (β=1.01, p<0.001). In both urban and rural areas, a significant positive association between total food amount consumed during the week and the number of food items available at home was found (urban (β=0.08, p<0.001), rural (β=0.29, p<0.001)).

**CONCLUSION**

The study was designed as a cross-sectional household study. We recruited 151 households (urban 99, rural 52) in a Korean urban-rural complex region from October 2012 to March 2014. We collected data related with food environments of food stores from a family member in charge of food purchases per household. Also the household’s primary food shoppers were requested to record all foods purchased or obtained for family members during a week, all foods purchased by bulk or used by year, and all amounts consumed of them.
Effect of Aloe Noodle on Loperamide-Induced Constipation in SD Rats

CONCLUSION

In this study, food consumption of households in rural area was more associated with a variety of food environmental factors. This showed that food environmental factors having an influence on food consumption of households could vary depending on a community’s characteristics.

Dietary Pattern and Health-Related Quality of Life among Korean Breast Cancer Survivors

OBJECTIVES

We aimed to examine the association between dietary pattern and health-related quality of life (HRQOL) among Korean breast cancer survivors in a cross-sectional study.

METHODS

A total of 171 women aged 21 to 79 years who had been diagnosed with breast cancer of the American Joint Committee on Cancer (AJCC) stage I to II and had breast cancer surgery at least 6 months before baseline were included. To measure HRQOL, we used a validated Korean version of Core 30 (C30) and Breast cancer 23 (BR23) module of the European Organization for Research and Treatment of Cancer (EORTC-QLQ). Dietary intake information was obtained through the 3-day dietary records. We conducted a factor analysis to identify major dietary pattern and calculated pattern scores for each participant. To examine the association between dietary pattern and HRQOL levels, we used the least squares means (t-values) and 95% confidence interval (95% CI) of HRQOL levels according to dietary pattern scores using the general linear model.

RESULTS

We identified 3 major dietary patterns, “Healthy pattern”, “Western pattern” and “Unspecified pattern”. We found that insomnia scores assessed by the EORTC-QLQ increased significantly with increasing scores of the healthy pattern among breast cancer survivors; LS means were 21.89 (95% CI = 20.52-26.67) for top quartile and 19.34 (95% CI = 18.44-21.16) for bottom quartile (p for trend < 0.01). Also, physical functioning scores increased significantly with increasing scores of the Western pattern among breast cancer survivors; LS means were 85.81 (95% CI = 78.10-104.11) for top quartile and 72.47 (95% CI = 64.09-89.26) for bottom quartile (p for trend < 0.05).

CONCLUSIONS

These results indicate that Aloe noodle is good for the prevention of constipation.

Coffee Consumption and the Prevalence of Pre-Hypertension and Hypertension in Filipino Women Living in Korea

BACKGROUND

Several epidemiologic studies suggest the health benefit of coffee intake, but there is limited evidence to distinguish types of coffee drinking.

AIM

We conducted a cross-sectional study to determine whether coffee intake with sugar and cream was associated with the prevalence of pre-hypertension and hypertension in Filipino women living in Korea.

METHODS

Filipino women married to Korean men were recruited from March to August, 2014. Age range of participants was 20-55 years. A total of 162 participants who answered the questions on coffee intake and addiction of sugar or cream was obtained using the structured questionnaire through face-to-face interviews. Of 141 coffee drinkers, 79.43% of participants (n=112) answered to drink coffee with sugar and cream. Coffee with sugar and cream intake was categorized into <1 cup per month, 1 per month -<1 cup per day, 1-<2 cups per day, and ≥2 cups per day.

RESULTS

Participants who consumed ≥2 cups per day of coffee were older (p=0.03) and had lower BMI (p=0.02) compared to participants who consumed <1 cup per month of coffee. In addition, we found that coffee with sugar and cream intake was associated with the prevalence of pre-hypertension and hypertension among Filipino women living in Korea.

CONCLUSIONS

Although we did not observe a statistically significant association between coffee with sugar and cream and the prevalence of pre-hypertension and hypertension combined among Filipino women living in Korea, increase in sample size and further analysis are warranted in this ongoing study.

Chronic ethanol exposure increases plasma homocysteine (Hcy) and Triglyceride (TG), hepatic S-adenosyl homocysteine (SAH) and TG in animal and human studies. These changes in methionine metabolism and plasma lipids are associated with liver injury. Alcoholic patients with liver disease tend to consume approximately 40% of caloric intake as alcohol and lower intakes of protein, carbohydrates, fat, vitamins, and minerals as compared with nonalcoholics. On the other hand, caloric restriction to 60-70% of daily energy needs attenuates acute ethanol induced oxidative and nitrosative cardiac damage while caloric restriction to 40-50% of energy needs aggravates lipid peroxidation and nitrosative stress. Betaine regulates homocysteine levels by participating in the methionine cycle as a methyl donor. Present study was designed to determine whether food restriction (FR) would affect plasma lipid and methionine cycle when betaine is supplemented in ethanol-fed rats. Therefore, male wistar rats were divided into seven experimental groups for 4 weeks as follows: control; all alcohol groups (E, E+ 0.25% betaine(w/v), E+ 0.5% betaine); 162 participants who answered the questions on coffee intake and addiction of sugar or cream was obtained using the structured questionnaire through face-to-face interviews. Of 141 coffee drinkers, 79.43% of participants (n=112) answered to drink coffee with sugar and cream. Coffee with sugar and cream intake was categorized into <1 cup per month, 1 per month -<1 cup per day, 1-<2 cups per day, and ≥2 cups per day. Hypertension stage was identified by criteria suggested by the Korean Society of Hypertension. Multivariate odds ratios(ORs) and 95% confidence interval(CIs) were estimated using the logistic regression models.

RESULTS

Participants who consumed ≥2 cups per day of coffee were older (p=0.02) and had lower BMI (p=0.03) compared to participants who consumed <1 cup per month of coffee. In addition, we found that coffee with sugar and cream intake was associated with the prevalence of pre-hypertension and hypertension among Filipino women living in Korea.

CONCLUSIONS

Although we did not observe a statistically significant association between coffee with sugar and cream and the prevalence of pre-hypertension and hypertension combined among Filipino women living in Korea, increase in sample size and further analysis are warranted in this ongoing study.
Physicochemical and Antimicrobial Activity of Allium Chinense

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This research was supported by Ministry of Education, National Research Foundation of Korea supervising Leaders in Industry-university Cooperation.

There is an increasing attention towards elderly healthcare issues due to the demainstration, disease-related fatalities, medical expenses, and chronically degenerative disease mainly caused by an augment within the elderly population. This study aims to analyze the functional and intelligent elderly Korean diet patterns; it plans to construct a healthy meal for the brains of all the elderly Koreans, directly contributing to the elderly healthcare. Implement called K-MUSE was used to gather data on 316 elders above sixty five years of age, they were divided into categories such as normal, boundary area, mild, moderate, and high dementia according to the resulting scores. The elders diet structures were recorded by 24-hour Recall Method and food intake frequency method. The healthy meal models for brains were designed based on the analysis of food group and consumed nutrients. Fat consumptions varied depending on the severity of dementia. 31.78 g, 25.96 g, 28.56 g, and 11.21 g normal to moderate dementia; protein consumptions were relatively high 9.40±0.02 mg/ml, showed a higher antioxidant activity by about thirty percent compared to those of Allium fistulosum, with antioxidant activities of 45.63%, both extracts were measured using EDA. Allium chinense extract, with total phenolic acid of 1.49±0.002 mg/ml, showed a higher total phenolic acid compared to that of Allium fistulosum, with total phenolic acid of 1.17±0.00 mg/ml. Allium fistulosum extract, with SOD-like activity of 89.96±1.47 %, had a higher SOD-like activity compared to that of Allium chinense, with SOD-like activity of 83.74±2.45 %. Both extracts showed a higher antioxidant activities by about thirty percent compared to those of Allium chinense, with antioxidant activities of 79.49%, showed a higher antioxidant activity compared to those of Allium fistulosum because it had a similar set of traits and properties to those of Allium chinense.

Healthy Korean-Styled Diet Patterns for Brains and the Development of Related Healthy Meal Models

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This study was supported by Ministry of Education, National Research Foundation of Korea supervising Leaders in Industry-university Cooperation.

At the present time due to the enhancement of national income and the increasing of leisure life time and so on, there is a growing interest in rest and consumer is increasingly looking for participation put together food and culture. For this reason, the project to attract tourists to eat products of Asian area in the limbsight of the Asian spa resort is underway. The ingredients and environmental analysis through the relevant literature and site survey of Asian area were conducted through product development and standardization through the marketing analysis and brand image development, storytelling. Afterwards, the evaluation of the overall satisfaction level of this tourism spot was conducted. The main ingredients were Dog’s local product, rakkyo and rice produced in spa component, sulliggy and Asian freshwater fish known as specialties from ancient times due to the analysis of SWOT and 4P, Asian area synthesizes the nearby locations in various tourist spots with the spa at its center, support for specialization of local and federal of Asan area is increasing. As a result, the number of tourists is increasing and the developing of new local foods will benefit the local food community, especially, were detected in low levels from the elders with dementia: compared to those of normal elders. Antioxidant vitamins E and C, show that the elders with dementia had less vitamin and minerals consumption. Fat consumptions varied depending on the severity of dementia. 31.78 g, 25.96 g, 28.56 g, and 11.21 g normal to moderate dementia; protein consumptions were relatively high 9.40±0.02 mg/ml, showed a higher antioxidant activity compared to those of Allium fistulosum, with antioxidant activities of 45.63%, both extracts were measured using EDA. Allium chinense extract, with total phenolic acid of 1.49±0.002 mg/ml, showed a higher total phenolic acid compared to that of Allium fistulosum, with total phenolic acid of 1.17±0.00 mg/ml. Allium fistulosum extract, with SOD-like activity of 89.96±1.47 %, had a higher SOD-like activity compared to that of Allium chinense, with SOD-like activity of 83.74±2.45 %. Both extracts showed a higher antioxidant activities by about thirty percent compared to those of Allium chinense, with antioxidant activities of 79.49%, showed a higher antioxidant activity compared to those of Allium fistulosum because it had a similar set of traits and properties to those of Allium chinense.

A Study on the Probability of Eat Out Tourism Products by Utilizing Local Food

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Study on Wholesome Bread, Made with Sikhye and Mixed Grain Power: Its Unique Qualities and Commercial Potentials

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According to the national nutrition survey, Korean’s individual rice consumption rate has been in the decline compared to that of the past. Modern Koreans rather prefer the simplified dietary spectrum due to their busy lives. Unlike the past, the present has abundant food supplies, which causes wasted food: an environmental issue. The study hopes to develop a commercialized “simple” bread made from sikhye that will increase the rice consumption today.
**To 6% Sikhye rice. Rice and sikhye rice powder were analyzed under the ADAC laws; they were measured for their water content, crude protein, crude fat, and crude ash. They were measured for their appearance, color, olfactory sense, taste, and texture as sensory evaluation. Their quality characteristics were defined by their chromaticity and physical properties. Rice powder had 34.06% water, 2.57% crude protein, 0.13% crude fat, and 0.21% crude ash. Sikhye rice powder had 43.78% water, 2.87% crude protein, 0.07% crude fat, and 0.57% crude ash. Sikhye rice powder had a higher amount of general component content compared to that of rice powder. Bread’s chromaticity changed in response to the amount of Sikhye rice powder: 0% addition 43.21, 2% addition 47.36, 4% addition 49.56, 6% addition 62.86. As values were: 0% addition –1.03, 2% addition –1.05, 4% addition –1.13, 6% addition –1.26. The texture testing states: 6% addition 0.62, 2% addition 0.65, 4% addition 0.53, 6% addition 0.41, the hardness decreased as Sikhye rice powder’s amount increased.

Based on the sensory survey, both rice and Sikhye rice powder bread gathered more public favor (preference investigation?) than the normal white bread, with Sikhye rice powder 4% increased demand gathered more public favor (preference investigation?) than the normal white bread. Sikhye rice powder bread had a higher amount of general component content compared to that of rice powder. Bread’s chromaticity changed in response to the amount of Sikhye rice powder: 0% addition 43.21, 2% addition 47.36, 4% addition 49.56, 6% addition 62.86. As values were: 0% addition –1.03, 2% addition –1.05, 4% addition –1.13, 6% addition –1.26. The texture testing states: 6% addition 0.62, 2% addition 0.65, 4% addition 0.53, 6% addition 0.41, the hardness decreased as Sikhye rice powder’s amount increased.

**AIM**
The aim of this study was to examine and compare country-based food databases of selected African countries.

**METHOD**
Among the 20 African countries with country-based food databases, only South Africa, Uganda, Gambia, and Mozambique had versions that had been updated after 2010. The food databases for three countries were compared in terms of the characteristics of foods included and attributes of data sources from which nutrient values were obtained.

**RESULTS**
The food databases of South Africa, Uganda, Gambia, and Mozambique contained 1,471, 1,221, 463, and 205 food items, respectively. The food categories common to all the databases were beverages, fats and oils, and vegetables. Gambia had the highest number of food groups with 17, followed by South Africa, Uganda, and Mozambique which had 16, 14, and 12, respectively. All the databases provided values for energy, carbohydrates, protein, lipids, and fiber. However, the nutrient subclasses for which information was provided in each database were different. The reported values were mostly literature borrowed, and calculated data, with a few cases of analytical data.

**CONCLUSION**
The study provides information with which South Africa, Uganda, Gambia, and Mozambique can revise their existing databases. In addition, other African countries without food databases can refer to this information when developing their own country-based food databases.

### Comparison of Food Databases among African Countries

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**BACKGROUND**
Updated country-based food databases provide information on nutrient composition of commonly consumed and locally available foods. Such databases can be used in the process of planning and developing national nutrition policies and programs. However, only a few African countries have updated country-based food databases.

**Folic Acid Supplementation Can Lower Homocysteine Levels in Diabetic Post-Menopausal Women**

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**AIM**
The purpose of this study is to propose an improvement plan for safe environments in small houses without blind areas in the fire safety aspect.

**METHODS**
In order to do the research about awareness of fire safety and current conditions of fire fighting facilities, one hundred subjects living in small houses in Seoul (urban type housing, affocted, Goseon, etc.) responded to the questionnaire survey. The survey data was analyzed by SPSS 21.0 program.

**RESULTS**
1. The research showed that targets in this study generally have low awareness in fire safety, however only the targets living in urban-type housing showed they had high awareness in the current situation that they live in a fire prone area.

2. Urban-type housing has lower rates of possession in basic firefighting equipment (fire extinguisher 42%, fire alarm 14%, none 44%). They also have lower rates of purchasing intention (49%) for fire fighting equipment. However, house owners have positive awareness (100%) for improvement of fire-fighting facilities compared to tenants.

3. Only 21% of all subjects experienced fire-fighting safety education. However 84% of subjects respond they feel the necessity for fire-fighting safety education.
Effect of Japanese Cedar on Psychological and Physiologic Factors Influencing Quality of Sleep and Mental Health Status in an Indoor Environment

First Author(s): Ikuiko Bamba (Tokyo Gakugei University)

Presenting Author: Ikuiko Bamba (Tokyo Gakugei University)

AIM
We evaluated the effect of installation of a cedar panel in the living room on the quality of sleep and mental health status of residents.

METHODS
The experiment was conducted from December 2014 to February 2015. We recruited 13 healthy subjects (mean age 20.5 ± 1.2 years). The participants resided in the experimental room until the morning of the fourth day. A cedar panel was installed in the living room on the night of the fourth day and the participants resided in that room until the morning of the seventh day. The panel was made of wood from Oguni-machi in Kumamoto prefecture of Japan. A slit was made to widen the surface area, and two pieces were connected with a 240 × 325 mm panel. Sleep efficiency was analyzed using actigraphy. Cortisol and immunoglobulin levels of saliva were analyzed. For subjective evaluation, quality of the sleep was analyzed using the Ogas-Shirakawa-Azuma sleep inventory (OSAI), and mental health status was analyzed using the general health questionnaire (GHQ). The results of three evaluations before and after the installation of the cedar panels were compared using t-tests.

RESULTS
“Sleeping well” and “sleep maintenance” were significantly improved after panel setting as evidenced by changes in OSAI scores (p < .001). However, this difference was not confirmed by actigraphy. The mental health status as assessed by the GHQ was significantly improved after installation of the panel (p < .01). In the saliva analysis, cortisol levels remained the same, but IgA levels were significantly increased after panel installation (p < .01).

CONCLUSION
While the beneficial effects of forest environments on immunity are known, our study results indicate that the use of cedar wood panels in an indoor environment could result in immune system stimulation and improvement in quality of sleep and mental health status.

The Flowability and Living Environment of Migrant Workers in China

First Author (Main Author): JingYing Deng

Co-Author(s): Kenichi Azuma (Kinki University)

Presenting Author: JingYing Deng

In this essay, I would like to clarify 4 issues: the first one is to grasp the characteristics of flowability of migrant workers, second one is to clarify the migration process of migrant workers, the third one is to grasp the accompanying family of migrant workers and their living conditions, and last one is to clarify the children's educational problems of migrant workers. I have done questionnaire surveys twice to migrant workers and their children in Shanghai this year. According to their answers, if migrant workers move from a place to another place fluently, their living conditions change too. Some migrant workers went better, but some went bad. Migrant workers change their living places not only because they care about their living conditions, but also change their work because their children can only go to this or that school in Shanghai. There have some conditions if migrant workers children want to go to school in Shanghai.

The Lifestyle and the Change of Pastoral People’s Residence in Desert Area of Mongolia the Case of Badain Jaran in Alxa Right Banner

First Author (Main Author): Arong Zhaxile (Nara Women's University)

Co-Author(s): Arong Zhaxile (Nara Women's University)

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The purpose of this paper is to discuss the connection between the grazing and residence of pastoral people, furthermore, analyzing the layout drawing of pastoral people’s residences to document changes of traditional pastoral residence. We had a survey by interviewing and measurement in Badain Jaran in Alxa Right Banner of Inner Mongolia of China for 3 times, by September, 2011, March, 2012, and November, 2012. The coverage of the survey was 38 families which still keeping stock farming at now. From the connection between the grazing and pastoral people’s residence, We found that in order to follow the moving of livestock, there is a necessary to migrate different places in different season. Therefore, the site the residence was fixed the amount of houses was increased from 1 to multilateral. Right now there are 5 kinds of residences. The feature of the using of winter quarters was that, the range of life activities was classified in one room in the 60's. In the 70's, one room model has become two rooms model, and the function was divided
into two kinds, one room for daily life, and the other room was used as a warehouse. As to corresponding the specific living behavior, the kitchen, and the bedroom could be seen for the first time, and the passage and the yard were also made in the 60s. The distinction of space would become definite in the 60s, and it also became to install the visitor's drawing room. Since 2000 the garage, the shower room, the traveler's bedroom, the kitchen was appeared. The feature of spring quarters and autumn quarters were that, spring quarters had not made through all households, and room's arrangement was still simple, furthermore, utility time was also shorter than autumn quarters.

Study of the Residential Environment Barrier-Free Considered the Life Stages of Old Age

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AIM
Recently, there has been a rapid acceleration in demographic aging in Japan. A barrier-free (BF) environment at home is important for a safe and comfortable life. The physical aspect is the traditional element of a BF environment, and we added the important sensory and environmental aspects (environmental BF = physical BF + sensory BF).

METHODS
We conducted a questionnaire survey targeting elderly and middle-aged subjects. The 606 respondents ranged in age from 21 to 88, with a mean age of 68.8. The questionnaire concerned the installation of barrier-free elements. In addition, the list of 61 items in the questionnaire included the environmental aspect in addition to the physical barrier-free aspect. The physical environmental indices included the sound, optical, thermal, and humidity environment, indoor air quality and space (passage, room). A 5-point scale was employed in the questionnaire, with importance ranging from 1 (very important) to 5 (very unimportant), and satisfaction ranging from 1 (very satisfied) to 5 (very satisfied).

RESULTS
The study was conducted to compare the importance and satisfaction rating of environmental factors in 4 groups classified according to age stages (young-middle; under 54 years old, middle; 55-64 years old, old; 65-74 years old, old-old; over 75 years old). The results showed that the thermal environments in summer and winter were not satisfactory, with the possibly related risk of heat disorders in summer and heat shock in winter.

CONCLUSION
It is important to enhance the environment for the elderly in home care cases, depending on the life stages. In future studies, it will be necessary to consider the BF environment when nursing is required.

Keywords: the elderly, Housing, Home care support, Barrier-free environment, Satisfaction

Impact What Farmers Market Give to Small Scale Farmers around the Matket at Suburban Area

First Author (Main Author) Ikiko Omi (Nara Women's University) Japan
Co-Author(s)
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AIM
In suburban areas, there are many small-scale farmers. In addition, the elderly are increasing. Crop yields are reduced. Farmers market is supporting the shipment of those farmers. Many city residents are shopping at farmers market. They are looking forward to buy fresh vegetables at there. To clarify the role of direct sale place by the survey of city suburbs of farmers market.

METHODS
Questionnaire survey to farmers market in the urban city and suburban city was done. There are the cities in the three major metropolitan area, Tokyo area, Osaka area, Nagoya area. It was mailed to last November. Also we have a hearing survey of farmers market and farmers.

RESULTS / FINDINGS
Farmers are aging and have declined. Some of the farmers markets are in the effort of solving the problem actively. They held the agriculture school, and are cooperating in regional initiatives. In addition, it has been held the initiatives that urban residents to experience the agriculture. Such efforts are increase the willingness of farmers. And they are increasing profits.

CONCLUSION
Farmers markets give to local agriculture large effect. Small scale farmers can not be a place of sale. And farmers market in urban cities and suburban cities connect farmers and urban residents in the region. However, there is a need to efforts for do so. There is the potential for cooperation of the region with farmers market. Also it has many possibilities in addition.

Life Satisfaction and Aging-in-Place Preference of Older Females in the US

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AIM
Low-income Hispanic families have been identified as being at risk towards climate change due to the pressures caused by socioeconomic barriers, which hampers their ability to cope with adverse weather conditions. This study has interests in examining the use of outdoor amenities, such as civic space, urban parks, and greenbelts, as a possible coping strategy when it is too hot outside. The purpose of this study is to investigate the effect of income on the stress levels of Hispanic families to heat and their experience of park use.

METHODS
Data collection was done through two stages, focus groups and an on-line survey. Data from focus groups of 20 participants were used for designing a survey questionnaire. This questionnaire was used for an on-line survey with a random sample of Hispanic residents in California and Texas that was purchased from a large data company in the US. The survey results were analyzed with descriptive statistics, t-tests, ANOVA, and regression.

RESULTS
A total of 761 responses were collected. The results indicated that there was no income influence on frequencies of park use and accessibility to a park. However, the satisfaction towards neighborhood and surroundings showed a difference according to income. The average of the satisfaction by high-income families who earned more than US median income, $50,000, was higher than that of low-income families with a statistical significance. Regarding the perceptions, there was an income influence on the stress levels towards heat. The result showed that low-income Hispanic families experienced more stress to heat than higher income families, whereas there was no significant effect of income on the respondents’ overall ability to cope with heat. Finally, regression result showed that income, perceived too hot temperature threshold, and staying inside as a coping strategy had significant effects on respondents' perceived stress to heat.

CONCLUSION AND IMPLICATIONS TO FCs
When realized as an issue of human health and well-being, urban greenery takes on a different meaning either than environmental utility and urban aesthetics. It could function as a sustainable alternative to cooling off in city especially for families with limited resources. The results from this study, however, indicated overall strategies to cope with heat, including using a park, by low-income families were not distinctive compared to high-income families, although they were experiencing more stress to heat. This study provides implications to researchers in family and consumer sciences field and community planners and policy makers to better serve these families by suggesting the need of exploring the motivations and barriers in using a park by low-income families. Also examining inconsistencies and gaps in public policies surrounding the types of park, location, the features they exhibit, and the degree to which cities are committed to urban greening is suggested.
a higher income, lived in other than a single-family detached house, and lived in other than a rural area. Thus these socio-economic and housing variables were indirectly associated with aging-in-place preference mediated by life satisfaction.

CONCLUSION AND IMPLICATIONS TO FCS
Although the significance of understanding aging-in-place decision by older persons, there has not been research to explore multi-dimensional meanings of aging-in-place by connecting psychological environment and life satisfaction to it. The results from this study suggest that there are a number of layered factors under the preference of aging-in-place, which calls the importance of psychological environments and socio-economic conditions, to be considered for researchers, practitioners, and policy makers who are interested in the housing and community programs and services to support to age in place.

**Changing Korean Housing System and its Challenges**

The Korean housing policy has strongly embedded into a developmental state model of which features include strong authoritarian rule, state-guided top-down strategic planning, export-driven and industrialization-led economy, robust budgetary management, instrumentality of social policy to economic policy, and underdeveloped welfare system. The developmental trajectory had put a strong emphasis on market-driven homeownership and low state expenditure on public housing provision, and the strategy was enhanced by economic prosperity. However, the Korean housing system has faced with numerous challenges since a series of economic crises (including the Asian Financial Crisis in 1997 and the Global Financial Crisis in 2008). Economic instability and uncertainties coupled with demographic shifts have had negative impacts on the housing system. Indeed, the casualization of employment, reduction in real wages and prolonged family formation has led to dwindling housing opportunities, and even deeper socio-economic inequality (e.g., shrinking middle-class and housing price fluctuations by regions). In recent years, it’s obvious that the housing sector has been threatened by continuing economic slowdown, low birth rate and low interest rate, deepening housing transformation and household transitions.

This research is to explore changing Korean housing system and its various challenges. Using extensive data collection and analysis, this study identifies institutional forces transforming the home-owning sector (e.g., price fluctuations and homeownership), and reviews an array of structural factors affecting the rental housing sector (e.g., Chosun and public rental housing). The results provide a deep understanding of the interconnectedness among socio-economic shift, demographic change and housing transformation. Further, the findings highlight that the profound and dynamic housing variations result from path dependence.

**Housing Asset and Its Wealth Effects on Consumption Spending of Korean Households**

Housing is the single largest item in the aggregate wealth holdings of Korean households, and housing equity becomes an increasingly important asset that it can be accumulated over their life course and realized to trigger the consumption. Recently, the link between housing wealth and household consumption, known as the wealth effect, has been gaining more attention.

The purpose of this study is to explore housing wealth effects of homeowners by different age groups, on household expenditure on non-durable products and services. The age groups are divided into three distinct categories - eco boomers, baby boomers and older adults. Further, the wealth effects by each age group are examined in accordance to region (Seoul Metropolitan Area [SMA] vs. non-SMA), housing structure type (apartment [Apt] vs. non-Apt housing), debt-to-asset ratio (less than 25% vs. 25% and more), and employment status (self-employed vs. wage workers). Using the 2014 Korean Labour and Income Panel Study, this research extracts 1541 homeowners out of the age groups, and conducts statistical analyses. The statistical results reveal that housing asset is the largest holding of their wealth, and both housing value and financial debt become smaller as the age of homeowners increases. While the empirical findings explicitly support that housing wealth effects vary with different age groups, it’s clear that rising housing wealth enables households to reduce insurance against future contingencies.
**AIM**

In future, we will order garments created to fit individual 3D-body shape and suiting via the internet. If the requisite garment ordering, purchase and sale system is useful and rational, this in turn will achieve lower levels of waste for both producers and consumers in an “Eco-clothing life style” in Part 1, an automatic order made system for 3D & 2D tight fitting skirts was developed from 3D imaginary skirt forms in simulation by constructing individual 3D-body shapes by means of a convex hull.

**METHODS**

The 3D tight fitting skirt curved shapes on each 3D-body surface of approximately 1000 Japanese females (18 to 84 years old) were realized by our automatic order made simulation system using a non-contact 3D Body Line Scanner in a short time. Each tight fitting skirt shape was divided into 540 triangle meshes with a total of 300 vertexes, and the concentrated vertex angle of every triangle yielded the deficit angles of Concentrated Gaussian Curvature $K_c$ ($K_c=360°(2\pi)–κ_n$, $K_c=0$: developable surface, $K_c>0$: elliptical surface, $K_c<0$: hyperbolic surface) on interior area vertexes and Concentrated Geodesic Curvature $K_c$ ($K_c=180°(\pi)–κ_n$, $K_c=0$: straight line, $K_c>0$: convex line, $K_c<0$: concave line) on the exterior boundary line vertexes.

**RESULTS**

The total angle values showed zero' of Sum $K_c$ and Sum $\kappa_n$ in all female skirt images according to the Gauss-Bonnet theorem. The 3D tight fitting skirt shape types were extracted by means of Principal Component and Cluster Analysis using each total value of Sum $K_c$ and Sum $\kappa_n$ in eight age groups.

**CONCLUSION**

We recognized the features of 3D & 2D tight fitting skirt curved surface shape including the presence of drapes for a considerable number of women for 2D pattern generation regardless of body size without using cloth.
The Wardrobe - Think, Mend, Recycle. Everyday Solutions to the Problematics of Global Textile Production and Consumption

**BACKGROUND**
The Martha Association is a Finnish home economics extension organization that promotes the wellbeing of home and family and the value of home economics. Home economics professionals organize workshops for 140,000 consumers all around Finland every year. The organization has a membership of 48,000.

Choosing and maintaining textiles is a central theme in our work. The finns buy an average of 13 kg of textiles per person per year. Clothes are often cheap and many people buy them more than is needed. Over 10 kg of textile waste ends up at garbage dumps. Part of this is low quality, but a lot could still be recycled and reused. According to the law, in the beginning of 2016 textile waste can no longer be dumped at garbage dumps.

There are several problems in the global textile industry. The salaries are not enough to provide a living, the workers have limited rights to organize, and working conditions are often dangerous. Finnish consumers already have a positive attitude towards ethical certificates, but finding the products, and finding out information of country of origin and conditions of production is difficult. Governments and enterprises should always be responsible of respecting human rights, but as consumers we can all have a say.

**OBJECTIVE**
To influence the practices of middle-aged women and young people towards a more responsible textile consumption by motivating them • to find out about the origin of clothing, to communicate with different actors in the production chain, as well as to make informed purchasing decisions; • to increase the longevity of textiles by learning to correctly maintain and mend them, and to use them as raw material for new kinds of do-it-yourself clothing.

The project promotes climate sustainability (avoiding waste, colors, and shape of their designs to develop a harmonious ensemble of how to use design elements for creative design development) to increase the longevity of textiles by learning to correctly maintain and mend them, and to use them as raw material for new kinds of do-it-yourself clothing.

**RESULTS**
We aim at • influencing the target group's consumption behavior; • creating new ways to make volunteers participate in campaigning work; • making the Wardrobe activity a permanent part of both our professional work and the local associations' activities.

**CONCLUSION**
The project is evaluated by collecting both quantitative and qualitative feedback from professionals, volunteers and participants, as well as following key figures in the media hits and fb and twitter likes and shares in 2015-2016.
Integrating Natural Dye Techniques and Cultural Research into the Undergraduate Apparel Design Project

First Author (Main Author)
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Co-Author(s)
Kim Hahn (Kent State University) USA
Presenting Author
Eunyoung Yang (Meredith College) USA

It is the goal of apparel design instructors to enable their students to take complex inspiration and incorporate it into visually appealing garments. In introductory course in fashion design, students learn the fundamentals and techniques of making patterns through flat pattern and draping techniques, and begin to develop their own designs. Although students attempt to incorporate as many design styles as possible to demonstrate their skills, the inspiration for these garments proves to be difficult for the students to incorporate into the designs. Using cultural inspiration is one method of resolving this inspiration breach. Inspiration research involves decoding and examining visual materials through actual artifacts or images using content analysis for better understanding of the styles of the chosen culture. The purpose of this teaching model was for the students, 1) to create a formal inspiration process for apparel design using content analysis of inspiration of Korean traditional costume and patchwork techniques, 2) to research and experiment with natural dyes and dye process, and 3) to implement fully to a product development project led by two findings above.

The project was based upon concepts presented in researching literature related to the cultural inspiration. Students were asked to incorporate cultural features of Korean costume and Korean patchwork, Jogakbo, to achieve successful cross-cultural design. The students were asked to incorporate cultural features of Korean costume and Korean patchwork, Jogakbo, to achieve successful cross-cultural design. In order to encourage the undergraduate research, students were required to collect and analyze information using the library collections and scholarly databases to obtain images instead of "googling" Books, magazines, and artifacts collected during my visit to Korea were provided as extra resources after students’ search. The project was presented at the undergraduate research symposium at our institution providing an opportunity for students to share their research through poster presentations. In addition, this was an example of a creative research project encouraging other students to explore undergraduate research.

Fashion Professionals’ Recommendations of Newly Graduating College Students: Job Searching Process and Organizational Characteristics

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Aim
With newly graduating students employed at lower rates in the fashion industry than in the past (US BLS, 2012), fashion graduates faced with the challenge of staying current with new demands for education and skills required in the current industry. This research aimed to explore the perspectives of professionals in the fashion industry surrounding the job search process and aggregate their desired recommendations regarding job organizational characteristics of newly graduating students in order to help them succeed in the competitive field of the fashion industry.

Method
Sixty-three responses were collected from a convenient sample of U.S. professionals in the fashion industry using an online survey method. Participants had majored in fashion design (51.4%), fashion merchandising (35.1%), and business (8.1%). The respondents’ fashion industry working experience varied from 1-5 years (45.9%), 5-10 years (18.9%), to more than 10 years (18.9%). The items on job searching process and organizational characteristics were measured on a 5 points scale (1 being not important, 5 being very important).

Results
The most important recommendation during job searching process for newly graduates was resume writing and career skills (M=4.51), followed by networking (M=4.41). The least important one was establishing career goals (M=4.10). To compare the differences between single and married for newly graduates, the Chi-square test was conducted. There were no statistically significant differences between the two groups.

Conclusion
Findings from this study will help educators guide graduating students during their often difficult job search process and provide an organizational characteristic development that will enable prospective applicants meet the expectations of fashion industry professionals.

Study on Rinsing Properties of the Ultra-Concentrated Liquid Laundry Detergent

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Miyuki Motta
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To examine the detergency and the rinsing properties of laundry detergents from fabrics, a comparison test was conducted using an ultra-concentrated liquid laundry detergent recommending a single rinse, and a concentrated liquid laundry detergent and a concentrated powdered laundry detergent each recommending two rinse times. The Terg-O-Tometer was used for simulation, with the concentration of each detergent solution being set in accordance with the normal dosage indicated on the label of each detergent. One experimental cycle consisted of one wash of 10 minutes’ duration, and the subsequent one or two rinse times of three minutes for any detergents. This cycle was repeated five times. The amount of detergent remaining on the test fabrics after each cycle was determined by quantitative analysis of the residual surfactant. The test fabrics were shrunk made of 100% cotton and taffeta made of 100% polyester. The test results were as follows. The concentrated powdered laundry detergent exhibited the highest detergency, while the ultra-concentrated liquid laundry detergent, the lowest detergency. As compared with the single rinse, the two rinse times lowered the amounts of residual detergent on the test fabrics in any case. The detergent amount remaining on the polyester fabric was more than that on the cotton fabric. The increasing tendency of the residual detergent on the fabrics was less observed in the ultra-concentrated liquid laundry detergent.

Study on Women’s Happiness Brought by Grands Magasins Du Louvre Catalogues

First Author (Main Author)
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Presenting Author
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When the first World Exposition was held in Paris in 1855, the second department store, the Grands Magasins du Louvre, opened for business. What happiness were department stores able to bring to women?

This presentation aims to study the fashion design of the goods through an analysis of the print media of the Grands Magasins du Louvre. The data and materials analyzed in this study are 85 print media products dated 1863 to 1882, belonging to 3 libraries. These include 17 fashion catalogues with many fashion illustrations. The number of merchandise in fashion illustration catalogue reaches 6,662 items. These include many data of price, fabric, colors, decoration, patterns, combination, size and other characters.

Daily and special fashions of the time were identified, which made clear that the fashion business of department stores tapped trends and customs.

Because these include many coats, gowns, dresses, skirts, petticoats, hats, shawls, ties, corsets, boots, and so on. And these include for evening, wedding, walking, home, etc.

The findings of this research are that customers could choose a design from a line-up of products according to their tastes, trends, and usefulness. Catalogues supported their happy and luxurious lifestyle experience by providing information at their homes, on the least fashions, trends and complex special rules and practices such as changing clothes many times a day according to time and occasion. Then, what were the consumers’ criteria when they picked up a favorite garment from the catalogues?

As I already pointed out in my doctoral dissertation, the product information in the catalogues was rich in qualifiers such as ‘beautiful’, ‘extremely beautiful’, ‘elegant’, and ‘incredibly elegant’.

Such words did not necessarily represent the reality, however, it is not only truth which can make people happy. These words may raise information in the catalogues was rich in qualifiers such as ‘beautiful’, ‘extremely beautiful’, ‘elegant’, and ‘incredibly elegant’.

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Such words did not necessarily represent the reality, however, it is not only truth which can make people happy. These words may raise
Outdoor Wear Market Segmentation by Consumption Values of Outdoor Wear

Outdoor wear market in Korea has experienced the incredible boom for almost 30 years, but the market is now having a hard time. The change of the market made outdoor companies seek out what is important for consumers in buying outdoor wear. In these kinds of situations, many researchers are interested in the concept of consumption value. Consumption value leads to consumers' behavior as an individual's internal standard of judgement when consumers make a buying decision. The purposes of this study were to identify the consumption values of outdoor wear and to classify the outdoor wear market by the consumption values.

Data were acquired from a survey and analyzed with descriptives, factor analysis, reliability, cluster analysis and one-way ANOVA. Respondents were 454 adults in their 20s (24.0%), 30s (23.1%), 40s (25.3%), and 50s (27.5%). Male subjects were 226 (49.8%) and the married were 293 (64.3%) among respondents.

As the result of factor analysis for reduction of the number of variables, four factors were extracted and the total variance explained by four factors was 61.6%. The factors were named after their constructs; functional value, epistemic value, social value, and emotional value. Based on these factors, outdoor wear consumers were classified into four groups by k-means clustering; the Epistemic, the Emotional, the Functional. For post-hoc comparison between groups, one-way ANOVA was carried out under the condition that the factor scores of consumption values were the dependent variables and cluster variables were the group variables, and consequently the validity of group names and classification was identified.

In conclusion, it was found that outdoor wear consumers had consumption values such as functional value, epistemic value, social value, and emotional value, and were segmented into four markets by these consumption values.

**PT_1803**

Analysis of Brassieres Products and Evaluation of Adolescent’s Brassiere Pattern-Making

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<th>First Author (Main Author)</th>
<th>Co-Author(s)</th>
<th>Presenting Author</th>
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<tr>
<td>Hwa-Sook Yoo (University of Ulsan)</td>
<td>Yun Ja Nam (Seoul National University)</td>
<td>Hwa-Sook Yoo (University of Ulsan)</td>
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<td>Republic of Korea</td>
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The age of adolescent is notable period, which is the biggest change according to the growth. As Korean brassieres manufacturers promote that the brassieres for only adolescents can be help to make beautiful body silhouette, the brassieres market in Korea is getting bigger. However, the brassieres pattern-making for adolescent is only downgraded from adult’s. Those pattern-making has a problem which does not reflected the adolescent’s anthropometric attributes. Accordingly, this research was conducted comparative analysis of adolescent’s brassieres products on the market and their pattern-making to figure out the correlation between adolescent’s brassieres and the adolescent’s anthropometric attributes. In this research, four brands (initial A, B, C, D), located in Korea, were selected. Selected brands are composed of three product groups based on the breast growth of adolescents. Each group has different styles. The first group is composed of sports brassiere style. The second group has no wire brassiere style and the third one has wire brassiere style. Therefore, twelve samples were used to compare according to each group and brand. The process for analysis are 1) comparative analyzed the products, 2) comparative analyzed the measurement of products, 3) comparative analyzed the measurement of pattern-making and the degree of polymerisation, 4) comparative analyzed the materials and composition and 5) descriptive statistics and variance analysis in data analysis, the correlation between pattern-making and anthropometric attributes of adolescent, were carried out with SPSS IBM statistics 22.0. This study deducted the suitability of adolescent brassiere for anthropometric attributes of adolescent in the growth by comparing the pattern of each company. These results imply base data to design and manufacture for adolescent brassieres in order to make beautiful adolescent’s breast silhouette.
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<tr>
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<td>2016 Textile Challenge: Switzerland</td>
<td>Franziska Honegger (Zurich University of Applied Sciences)</td>
<td>Switzerland</td>
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<td>EH02</td>
<td>South Africa: Our Hope and Happiness</td>
<td>Sonia Van Zyl (University of the Free State)</td>
<td>South Africa</td>
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<td>EH03</td>
<td>Fox in Beches</td>
<td>Gwendelynn Hustvedt (Texas State University)</td>
<td>USA</td>
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<td>EH04</td>
<td>Tulip</td>
<td>Yong ju Kwon (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH05</td>
<td>Happy Knot</td>
<td>Kyoongha Ji (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH06</td>
<td>Dress with Expression</td>
<td>Ran Eom (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH07</td>
<td>Second-Skin Pants with Skin Deformation Mapping</td>
<td>Jiyoung Choi (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH08</td>
<td>Body-Friendly Design for the Handicapped</td>
<td>Gyeongmi Lee (Chungnam National University)</td>
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<td>EH09</td>
<td>G-Gear</td>
<td>Yerin Lee (Chungnam National University)</td>
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<td>EH10</td>
<td>Performance Gear for Women</td>
<td>Jiyoung Choi (Chungnam National University)</td>
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<td>EH11</td>
<td>Blue &amp; Hope</td>
<td>Myungji Oh Kim (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH12</td>
<td>Gold Wave</td>
<td>Sam Kang (Chungnam National University)</td>
<td>Republic of Korea</td>
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<td>EH13</td>
<td>Sweet and Happy Girl</td>
<td>Qianwen Wang (Chungnam National University)</td>
<td>China</td>
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<td>EH14</td>
<td>Dress for Sweet Dance</td>
<td>Yerin Lee (Chungnam National University)</td>
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<td>EH15</td>
<td>Shirts with Dream Box</td>
<td>Yerin Lee (Chungnam National University)</td>
<td>Republic of Korea</td>
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**Exhibition**

**Tuesday August 2 ~ Thursday August 4   09:00 ~ 17:00**

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<tr>
<th>EH_0332</th>
<th>2016 Textile Challenge: Switzerland</th>
<th>First Author (Main Author)</th>
<th>Esther Thalmann (IFHE Section Switzerland)</th>
<th>Switzerland</th>
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<td></td>
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<td>Co-Author(s)</td>
<td>Franziska Honegger (Zurich University of Applied Sciences)</td>
<td>Switzerland</td>
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<td>Presenting Author</td>
<td>Franziska Honegger (Zurich University of Applied Sciences)</td>
<td>Switzerland</td>
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Switzerland selects its contribution to the 2016 textile challenge in a national competition. The winner will not be chosen before December 2015. Therefore a specific abstract cannot be presented yet. The contribution will certainly relate to the set specific theme.

In accordance with the chair of the programme committee textiles and design this information acts as a “place holder” for the Swiss country map.

**Exhibition**

**Tuesday August 2 ~ Thursday August 4   09:00 ~ 17:00**

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<tr>
<th>EH_0405</th>
<th>South Africa: Our Hope and Happiness</th>
<th>First Author (Main Author)</th>
<th>Sonia Van Zyl (University of the Free State)</th>
<th>South Africa</th>
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<td>Co-Author(s)</td>
<td>Corrie Van Heerden</td>
<td>Hester Steyn (University of the Free State)</td>
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<td></td>
<td></td>
<td>Presenting Author</td>
<td>Franziska Honegger (Zurich University of Applied Sciences)</td>
<td>Switzerland</td>
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</table>

**AIM**

South Africa is our country, our Hope and Happiness! It covers 1.2 million square kilometers of land and are divided into nine provinces. These nine provinces have seven climatic regions, from Mediterranean to sub-tropical to semi-desert. This biodiversity favours the cultivation of a great and diverse range of marine and agricultural products.

**METHODS**

The nine provinces will be introduced through a textile collage. Each province will represent the textiles and products that are characteristic of that province. Textile fibres are the main component, but other outstanding characteristics will also be highlighted. Various hand techniques, like natural handspun threads, hand woven textiles and machine produced textiles will be used. Other techniques such as, knitting, crochet, embroidery and beadwork will also be incorporated to show the most popular symbols in South Africa.

The collage will be supported with an interactive electronic program to explain all the details.

**RESULTS**

The agro processing industry in South Africa processes our well known products such as maize, wheat, sugar cane, sunflowers and cut flowers, especially the protea. Wine, leather and indigenous rooibos tea are also characteristic of that country. Our merino wool and angora mohair are outstanding, while cotton, hemp, soy, linen, kensal, alpaca, wild silk and pineapple are also processed as textiles and will be used in the collage.
**Exhibition**

**EH_1100**

**Fox in Birches**

First Author (Main Author): Gwendolyn Hustvedt (Texas State University)

USA

Presenting Author: Gwendolyn Hustvedt (Texas State University)

USA

Co-Author(s):

Created with wool from a Texas ranch, this hand and needle-felted piece celebrates the harmony of nature with a red fox emerging from her home among ferns beneath the birch trees. The use of half-felting techniques allows for a multi-dimensional depth of field with the impression of continuing forest due to the variegated color of the Corriedale wool used as a base. Dyed with low-impact dyes, the brilliant tones of the decaying ferns reminds the viewer of the hope created even in the final days of natural cycles.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education.

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**EH_1555**

**Tulip**

First Author (Main Author): Yong-ja Kwon (Chungnam National University)

Republic of Korea

Presenting Author: Yong-ja Kwon (Chungnam National University)

Republic of Korea

Co-Author(s): Yoonmi Choi (Chungnam National University)

Republic of Korea

Designed by: Yong-ja Kwon, Yoonmi Choi

Dept. of Clothing and Textiles, Chungnam National University

Materials: dupion silk

Techniques: dyeing

Inspiration:

A shape of tulip skirt expresses full of hope and happiness. A intensive cut-out in an all-angle gives aesthetic quality, and polished impression is emerged because of its unbalanced length and a proper cutting line. The purpose of production is to elevate feelings of hope and happiness when dressed to be celebrated or refreshed.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education.

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**EH_1623**

**Happy Knot**

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Republic of Korea

Presenting Author: Kyoungha Ji (Chungnam National University)

Republic of Korea

Co-Author(s): Hanna Kim (Chungnam National University)

Republic of Korea

Inspiration; “something old, something new, something borrowed, something blue and a silver sixpence in her shoe” is one of traditional marriage customs in England. It is believed a bride to have these five things at the wedding will bring a list of luck. Sixpence is a silver coin which was minted between 1551 and 1967 in England and is a token of wealthy fortune when it is kept in shoes. Although a silver sixpence in her shoes is disappear these days, the other four things are still popular traditions for wish of luck and happiness in Europe and America.

This work reinterprets the desire for luck to achieve the wish of anyone as well as a bride at wedding by the above four things, added with Korean emotion and cross-over technique (mix-matched). At Korean wedding, there is a bundle of blue and red threads, which means to protect the couples from bad luck and evil spirit as well as symbolize the bond of bride and groom. For a new born baby, there is a straw rope to keep out of misfortune. These have in common settings of twisted threads or straws around for elder family’s wish to protect bad luck from good events. This work includes something old, by using NOBANG which is fabric for Korean traditional clothes, something borrowed, by adapting the twisting style of threads and straws, the meaning of bundles for the desire to maintain the relations with others as well as matrimony, and the wish for no bad luck, and something blue, by using bluegray, a trendy color in blue series.

Materials: On chest, nuts of tools as a masculine image were attached by collage or tie as decorations and chiffon as feminine image was draped as cross-over. In addition, NOBANG, Korean traditional fabric, and mesh, new materials using for recent sport clothes, were mix-matched.

As the last one among four things, it is intended to involve something new by surprise, fun and change in mind of cross-over technique, which is a latest fashion trend along with post modernism.

Techniques: Harmony of layered and see-through was expressed with thin NOBANG fabric and mesh materials. As well, twisting and knotting were utilized.

By adding Korean emotional depth and unexpected fun to four things from English marriage custom, it is aimed to represent everyone’s desire for happiness and fortune.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education.

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*This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education.*
**Dress with Expression**

First Author (Main Author)  
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Republic of Korea

Co-Author(s)  
Jeong Ok Park (Chungnam National University)  
Hyun Jin Lee (Chungnam National University)  
Yejin Lee (Chungnam National University)

Presenting Author  
Ran-I Eom (Chungnam National University)  
Republic of Korea

Inspiration:  
An expressive dress was designed to boost up our feelings at the very moment. A lady could change the length and volume of the dress by fastener, changing the amount and locations of gather at the front of the dress in different ways depending on her state of emotion. Being able to dress up in her own style with the transformable dress could make the wearer happier.

Techniques:  
- Draping and fastening techniques

Materials:  
- Stretch Fabrics

Dept. of Clothing and Textiles, Chungnam National University.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education(22B20151113044).

**Second-Skin Pants with Skin Deformation Mapping**

First Author (Main Author)  
Jiyoung Choi (Chungnam National University)  
Republic of Korea

Co-Author(s)  
Gyeongmi Lee (Chungnam National University)  
Yejin Lee (Chungnam National University)  
Kyungki Hong (Chungnam National University)

Presenting Author  
Jiyoung Choi (Chungnam National University)  
Republic of Korea

Materials:  
- Stretch Fabrics

Design line was drawn based on the body mapping of skin deformation during knee joint flexion, which can be one of the optimal positions for seams for the functional compression pants. Lines of non-extension (LoNE) and maximum stretch (LoMS) during knee flexion can be found in the mapping. Blue squares represent the visualized images of the contracted skin deformation area, whereas the red squares represent that of the extended one (left).

- Fundamental study was supported by the National Research Foundation of Korea (NRF-2010-0014897).
- Design of pants was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education(22B20151113044).

**Body-Friendly Design for the Handicapped**

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Republic of Korea

Co-Author(s)  
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Gyeongmi Lee (Chungnam National University)  
Kyungki Hong (Chungnam National University)  
Kyunghi Hong (Chungnam National University)  
Gyeongmi Lee (Chungnam National University)  
Kyunghi Hong (Chungnam National University)

Presenting Author  
Gyeongmi Lee (Chungnam National University)  
Republic of Korea

Materials:  
- Stretch Fabrics

Design1:  
- Designed by Choeun Lee, Jiyoung Choi, Gyeongmi Lee, Kyungki Hong  
- Materials: Cotton & Polyester, Stretch Fabrics  
- Technical design details: A universal design of top and pants was developed for men who sit on wheel chairs. The size of top can be adjusted by the string inside the tunnel of circles. It can be loosened for ventilation when necessary. Legs of pants can be also adjusted for a tight or loose fitting depending on activities. Extra ventilating features are inserted on the back of the pants. The design of top and pants can also cover various body sizes with fastening systems.

Design2:  
- lower body exercise supporter (Chief designer: Hyojeong Lee)  
- Commercialized by Good People Inc.

G-Gear:  
- Designed by Choeun Lee, Jiyoung Choi, Gyeongmi Lee, Kyungki Hong  
- Materials: Stretch Fabrics

G-Gear is an engineered compression wear by 3D technology. It supports movement, facilitates recovery from fatigue and protects body from injury. G-Gear can help you focus on higher performance during daily sports activity. It is completed by technology integrating human anatomy, physiology and kinetics.

In addition, it can effectively support movement, facilitate fast recovery from fatigue in intermittent rest periods and protect wrist and knee joints, all of which are made possible by 3D geometrical sculpturing, differentiating pressure level of each region of body.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea (NRF) the Ministry of Education(22B20151113044).
**Performance Gear for Women**

First Author (Main Author)  Jiyoung Choi (Chungnam National University)  Republic of Korea

Co-Author(s)  Soyoung Kim (Chungnam National University)  Yejin Lee (Chungnam National University)  Kyunghi Hong (Chungnam National University)

Presenting Author  Jiyoung Choi (Chungnam National University)  Republic of Korea

- Designed by : Jiyoung Choi, Soyoung Kim, Yejin Lee, Kyunghi Hong
- Materials : Stretch Fabrics
- Technical design details : Sophistically developed 3D patterns of sleeveless top and pants for female. Commercialized by Good Peoples as "G-GEAR". Lining and outershell are separately designed by 3D technology for sports activity.
- It not only maintains a comfortable fit but also offers superb functionality.
- It gives an extra lift and stable support through ergonomic design of each variable of sports gear during exercise.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

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**Blue & Hope**

First Author (Main Author)  Myoung Ok Kim (Chungnam National University)  Republic of Korea

Co-Author(s)  Jung Soon Lee (Chungnam National University)

Presenting Author  Myoung Ok Kim (Chungnam National University)  Republic of Korea

Blue wrap skirt represents the hope. Wrap skirt was modified Hanbok, traditional Korean daily clothing. Dress was inspired from the shape of Joseon Dynasty military uniform, Cheollik. Materials are linen dyed with Persicaria tinctorium extracts and cotton printed with pattern.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

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**Gold Wave**

First Author (Main Author)  Sam Kang (Chungnam National University)  Republic of Korea

Co-Author(s)  Jung Soon Lee (Chungnam National University)

Presenting Author  Sam Kang (Chungnam National University)  Republic of Korea

Bright gold color of Curcuma longa represent the joy and happiness. Wrap skirt was modified Hanbok, traditional Korean daily clothing. Dress was inspired from the shape of Joseon Dynasty military uniform, Cheollik. Materials are linen dyed with Curcuma longa extracts and cotton.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).

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**Sweet and Happy Girl**

First Author (Main Author)  Qianwen Wang (Chungam National University)  China

Co-Author(s)  Jung Soon Lee (Chungam National University)

Presenting Author  Qianwen Wang (Chungam National University)  China

This work is inspired by the Korea’s traditional costume, cheolrik, which is dress of the military officer or the envoy in Joseon Dynasty. Materials are linen dyed with Juniperus chinensis extracts and cotton. Fabric dyed with Juniperus chinensis has sweet scent and enthusiastic red color. When you wear it, you will be a sweet and happy girl.

* This research was supported by BK21 PLUS Program through the National Research Foundation of Korea(NRF) the Ministry of Education(22B20151113044).
Exhibition

Tuesday August 2 ~ Thursday August 4  09:00 ~ 17:00

**Shirts with Dream Box**

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Techniques: Box sleeves/ Using LED (Materials - Neoprene)

We have dream and often reserve it inside the square box deep in mind. Now, it is the time of bringing the dream box from the secret place. Sleeves were made of square dream boxes. LED is blinking on the lid of dream box, shouting for action toward beautiful days when dreams come true.

**Dress for Sweet Dance**

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Designed by: Heeran Lee, CIAT (Center of Innovative Apparel Technology)
Dept. of Clothing and Textiles, Chungnam National University

Materials: Stretch Fabrics and Stretch mesh

Techniques: Body-conscious pattern without any barrier for dancing was achieved by apparel technology

Inspiration: A lovely dress was designed for dancing. Anybody wearing this dress would feel more beautiful and comfortable in the swinging motion on the floor like a dancing queen, enjoying the happy moment and sharing happiness with persons around her.
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