



2018 CYFS SUMMIT ON RESEARCH IN

Early Childhood

Creating Connections Among Research, Practice & Policy

Research Presentation Summaries



Concurrent Session 1	10:30 - 11:20 a.m.
<p><i>Not Just for the Children: Teacher's Development in Using Play as a Learning Medium</i> Debora Wisneski</p>	<ul style="list-style-type: none"> • ECE Teachers incorporate play as a learning medium when they have access to personal play/play memories and intentional dialogue and reflection with other teachers about planning, documentation, and interpretation of play. • When given support for teaching through play, ECE teachers can articulate and support children's learning and can become curriculum leaders for their colleagues. • School policies such as controlled packaged curriculum, limited teacher planning time, and timed learning periods are common barriers to teachers using play as a learning medium.
<p><i>I Dare You To: Taking Risks in Play</i> Anne Karabon, Amanda Steiner</p>	<ul style="list-style-type: none"> • The intentional design and the magnitude of the open environment of Bay Family Children's Adventure Trails (BFCAT) exhibit promoted visitors to take risks. • Adult supervision plays an important role in rough and tumble play. • Children in the BFCAT were able to self-assess and examine emotions (such as fear) in order to decide on how to react and proceed.
<p><i>Understanding the Characteristics of Early Childhood Administrators in Nebraska</i> Amy Roberts, Alexandra Daro, Susan Sarver, Kathleen Gallagher</p>	<ul style="list-style-type: none"> • The Nebraska Early Childhood Workforce Survey included responses from 623 administrators in childcare centers and elementary schools (PreK and K-3.) • Administrators' educational experiences varied by setting; the most common major among child care administrators was early childhood education and/or child development, whereas the most common major among elementary school administrators was administration. • Childcare administrators reported higher rates of clinically significant depressive symptoms (10%) than elementary school administrators (5-6%). • Childcare centers do not consistently provide benefits to staff and they experience more turnover and hiring challenges than elementary schools. • Both childcare centers and elementary schools are important developmental contexts for young children; however, childcare centers face greater challenges that may impede teachers' and administrators' success.
<p><i>Exploring Growth Trajectories of Informal and Formal Mathematics Skills</i> Jessica Namkung, Marc Goodrich, Peng Peng, Victoria Molfese</p>	<ul style="list-style-type: none"> • The purpose of the study was to explore the growth trajectories of informal versus formal mathematics skills among children with mathematics difficulties (MD) in comparison to their peers. • Children with MD have difficulties in both informal and formal mathematics skills compared to their peers, and these difficulties are present as early as preschool. • The achievement gap in informal mathematics skills narrowed over time whereas the achievement gap in formal mathematics skills widened over time. • Identifying children at-risk for MD and providing early intervention are critical to fostering early mathematics skills and preventing children from falling behind.



<p>Video Games and Childhood Obesity Changmin Yan</p>	<ul style="list-style-type: none"> • To become an effective tool, anti-obesogenic video games need to be intrinsically motivating—it has be fun to play in its own right. • Perceived interactivity and interactive narrative are key to creating a fun gamified learning experience of nutrition and physical activity. • Efforts trying to deliver interactivity and interactive narrative, ranging from catering interactivity and narrative to children’s pedagogical needs to testing with the latest virtual reality and augmented reality technologies, have shown promising signs.
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Concurrent Session 2	11:30 a.m. - 12:20 p.m.
<p>Child Executive Functioning in Nebraska Educare Programs Jolene Johnson, Helen Raikes, Dawn Davis, Mashael Altwijri, Jan Esterach</p>	<ul style="list-style-type: none"> • Minnesota Executive Function Scale (MEFS) shows promise as an assessment tool in measuring and tracking student growth for executive functioning. • Preliminary analyses reveal gender and age differences for students in Educare programs. • Dosage in program was examined as a factor in growth in executive functioning skills.
<p>Teachers and Parents as Partners: How it Works for Students With ADHD Matthew Gormely, Paul Dizona</p>	<ul style="list-style-type: none"> • Attention-deficit/hyperactivity disorder is the most common mental health condition in school-aged children (6.1 million children in the US), defined by developmentally inappropriate levels of inattention and hyperactivity, with persistent academic, behavioral, and social difficulties. • Teachers and Parents as Partners (TAPP) is a family-school partnership intervention that promotes collaborative problem solving to improve student functioning at home and school that has been effective for students with ADHD in small studies. • TAPP was more effective for students with ADHD compared to those without ADHD; however, these improvements decreased over one year while students without ADHD remained stable. • This finding is similar to other long-term follow-up studies and suggests students with ADHD need ongoing support versus a single intervention.
<p>Executive Function and Challenging Behaviors in Preschool-Age Children Miriam Kuhn, Courtney Boise, Christine Marvin</p>	<ul style="list-style-type: none"> • Salient executive functions (i.e. inhibitory self-control, flexibility, and attentional control) were found associated with challenging behaviors in young children. • Evidence exists of oppositional, defiant, or argumentative behaviors in children with deficits in executive functioning. • Executive functioning skills should be considered as a target of intervention for children with chronic behavioral challenges. • Barriers to the development of executive functioning and its relationship to challenging behaviors should be explored.



<p>Observation of Dynamic Child Development Setting Systems and Behavioral Outcomes David Dzewaltowski, Chelsey Schlechter</p>	<ul style="list-style-type: none"> • The daily routines of diverse child development settings (e.g., childcare, scouting, youth sport) can be segmented into time periods and the time periods can be characterized by contextual variables. • The typology of time segments in the daily routines of settings is highly variable, which results in dynamic physical activity outcomes. • Practitioners should structure setting routines to include time segments conducive to physical activity. • Future research is needed to examine the combination of routine time segments that are most conducive to child outcomes.
<p>The Superintendents Early Childhood Plan: A Birth Through 3rd Grade Approach Kathleen Gallagher, Malena Rousseau, Greg Welch, Christine Maxwell, Barbara Jackson, Lisa Knoche</p>	<ul style="list-style-type: none"> • The Superintendents Early Childhood Plan reimagines early childhood practice via a School-as-Hub approach that facilitates early childhood education and parenting supports, starting at birth and continuing through the third grade. • The Superintendents Early Childhood Plan employs continuous improvement to adapt constantly to the specific needs and strengths of districts, schools, education professionals, families, and communities. • The School-as-Hub approach includes collaborative school-based leadership teams; embedded professional learning to facilitate continuous family engagement; and aligned learning experiences for children from birth to grade three.
<p>Preschool Profile in Urban/Rural Nebraska: Preliminary Findings From Network Research Susan Sheridan, Lisa Knoche, Iheoma Iruka, Natalie Koziol, Amanda Witte, Bonnie Mackintosh</p>	<ul style="list-style-type: none"> • “Learning Frontiers: PreK to Grade 3” is a series of research studies being conducted as part of the IES-funded Early Learning Network. Thirteen communities across urban and rural Nebraska are participating, and helping to advance our understanding of policies and practices across rural and urban Nebraska that support the early learning and ongoing academic success of children. Children’s outcomes, family engagement, and classroom practices are being assessed for rural and urban children who attend and do not attend preschool. • On average, the sample of Nebraska children assessed in Pre-Kindergarten demonstrated average levels of social skills, problem behaviors, and expressive language on standardized measures. Relative to non-attenders, benefits for children attending Nebraska preschools were noted for parent-reported social skills and expressive vocabulary. • From the beginning to the end of Pre-Kindergarten, parents reported significant increases in school-based involvement. Changes in parent-teacher communication, as reported by teachers, varied by setting: rural teachers reported an increase in communication across the prekindergarten year, whereas urban teachers reported no change from early to later in the year.



Concurrent Session 3	1:40 - 2:30 p.m.
<p>Early Word Reading and Reading Comprehension Development Among At-Risk Readers Peng Peng</p>	<ul style="list-style-type: none"> • This study explored the developmental trajectories (1st grade through 4th grade) of word reading and reading comprehension and their predictors among young at-risk readers. • Findings suggest that at-risk readers demonstrated decelerated growth on word reading and linear growth on reading comprehension across grades, although performances on both word reading and reading comprehension were consistently below average on national norms. Letter knowledge at the beginning of first grade predicted growth in word reading, whereas vocabulary and non-verbal reasoning at the beginning of first grade predicted growth in reading comprehension. • Our findings suggest that at-risk readers could benefit from intensive instruction at the word-level in 1st grade through 4th grade. Meanwhile, early reading interventionists should also consider reading comprehension components such as vocabulary and cognitive processes (e.g., non-verbal reasoning) to facilitate reading comprehension for these children.
<p>Getting Ready: Establishing the Evidence for Effective Parent Engagement Lisa Knoche, Susan Sheridan, Christine Marvin, Courtney Boise, Tammi Hechtner-Galvin, Hannah de Vries</p>	<ul style="list-style-type: none"> • The Getting Ready intervention is an evidence-based parent engagement intervention for promoting school readiness for families and children birth to age five. Getting Ready strengthens adult-child relationships and parent-educator partnerships. • Getting Ready promotes positive outcomes in children and families when used across early childhood settings, including home visiting and center-based programs. Three randomized trials have provided evidence of the intervention's effectiveness. • When educators engage in the Getting Ready approach, children experience improved social- emotional, language and literacy skills. Additionally, parents demonstrate enhanced interactions with their children and teachers report improved relationships with children in their classrooms.
<p>How Different Forms of Aggregation May Affect the Relationship Between Teacher Self-Efficacy and Students' Academic Achievement Kathleen Rudasill, Marjolein Zee, Helma Koomen, Peter de Jong</p>	<ul style="list-style-type: none"> • Teachers' self-efficacy and children's academic achievement measured at the classroom-level of analysis have an entirely different meaning than their namesakes at the individual student-level. • Teachers' classroom-level self-efficacy may be best suited to explain personality-related differences across teachers, both in early childhood and beyond. • To explain differences in individual children's learning outcomes, relying on teachers' student-specific beliefs may be the best option.



<p>Early Childhood Teachers' Use of Literacy Data to Inform Instruction Rachel Schachter</p>	<ul style="list-style-type: none"> • Three profiles of data use emerged: <i>rare data use, in-the-moment data use, and integrated data use</i>. Teachers' data-use seemed to be tied to what teachers knew about children – the source and the specificity of that knowledge. • For rare data use teachers, although they could be observed or reported collecting data, they rarely described using data to inform instruction in contrast to the integrated data users who relied on informal and formal data not only in-the-moment but to also plan future instruction and differentiate instruction. • Some teachers reported using data in integrated ways to support children's literacy learning and these cases may serve as models for the types of sophisticated instruction that could be occurring in early childhood classrooms. • However, many teachers were “doing” assessment, in that they were collecting data but not necessarily using it to inform practice suggesting a need for a greater focus on teachers' perspectives regarding data-use to identify high-quality data-use practices while also supporting effective data-based initiatives and relevant professional development.
<p>Preschool Science Talk in Action and Reflection (PreSTAR) Soo-Young Hong, Erin Hamel, Anna Burton, Yuenjung Joo</p>	<ul style="list-style-type: none"> • Preliminary findings: (a) PreSTAR teachers believe that science is a teacher-led activity in which children engage (e.g., science experiments) and that science takes a variety of materials; (b) They recognize the importance of incorporating science into many different areas of the classroom but are unsure how to do that; (c) Teachers' response to different types of questions showed an interesting discrepancy (i.e., attitudes ratings on survey vs. response to interview on confidence); (d) The initial reflection was mostly focused on description of what children do with materials. • Early childhood teachers may appreciate a definition of science relevant to early childhood educational contexts with specific examples regarding how science would look in different areas of learning. Teachers need more time to focus solely on their observation of how children initiate and deepen their play and prompts that guide and extend their reflections. • PreSTAR further aims to investigate how teachers' definition of science changes as they see more opportunities for science-related interactions in their classroom; how the level of their reflections changes as they practice discussing their observations of children and themselves; and how both researchers and practitioners can co-create a process of reflective practice that changes teachers' mindset, attitudes, and practice.



<p>Evidence for Using School Readiness Measures in Sub-Saharan Africa Abbie Raikes, Natalie Koziol, Dawn Davis</p>	<ul style="list-style-type: none"> • National use of measures of children’s development and learning during the pre-primary years is increasing in low- and middle-income countries. With increased information on children’s learning and development, countries can instigate local action to improve access and quality in preprimary education. • Building on the Measuring Early Learning Quality & Outcomes (MELQO) initiative, results from this study (a) support the use of the MELQO school readiness measure for assessing the pre-numeracy, pre-literacy, executive functioning, fine motor, and socioemotional cognition skills of children living in sub-Saharan Africa, and (b) highlight family assets and children’s teacher-reported self-regulatory skills as important predictors of children’s school readiness. • Information gained from this measure can be used in policy formation on such matters as promoting equity, allocating resources, revising standards, and improving teacher education and training.
<p>Neuro-Psycho-Developmental Status of Infants Born With Congenital Zika Virus Syndrome Christine Marvin, Pompeia Villachan-Lyra, Leopoldo Nelson Fernandes Barbosa, Juliana Lais Pinto Ferreira, Viviane Kelly Paiva de Freitas, Juliana Ramalho Fernandes</p>	<ul style="list-style-type: none"> • Children with Congenital Zika Virus Syndrome (CZVS) and associated microcephaly, may have multiple areas of notable delay in development. • It is in the first years of life that the nervous tissue grows more and matures, being therefore more subject to the aggravations. It is in early childhood that the child responds best to the therapies and stimuli he receives. • Considering evaluation criteria of motor and cognitive development of the baby born with CZVS allows the early identification of possible delays and may encourage new strategies of interdisciplinary treatment. • Given that this population will likely have multiple areas of delays in development, it is important to think about the impact of CZVS on parents and primary caregivers.
<p>Development of the Dimensional Inventory for Child Development Assessment Natalie Koziol, Denise Bandeira, Leslie Hawley, Euclides Mendonca, Monia Silva</p>	<ul style="list-style-type: none"> • Results from this study support the use of the Dimensional Inventory for Child Development Assessment (IDADI) to evaluate the cognitive, motor, communication and language, and socioemotional development, and adaptive behavior of Brazilian children ages zero to six years. Preliminary evidence suggests that IDADI scores are reliable and highly associated with age, clinical diagnosis, and SES. • Development of the IDADI will advance early childhood (a) <i>practice</i> by improving the detection and referral rate of Brazilian children with developmental problems, and (b) <i>policy</i> by assisting economic and political decisions regarding public investments in early child development programs, health, education and social assistance. • Additional research is needed to develop population norms specific to Brazil to ensure that children’s developmental outcomes are appropriately interpreted within their cultural context.



<p><i>Two-Generational Approach: A Promising Practice</i> Barbara Jackson, Jolene Johnson</p>	<ul style="list-style-type: none"> • Two-generation approaches can maximize the outcomes for both parents and children who are under-resourced. • Students whose parents were in parenting/adult learning activities scored higher in school readiness than their peers. • Students whose parents participated in the program outscored their comparable peer groups on the state assessments.
<p><i>How Parents Help Children Develop Talent</i> Kenneth Kiewra</p>	<ul style="list-style-type: none"> • Parents understand that talent is made, not born. • Parents provide early start and arrange instruction. • Parents facilitate practice and support singleness of purpose. Parents make full commitment.



Concurrent Session 4	2:40 - 3:30 p.m.
<p><i>Nutrition Practices and Barriers in Center- and Home-Based Childcare in Nebraska</i> Dipti Dev</p>	<ul style="list-style-type: none"> • Early Childhood Workforce Development is essential to prevent childhood obesity in Nebraska, as Nebraska ranks 5th in childhood obesity among 2-4 year old children in US. • Rural Nebraska childcare providers express challenges to attend trainings because trainings are unavailable in their area. They also prefer online modules with videos. Developing online modules and having an Extension educator as a coach is a promising approach to reach Nebraska childcare providers. • The majority of Nebraska childcare providers (n=1592) are motivated to attend trainings owing to the licensure and Child and Adult Care Food Program (CACFP) requirements. Including topics on best practices for obesity prevention in childcare in licensure requirements would be an avenue to offer professional development to providers in this area. • CACFP provides reimbursement for serving nutritious foods and beverages to children in childcare. Yet, most children do not eat vegetables. When providers practice role modeling by sitting and eating the foods with children, they can improve children’s acceptance of vegetables. However, present study shows that not enough money to cover the cost of meals is a challenge for providers to eat the foods with children. Therefore, CACFP should provide reimbursement for meals and snacks for both providers and children and improve access to affordable and nutritious foods in rural areas.
<p><i>Coaching Parents to Implement a Social-Communication Approach With Children With Autism</i> Johanna Taylor</p>	<ul style="list-style-type: none"> • This presentation reported the results of training parents through a combination of Internet-based and in-vivo instruction to implement an intervention designed to improve imitation and social-communication in children with autism. • This study used a multiple probe single-subject design to study the behaviors of four parent-child dyads. Findings supported the effectiveness of training parents in this method to improve child spontaneous imitation, parent fidelity and use of intervention strategies. • This approach has been expanded to a larger curriculum (Project ImPACT - Improving Parents as Communication Teachers) and has been generalized to teaching other “natural change agents” (practitioners, paraprofessionals, special educators) to improve spontaneous social–communication skills in children with autism within play.



<p><i>Cultivating Mindfulness of Early Childhood Educators in Nebraska</i> Holly Hatton-Bowers</p>	<ul style="list-style-type: none"> • Early childhood teachers play a central role in shaping the school readiness and well-being of our nation's young. Despite a national emphasis on early childhood as a critical window for promoting children's well-being, there is limited literature focusing on the factors that enhance the well-being of early childhood teachers. • Although teachers in the early childhood sector experience high levels of personal reward, they also are susceptible to high levels of occupational stress, depression and emotional burnout. These stressors jeopardize the quality and stability of teachers' relationships with the children for whom they care. Thus, there is a critical need to determine how best to strengthen the resilience and psychological well-being of the early childhood workforce. • To address this critical need a pilot project using reflection and mindfulness, Cultivating Healthy Intentional Mindful Educators (CHIME), was delivered to early childhood teachers in Nebraska. The pilot evaluation of CHIME provided promising evidence of the program's effectiveness. • A next step will be to develop and test a more rigorous study to understand how enhancing the well-being of early childhood educators with mindfulness and reflection is associated with educator's ability to create a responsive, regulated classroom environment.
<p><i>Be Well to Teach Well: Supporting Well-Being Among Early Childhood Professionals</i> Kathleen Gallagher, Amy Roberts</p>	<ul style="list-style-type: none"> • Early childhood teachers experience considerable stress in their positions, which impacts their interactions and relationships with children, families and colleagues. • Supporting teachers' wellbeing is central to ensuring positive outcomes for children. • Early childhood teachers work within workplace systems. In addition to supporting individual interventions to enhance teachers' wellbeing, such as health and mindfulness programs, it may be helpful to consider a systemic view of workplace wellbeing. • A systemic view of workplace wellbeing could include attention to the environment, leadership, preventive and protective health practices, work policies and communication. By beginning to address the workplace system, early childhood programs can promote the health and wellbeing of children, families, <i>and</i> teachers. • Ongoing research will address aspects of the early childhood setting and processes that can be targeted to enhance wellbeing of teachers.
<p><i>Investigations of Emotion Regulation and Executive Function in Educare</i> Helen Raikes, Dawn Davis, Jolene Johnson</p>	<ul style="list-style-type: none"> • Providing programs that enhance teacher mindfulness is increasingly gaining attention. • Our study of teachers in one program showed a significant association between teacher's vitality in emotional expression and CLASS instructional support scores. • Significant associations between teacher executive functioning and CLASS classroom management were also found. • Teacher emotion regulation and executive functioning are important predictors of effective classroom practices and could be enhanced using teacher mindfulness programs.



<p><i>The Simple View of Mathematics for Language-Minority Children</i> Marc Goodrich, Jessica Namkung</p>	<ul style="list-style-type: none"> • Language-minority children may not have stronger academic skills in their first language than they do in their second language. • Development of language and literacy skills in the first language supports development of second language reading comprehension. • Caution is warranted when using word-problem solving measures to assess young language-minority children’s mathematics skills, as the language and reading demands inherent in word problems may yield scores that are not representative of mathematics ability. • It is important to integrate support for language development into early mathematics intervention for language-minority children.
<p><i>Translanguaging for Biliteracy Development: Book Reading Practices in a Chinese Bilingual Family</i> Lydiah Kiramba, Shuling Yang</p>	<ul style="list-style-type: none"> • Initial analysis of the discourse data shows linguistic and cultural bridging for biliteracy development through use of translanguaging practices. • The study demonstrates the benefits of biliteracy, allowing children to gain access to broad array of cultural resources for thinking, ability to read in one language and discuss what is read in another which helps students garner and combine variable funds of knowledge from two language environments for personal and academic use • The findings suggest that translanguaging in reading is a resourceful practice for bilingual reading, it allows bilinguals to navigate between their multiple communicative repertoires to make meaning of academic texts.
<p><i>Digital Storytelling With English Learning Families</i> Stephanie Wessels, Brandy Junkins, Guy Trainin</p>	<ul style="list-style-type: none"> • Digital storytelling narratives are authentic literacy practices where parents and children create meaningful, purposeful learning experiences. Moving from oral storytelling to digital storytelling, creates a permanent artifact to capture that meaningful experience. • Technology has the most value when used jointly by adults and children. • For multilingual families to become active participants in the life of schools, they must be welcomed, valued, and connected to each other and to what their children are doing.
<p><i>Playing With Nature: Fostering Children's Creativity and Problem-Solving</i> Christine Kiewra</p>	<ul style="list-style-type: none"> • Preschool children’s creativity is supported with daily time spent exploring natural outdoor classrooms full of open-ended natural materials. • Creativity, imagination, and elaborate problem-solving is best supported by educators who have the knowledge to recognize the educational potential as well as skills to scaffold learning experiences. • Qualitative studies of early childhood outdoor experiences add to the growing awareness of the rich benefits of connecting children with nature.



<p><i>Children's Executive Functioning in a Natural Outdoor Setting vs. Indoors</i> Julia Torquati, Anne Schutte</p>	<ul style="list-style-type: none"> • Natural environments provide benefits for how children think, including benefits for children's attention, working memory, inhibitory control and important implications for self-regulation. • Access to nature during the school day can help children to be successful. Access might include recess, windows, outdoor classrooms, or forest schools.
<p><i>Associations Between Physiological Regulation and School Readiness in Young Children</i> Carrie Clark</p>	<ul style="list-style-type: none"> • Heart rate variability (HRV) is thought to provide a physiological measure of emotion regulation. • In this study, children's HRV during a learning task correlated with age and with performance on measures of inhibitory control, short-term memory, and basic numeracy. Relationships were stronger in girls than in boys. • HRV may be a useful target in interventions to support young children's emotion regulation. Biofeedback based on HRV may potentially be a useful tool for helping to foster school readiness in young children. • There is a need for further research to determine whether individual fluctuations in HRV correlate with dynamic changes in children's attention and readiness to learn and to determine whether these links are present within real-world early childhood settings.

