

## **EARLI SIG 5 Conference 2018: Future Challenges for Early Childhood Education and Care Berlin (Germany) 29th to 31st August, 2018**

The EARLI *Special Interest Group (SIG) 5* is one of the 27 Special Interest Groups (SIG) of the European Association for Research on Learning and Instruction (EARLI), which is the biggest educational association in Europe, representing over 2000 members in more than 60 countries. The SIGs represent researchers who study one or more parts and/or aspects of the field. The SIG 5 focuses on learning and development in early childhood from birth to the age of eight years.

The interest and investment in Early Childhood Education and Care (ECEC) is growing, not only because early childhood experiences have long-lasting impacts on the physical, cognitive, emotional, and social development of children in general (Taggart, Sylva, Melhuish, Sammons, & Siraj, 2015), but also because recent societal, educational and technological changes create new challenges and opportunities within ECEC (U.S. Department of Health and Human Services, 2009; Haslip & Gullo, 2018). Therefore, the theme of the SIG 5 Biennial Conference in 2018 was *ECEC 2.0 – Future Challenges for Early Childhood Education and Care*. It took place from August 29th to August 31st at the Freie Universität Berlin, Germany, represented and organized by Yvonne Anders (Department of Education and Psychology, Chair of Early Childhood Education). With this conference theme we invited researchers to discuss (1) the increasing emphasis on STEM (Science, Technology, Engineering, and Mathematics) education in general and the use of technology in ECEC in particular, and (2) the importance of social-emotional and motivational developmental aspects for children's educational pathways. Furthermore, the conference provided a platform for international collaboration, the exchange of ideas and evidence-based discussions about early childhood research from both the educational and the developmental sciences.

As the result of the review process, which included 56 reviewers assessing 120 submissions, the conference program included 16 posters, 49 single papers, 25 symposia and two workshops for the 240 participants to engage in. The participants covered a wide range of content in their presentations and represented 30 countries, including Canada, France, Germany, Israel, Kenya, Norway, the Netherlands, the United Arab Emirates, the UK, Taiwan, and the United States.

In addition to these diverse contents, three keynote speakers presented their research on different aspects of the conference theme:

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**118** (1) Deborah Stipek (Stanford University, US) discussed features of math instruction that promote self-confidence and engagement in young children and how these fit within debates about child-centered, “play-based” instruction versus educator-directed instruction. She described the qualities of instructions that capitalize on both: the motivational benefits of child-centered instruction and the positive effects on math skills associated with educator-directed instruction. Furthermore, she emphasized some challenges of measuring different dimensions of young children’s motivation related to math, e.g. children’s varying concepts of “math”. She then shared her experience with a newly developed instrument that addresses these issues. Additionally, she summarized the research on the psychometric properties of the method and associations with children’s math skills and observations of teachings.

(2) Andrew Manches (University of Edinburgh, UK) examined the role of physical interactions in early STEM. Specifically, he discussed the advantages of physical representations of abstract concepts to support learning (manipulatives). He highlighted the importance of these tools, as recent theoretical arguments claim that cognitive processes such as learning, memory, and comprehension are grounded in bodily processes of action and perception (embodied). Furthermore, he stressed the importance of physical interactions for learning, which should be taken into consideration when designing and evaluating new technology-based tools. He also discussed the trend from current screen-based representations (virtual manipulatives) to digitally-augmented physical objects (digital manipulatives) and drew attention to ways through which we can leverage embodied learning mechanisms in the design of emerging technologies or the way we gesture when communicating with children.

(3) Liselotte Ahnert (University of Vienna, Austria) emphasized the importance of social processes in children’s learning. She argued that social processes and adult-child attachments which assure emotional security promote children’s exploration of the environment, their pleasure in learning and their willingness to perform. She presented findings that indicate why children in secure provider-child and educator-child relationships tend to develop a greater motivation to learn and thus become better learners and how children’s pre-school experiences with care providers have sustained impact on their later success in school. Finally, she discussed gender-based differences in learning strategies and discussed the need for gender-sensitive learning environments.

Beyond these keynotes, there was a multitude of conversational formats, such as the panel discussion with Iram Siraj (University of Oxford, UK, Chairperson), Janna Pahnke (Stiftung Haus der kleinen Forscher, Germany, Discussant), Andrew Manches (University of Edinburgh, UK, Discussant), Jerry Andriessen (Wise & Munro, Netherlands, Discussant), Klaus Fröhlich-Gildhoff, (Evangelische Hochschule Freiburg, Germany, Discussant) on *Challenges and risks of ICT (Information Communication Technology) in Early Childhood Education and Care*.

Furthermore, among others, two invited symposia were offered: Firstly, Martine Broekhuizen (Utrecht University, Netherlands, Chairperson) organized a symposium

on *Educational partnerships in ECEC in a context of cultural diversity*. Even though the establishment of strong educational partnerships between parents and ECEC settings clearly is crucial for the socio-emotional and cognitive development of children, establishing this partnership, especially in a context of cultural diversity, might bring challenges. This symposium highlighted some of these challenges, such as language and cultural differences, but it also emphasized possible opportunities. The studies focused on (1) mothers with a Turkish and Maghrebian background and their experienced trust, communication, involvement and participation in ECEC provisions in multiple European countries<sup>1</sup>, (2) educational resources, experiences and aspirations of Roma families in three European countries<sup>2</sup>, (3) the Portuguese *Play for Inclusion* program, which targets 0–4 year-old children and their caregivers that are not participating in regular ECEC services<sup>3</sup>, and (4) a project that aims to alleviate language minority families' distress through the empowerment of early childhood professionals in their use of internet applications when approaching language minority parents<sup>4</sup>. The four contributions were discussed by Tove Mogstad Slinde (Ministry of Education and Research in Norway).

The second invited symposium on *Emotion knowledge, emotion regulation, and development in young children* was organized by Antje von Suchodoletz (New York University Abu Dhabi, United Arab Emirates, Chairperson). The first two papers aimed to sort out associations between emotional skills and cognitive skills, i.e. self-regulation<sup>5</sup> and language<sup>6</sup>. The third and fourth paper described two innovative intervention approaches, *Papilio*<sup>7</sup> and *Thinking Emotions*<sup>8</sup>, which aim to improve emotional skills in young children. Manfred Holodynski (University of Münster, Germany, Discussant) subsequently discussed the four papers and their implications

<sup>1</sup> *Family-preschool partnerships: mothers with a Turkish and Maghrebian background in Europe*, by Martine Broekhuizen, RYanne Francot, and Paul Leseman (all from Utrecht University, the Netherlands).

<sup>2</sup> *Roma mothers' resources, experiences, and aspirations in the Czech Republic, Greece, and Portugal*; by Konstantinos Petrogiannis (Hellenic Open University, Greece), Cecilia Aguiar (IS-CTE-Instituto Universitário de Lisboa, Portugal), and Jana Obrovská (Masaryk University, the Czech Republic).

<sup>3</sup> *Playgroups for inclusion: Impacts of development, temperament and behavior of minority children*; by Joana Dias Alexandre (University Institute of Lisbon – ISCTE-IUL, Portugal), M. Clara Barata, Catarina Leitão, Bruno De Sousa (all from University of Coimbra, Portugal), and Vanessa Russo (University Institute of Lisbon – ISCTE-IUL, Portugal).

<sup>4</sup> *Promoting early multilingualism in childhood and childcare in Flanders*; Orhan Agirdag (KU Leuven, Belgium / University of Amsterdam, the Netherlands).

<sup>5</sup> *Young children's emotion knowledge and self-regulation*; Maria von Salisch (Institute for Psychology, Germany); Marieke Wubker and Katharina Voltmer (both from Leuphana University Lüneburg, Germany).

<sup>6</sup> *Functions of language in children's development of emotion regulation*; Catherine Gunzenhauser, Berit Streubel (both from Leipzig University, Germany); Gerlind Grosse (Early Childhood Education Research, Germany), and Henrik Saalbach (University of Leipzig, Germany).

<sup>7</sup> *Papilio program and "Paula and the Pixies in the Box" in supporting children's emotion regulation*; Marja-Leena Laakso and Merja Koivula (both from University of Jyväskylä, Finland).

<sup>8</sup> *Behavior vs. knowledge: Keys to improve socio-emotional skills through longitudinal interventions*; Beatriz Lucas Molina, Renata Sarmento-Enriquez, Laura Quintanilla, and Marta Giménez-Dasí (all from University of Valencia, Spain).

120 for theory, policy and practice while adopting the perspective of dynamic systems theories.

Overall, the sessions highlighted important issues within ECEC such as cultural diversity, digitalization, gender, and inclusion. Further, a wide range of discussions on how to integrate these findings was triggered, thus, for example, the challenges and possibilities arising with the increasing technologization of our society and our educational systems. While these tools offer new opportunities, for instance to support the children's development and their learning experiences and to improve the communication between the parents and the educator, they also require a new skill set, which has rarely been recognized in the education and training of educators practicing in ECEC settings. Learning about and using new technologies to promote diverse competencies necessitates not only technological but also developmental and socio-emotional expertise. This became very clear in the panel discussion with Iram Siraj on *Challenges and risks of ICT (Information Communication Technology) in Early Childhood Education and Care*. Specifically, the importance of different socio-emotional aspects that influence children's motivation to learn and success in doing so where also highlighted in Deborah Stipek's and Liselotte Ahnert's findings. While Liselotte Ahnert stressed the importance of emotionally secure attachments between educator and child as a basic prerequisite to learn, Deborah Stipek pointed out that, in order to promote learning, educators have to utilize different types of instructions (child-centered and educator based) in consideration of the child's individual needs. In addition, Andrew Manches considered another aspect when he brought up the importance of integrating developmental and pedagogical knowledge (such as the impact of physical action in learning) as well as technological possibilities in the design and the evaluation of new tools.

These types of discussions, in addition to the wide range of formats and topics, contributed to the success of the conference. In fact, according to the feedback survey, 89.6% of the 58 questionnaire respondents rated their overall experience as "excellent" or "good". The ratings of specific areas such as *Organization before and during the Conference*, *Conference program* and *Social program* were high as well. On average 43.1% rated aspects of the *Organization before the Conference* as "good" and 42.9% as "excellent". Similarly, facets of the *Organization during the Conference* were scored as "good" by 34.3% and "excellent" by 57.9% of the questionnaire participants. The *Conference program* itself was perceived as "good" by 38.8% and "excellent" by 39.3%. Additionally, three *Social activities* gave opportunities for further cohesion of the think tank within the community. Only a few participants rated these. Nonetheless, those who did appreciated them because 38.2% scored them as "good" and 58.7% as "excellent"<sup>9</sup>.

In conclusion, the conference successfully brought together experts and provided a platform to discuss the current challenges within ECEC. Important findings on topics such as digitalization, STEM, and the inclusion of families and children have been

<sup>9</sup> Missing values and the answer "n/a" were excluded from the data analysis.

shared. The exchange resulted in the development of recommendations and added to the overall research quality in the field. Following this conference, the SIG 5 will be represented at the 18th Biennial EARLI Conference at RWTH (Rheinisch-Westfälische Technische Hochschule), Aachen, Germany, which takes place from August 12th to August 16th 2019. Above all, the invited symposium *Who benefits most? Differential effects of Early Childhood Education and Care on child outcomes*, organized by Dr. Lars Burghardt, will highlight continuative discussions on (1) *Universal ECEC as a protective means for children from disadvantaged families in Norway?*<sup>10</sup>, (2) *Compensation or Matthew-Effect? Relations of child care, family and child development*<sup>11</sup>, (3) *Lasting preschool quality effects and the moderating role of potential risk factors*<sup>12</sup>, and (4) *The longitudinal effect of the quality of early teacher-child interactions on child outcomes*<sup>13</sup>. Prof. Dr. Wilfried Smidt (University of Innsbruck, Austria) will take the role of the discussant. Moreover, the next Biennial EARLI SIG 5 conference at Bar-Ilan University, Israel, from July 14th to July 16th 2020, will provide another platform for further scientific exchanges and new emerging discussions within the ECEC research.

## References

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