

1-1 Pre-primary education and problem of Bangladesh : From the viewpoint of 4.2 of the sustainable development target (SDGs)

Keiko Yamamura (Hyogo University Junior College)/Japan

[ABSTRACT] In Bangladesh, the issues of Pre-primary education has been improved a little. there are still many issues. I consider a issue and significance of "Pre-primary education" in Bangladesh.

1-2 A Study on the Quality of Infant Care in Japan: Focus on the primary caregiving system at the mealtime in nursery schools

Junko Endo (Showa Women's University), Yuki Ono (Musashi no Junior College), Mariko Ikeya (Wayo Women's University)/Japan

[ABSTRACT] The aim of this study is to explore the quality of lunch feeding assistance in the nursing care of infants aged 0 or 1 year old. A questionnaire survey of nursery schools in Japan revealed that "Provide support carefully for each infant" was statistically high and "Encourage intake of least favorite foods" was statistically low when the appointed system was implemented, and more tailored approaches were taken toward each individual. Moreover, in case of the appointed system, "feed at different time points" was significantly high, and "on the knee of the nurse" was significantly high for places infants sit at mealtime, suggesting that tailored approaches have also been taken for the time and environment of feeding. Our findings suggested that, to improve the quality of feeding assistance it would be necessary to structurally understand nursing care not to mention the current support practice.

1-3 Research on the quality of early childhood education: Based on the examination of transition curriculum between preschool and elementary school education

Michiyo Mori (Fukuyama City University)/Japan

[ABSTRACT] In 2017, revisions of courses of study require effectively to cooperate between preschool and elementary school in Japanese educational system. The students in the first year's class of elementary school have a lot of difficulties to adapt the school life and system. Because, children have to change their educational environment in short time from preschool to elementary school. It was assumed that the cause was the difference in consciousness between preschool teachers and elementary school teachers. Therefore, this is a basic study to clarify the quality of early childhood education for all children from every early childhood education establishment. We will examine the actualities and practices of transition curriculum by questionnaires and interviews for principals and teachers of preschool and elementary school.

1-4 Application of Warabe-uta, Japanese Traditional Children's Songs, to Dalcroze Eurhythmics

Izumi Matsui (Meisei University), Eri Takamaki (Musashino University)/Japan

[ABSTRACT] The purpose of this present study is to discuss how we can provide the children with the inclusive, fair, and high quality expression activity. The "Eurhythmics" method by Emile Jaques-Dalcroze is widely known as high quality expression activity. One drawback of this activity is that performing technique of the piano by a facilitator is required as an accompaniment. To overcome this drawback, this study proposes that "Warabe-uta", Japanese traditional children's song, can be substituted with the piano accompaniment. By introducing the practice of the "Eurhythmics" with "Warabe-uta" in a Japanese kindergarten, this paper shows that children can easily follow the facilitator's singing voice of "Warabe-uta" and suggests that "Eurhythmics" with "Warabe-uta" helps them to be actively engaged in expression activity. This study also explores the possibility of developing an image activity accompanied by piano after practicing "Eurhythmics" with "Warabe-uta".

1-5 Current situation and issues of pre-school curriculum in Japan and Korea -Comparison between Japan's "Course of Study for Kindergarten" and Korea's "Nuri Curriculum" from the view point of collaboration and connection between pre-schools and elementary schools-

Junko Okubo (Fukuoka Prefectural University), Yoko Shimizu (Kyushu Sangyo University), Hiromi Ban (Nagaoka University of Technology)/Japan

[ABSTRACT] It is said that the "fourth industrial revolution" advocated by German government in 2011 will change the structure of industries. Due to such circumstances, the ideal profile of members in a society have also changed in recent years, which has led to various types of educational reform in many foreign countries. As for pre-school education, while the "Course of Study for Kindergarten" was completely revised in March 2017 in Japan, the "Nuri Curriculum" has already been implemented in Korea, starting in 2012. In this paper, the education and kindergarten standards of the two countries are compared, specifically focusing on collaboration and connection between pre-schools and elementary schools. Such comparison can establish some points for future reference.

1-6 The Transformation of Sri Lankan Preschool Teachers' Awareness of their Accepting Preschool Children

Hiroko Okamoto (Mejiro University)/Japan

[ABSTRACT] In Sri Lanka, about 25 years civil war was finished. But with some riots raised by minority peoples, complex feelings are still mingled.

Preschools are not contained in the nation's educational system and any law has not been established yet. Though the only policy clarifies "proposition of educational opportunity; consideration of history, religion and children's background," the childcare as well as the school education has been practiced according to each people.

In 14 preschools this research examined, the teachers and children were only Sinhalese though Tamils and Sri Lankan Moors lived in the same region in 1999. The teachers' intention to learn Tamil was low. Since 2000 some teachers have been learning Tamil and in 2014 the rate of other peoples' preschool children was about 8 %. This research, considering

the slight change of the peoples of preschool children, will examine the environment, current childcare concerning preschools and its tasks.

1-7 Students' Recognition of SDGs at a Junior College of Childcare Worker and Kindergarten Teacher Training Course

Makiko Hirose (Okinawa Women's Junior College), Hirotsugu Tazume (Kyoto University of Education), Itsuki Matayoshi (Okinawa Women's Junior College)/Japan

[ABSTRACT] The Sustainable Development Goals (SDGs) is a social concern shared widely in Japan. For childcare workers, thus, it is necessary to acquire certain skills and knowledge of SDGs to nurture those children for their sustainable future development. To realize this, educational institutions for training childcare workers needs to have a perspective on SDGs.

In this study, we conducted a questionnaire survey targeting 324 ECE major junior college students about the Sustainable Development 17 Goals in terms of: (1) interest levels; (2) recognition levels; (3) images of practical approaches to SDGs. While statistically analyzing the factor structures of the students' images of practical approaches to SDGs in comparison, we reviewed each student's recognition of SDGs and their images of practical approaches.

1-8 The common characteristics of process quality in science nature activities by using ECERS-3 and SSTEW: a case study on Vietnam early childhood education

Hang Thi Thu Dinh, Fuminori Nakatsubo (Hiroshima University)/Japan

[ABSTRACT] The teacher is the vital factor that directly affects children's development through their pedagogy, behavior, and interaction with children that belong to process quality. However, little is known about the process quality of learning activity in Vietnam. This study to define the common characteristics of process quality in Science Nature Activity of children aged 3-4 at Da Nang city, Viet Nam. The progress is implemented at 5 childcare settings, with 12 classes and 40 science nature activities. The common characteristics of high process quality examined based on choosing the same high-score factors of all kindergartens in this study by ECERS-3 and SSTEW. Helping children expand vocabulary and staff support children's language use are the two common characteristics of high process quality indifference leaning environment science nature activities. The findings illustrate the importance of teacher-child interaction in the learning activity and again emphasize the role of the teacher.

1-9 Change in consciousness and notion of happiness by philosophical dialogue (parenting philosophy cafe) for parents during child rearing II

Mutsuko Yoshinaga, Fumiko Enokita, Ryoji Namai (Musashino University)

[ABSTRACT] The purpose of this present study is to investigate the change of consciousness about child rearing and notion of happiness by conducting philosophical dialogue (philosophy cafe) with parents during child rearing. Philosophical dialogue (Philosophy Cafe) started by "Matthew Lipman" in the 1970s focusing on "philosophy for children". Philosophy dialogue is not like reading the literature of the great philosopher, but it starts from asking the "simple question" that everyone has. Doing a philosophical dialogue even for a few hours away from everyday life will help them realize and reconstruct the original meaning of parenting.

We had held Parenting Philosophy Cafe 13 times at Musashino University from 2017 to 2018. We analyzed the process of philosophical dialogue, based on participant questionnaires and recorded data. Through philosophical dialogue, exploration and reconstruction of concepts took place beyond personal experiences, and changes in happiness were also recognized and reconstructed.

1-10 Improving the Quality of Childcare through Children's Discussion Activities in Inclusive Childcare and Education

Hiromi Hasegawa (Musashino University Kindergarten), Mutsuko Yoshinaga (Musashino University)/Japan

[ABSTRACT] The purpose of this study is to examine the change in ECEC quality caused by children's discussion activities in inclusive childcare.

In this study, we examined changes in the content of children's discussion activities conducted daily in the process of participating in events such as Sports days and Drama presentation.

As a result, the following was considered.

- (1) By having "conversation activities" accumulated while having a sense of fellowship, children express themselves in the group and establish self with the cooperation of fellows,
- (2) Trying to overcome various "scenes where they feel difficulties" by collaborating while the children actually communicate with each other.
- (3) Children independently propose the contents of activity and try to realize them.
- (4) Children respect each other and acquire values aiming for coexistence of diversity.
- (5) The concept of ECEC also varies from all ECEC teachers, and the activity of devising the content and process of ECEC specifically regarding the recognition of diversity were promoted.

1-11 Equitable Access to Early Childhood Education for Ethnolinguistic Minorities in Lao PDR for Achieving SDG 4.2

Masaya Noguchi (Kobe University Graduate School)/Japan

[ABSTRACT] The Lao government considers Early Childhood Education (ECE) as a significant key for the human development. However, the ethnic minority children's access to ECE are relatively low. In order to expand ECE service, there is a strong need to analyze accessibility to ECE from the perspective of ethnicity. With Multiple Indicator Cluster Survey organized by UNICEF, this study applied Probit Model to analyze each linguistic group's determinants of access to ECE in Lao PDR.

This study found that linguistic status had significant effects on access to ECE. Households from majority linguistic group are more likely to send their children to ECE institutions. However, when household socio-economic status was considered,

linguistic status became non-significant and the effect size of household's wealth status and education level became relatively high.

1-12 Messengers of Peace Project for Kindergarteners

Wanyada Budhtranon (Jantasirivittaya School) /Thailand

[ABSTRACT] This Messengers of Peace Project for kindergarteners was held on the International Day of Peace, 21 September, at Jantasirivittaya School school for 3 consecutive years since 2016 with the cooperation of Messengers of Peace Thailand. The objectives are 1) to create better understanding of peace 2) to do volunteer work or peace actions. Four main activities were implemented : 1) Drawing for Peace: to reflect understanding of peace and tranquility 2) Peace Dance: to bring children harmony 3) Alele Mantra: a magic sentence bringing them to join hands for volunteer work in societies 4) Herbal drinks with heart: implemented for period of 2 months. Children and teachers grew herb, butterfly pea and made drinks to serve the athletes in school sports day. From our observation, currently 95% of both 2 objectives have been achieved.

POSTER PRESENTATIONS 2 / Category : Children's Rights

2-1 Action Research on Understanding of Children's Rights and Development and Method of ECEC

Keiko Yano (Jumonji University), Miyuki Shouji (Machino hoikuen)/Japan

[ABSTRACT] It cannot be said that there are enough opportunities for children to think about their own rights. There has been no research in the past that we know of about understanding children's rights in infancy and developing it in ECEC. In this study, we held an exhibition of illustrations about the Convention on the Rights of the Child at a nursery school as well as a gallery talk for the caregivers and children (five-year old children) to conduct an action research. The results clarified that children can notice their own rights as they talk through illustrations, that continuous planning and implementation that respected the children's opinions were observed, and that caregivers' intervention is required for children to understand the Convention on the Rights of the Child.

2-2 Survey on the safety consciousness of preschool teachers when children come into contact with teenagers

Yuu Itou (Shimane University), Masafumi Kamada (Shujitsu Junior College)/Japan

[ABSTRACT] The critical mission of preschool education is to ensure children's safety. In Japan, many nursery schools and kindergartens have come to accept Fureai-Taiken, an internship program designed to facilitate teenagers' contact experiences with young children. This study investigates teachers' safety consciousness when young children are interacting with junior high school students. We performed a mail survey of nursery schools and kindergartens throughout Japan. The results indicated that junior high school students might directly or indirectly pose a hazard to young children, without meaning to. The teachers reported often instructing junior high school students on how to prevent injuries before and during the Fureai-Taiken program. Furthermore, the preschool teachers want more communication with junior high school teachers about the specific requirements of the given activities. We considered the teachers' coordination efforts to ensure the safe contact between young children and the teens.

2-3 Chinese Kindergarteners' ideas on their paintings in Art class

Xiyu Dai (Jing Zhou)/China

[ABSTRACT] Chinese Art teachers tend to sustain children's art strategies by planning a well-organized group activity, but little attention is paid to children's thoughts on their paintings in this Art class. 32 children through 5 to 6 years old (boy: girl is 1:0.8) were randomly selected from a kindergarten in Nanjing, Jiangsu province. 25 valid corpora were collected and coded. The research found that children tend to make either positive or negative judgments on their work, and moreover the judgments are based on the painting's clarity and accuracy. Only few of the children connect paintings to personal experience, such as the painting processes and emotions. In addition, children reflect from three aspects to improve: changing the painting content; using different painting strategies; learning from peers. The research implies more directions on emotions, painting processes, shapes, orientation, should be given in the Art class to support children's art skills and overall development.

2-4 Regarding Children as Subjective Agents from the Perspective of Sozo Kurahashi's Philosophy: Focusing on Peer Conflicts among Young Children

Sachie Suizu (Mie University) /Japan

[ABSTRACT] This presentation discusses the perspective of children as subjective agents in Early Childhood Education and Care for respecting children's rights. To explore this, the current presentation focuses on Sozo Kurahashi's philosophy as a theoretical framework. Through a review of the literature, Kurahashi believes that children are longing for goodness, and he encourages teachers to keep exploring the needs and desires of children. Moreover, his belief overlaps with Nel Noddings' "Caring". Depending on Kurahashi and Noddings' viewpoints, this presentation considers a teacher's regard for peer conflicts among young children as this belief wavers. As a result, if the teacher attempts to pay attention to the child's needs and desires in their less-than-respectable acts instead of judging these acts objectively, helps the child to realize their needs and desires. Furthermore, the teacher encourages children to build caring relationships with understanding and respect for each other in the classroom.

2-5 Toddlers' Social and Emotional Skills and Mothers' Involvement in Japan, China, Indonesia, and Finland.

Seiko Mochida, Mieko Sanada, Junko Takaoka, Haruo Kimura (Benesse Educational Research and Development Institute), Misako Aramaki (Mejiro University), Yoichi Sakakihara (Ochanomizu University), Mariko Ichimi (National Institute for Educational Policy Research), Kiyomi Akita (University of Tokyo), Takashi Muto (Shiraume Gakuen University Graduate School) /Japan

[ABSTRACT] In 2017, Benesse Educational Research and Development Institute conducted a questionnaire survey targeting mothers of toddlers in Japan, China, Indonesia, and Finland. The purpose of the study was to examine the relationship between social and emotional skills of toddlers and parental attitude of mothers. A confirmatory factor analysis revealed the four-factor structure for toddlers' social and emotional skills, which was common to the four countries: curiosity, collaborative skills, self-assertion, self-restraint, and perseverance. Also, the parental attitude consisted of two factors: supportive attitude and protective attitude. Mothers' supportive attitude was positively correlated with children's social and emotional skills in each of the four countries. Whole worldwide focus is now turning to the importance of cultivating social and emotional skills from early childhood, these findings imply the commonality of toddlers' social and emotional skill development across different countries, which is affected by mothers' respectful and supportive child rearing style.

2-6 The relationship between kindergartens and day nurseries in 1960s Japan

Noriko Matsushima (Ochanomizu University) /Japan

[ABSTRACT] In Japan, when we discuss the quality of the early childhood education and care (ECEC), it is important that we consider the relationship between kindergartens and day nurseries. Because they are both involved in the upbringing of children, the directionality of their ECEC contents for young children are the same, even though kindergartens and day nurseries are different systems institutionally. The ECEC of kindergarten is not essentially different from that of day nurseries, with the common aim of improving the quality of ECEC for children. The foundation of this study is the official notice from the Ministry of education and the Ministry of Health and Welfare in 1963, "relationship between kindergartens and day nurseries." I will then clarify the features of the notice—the approach and the estrangement concerning the integration of the kindergarten and day nursery systems—by analyzing the notice and related documents.

2-7 Integration of the philosophical construct and the actual practice of child rights -The factor to bring the integration forward, seen from the instruction course of the current nursery staffs-

Ichirou Nakajima (Tokyo University and Graduate School of Social Welfare) /Japan

[ABSTRACT] It is essential for child support that the nursery staffs practice being conscious of the philosophy of child rights. However, integrating the philosophical construct of child rights to the actual practice remain difficult. In this study, the objective is to reveal the factor to bring the integration of child rights and the actual practice forward. As the study method, we had 40 principals of nurseries take the program to integrate the child rights' philosophy and practice, as an instruction course. And we took a free description survey afterwards. As a result of survey analysis, three points became clear: the importance of verbalizing the integration of actual practice and philosophy, the importance of understanding child rights as the philosophical construct, and the importance of reviewing the childcare practice from the child's rights point of view.

2-8 ECEC Staff's Recognition of the Quality of Participation of Children with SEN in Japan: the relationship between children's experience and support systems within the settings.

Midori Takahashi, Sachiko Nozawa, Yumi Yodogawa, Toshihiko Endo, Kiyomi Akita (Graduate School of Education, The University of Tokyo) /Japan

[ABSTRACT] In Japan, the participation rates of children with special educational needs is increasing rapidly. In this situation, as many research reports are suggesting, there are various difficulties and problems regarding the practice of inclusive early childhood education and care. In addition, there are few studies which are focusing on children's experience and development (the quality of participation) in their settings. In this study, we asked ECEC staffs about their perceptions of experience and development of both SEN and non-SEN children in the settings and also their support systems in their class, the setting, and the local government. And then, we discuss about the relationship between the quality of participation and the support systems within/ around their practices.

2-9 Results of Using Picture Storybooks on Moral Development of Kindergarteners in Thailand

Tatsanee Messuwan (Ratchathani University) /Thailand

[ABSTRACT] This study aimed to develop basic virtues by using picture storybooks with kindergarteners and to study the kindergarteners' interest behavior on picture storybooks. The target group used in the study was a class of 2nd year. After organizing of experience, teachers and parents assessed children's desirable behaviors with continuous behavioral assessment. The study indicated that after the experiment, moral development was higher than before with statistical significance at the level of 0.5. Result of kindergarteners' interest behavior on picture storybooks was found to be highest in model of good characters and pictures illustration. Regarding the results of children's behaviors, it was found that children expressed the desirable behaviors at a high level as follows: 1) knowing how to deposit money savings with adults or in the piggy bank, 2) being enthusiastic for arriving at school in time, 3) being able to store toys/objects in place, 4) sharing toys with friends, and 4) knowing how to take care of food.

2-10 ECCD and Inclusion -Every Child has a Right to Education-

Khin Thuzar Thein (Star Kids' Pre K.G) /Myanmar

[ABSTRACT] Last four years, I didn't notice about children with special needs and what means to special needs. As my school, Star Kids' Pre K.G, is a typical school, most children are typical. But, sometimes we meet up with some children with learning difficulty, Speech delay, Autism and Down syndrome. Because of a child attended at my school, I noticed his difficulties. So I decided to use a strategy like to build a trust and friendship first. I constructed the trust with him during the circle time to join other children with me. Then, creating supportive learning environments: observing causes of his need, developing visual timetables, reference objects, routines for security; and parent meeting were continued. Finally, he joined happily school activities like other children. Now inclusion is happened and every child has a right to education and becomes developed regarding to her ability. At present, our school is for every child with different ability.

POSTER PRESENTATIONS 3 / Category : Play

3-1 Children talking with "RoBoHoN": Interaction between preschool children and an AI robot.

Hirotsugu Tazume (Kyoto University of Education), Takehiro Morita (Kansai Gaidai University), Hiroshi Hotta (Sonoda Women's University), Yoshiko Hatanaka (Sharp Marketing Japan Corp.) /Japan

[ABSTRACT] In Japan, the use of interactional AI devices and ICT media is becoming widespread in daily life and appears to be having an impact on the environment surrounding children. Our study investigated the characteristics of communication between a child and a humanoid AI robot (the "RoBoHoN" manufactured by Sharp Corporation). Our observations of children's interactions with the AI robot and interviews of 28 preschool children (aged 5 to 6 years old) were conducted in a kindergarten.

The main results of the analyses were as follows. First, children behaved experimentally to test the reactions of AI robots. Second, children seem to recognize the robots as distinct from human beings. Third, the children thought that it was possible to communicate and play together with the robots. Finally, while the children had a sense of reverence for the AI robot, they also thought it seemed more childish than them.

3-2 Working with children on silkworm breeding

Tepei Ikezoe (Takatsukasa Nursery School) /Japan

[ABSTRACT] At Takatsukasa, we have been working on Silkworm Breeding for about 15 years. We reconsidered our Aims of Silkworm Breeding this fiscal year.

1. Breeding Silk worms and observing how they are growing up together with children. Experiencing the process of production from cocoons made by silkworms.
2. Thinking of various life cycle aspects of all living forms around children.
3. Expanding the relationship with local people who involved on silkworms and appreciated.
4. Establish Silkworm Breeding as a heart of Takatsukasa's landscape which makes us distinguished.

We would like to introduce the above that are our activities and achievements along it.

3-3 The significance of art in early childhood care and education - Focusing on the relationship between soil clay and cultivation of sensibility and creativity of children-

Mitsuhide Fukinbara, Mari Mori (Tsurukawa College) /Japan

[ABSTRACT] The study aims to identify the characteristics of soil-clay and its significance for children to cultivate their sensibility and creativity through exploratory studies. In Japan, "education through an environment" is the principal of ECEC (Ministry of Education, Science, Sports and Culture, 2018). Therefore, the direct/indirect interactions with nature have valued at practical sites. The soil-clay has been perceived as a material imbedded in the Japanese living and culture. Moreover, philosophy and practice in Reggio Emilia has put the significance of clay for deepening children's fantasy and creativity (Vecchi, 2010). Nevertheless, playing with soil-clay in ECEC settings has rarely practiced in these days. Thus, the study carried out for exploring the ways of children's interaction with soil-clay. The findings revealed the children's three-dimensional expressions and the world of reality and fantasy. The study implies soil-clay has possibilities to expand the world of play and caring for earth.

3-4 Making place to play for building self-esteem

Emiyo Santo, Kanako Nakamura, Yumi Honda, Aiko Sanpo (Emilia Preschool) /Japan

[ABSTRACT] "making learning invisible" Emilia preschool has been trying to find what is need for building self-esteem in raising children at our school. We are based on Reggio Emilia Approach, Children are leaning both individual and group. As we are in the central Kobe city, there are many things to attract children everyday out side of school. Children even 0years old, we took them to the outside to feel our community and understand who we are what world we live now.

3-5 Children's understanding of and playing with insects in Japanese kindergarten.

Ayuko Fujisaki (Hyogo University of Teacher Education) /Japan

[ABSTRACT] In Japan, children traditionally play with, and breed, insects. Even in early childhood education and care facilities, such as kindergartens, children catch and rear insects on a daily basis. In previous research, more than 300 species of insects were observed in a kindergarten over in two years. In this study, we describe the "insect catching and playing" activities of kindergarten children, and focus on what they learn from their relationship with insects. In addition, we report the results of an interview survey that examined children's understanding of familiar insects. We specifically focused on the pill bug, which is not technically an insect but is commonly referred to as a "bug," and is very well-known among children. It was revealed that, comparing children(N=91) of 4 to 6 years old, children's understanding of insect ecology could be rather advanced, such as knowledge of insects' food and habitat.

3-6 Children's Involvement in Inclusive Childcare : Focusing on Play of 3-Year-Old Children's Handmade Spaceship

Naomi Funyu (Den-en Chofu University) /Japan

[ABSTRACT] In inclusive childcare, both children with disability and children without are expected to develop mentally as well as physically. ECEC Teacher are apt to seek what they think is "ideal",

Such as children without disability looking after those with, and tend to guide them in that direction. However, it is possible that children can find their own way of involvement without any guidance.

The following case study tells us that.

The three-year-olds were playing with their own handmade spaceship, and among them was child M who needed special care. Child M accidentally broke the window of the space ship. Seeing the other children trying hard to repair the window, child M joined in and started to help.

This is obviously a case where child M built empathy with others. Child M, who was considered poor in term of developing empathy, learned to get along with others by sharing their intention.

3-7 Reconsideration of Torrance's creativity test and trial test I - manifestation of the creativity from the preliminary test-

Kazumi Higuchi (Fukuoka Women's Junior College), Akihisa Indo (Kyushu Lutheran College), Naoko Oji (Akasaka Iumbini Children's Center), Hiroshi Kuriyama (Saga University), Eri Shiraiishi (Nakamura University), Kaoru Choji (Wakayama University), Akira Maemura (Saga University) /Japan

[ABSTRACT] Nir Hindi claims in recent books that the creativity of art has a close connection to scientific research and business activities, and teachers and researchers have always emphasized the importance of creativity education in Art Education. However, even today, creativity research in Art Education is not sufficient. Therefore, we focus on the of

Torrance's Creativity Test, conduct research on 5-6years-old children in Children's Center. This study, together with the results of the preliminary survey, will clarify the characteristics of creativity in children's art expressions. Then, after showing the whole tendency as a scatter diagram from the correlation between the children's developmental research of drawing expression and the creativity test, we consider the daily speech and behavior and the manifestation of the creativity of extracted children, and finally the theory generation about creativity education It aims to.

3-8 Environment of art activities that children create independently

Yoshihiro Katsuki (Shijyonawate Gakuen Junior College) /Japan

[ABSTRACT] I think that it is important to prepare environment that children think for themselves and want to try something.

Also, it is better to prepare materials and tools that children are interested in.

In my art activities, I prepare environment of art activities that children create independently.

We will introduce art environments that I prepare.

3-9 The Expression of Physicality and Molding in Early Childhood

Ryusuke Manabe, Rie Fukuda, Midori Araki (Shoei College of Welfare & Childcare), Genki Shiihashi (Shirayuri University), Toshiharu Tsumura (Shoei Kindergarten) /Japan

[ABSTRACT] In this research, we focused on expressions related to physicality extending from molding related to objects and materials within play during childcare, selected indications corresponding to physicality from the implementation of molding expression activities in a nursery school, and studied four cases. We discovered that when activities which are expressed by making use of materials to relate to things are undertaken in particularly large spaces such as playgrounds or rooftops, expressive play is extended along with physicality. In addition, we were able to confirm from various cases that early childhood expressive activities are comprehensively apparent in independent play, are not limited to activities that make use of materials to relate to things, and that musical expression, verbal expression, and physical expression are activities which are closely connected.

3-10 Communication Style Using Humor Behavior Between Children

Kazuha Irie (Chiba University, Graduate School), Hisae Tomita, Kumiko Koma (Chiba University) /Japan

[ABSTRACT] Children often act humor behavior to get attention of other child during play. The importance of humor behavior in early childhood play has been focused in the past, but as in early childhood, humor behavior of children after entering elementary school is considered to be important from the perspective of child development. This study focuses on humor behaviors that are performed for the purpose of attracting and laughing at the other children. And the purpose of present study was to clarify how those communication style is performed among children. I conducted non - participant observation on 12 children (6 boys: 6 girls) in the 1st and 2nd grade elementary school, and collected cases of these children's humor behavior. Details of the results will be reported on the day.

3-11 Teacher connects threads of children's meaning by reflecting and planning : focusing on dialogic interactions

Chika Inoue (Tokoha University Junior College), Masako Aoyama (Faculty of Education Shizuoka University Kindergarten), Sachiko Suzuki (Shizuoka Eiwa Gakuin University)/Japan

[ABSTRACT] The study investigates what makes enable the dialogic interactions themselves and the moment-to-moment encounters between teachers and children through play in Japanese kindergarten which adult-child ratios are quite big. The observed data were collected in a 4 years old children's group, analyzed with sociocultural perspectives and focused on intersubjectivity. The result shows the teacher assures the space for thinking and negotiate spatiotemporally so that children could play either individually or small groups and chose the place and create it as they imagine where and what they want to be. The children's playing experience itself doesn't complete in one day but lasts several periods. Conversely, the teacher connecting and gather the threads of children's meaning by reflecting and planning even though teacher couldn't interact directly with children on the day. Analysis reveals that not only direct interaction with children but also existence of indirectly invisible practice enables dialogical interaction.

3-12 Behaviors for Conflict Situations Occurred in Play Time -base on episodes of 1-year-old boy K-

Tomomi Hirobe (Toyo Eiwa University) /Japan

[ABSTRACT] The purpose of this study is to clarify early children's communication skills by focusing on behaviors to assert themselves on play time. This study is based on cases extracted from participated observations and a contact book which described by childcare teachers. In these cases, the author focused on behaviors of 1-year-old boy K. K channeled attentions of other children and childcare teachers from what he wanted in conflict situations. K controlled other children and childcare teachers instead of himself. In other words, K negotiated in some situations. For examples, he proposed alternative to other children or childcare teachers, or pointed another space to divert. These cases indicate that negotiations with high communication skills can occur at play time in early children's community.

3-13 Young children's pragmatic context of emotional utterances: Focusing on gender differences

Miho Iwata (Chiba University) /Japan

[ABSTRACT] Social and emotional competence increases in early childhood. In Japan, most children attend kindergarten and learn to play with peers, where they may have many opportunities to establish relationships with peers using emotion-descriptive language in peer play. Several studies have demonstrated that peers play in sex-segregated groups in the preschool years (Leaper, 1994), and girls tend to express their feelings more than boys in play situations (Brody, 1999). Those differences may create gender differences in the pragmatic context of emotional expression using emotion-descriptive language during peer play. However, more a systematic investigation focusing on the differences between boys and girls is required to understand how young Japanese children use emotion-descriptive language in their emotional communications during peer play. In this study, we examined gender differences associated with young children's pragmatic context of emotional utterances in peer play.

3-14 Toddlers' interactive ingenuity in playing with peers: how they continue their play

Airi Okanami (Ochanomizu University) /Japan

[ABSTRACT] Interaction with others is an essential element in Japanese ECEC. This study reveals how toddlers in an early childhood setting interact with peers to continue their play. Ethnographic research was carried out in toddler's classrooms in Japanese children's centre. Ten 1-3-years-olds were observed once a week for six months. Their peer-interactions in play were video recorded with iPad using an observation application. With microscopic analysis of episodes, the findings show how toddlers try to continue their play with peers using their ingenuity in interactions: toddlers try to negotiate and share their playing image and the context by utterance, body movement, and facial expressions. They pay close attention to others' action and reaction, and find the best moment to take action. The findings also suggest that in those interactions by toddlers, not just their play but also their playing relationship was aimed for sustainment.

3-15 Attempts by Students to Get Children and Infants to Take an Interest in Their Community and Their Lives around Them - Using Silk Worms and Cotton That Form Clothing Materials as an Example-

Hiroko Murata, Natsuko Oshiumi, Natsuki Nakaya, Naoki Kusumoto, Ryotarou Murata (Kio University) /Japan

[ABSTRACT] Our laboratory conducts research on natural fibers such as silk and cotton, which are familiar fibers. For about 15 years I have visited nearby nursery schools, kindergartens, and elementary schools with people from the local community and students, and held classes on silkworms and cotton. The purpose of the classes is to teach children and infants about things such as cotton and silk, for which a large number of people were involved with as part of the local industry in the past, as well as to make them aware and interested in the materials of their clothes that they wear on a daily basis. In order to make it easier for children to understand, classes are carried out through the medium of picture cards, paper puppet theater, and apron theater (a teaching method using an apron, sticky tape, and character cutouts) that have been made and devised by students. I expected the children to further deepen their understanding of materials through actually experiencing first-hand the breeding of silkworms and the cultivation of cotton at the same time.

3-16 Mock Letters that appears in children's play and its international comparison.

Masahiro Kuwata (Il Villaggio Dei Bambini), Makoto Izumi (Codomonoart Nursery), Emi Hiraoka (Osaka University United Graduate School) /Japan

[ABSTRACT] Mock letters are well known as a developmental stage of literacy. There are some conditions for mock letters to emerge, and children who have received an education that focused on memorization from an early age; skip mock letters in their literacy development. We consider that, for mock letters to emerge, children need an environment that supports children's self-directed play, and especially, the freedom to draw what they want as a part of play. From the comparison of children's mock letters in different language environments, we can clearly see how children are actively understanding and immersing themselves within their local writings. Therefore, we would like to propose the importance of child-directed play in literacy development.

3-17 The emergence of "Ushirometasa(guilty)" in infancy — From the perspective of "deception" —

Sayoko Fukatsu, Kyoko Iwatate (Tokyo Gakugei University) /Japan

[ABSTRACT] This study argues that infant's expressions of awkwardness and conflict after being cautioned by caregivers following rule breaking are expressions of "Ushirometasa (guilty)". We seek to clarify its characteristics and formation process through the use of deception practices about deviations from classroom rules, based on an observation of the daily lives of 9–17-month-old infants attending a day-care center and that of the caregivers. Infants were observed breaking rules while checking to see if their caregivers were watching. Infant's awareness of their actions as "doing something bad" signifies the emergence of normative consciousness. It seems likely that, through caregivers taking on the role of communicating that someone else's feelings have been sacrificed by these actions, "Ushirometasa" emerges, becoming an incentive for correct behavior.

3-18 Exploration of STEAM framework through 'light table' with young children and teachers

Kanako Tsuchiya, Ikuko Gyobu, Akemi Miyasato, Shoka Utsumi, Hiroe Yamazaki (Ochanomizu University) /Japan

[ABSTRACT] Our poster session begins with the presentation to introduce STEAM (Science, Technology, Engineering, Art and Math) framework and its significance in early learning. STEAM is recognized as novel concept in early childhood education that added A, Art to STEM framework. Through 'light table' exploratory play observation, we would like to share how children explored the beauty of nature on "light table", how teachers recognized children's exploration and responded. Our presentation will include; 1) brief introduction of STEAM 2) exploratory workshop with 'light table' 3) observation analysis and result of workshop and 4) discussion and further understanding on STEAM in young children. Part of current research work was funded by Ministry of Economy, Trade and Industry's "Learning Innovation" Project.

3-19 How Infants Take the First Step: Walking Initiation as Active Play and Environmental Resources Around Them

Chihiro Nishio, Akito Miura (Waseda University), Kazutoshi Kudo (The University of Tokyo) /Japan

[ABSTRACT] Mastering independent walking is an important motor development for infants owing to its fundamental role in many daily tasks throughout life. It enables infants to handle and carry objects, encourages them to engage in social interaction, and affects cognitive and linguistic development. The onset of independent walking changes what infants can do dramatically. While most experimental studies on independent walking thus far have focused on the acquisition of gait stability and the kinematic changes involved, little attention has been given to the process of how novice walkers manage to take their first step while maintaining balance. This study investigates how infants, through a kind of active and explorative play, initiate walking in the natural environment by adjusting their posture in relation to the local environmental resources such as the furniture or people around them.

3-20 Exploratory actions for street environment in Children's walking

Hiroe Yamazaki (Ochanomizu University) /Japan

[ABSTRACT] At Kodomo-ens (certified ECEC center) and nursery schools in Japanese urban areas, taking children for a walk around the neighborhood is one of the daily activities. This is considered as an important outdoor childcare practice despite the presence or absence of ample playground. Locomotion to a destination such as a park is obviously important in terms of the amount of activity. In addition, various characteristics of the street environment may be the resources of perceptual and cognitive development. In this study, field work was conducted on the walks around the university campus by children of a Kodomo-en to ascertain environmental aspects that they pay attention to. Children's exploratory actions categorized on the basis of changes in step, posture, and hand contact. They were sensitive to different aspects of the street environment. The microscopic nature of the environment found by children may reconfirm the potential importance of outdoor activities.

3-21 A research on user evaluation of electric toy robots for assessing the potential of using robots as human companions

Hiromi Ban (Nagaoka University of Technology), Junko Okubo (Fukuoka Prefectural University), Eerikal Indusekar (Nagaoka University of Technology) /Japan

[ABSTRACT] In recent years, research has advanced on the use of robots to provide healing effects in many aspects such as voice and touch. This study examines various evaluations that were made on different electric toy robots in order to determine how to introduce such robots effectively in early childhood education. The target of this study is 12 types of robots with 20 or more customer reviews, which rank within the top 100 selling electric toy robot rankings on Amazon.co.jp as of January 2019. For each robot, not only the "recommendation level" judged by the customer reviewer but also his/her comment is considered. These comments are analyzed using text mining software.

POSTER PRESENTATIONS 4 / Category : Professional Development

4-1 The specialization of child-care providers in child-rearing in children's homes as determined from child-development students:How children's homes cooperate with the nursery, the kindergarten, and the certified center for early childhood education & care

Hiroko Ohmori (Bukkyo University), Wako Asato (Kyoto University), Osamu Nishiyama (Okayama University), Shintaro Mizoguchi (Takatsukasa Children's House), Chiaki Osaki (St.Mary's College, Nagoya) /Japan

[ABSTRACT] The child-care providers in children's homes play an important role in child-rearing in Japan. The purpose of this research was to clarify the child-care specialization of child-care providers in children's homes. Specifically, a child-care provider in a children's home gave a lecture to child-development students. The lecture contents concerned the quality of facilities of the children's home and their role, and this lecture generated numerous exchanges. After quantitative content analysis of the exchanges using KH Coder software, the students' exchanges predominantly used words with a strong co-occurrence relationship, such as "area," "wide," "age," "I concern," "I think," and "education and care". These words were strongly indicated in the exchanges after the special lecture. And from this data, the child-rearing state of the child-care providers in the children's homes was determined.

4-2 Empirical Study of an Immersion Class at a Japanese Kindergarten with Focus on the Environment

Maiko Nakamura (Tsurukawa College), Marie Yano (Tsurukawa Kindergarten), Tomoko Hashimoto (Meiji University Graduate School) /Japan

[ABSTRACT] As English education officially starts to begin at a younger age in elementary school, many ECEC facilities have started to introduce English into their curriculum. However, this is often taught once a week for a couple of hours which is not long enough to acquire English in an EFL environment. The ideal situation would be an immersion class where children are naturally exposed to English longer. This study attempted to unveil important environmental factors which may need to be considered at newly founded ECEC immersion classes in Japan. Results suggested three factors. First, the need for mutual understanding between practitioners and guardians. Second, the necessity to develop a collaborative relationship between Japanese and foreign ECEC practitioners to make sure each understands how they can contribute. Lastly, efficient use of external specialists for periodic consultation. It was implied that fulfilling these three factors may help create a high quality learning environment.

4-3 The effects of nursery teachers' achievement goal orientation and job stressors on mental and physical stress

Takuma Kimura, Naoyuki Takeda (Nagoya Management Junior College) /Japan

[ABSTRACT] Recently, in Japan, due to various influences, the lack of people who work as Nursery teachers has become a social problem. Nursery teachers are also required to support children according to their individual characteristics at the period of rapid growth and development of the child, and support from parents, and working conditions are not as good as other types of work. In this study, The Brief Job Stress Questionnaire and the awareness of nursery teachers' duties and work environment were conducted for 104 nursery teachers (4 males and 100 females) in public nursery schools in A prefecture. This study referred to the structural hypothesis model of factors related to the nursery teacher stressors of Ikeda et al. (2012). The purpose of this study is to clarify the effects of achievement goal orientation and job stressors on the mental and physical stresses of nursery teachers after six months.

4-4 What do teachers see in the classroom?: A study on the professional development of early childhood teachers' eye-tracking

Takako Noguchi (Tokyo Kasei University), Makiko Tomita, Shu Kobayashi (SMS Co., Ltd.) /Japan

[ABSTRACT] The purpose of this study was to reveal, based on eye-tracking measurement data, early childhood teachers' consciousness of their classroom environments, their implicit knowledge of how to act, and the individual differences between their methods of practice. Five early childhood teachers were asked to participate in an interview and to wear Tobii Pro

Glasses 2 to measure their eye-tracking during classroom practice. Two researchers took part in the classroom activities—one observing and videotaping the interactions between teachers and children and one monitoring and recording teachers' eye-tracking. The main findings were as follows. Teachers' eye-tracking was very different depending on the situation—for example, free play, instructing the class, etc.—and individual differences were evident. Some teachers were always conscious of the whole classroom while interacting with each child, especially among teachers with more than ten years of experience. Veteran teachers realized their positions and verbalized why they were there. This research also suggested feasibilities and difficulties for using eye-trackers in the early childhood care and education settings.

4-5 The relationship between a childcare taker and parents learning in German childcare

Kaori Shuzui (Kyoritsu Women's University), Haruna Yoshikawa (Saitama University) /Japan

[ABSTRACT] In German childcare, they focus on break-in childcare. The method of break-in childcare is very different from Japanese childcare. The purpose of this study is to clarify the method of break-in childcare in German, to compare with the method of break-in childcare in Japan, and to clarify the point that Japanese childcare should learn. The Study method is the following three, 1)Describing the characteristics of break-in childcare performed Germany and Japan, 2)considering the difference between the concept and method of each break-in childcare, 3)identifying the task of Japanese break-in childcare. In 2) and3) above, we conducted qualitative analysis from the point of view of phenomenology. As a result, it turned out that Japanese childcare takers don't want to put their parents in childcare and that they think that family and childcare should be separated and cooperate. German childcare takers believe that parents should be invited to childcare and that they should work together while understanding each other.

4-6 Teacher's training system with teaching material for ESD made by the bottom of PET plastic bottle

Mie Oba (Fukuyama City University) /Japan

[ABSTRACT] This study clarifies the structure of teacher's training system with teaching material for ESD made by PET plastic bottles. Inspired by a traditional dance of Fukuyama, I tried to create a playing tool for young children and teachers, reducing and recycling waste, to respect our traditional culture. Finally the bottom of plastic bottle was found as a good instrument to beat with a joyful sound. Setting an elastic and colorful vinyl tape, children can make this lightweight and safe instrument themselves and they love it. Students of Fukuyama City University, future teachers of ECEC, learn the organization of activities and child's development, collecting plastic bottles for off-campus activities. It functions as a training resource to practice ESD for in-service training for teachers and service-learning. A sure cycle of plastic bottles is structured collaborating with Municipal offices and citizens, learning field for children and ECEC teachers is well organized in Fukuyama.

4-7 Transition Issues in Japanese ECEC Professional Development

Tsubasa Masuda (Jin-ai Women's College) /Japan

[ABSTRACT] Transition are inevitable in professional development. When high school students start their study about ECEC at college, they almost come to recognize a transition from dependent learning to self-directed learning. In addition, when college students enter the work place, they must make a transition from an academic to a professional role. We should aim for acquiring a highly expertise in the first place, actually, however, misunderstanding are widespread, because the image of ECEC teacher jobs is not shared. For example, going on to study just because "I like children". Or If ECEC teachers have a bright smile and energy, they can get over anything. And then, these misunderstandings make the transition in professional development more difficult. Therefore, it will not be possible to achieve high quality professional development without bridging these GAPS and overcoming the specific issues associated with transition.

4-8 Training Practices to Connect Food and Nature for Pre-service Early Childhood Educators

Mika Tominaga, Mayumi Jige, Michiko Inoue (Osaka Ohtani University) /Japan

[ABSTRACT] Young children's experiences with nature are regarded as decreasing in recent years. Nature Education course in School of Early Childhood of Osaka Ohtani University has nine specialized subjects that provide many opportunities to learn about nature for the pre-service early childhood educators. The aim is to train early childhood educators so that they can spread awareness among young children about the relationship between human and nature. Knowledge about this relationship is crucial for education of sustainability, and therefore, three of the nine subjects incorporate activities that connect cultivation, food and outdoor cooking. Since there is also a lack of experience with nature in the students' lives, these opportunities enable students to realize that nature is the prerequisite for food, human is a part of the food chain, food is produced by the labors of others, and to spend time outdoors is pleasant experience.

4-9 Consciousness of 1- to 2-year-old Children's' Rebellious Acts: A Comparison between Nursery School Teachers and Parents based on a Video-cued Multivocal Ethnographic Approach

Chie Yamada (Uekusa Gakuen University) /Japan

[ABSTRACT] The study investigated nursery-school teachers' and parents' awareness of rebellious acts committed by 1- to 2-year-old children and concerned the expertise of teachers. Teachers in charge of 1- to 2-year-old children and the children's parents discussed rebellious acts in separate, small groups after watching two videos. I examined their narratives thereof based on video-cued multi-vocal ethnography.

The following results emerged: A plurality (34.4%) of teachers' narratives were "self-reflective" and centered on "educational policy". The videos reminded them of their professional experiences, and their reactions were based on educational policies regarding children's acts of rebellion. A plurality of parents (30.2%) provided narratives that reflected their "perplexity and confusion" as they recalled their feelings about their difficulty dealing with their children's rebellious acts. A plurality (68.8%) of teachers' narratives of consciousness were "self-reflective" and "educational policy". Teachers reflected on their practice and had a perspective on child development.

4-10 Developing ECEC professionals in local government in cooperation with universities : An analysis of special support education training

Rie Yamamoto, Gaku Miyama (Aichi Prefectural University) /Japan

[ABSTRACT] In the field of childcare, it is necessary to work with schools and various institutions to determine solutions to problems concerning children and families. Since 2013, the Aichi Prefectural University's Research Institute of Human Development has been carrying out a "Special Support Education Leader Training Course," jointly with the Seto City School Education Division and the Children and Family Division (Development Support Office). Altogether, about 20 teachers who belong to nursery school, Kindergarten, elementary school, junior high school, and special support school have participated continuously for two to three years in lectures, exercises, and practical training in other facilities about eight times a year. We will consider how to train these professionals, who can practice special support education and childcare in each local government in the future by examining the management system, cooperation method, results, and challenges faced during six years.

4-11 An empowerment program for improving childcare workers' specialization in a infant home

Masako Ishii (Showa women's University), Ai Miyake, Hitomi Fukui, (Baby home attached to the Japanese Red Cross Medical Center), Fumiko Kazahaya (Research Center for Advanced Science and Technology, The University of Tokyo) /Japan

[ABSTRACT] In Japan, while the declining birth rate is rapidly advancing, the family problem of raising children is becoming more complicated. In accordance with the situation, the specialties required from daycare teachers are now not just limited to dealing with children, but also becoming wider and more advanced. For example infant clinics, reported in this report, are attached to main hospitals in different areas and the facilities often have to handle many cases with serious backgrounds, including children who need special medical care. Therefore, concepts of medical responses in the facilities are more focused on protecting children's lives and health. In order to fulfill a lifestyle of children and develop their own initiative and self-confidence, we implemented a training program to enable childcare workers to demonstrate their own expertise proactively. We report contents and results of the program with emphasis on an "empowerment" for improving nursery teachers' specialization.

4-12 Efforts of teachers in the playground at the Center for Early Childhood Education and Care

Moe Kimura (Bunkyo-ku Municipal Ochanomizu University Center for Early Childhood Education and Care) /Japan

[ABSTRACT] This study examines the present situation of the Center for Early Childhood Education and Care in Tokyo and the efforts of the teachers including myself. This study focuses on a mixed-age class consisting of 0~5 years old at the center. The center has a only small playground, so teachers make various efforts. For example, we created a second playground at the corner of the campus of the affiliated university. We can access the playground easily and it offers rich environment for children's play. Also, we decided to allocate certain time for each class to use the playground spaciously. We always keep in mind the idea of emphasizing the child-centered play at any time. In order to realize that, we, teachers, communicate closely and expand possibility. In the presentation, I'm going to illustrate visually the practice by showing specific episodes.

4-13 A study of strategy for students to acquire the ability to reflect on Childcare

Hidemi Yamada (Shijonawate Gakuen Junior College) /Japan

[ABSTRACT] The ability to reflect on childcare practice is essential to the improvement of its quality. To simulate that skill among our students and allow them to acquire it fully, they were asked to conduct an empirical study in their second-year teaching practice. The students had to come up with a relevant issue, and they were then directed to use examples from their childcare observations to discuss the issue and reach a conclusion. Putting their experiences and observed examples into writing in this way enabled students to deepen their understanding and arrive at their own, albeit naive, conclusions, via discussion. The issues formulated by the students mostly related to supporting kindergarten professionals, with many of the students devising strategies for engaging children in activities. The support strategies suggested by the students will be reported at the time of announcement.

4-14 How Child Carers are Changing Beliefs on Their Own Practices: A study on Visual Narrative.

Sosuke Yokoyama (Tokyo City University), Ryuichi Sekiyama (Moana Kids Outdoor Education School) /Japan

[ABSTRACT] A suggestion to improve quality of child care practices need to study child carer's beliefs about their own practices. Because, beliefs have influence on practices. This issue proposed a question about child carer's beliefs on their own practices. These researches inclined to analyze narrative resources based on the language use. But in this study, we proposed to study child carer's beliefs on their own practices through to analyze image drawings based on a methodology of visual narrative. As a result of analyze 41 image drawings and comment on drawings made by fourteen child carers, we lead a conclusion that as child carer got experience, they believe child and carer are equally as a human. For example, one child carer change his belief from "teacher-centered belief" to "equality belief", and other child carer change her belief from "child-centered belief" to "equality belief".

4-15 Using gaze analysis to develop a reflective approach for improving observation skills of childcare teachers

Ken Nakazawa (University of Aizu), Takuya Watanabe (Junior College of Aizu), Yasuhiro Hisada (University of Aizu), Yuki Nakazawa (Minamiwakaba ECEC), Yasuyuki Nishihara (Niigata University of Health and Welfare) /Japan

[ABSTRACT] This research study aims to initiate discussions on ways to improve the observation skills of early childcare teachers by examining 'their gaze while teaching' and understanding 'how they reflect upon their teaching methods'. The study also aims to understand childcare teachers' inputs in teaching practices. The study participants included novice and veteran female childcare teachers. Data were collected through observation and semi-structured interviews. The gaze points of the study participants were measured using a data logger type eye-tracking device. Findings from the study revealed differences in the approaches of veteran and novice teachers as well as their teaching methods. The veteran teacher has a broad perspective and uses parallel treatment and group focus as teaching strategies. The novice teacher applies the framework corresponding to the environment configuration, but while reflecting, she is able to make few links between the framework and her action of improving the plan.

4-16 Forest kindergarten in Germany and watching-helping behavior of its teachers

Kaori Omichi (Hiroshima University Graduate School), /Japan

[ABSTRACT] This research aimed to highlight and examine the helping behavior of German Waldkindergarten (forest kindergarten) teachers who emphasize the natural environment. For that purpose, the research started with a survey of the education implementation system at a Waldkindergarten and the helping behavior of its teachers looking after children. Waldkindergartens in Germany are traditionally subsidized by municipal governments for their widely recognized value.

Helping behavior of the teachers for the children was assessed in seven categories: no intervention, watching, acceptance, collaboration, suggestion, guidance, and leading. Indications were that the most prominent among the seven elements of helping behavior was "watching".

4-17 A Review of Sozo Kurahashi's Philosophy as Seen in the Context of Current ECEC Research: Revisiting "Sodateno Kokoro (The Nurturing Mind)"

Ryutaro Nishi (Notre Dame Seishin University), Himeka Matsushita (Kyoto University) /Japan

[ABSTRACT] Sozo Kurahashi (1882?1955) is one of the most prominent pioneers in Early Childhood Education and Care (ECEC) in Japan. His philosophy has had great influence in Japan, but virtually no reviews or considerations of it have been published outside Japan. This article presents a review of Kurahashi's philosophy, and shows its relevance to the context of current ECEC research.

First, the life and work of Kurahashi are briefly summarized to show how his experience as a kindergarten principal enabled him to integrate his theory and practice. While he wrote theoretical books, his ECEC philosophy is better expressed in his poetic essays, especially in "Sodateno Kokoro (The Nurturing Mind)." His philosophy is characterized by a deep respect for children, valuing the naturalness of children's lives, mutual and empathic relationships between the practitioner and the child, and heartfelt reflections of the practitioner. Its relevance to current international ECEC research practices which emphasize caring relationships is discussed.

4-18 Study on changes in perspective of nursery teachers towards Warabe-uta: A questionnaire survey

Mihoko Motooka (Hiroshima Cosmopolitan University) /Japan

[ABSTRACT] The purpose of this study is to demonstrate the change in the attitude of nursery teachers towards Warabe-uta after training and outlines the training process. Warabe-uta are traditional Japanese children's songs that were introduced to formal childcare in the 1960s. Although previous studies have discussed the importance of training considering that physical awareness of Warabe-uta leads to specialization of skills, changes in teachers' awareness through the training have not been explored. We analyzed data collected through the questionnaire-based survey conducted before and after the training. The fixed image of Warabe-uta was greatly transformed after the training, and it was shown to promote development of both mind and body. In the survey conducted after the training, a number of answers that were provided in the questionnaire could be interpreted in a positive manner. It can be concluded that both theory and practice are necessary in Warabe-uta training.

4-19 Research on Qualities of Nursery Teachers Required in Multicultural Childcare

Ena Nemoto (Chiba University Graduate School), Hisae Tomita, Kumiko Koma (Chiba University) /Japan

[ABSTRACT] This study is a preliminary survey of a questionnaire survey to clarify the qualities of nursery teachers required for multicultural childcare.

In recent years, the number of infants with connections to foreign countries has increased at childcare sites, and multiculturalization has progressed. From such a present situation, multicultural childcare is advocated at a childcare sites.

Therefore, I will clarify the relationship between multicultural contact for nursery teachers and thoughts on childcare of infants with connections to foreign countries, receptive attitudes toward multicultural. And I made a questionnaire for the purpose of considering the qualities of nursery teachers required in multicultural childcare.

The contents of the questionnaire are items related to childcare of infants with connections to foreign countries, and the receptive attitudes toward different cultures scale. I will report the result of having carried out questionnaire survey for 13 nursery teachers on the day.

4-20 A Study of photographs to share children's development

Daisuke Tajima (Wayo Women's University), Takuya Koga (Chiba Meitoku College) /Japan

[ABSTRACT] In order to share children's development, various records using photographs are being conducted around the world. The advantage of photographs is the ease of sharing the scene and atmosphere. In addition, thinking back and verbalizing the reasons of choosing photographs could lead to understanding and childcare reflection. Among them, it is reported that photographers often take scenes that they feel "interesting" when focusing on "shooting". What kind of thing is "interesting" to feel in childcare? What kind of viewpoint is "interesting" for childcare teachers? The analysis will be conducted focusing on the meaning and content.

4-21 Preschools and childcare centers that provide a comfortable workplace and growth opportunities for staff

Minako Nakajima (Ibaraki Christian University), Naomi Kaminaga (Ibaraki University), Yuki Kimura (Tokiwa Junior College) /Japan

[ABSTRACT] Providing a comfortable workplace and professional development opportunities for staff is an important consideration for preschools and childcare centers. This study attempts to assess factors associated with valuable management of staff. Semi-structured interviews were conducted with 18 directors of preschools and childcare centers throughout Japan, from Hokkaido to Okinawa. We analyzed these interview records using the Modified Grounded Theory Approach (M-GTA). The M-GTA provided a structure and framework for explaining the valuable management of preschools and childcare centers. As a result, 5 categories and 20 concepts were generated. The categories were as follows: (1) promotions for staff's growth, (2) support to promote learning for staff, (3) providing a comfortable workplace, (4) work style reforms, and (5) the attitude of directors.

4-22 What do you learn through the experience of junior high school students playing with infants in childcare?

Haruna Yoshikawa (Saitama University), Kaori Shuzui (Kyoritsu Women's University) /Japan

[ABSTRACT] These days, junior high school students grow up with fewer siblings in the nuclear family, so are weak at "nurturing" people by building relationships with others.

For the purpose of learning to "nurture" in a class to learn "human development and childcare" in home economics education for the third grade of junior high school students, the student experiences playing with infants and examined what they learn. Method: As a prior study, they observed infants in the previous year and learned about the basic knowledge of development and subjects of interest. In this paper, in 2018, junior high school students play with young children in an experiential learning experience, how they talk to young children, and what they noticed and felt at the school during the practice. I analyzed the impression description of junior high school students.

Analyzed by two researchers) Result: A group of four to five junior high school students, and a group of seven to eight children, and each group was interned. Students learned the following four points through the practice. (1) It is important to make eye contact when talking to young children (2) Young children are also independent of their own opinions (3) Even if they are infants, they think they can do it themselves, or they want to do it by themselves (4) they can enjoy it together in the play.

As described above, it was a chance for junior high school students to realize the importance of putting a voice to the child's condition by having an experience of playing with children in the nursery.

4-23 Group work to enjoy nursing more and art teacher training

Chizuko Ikemura (Mie infant association of art), Akiko Kijima, Mitsue Nakamura, Kazumi Fujita, Misako Umemoto (Day care art committee of Ukyo ward Kyoto city) /Japan

[ABSTRACT] I was asked the monthly lecturer of the art committee of 30 nursery schools which is in Ukyo Ward, Kyoto City.

In the first session, the tension between the first meeting members was eased with "Picture message game".

In each committee. I mentioned my 38 years of passionate episodes with our children and my passion for art activities.

We made "Handkerchief Dolls and Hats", and "Makeover Cards" with the teachers, at that time, I told them the importance of having the teachers make the teaching materials themselves. I was impressed by individual ideas and group cooperation.

There are many impressions that the conversation became active because of the group announcement every time and study was done happily. In the art committee, it seems that a sense of solidarity and a sense of mission to childcare have increased.

This growing group work of daycare teachers will bring many dreams to children!

4-24 A Study of "the Vocational Attractiveness of Childcare and Education" Workshop by Kindergarten and Nursery School Teachers

Nobuko Katayama (St. Mary's College, Nagoya), Reiko Ojima, Sayaka Shimamori (Ohkagakuen University), Hiromi Aoyama (Nagoya College) /Japan

[ABSTRACT] The effects of "the attractiveness of childcare and education" workshop for the kindergarten and the nursery school teachers and students majoring in early childhood education were examined. In the workshop, teachers discussed and conveyed vocational attractiveness to the students through various ways. They conducted open description-style questionnaires before and after the workshop, which showed that the teachers' awareness of their profession's attractiveness increased after the workshop: they positively recognized their vital roles in supporting children's development and their awareness of their own personal growth. The participating students considered personal growth and collegial cooperation were the attractive points of the childcare and education profession. In conclusion, this workshop created benefits for both teachers and students. It enabled the teachers to reflect on their profession. It also provided the students with specific ideas involving the meaning of being in this profession, which could help facilitate a smooth transition to their professional future.

4-25 Rethinking of Education for 0-2 Year-olds in Japanese ECEC; Suggestions by Education of City of Pistoia, Italy

Miho Mukai (Jumonji University), Miwako Hoshi (Former Jumonji University), Nobuko Kamigaichi (Jumonji University) /Japan

[ABSTRACT] There is a recent worldwide recognition that qualified education for 0-2 year-olds at ECEC is one of critical factors to ensure future development of children. However, Japanese ECEC has been relatively inclined to "care" rather than "education" for children under three. The aim of our study is to reconsider conception of Japanese education at these ages. We had an interview study to practitioners of some daycare centers. For this, we used data of our case study that we had conducted at City of Pistoia (Italy), where they have their own high-quality education program. We presented to practitioners characteristic features of education of Pistoia as well as some examples of routine and ritual activities in its daycare centers. Then we facilitated discussion among practitioners. They deepened their reflections on conception and their practices of education. Their narratives were analyzed to reconsider how to improve education in ECEC for youngest children.

4-26 Create Links between practice and theory: students' learning as interns in a pre-service education course in Early Year Education and Care.

Miki Nishimura, Ryosyu Tomioka, Noriko Kawakita, Daisuke Watanabe (Otani University) /Japan

[ABSTRACT] This quantitative and qualitative research attempts to understand the processes of students' getting the links between practice and theory in early year education and care. It is supposed to be difficult for students to know the practitioners' intentions without the experiences in the fields. It, however, requires students to have only total 10 weeks of practice-based training in working with children to become qualified practitioners in Japan, and even the opportunities are usually set on the latter half of the 4-or 2-year course after the knowledge-based learning. As planning our new 4-year foundation course in EYE and Care in Otani University, we set the internship once a week in the 1.5 years before the legally required placements. It aims to help students to learn in spirals between two sites; the university and the fields. This interim report is to draw the pictures of the students learning relating theory and practice.

4-27 Integrating handicapped child-care with elder-care: child-care provider cases with integrated facilities

Chiaki Osaki (St.Mary's College, Nagoya), Wako Asato (Kyoto University), Hiroko Ohmori (Bukkyo University) /Japan
[ABSTRACT] Japanese society historically used mutual aid between homes to provide child-care and elder-care. However, Japanese society today has a fragile foundation of cooperation in child-care and elder-care because of several changes, such as a lower birthrate, more nuclear families, and increased community urbanization. Therefore, the change in elder-care today (2018) is indicating a need to promote a societal symbiosis between child-care and elder-care. In particular, handicapped children and senior citizens are both more easily supported with facility integration. This paper researches the lives of some local residents and diverse actors in participating areas, and the job rewards of child-care providers, to support the case for facility integration in child-care and elder-care. In addition, this paper determines future possible problems in child-care provider education regarding such facility integration.

4-28 Professional Development for Early Childhood Education and Care Teachers in Japan: Through the Follow-up Survey of "HOIKU-KI" to Activate the Workplace and Create a Culture of Learning

Atsuko Takao (Doho University) /Japan

[ABSTRACT] This paper discusses a method of professional development for early childhood educators. HOIKU-KI (knowledge-intensive staff innovation) is an on-the-job-training (OJT) method. In this research, regarding the possibility of nurturing human resources for inclusive childcare practitioners, the effects of this method and the challenges for sustaining this method are clarified through the development of "HOIKU-KI" as a means to revitalize the workplace I made it. The application effect of HOIKU-KI was demonstrated through three trials and follow-up visits. However, the demonstration is synchronous and is limited to the fact that childcare KI is applicable to childcare work and that it is effective. Therefore, based on these issues, we are continuing ongoing research on the growth of nursery teachers. In this paper, we report the results through the follow-up study of the workplace visited in the trial.

4-29 The influence on Students from Studying about Support for Infants and Parents

Tamana Sesekura (Kyoto Women's University, Graduate School) , Ayako Ooe (Kyoto Women' s University) /Japan

[ABSTRACT] Since 2016 we have been offering support to infants and parents in our department. Especially, my seminar students have had a number of experiences and studies related to the subject. Including: safe and comfortable in campus environmental assessment, toy choice, preparation for setting up a room from scratch, planning and practice for small group support programs, and studying it as graduation research from view point of ECEC. At the beginning of the seminar the students wished to work for a general company on graduation. However, all the students found some work related to ECEC on completion of the course. They now have much deeper interest in and a deeper understanding of the support needed for infants and parents.

I will report about our program for supporting infants and parents, and the process of the student development.

4-30 Learning process of first year experience in ECEC teacher training school—Focusing on ECEC practical training at Nintei-kodomoen—

Tomomi Naito (Den-en Chofu University) /Japan

[ABSTRACT] The purpose of this research is to clarify the learning process of ECEC students (Pre-ECEC teachers) through the first year experience of ECEC practical training at Nintei-kodomoen(type of combined day-care center and kindergarten).

This practical training at Nintei-kodomoen is placed earlier than regular practical training at kindergarten and nursery school. The main purpose of this entry program is to provide the ECEC students with opportunities of playing and enjoying with children. All first year students experience this program twice a year and then hold a free-style reflection conference to share their first ECEC experiences and leaning.

This research has revealed how ECEC students learn the life of children, role of teachers and ECEC environments. First year experience of ECEC students is connected with the teacher's beliefs and a basic-attitude toward ECEC.

4-31 A study of teacher's assessment and review childcare by using photographs

Takuya Koga (Chiba Meitoku College), Daisuke Tajima (Wayo Women's University) /Japan

[ABSTRACT] To discuss the quality of childcare, it is difficult to prove the improvement of child understanding and the quality of childcare numerically. However, if teachers in each kindergarten and nursery make their own assessment and review, which is reflected in the childcare plan, it may be said that they are doing organized evaluation of childcare, indicated in the kindergarten teaching point or the nursery school childcare guidelines. Also, it can be seen that building up those process would improve the quality of childcare. The perspectives of childcare and the process of assessment could be the important key points. We will discuss the photos taken by the teacher and consider changes in viewpoints and perspectives, how childcare is considered and how they are talking.

4-32 Effects and Issues of Internship in the training course for early childhood education and care

Satoko Seki (Kamata Childcare Vocational School) /Japan

[ABSTRACT] The purpose of this presentation is to report the impact of internship in the training course for early childhood education and care. In Japanese society, we have a big problem of the children on the waiting list for nursery schools. Although the importance of early childhood education and care has begun to be recognized, quality and quantity of the students aim to be nursery school teachers is not meeting the needs of the society. It is significant to enhance motivation of the students to be a nursery school teacher and to improve ambition for expertise. Our year- long internship program at the kindergarten provides each student teacher opportunities to build bonds with the children and to enjoy observing their process of development through the year. It also provides chances to integrate leaning at the training school with the practice at kindergarten and thus enable students to deepen their understanding.

4-33 Three-year-olds class teachers Professionalism and its development in Kodomoen in Japan

Sachiko Kitano (Kobe University), Hiromi Tsuji (Osaka Shoin Women's University) /Japan

[ABSTRACT] Kodomoen is a recently organized center from 2015, which is officially considered as a child welfare institution and a school at the same time. As the number of children enrolled in Kodomoen increase, transition program for 3-year-olds class become new issue and professional development for practitioners to create smooth transition for children from family, center based ECCE institution, and family day care settings.

In order to consider the professional development for 3-year-olds class practitioners in Kodomoen, observation and interview were made at 8 settings and to 10 Kodomoen's teachers, and also questioners were made for 1195 3-year-olds children.

The research suggests that noticing about the unique characteristics of classes with children with more tolerance, teachers of 3-year-olds classes needs to assess more about family backgrounds, provide more personalized care with understanding huge gap between children's achievement of life skills and expression of objective self, and play experience.

4-34 About the way of the continuity of the childminder training and the career up

Hiroaki Sono (J.F.Oberlin University) /Japan

[ABSTRACT] For the improvement of the quality of the childcare, improvement of the quality of the childminder as the employment is essential. When I complete a training school and got a childcare job, minimum ability as the employment is found. Furthermore, for the career up, the later training is demanded. I think that it improves the quality of the childminder that the career up training is tied to this training course effectively. Therefore, based on a curriculum of the childcare of the manuscript, I studied the way of the continuity of the training and the career up training by the investigation to the childcare center.

4-35 Children's causal inference abilities during pronoun comprehension: How integration of gesture and speech information

Chiu Hua Huang (Asia University) /Taiwan

[ABSTRACT] Causal inferences are key abilities for the development of inference ability. This study explores whether children's causal inference during pronoun comprehension is affected by gesture and speech information. In the video narrations, each narration had two sentences describing two characters engage in an event in the first sentence, and a consequence event in the second. The speaker produced gestures consistent with pronoun refer to the correct antecedent. Results show that the older (5-6 years of age) but not younger (4 year of age) children integrate gesture and speech information into causal inference during pronoun comprehension. Interestingly, we further analyze older children, the accuracy for causal inference during pronoun comprehension was better than younger children. This study concludes with suggestions for pronoun inference strategy instruction implications and teacher education training programs.

4-36 Early childhood school best practices on bilingual proficiency in Thailand

Methavee Tunwattanapong, Nantarat Charoenkul, Pruet Siribanpitak (Chulalongkorn University) /Thailand

[ABSTRACT] Brofenrenner (1979) proposed that human development shows in a nested set of systems. These systems involve cultural, social, economic, political elements, and psychological aspects. They can either nurture or suppress the optimal development process. Communication through language is the primary method by which humans develop. It is well documented that a child's language-learning abilities decline rapidly with age (Newport, 1990). This research aims to explore the "best practices" in early childhood schools and promote bilingual proficiency in Thailand. Qualitative data was collected from school visits and in-depth interviews with 4 school administrators and 24 teachers. Observational data was collected from language and cultural beliefs, English speaking ability and classroom composition, analyzed by using content analysis. The study results indicated that teachers used linguistically responsive practices to encourage the improvement of student bilingual proficiency, both in the schools and by providing assignments to be completed at home by the students.

4-37 The effect of informal study networks and emotional networks on GPA and teacher's characteristics of pre-service kindergarten teacher

Seenyoung Park (Bucheon University) /Republic of Korea

[ABSTRACT] Purpose of this study identifies effects of informal study networks and emotional networks of pre-service kindergarten teachers on GPA and teachers' characteristics. For this purpose, 72 students in 3 classes, majoring early childhood education in B University in Korea, participated. As a result, density of every classes' networks tended to be very low because of limited linkages between students. Each networks have several sub-networks which influence on low centralization of networks except one class who have classes in evening time so that students have not enough time to spend together. The higher closeness centrality of support networks for studying is, the higher GPA is. That is, it is possible to improve the students' teaching capabilities by increasing the number of meeting with pre-service kindergarten teachers in the network focusing on students who have high closeness centrality of support networks for studying and maintaining the network for a long time. Personal variables do not have meaningful impact on teachers' characteristics.

POSTER PRESENTATIONS 5 / Category : Diversity of ESD

5-1 The plum tree shed tears. Under the environmental radioactive pollution caused by FUKUSHIMA nuclear catastrophe, our kindergarten teachers had been walking closer to the children.

Keiko Ishigaki, Nobuko Kato, Yukiko Uchibaba, Kaori Watanabe, Misaki Takeda, Masahiro Ishigaki (Sendai Baptist Kindergarten) /Japan

[ABSTRACT] Our kindergarten is located within 90km from the nuclear plant. After March 11, we had several limitations as we took care of children under the radioactive contamination. The fruit tree in our playground produced fruit for the first time after the nuclear disaster. This is a record of the ways teachers and children responded sincerely to the blessings of nature.

5-2 Extracurricular hours in education and care: Toward the development of early childhood education and care center curriculum that is open to the community and society

Shoka Utsumi, Akemi Miyasato, Ikuko Gyobu, Hiroe Yamazaki (Ochanomizu University) /Japan

[ABSTRACT] Kodomo-en (nintei kodomo-en; certified ECEC center) has different arrival and departure times for children depending on the working and living situations of the parents. The children spend around 4 to 12 hours a day at the center. It is important to clarify that the kind of education and childcare curriculum that a child gets in kodomo-en is different from the curriculum of school (including kindergartens) where every child spends the same amount of time. The purpose of this study is to review previous studies on extracurricular hours in education and care and organize and discuss problems related to the development of the curriculum for the "extracurricular hours" (the afternoon to evening time after children who stay only curricular hours are returned home) for children (3 years of age and older).

5-3 Early Childhood Education for Sustainability of Development Build on Local Living; Focusing on the Curriculum of UNESCO Associated Schools in Kesennuma City

Takeshi Onose (Sendai Seiyō Gakuin College), Yuri Hori (Ohkagakuen University) /Japan

[ABSTRACT] The educational purpose in ESD is to bring up individuals who are able to recognize and respect relationships with nature, other people and society. In this report, we reveal how this purpose is realized in scenes of early childhood education, focusing on the activities of two UNESCO associated Schools in Kesennuma City.

ESD, which is closely rooted in natural environment and lifestyle culture, is being practiced at those preschools. One of them is located in a coastal area, thus, their childcare style focuses on the themes of natural coastal environment and fishery. At the other preschool located in a mountainous area, on the other hand, the themes provided are derived from agriculture and dietary culture.

Both curriculum at those two schools were recognized to be successful in deepening the relation of early-children with nature and society by focusing on the local living and people.

5-4 A study on the diversities and sustainability of the child-rearing practice in Japan

Yasuko Yahagi (Wayo Women's University), Tomoko Kikuchi (Ochanomizu University), Kaori Shuzui (Kyoritu Women's University) /Japan

[ABSTRACT] In Japan, so many policies for child care support have been done nearly in these 30 years. Even though, our society still has various problems for parenting, such as mothers' isolation and anxiety, rapid increase of child abuse.

In this study, we tried to consider varieties of 11 projects in total, among where we visited and researched in 2018, and to examine the factors that guardians could make connection with others through raising children at those places and they could foster the time and places for raising each other, by interviews and reflections of our own practice.

As a result, based on diversities of the type of institution, the regional differences, support members, contents of activities, it could be suggested that, when someone was given some support by another, it follows some other support by just the person who once has an experience to have been supported.

5-5 The Practice of Equine Assisted Learning Program to Foster Children's 'Power to Live Together': How Human-Equine Interaction Contributes to the Development of Children's Relationship between Peers

Shunya Tsuchida (Graduate School, Chiba University), Hisae Tomita, Kumiko Koma (Chiba University) /Japan

[ABSTRACT] Equine Assisted Learning (EAL) is an education that aims to encourage human's social or educational development through human-equine interaction. In this study, we aimed to clarify the qualitative changes of children's relationship between peers in the 6-months Equine Assisted Learning program by using sociogram. As a result, while interacting with horses, children came to interact with more peers and made reliable relationship between friends. That was because of experiences of talking over and working together with friends during the program. This result suggested that characteristics of horses provided opportunities for developing relationship between peers.

5-6 Ainu Culture in Picture Books

Reiko Shimazu, Yumiko Ohba, Atsushi Nanakida (Hiroshima University) /Japan

[ABSTRACT] The culture and language of the Japanese indigenous Ainu are passed on from generation to generation, mostly through their oral literature (Wepeker, Yukar and so on) and cultural rituals. This paper focuses on Ainu picture books for early childhood, based upon the Wepeker and Yukar. Firstly, we reviewed 26 Ainu picture books in order to find distinctive structures and worldviews within them. Secondly, we read the Ainu picture books at two kindergartens and two schools. We found the Ainu picture books includes Ainu's worldview which recognize human beings as a kind of creature. Through the reading of the Ainu picture book, the children became aware of the worldview and language of the Ainu, which is different from scientific knowledge and the Japanese. We concluded that embracing the Ainu picture book for the early childhood education and care helps the children to notice diversity within the Japanese context.

5-7 An analysis of explanatory practices at mathematics classes in elementary school

Megumi Shionoiri (Ochanomizu University) /Japan

[ABSTRACT] In Japanese preschool and elementary school education, 'dialogical, spontaneous, and deep learning' is consistently emphasized. Collaboration with others realize these dialogical, spontaneous, and deep learning. When we learn with others, we need to explain our own idea.

There are some suggestions that explaining idea to others encourage understanding of scientific concepts both speaker and listener. However, in elementary school classes, explanatory practices by children are not always understood from other children. In actual mathematics classes, they often repeatedly explain their idea, and then, they reach mutual understanding

of their idea. In this research, I focused on explanatory practices at elementary school mathematics classes. Analyzed data was collected from observation of discussion in a 1st grade mathematics class. This research examined how elementary school children explain about their ideas and how their explanation contributes to understand of mathematical concepts in the class.

5-8 The idea of nature in today's early childhood education based on the observation and participation into Japanese kindergarten

Yosuke Hirota (Fukuyama City University) /Japan

[ABSTRACT] This research aims at reconsidering and weaving up the concept of nature through the practices of a kindergarten. The kindergarten where we research is located on the large city in Japan and is not surrounded with natural environments like forests and rivers. The main parts of the curriculum are mostly occupied by the daily activities on which children play on the methods of motion, language and rhythm. Of course, such activities are artificial activities that are opposed to the nature, and it is generally difficult to find the image of nature there. However, we think it is possible to find there the concept of nature that Japanese tradition of thoughts have nurtured in the history. This concept of nature can transcend the antinomy of what is called 'Nature-Culture' and can be discovered from the lens of the today's sociology and the psychology of 'Flow' as well as Japanese philosophy.

5-9 Teachers' Views on Support for "Children with International Backgrounds" in Japanese Kindergartens and Nursery Schools

Xiaoying Wang (Graduate School, Kwansei Gakuin University) /Japan

[ABSTRACT] According to the Ministry of Internal Affairs and Communications (2018), the population of foreigners living in Japan is currently 2,637,251, and is increasing year by year. Furthermore, with the revision of Immigration Control and Refugee Recognition Act in 2018, it is expected that the number of "Children with International Backgrounds" in kindergartens and nursery schools will increase from now on. However, it is difficult to say that research on support for "Children with International Backgrounds" is considered enough in kindergartens and nursery schools, while it has been extensively studied in elementary school. The purpose of this report is to examine the teachers' views on support for "Children with International Backgrounds" though analyze the free description part of the questionnaire survey.

5-10 Transformation of Children through a Project Activity for ESD in Japan

Midori Mitsuhashi (Ochanomizu University) /Japan

[ABSTRACT] A project approach is considered to be effective for ESD. I will discuss how project approach brought about transformation in children's worldviews and behaviors based on the data collected during the nine-month field research at a nursery center in Tokyo. Sixteen children in the 5-6 year-old class were actively engaged in the project, which started from a river nearby the center and expanded to trace the stream from the water origin down to the ocean. During the project, children found out the water cycle and ecology. Also, children and teachers discussed how to change our lifestyle in the way not to disturb the water cycle in the region. After all, the project covered several targets of SDGs including Target 6, 14 and 15. Furthermore, the interviews with their parents revealed that children even had influenced their family at home. The documentations from the project illustrates the learning and transformation process.

5-11 The practice of the Meaning of Silkworm as a Teaching Material in Kindergarten

Hideo Kameyama (Nanatsumatsu Kindergarten) /Japan

[ABSTRACT] This practice tries to examine the meaning of silkworm as a teaching material in kindergarten. The researcher selected and analyzed teacher's episodes about silkworm. The result showed that five main categories "interaction with silkworm", "interactions with friends and teachers", "touching silkworm", "noticing silkworms", and "learning about silkworms from picture books". The following five points are figured out from the analysis. The meaning of silkworms as a teaching material in kindergarten was emphasized by these results as well as its possibilities to be connected to the early child education.

5-12 Visualizing ecological imagination toward education for sustainable development in early childhood: mapping the meshwork of lines

Issei Yamamoto (Shiga University), Hiraku Nakamaru (Kaede kindergarten) /Japan

[ABSTRACT] The purpose of this research is to propose a methodology of Education for Sustainable Development (ESD) in early childhood through visualizing teachers' and children's ecological imagination. In the age of globalization, our daily lives are supported by interdependent relationships. However, we rarely focus on the relationships in commonplace things. Steven Fesmire argues that ecological imagination plays an important role in understanding the relationships because it connects direct experiences of commonplace things to remote things and affords us the relational meaning of our living environment (Fesmire 2012). We suggest that ecological imagination can be mapped as a "meshwork of lines" (Ingold 2015). Ingold insists that every living being is a line, which tangles with others, and the entanglement can be described as a meshwork of lines. We visualize teachers' and children's ecological imagination in the maps of meshwork through case studies. The visualization can be a milestone in expanding ESD practices.