

Abstracts - Paper presentations

Pa02

Developing Children's Computational Thinking Through Multimodal Literacies in Pop-Up Storybooks

Ms. Jenny Wanyi Li

PhD student

1155226455@link.cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Dr. Suzannie K. Y. Leung

suzleung@cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Dr. Melissa Dan Wang

Ms. Jenny Wanyi Li

MelissaDanWang@link.cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Prof. Mantak Yuen

Faculty of Education, University of Hong Kong

Keywords

Computational thinking, pop-up storybooks, multimodal literacies

Abstract

Arts have a significant place in children's learning. Creating a pop-up storybook is a child-friendly educational method that could promote children's expression and cognitive development. In recent years, computational thinking (CT) has gained lots of attention in early childhood education and is considered a skill that should be mastered by everyone, not computer scientists only. Multimodal literacies are increasingly applied in the education setting and are utilized in teaching and learning through oral, written, visual, spatial, and gestural multimodal communication. Although there is an increasing research focus on children's CT education with programming robots, only a limited study combines CT and art. Therefore, based on the arts-based educational research (ABER) method, this study aims to develop children's multimodal computational thinking, and the following are two research questions: (1) What CT skills do children practice in pop-up storybook production? (2) How do children develop their CT through pop-up storybook production? In this study, 12 children were invited to participate in a Pop-up Storybook Production workshop to learn pop-up knowledge and techniques and then create their own unique pop-up storybooks. We adopted an observation method to capture the children's CT behaviours, generating a total of 180 minutes of activity videos and collecting fieldnotes and the children's worksheets and artworks for the data analysis. Based on the content analysis, we found that children enhanced CT development in multiple modes and practised seven CT skills in algorithms, modularity, design process, control structures, representation, debugging, and hardware/software. In conclusion, our study emphasizes the importance of art in children's education and provides new insights for subsequent research on children's CT education.

Pa03

Reassessing the Medium of Instruction Policy in Hong Kong: Opportunities and Challenges for Bilingual Education

Ms. Tracy Chui-Yi Wong

Researcher

wongchuiyitracy@link.cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Dr. Suzannie K. Y. Leung

suzleung@cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Keywords

Bilingual education, medium of instruction, language policy, content and language integrated learning, translanguaging, Hong Kong

Abstract

Due to the competitive society and the era of globalization, English proficiency is essential for every student. However, there has been a notable decline in English language standards among teachers and students in Hong Kong (HK), leading to significant concerns about their ability to achieve high levels of proficiency. In response, the HK government introduced the “Fine-tuning Medium of Instruction (MOI) Policy” in 2010, which offers schools increased flexibility in adopting the English-as-a-medium-of-instruction (EMI) curriculum, a partial English-medium curriculum, or a Chinese-as-a-medium-of-instruction (CMI) curriculum, with the premise of fulfilling the specific criteria. Additionally, the adoption of content and language integrated learning (CLIL) has garnered popularity as a means to enhance English exposure and meet parental expectations in the recent years. However, ongoing debates have emerged, questioning the effectiveness of EMI settings in facilitating both subject knowledge acquisition and second language (L2) learning. This study employs literature review, theoretical analysis, and conceptual synthesis to reassess the MOI language policy. It utilizes frameworks such as Bourdieu’s theory of capital and Deleuzian rhizomatic theory as theoretical lens to explore the interplay between linguistic, cultural, and social capital. This research also examines the strategies for addressing the predominant linguistic ideologies, stratification between EMI and CMI schools, and the general decline in English proficiency. The study proposes that integrating CLIL with translanguaging approaches as a pathway to foster a co-learning environment between teachers and students, which can potentially enhance the language learning experiences in the HK context. The findings aim to provide valuable insights for curriculum developers, school principals, teachers, and parents to reassess L2 learning, so as to enhance bilingual education and address challenges associated with the MOI policy. Furthermore, it emphasizes the critical role of language policy in education, and international communication, contributing to the improvement of the overall bilingual education in HK and insights into the boarder discourse on language policies.

Pa04

Exploring Hong Kong Pre-service Teachers' Perceptions on Children's Play and Learning through Play

Ms. Tracy Chui-Yi Wong

Researcher

wongchuiyitracy@link.cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Dr. Suzannie K. Y. Leung

suzleung@cuhk.edu.hk

Department of Curriculum and Instruction, The Chinese University of Hong Kong

Keywords

Pre-service teachers, learning through play, play-based curriculum, early childhood education

Abstract

In the 21st century, play is increasingly acknowledged as a vital force for facilitating children's growth and holistic development. The concepts of learning through play and play-based curriculum have significantly gained global traction among educators and researchers in the field of early childhood education (ECE). However, in the specific context of Hong Kong (HK), many parents and teachers, and relevant stakeholders express a lack of confidence and proficiency in implementing these play-based approaches to support children's personal growth and academic learning within ECE. Particularly, the extent to which ECE pre-service teachers understand and internalize these concepts remains largely unexplored. To address this gap, the present study aims to: 1) explore the perceptions of HK pre-service teachers regarding the implementation of a play-based curriculum, and 2) identify the challenges they face in the ECE context. Utilizing a mixed-methods approach, the research combines the Play Beliefs Scale with qualitative focus group interviews. Data was collected from 200 survey respondents and 150 minutes interview content from ECE pre-service teachers enrolled in recognized teacher education programs in HK. The findings revealed a notable contradiction among pre-service teachers. While they express positive beliefs about the effectiveness of a play-based curriculum in ECE settings, they report significant challenges and insufficient support in its practical implementation. This highlights the pressing need to critically examine the integration of play-based curriculum within the HK ECE landscape. The broader implications of these findings for the Asia-Pacific region are also discussed.

Pa05

The Impact of Electronic Games Addiction on Preschool Children and the Role of Parents and Teachers in Mitigating Its Effects

Ali Mustafa AlElaimat

Associate Professor, Child Education Department

aliolaimat@hu.edu.jo

Queen Rania Faculty for Childhood, Hashemite University

Keywords

Electronic Games Addiction, Preschool Children, Parental and Teacher Intervention

Abstract

Rationale for the study

This study examines the increasing issue of electronic games addiction among preschool children, prompted by rising accessibility to digital devices and games. Given the potential negative impacts on children's health, behavior, and development, it is critical to investigate these effects and determine strategies to mitigate them.

Purpose(s) and research question(s) of the study

The main aim of this study is to assess the extent of electronic game addiction's impact on preschool children and to understand how parents and teachers can contribute to reducing its negative consequences. The research questions include: What are the specific impacts of gaming addiction on children's social and educational development? What role do parental and teacher interventions play in alleviating gaming addiction in young children?

Brief description of methodology including that used for data analysis

This study adopts a descriptive-analytical approach, with a sample consisting of 260 parents and 126 preschool teachers. Data was gathered through a structured questionnaire with 41 items aimed at measuring the effects of gaming addiction and evaluating the roles of parents and teachers in mitigating these impacts. Statistical analysis was employed to identify correlations and trends.

Summary of findings, conclusion, and implications

Findings reveal a significant role for both parents and teachers in reducing the adverse effects of electronic games addiction among young children. The study found a high prevalence of gaming activity, impacting children's health, behavior, and socio-educational aspects. Teachers are recommended to implement educational strategies to reduce gaming addiction, while parental awareness programs are encouraged to highlight the risks and the importance of monitoring children's gaming habits. These interventions aim to support better health and developmental outcomes for children by addressing the challenges of gaming addiction.

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Pa06

Preschool Teachers' Perspectives on Sustainability Education for Young Children in Hong Kong

Dr. Anika Saxena

Lecturer 1

asaxena@eduhk.hk

The Education University of Hong Kong

Ms. Ada Tsang

Senior Lecturer

adatsang@twc.edu.hk

Tung Wah College, Hong Kong

Keywords

preschool teachers' perspectives, sustainability, early childhood education

Abstract

- **Rationale for the study**

This study investigates the perspectives of preschool teachers on education for sustainability (EfS) for young children in Hong Kong. As global environmental challenges escalate, integrating sustainability into early childhood education is increasingly critical. The research aims to explore how preschool educators perceive their roles in fostering environmental awareness and promoting sustainable practices among young learners.

- **Purpose(s) and research question(s) of the study**

Our goal is to explore and assess the perceptions of early childhood education teachers in tHong Kong. To guide our research, we have formulated the following questions: (1) What are early childhood teachers' views on the advantages of sustainability education? (2) What is the extent of their training in sustainability education practices, how do they implement these practices, and what challenges do they face in their execution? (3) What are the key differences based on the school's location?

- **Brief description of methodology including that used for data analysis**

Employing a qualitative research approach, semi-structured interviews were conducted with 21 preschool teachers from diverse institutions across Hong Kong. Participants were selected based on their involvement in sustainability initiatives and their experiences implementing related educational practices. The interviews focused on teachers' beliefs regarding the significance of sustainability education, the challenges they encounter, and the strategies they use to incorporate sustainability into their curricula.

- **Summary of findings, conclusion, and implications (for ongoing research studies – expected outcomes and anticipated contribution of the research)**

Findings

The findings indicate a strong consensus among preschool teachers on the importance of sustainability education. Educators emphasized that introducing environmental concepts early is crucial for developing children's ecological awareness and responsible behaviors. Many believe that Education for Sustainability (EfS) is vital for children's development and future well-being (Lasen, Skamp & Simoncini, 2017). Teachers advocated for a holistic integration of sustainability throughout the preschool curriculum, highlighting hands-on activities like gardening and nature exploration to strengthen children's connection to the environment (Iwan, 2016; Gough et al., 2020). They also agreed on the importance of fostering a connection to nature from a young age,

as positive experiences in nature are linked to pro-environmental behavior and activism in adulthood (Croft, 2016).

Despite this agreement, several challenges emerged. Teachers expressed concerns about their knowledge gaps regarding environmental issues and the lack of resources for effectively implementing sustainability initiatives. Additionally, they noted that parental attitudes toward outdoor activities and environmental education sometimes hindered these programs (Dönmez, 2024).

Discussion

This study emphasizes the essential role preschool teachers have in shaping children's understanding of sustainability. Educators' prior knowledge and experience in Education for Sustainability (EfS) are vital for delivering quality content (Samuelsson & Park, 2017). It also highlights the urgent need for professional development focused on environmental education to provide teachers with the necessary knowledge and skills (Oancea, 2024). Moreover, fostering collaboration between educators and parents is critical for creating a supportive environment for sustainability education.

Conclusion

In conclusion, preschool teachers in Hong Kong recognise the importance of sustainability education and are committed to integrating it into their practices. However, addressing the barriers they face is essential for improving sustainability initiatives in early childhood settings. This research provides valuable insights into educators' perspectives and establishes a foundation for future studies to enhance environmental education in preschools across Hong Kong and beyond.

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Pa07

Teachers' Perspectives on Giftedness and Affective Education for Gifted Students in A Primary School: A Case Study

Dr. Ho Lam SIN

Programme Coordinator (SCCW) and Lecturer

tiffanysin@hkbu.edu.hk

Hong Kong Baptist University

Keywords

gifted education; affective education; qualitative study

Abstract

The purpose of this qualitative study was to explore how teachers in a primary school in Hong Kong describe their perception of giftedness, gifted education (GE), affective education (AE) for gifted students, and their attitudes towards teacher training on GE and AE for gifted students in primary school. The theoretical foundation of this study is based on the framework of Gagné's Differentiated Model of Giftedness and Talent (Gagné, 2008), Krathwohl's affective taxonomy (1964), and Tomlinson's (2018) differentiated instruction or connection. Three research questions served as a guide for the study on primary school teachers: (1) What are the teachers' perspectives on giftedness? (2) What are the teachers' perspectives on AE and the affective needs of gifted students? (3) What are the teachers' attitudes towards teacher training on GE and AE for gifted students? The study sample consisted of 22 participants from a primary school and was collected through purposeful sampling. The study samples were gathered from the uniqueness of this primary school based on a benchmarking and best practices of GE and AE, the strong leadership and culture leading GE and AE, policy and systematic changes that benefit students' affective learning, diverse differentiated curriculum and instructions, interactive peer learning and collaboration and cross-collaboration in student support systems, and various professional teacher training in GE and AE are well-established. The participants were interviewed using individual semi-structured interviews (10 participants) and two focus groups (12 participants).

NVivo-14 was used to conduct thematic analysis of the collected interview, which consisted of 7 themes, including Theme 1: Perception and meaning of giftedness to teachers; Theme 2: Systematic and effective GE nomination channels through observation, academic ranking and multiple intelligences to identify giftedness; Theme 3: Best practices to enhance the effectiveness of implementing GE policy, curriculum, and practices; Theme 4: Recognise AE characteristics of gifted students impeded social and emotional development; Theme 5: Factors influencing the effectiveness of AE implementation in school; Theme 6: Internal and external challenges in implementing AE, and Theme 7: Prioritization of teacher training focus and multidisciplinary collaboration influence AE and GE implementation.

Findings revealed the importance of the connection between GE and AE, which included interactions with the environment, teachers, and peers as catalysts for gifted students to promote affective learning in the classroom. The findings are closely aligned with the Gagne's model because of its emphasis on human and environmental catalysts, focuses on affective learning outcomes associated with Krathwohl's model, and highlights Tomlinson's differentiated instruction on how to cater for diverse needs of gifted students in inclusive classroom. Further thoughts on theoretical and practical implications are discussed.

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Pa08

Development and Validation of the HEALTH-Related Quality of Life Pictorial Scale for Children

Ms. Tracy Chor Wai Tang

PhD Student

tracytang@s.eduhk.hk

The Education University of Hong Kong

Dr. Derwin K.C. Chan

The Education University of Hong Kong

Keywords

Scale Development, Child Wellbeing, Health-Related Quality of Life

Abstract

Rationale for the study: Measurement of health-related quality of life (HRQoL) in children can be both a predictor and indicator of their health-status. However, existing measures of parent-proxy and age-suited questionnaires both present with limitations and observation/recall biases that may result in an inaccurate measure of child HRQoL. Pictorial scales on the other hand may address some of these barriers in lowering the necessary cognitive demands and make the whole experience more fun and engaging for children (Barnett et al., 2015; Bhattacharyya et al., 2019; Maćkiewicz & Ciecuch, 2016; Sauer et al., 2020; Valla et al., 2000). Some pictorial questionnaires within the literature have even been shown comparable to objective measures and have established various forms of validities (Chan et al., 2020; Sauer et al., 2020; Valla et al., 1994). Although pictorial scales have been gaining popularity amongst the literature, there is currently no pictorial scale measuring HRQoL in children.

Purpose and research questions of the study: To address this research gap, we have aimed to develop and validate a novel pictorial scale to assess HRQoL in children aged 4-8 years old.

Brief Description: Following the protocol of Tang et al. (2024), we investigated child development literature (Kassin et al., 2023; Matheis & Estabillo, 2018; McElhill, 2023; Rochester et al., 2019; Siegler et al., 2003), and allowed the feedback of experts (n=10) and parents (n=25) in item development. Through a Delphi method revision processes (Dalkey & Helmer, 1963; de Meyrick, 2003), we were able to reach a consensus and developed the item pool for the Health-related Quality of Life Pictorial Scale for children (HEALTH-PIC). Subsequently, we rigorously tested the questionnaire in parent-child dyads and established factorial, concurrent, discriminant, criterion, predictive validity and internal consistency and temporal stability of the scale in addition to its measurement invariance across countries in both a cross-sectional (n=342) and a longitudinal study (n=611).

Summary: Overall, the HEALTH-PIC was developed and shown to be able to measure HRQoL in children aged 4-8. Moreover, we were able to provide statistical proof of the scale's content validity, factor structure (CFI and TLI > .99; RMSEA and SRMR ≤ .08), concurrent validity ($p < .001$), discriminant validity (AVE < shared variance), criterion validity ($p < .001$), predictive validity (CFI=0.976, TLI=0.952, RMSEA=0.046, and SRMR=0.028), test-retest reliability ($r=0.64$, $p < 0.001$), internal consistency (i.e., Cronbach's $\alpha=.60 - .66$), and measurement invariance (Δ CFI=0.007, Δ RMSEA=0.000, Δ SRMR=0.006).

This new assessment tool is built on a strong statistical foundation and has been thoroughly tested and is currently able for use in different countries and situations where the results can contribute to healthcare, research and practice.

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Pa09

The Effectiveness of a 4-week Treading Water Programme on Children's Swimming Competence: A Randomised Controlled Trial

Shebe Siwei Xu

full-time EdD student

siwei_xu@yeah.net

The Education University of Hong Kong

Keywords

Treading water, children's swimming competence, drowning prevention, water safety

Abstract

Objective: This study employed a double-blinded randomised controlled trial design to examine the effectiveness of a 4-week treading water programme (TWP) on children's swimming competence and their ability to tread water.

Methods: A total of 15 students (male = 53%; age range, 5–10 years) were recruited from a local swimming club in Hong Kong. The intervention group ($N = 8$) received a 4-week TWP with drowning prevention education, whereas the control group ($N = 7$) received a drowning prevention information sheet and regular training. The swimming competence index was assessed by the Swimming Competence Questionnaire (SCQ), the duration of water loading was measured using a stopwatch, and the non-fatal aquatic events were recorded via a modified questionnaire. The collected data were analysed by the Mann–Whitney U test and Chi-square test.

Results: Compared with the control group, the intervention group demonstrated statistically significant improvements in the duration of SCI and treading water duration compared to the control group after the TWP ($p < 0.05$). No significant difference was found in the non-fatal aquatic events pre- and post-test in the intervention group.

Conclusion: These findings support the effectiveness of incorporating treading water training into drowning prevention programmes to increase children's overall swimming competence and water safety. This study provides valuable insights for future programmes and initiatives aimed at enhancing children's water safety and contributes to efforts to reduce drowning incidents.

Pa11

Effect of online professional development on kindergarten teachers' beliefs and intentions regarding teacher-child interactions

Dr. Xuanyi Eliza WU

Post-doctoral Fellow

wuxuanyieliza@gmail.com

The Education University of Hong Kong

Dr. Alfredo BAUTISTA

aboutista@eduhk.hk

The Education University of Hong Kong

Prof. Kerry LEE

Kerry.Lee@yccece.edu.hk

Yew Chung College of Early Childhood Education

Keywords

Teacher beliefs and intentions, teacher-child interactions, online PD

Abstract

- **Rationale for the study**

The sensitive, responsive, and positive interactions between teachers and children support children's learning and development (Hamre et al., 2012). Providing professional learning resources could help teachers understand and acquire necessary skills to implement quality interactions and instructions into classrooms (Langeloo et al., 2019). However, professional development (PD) opportunities for early childhood teachers on how to interact with children are typically insufficient. To enhance teacher-child interactional quality in Hong Kong kindergartens, we designed an online PD entitled *Chat with Children*, composed of 10 units of learning resources and activities.

- **Purpose(s) and research question(s) of the study**

The objective of this study was to explore how this online PD course influenced teachers' beliefs and intentions regarding interacting with children.

The Research Question investigated in this examination was: How did the *Chat with Children* online PD course impact on teachers' beliefs and intentions regarding teacher-child interactions, specifically in terms of the dimensions (Santelices et al., 2023) 1) Group Sensitivity, 2) Encouragement of communication, 3) Behavioral Support, and 4) Organization of the Teaching Experience?

- **Brief description**

A single-group, pre-post survey design was adopted. The demographic questionnaire was used to collect teachers' background information. We used the scale of Teaching Beliefs and Intentions (Wilcox-Herzog & Ward, 2004) before and after the course. A total of 217 teachers from over 30 different kindergartens in Hong Kong registered for the course. Teachers who submitted the complete demographic questionnaire and pre-course survey were given access to the PD course. Teachers were allowed to use a self-paced learning mode to complete the course. At the end of the course, we distributed the post-course survey for teachers to complete online. Pearson correlations and paired samples t-tests were used to examine the relationships and effectiveness of dimensions.

- **Summary**

Pearson correlations analysis revealed significant correlations within and between the four dimensions. The paired-samples t-test showed that after taking the course, the kindergarten teachers achieved a significant increase in the dimension of Group Sensitivity ($t = -3.919$; $df = 136$; $p < .001$), Encouragement of Communication ($t = -6.105$; $df = 136$; $p < .001$), and Organization of the Teaching Experience ($t = -2.203$; $df = 136$; $p < .05$). However, kindergarten teachers also showed a significant decrease in the dimension of Behavioral Support ($t = 2.148$; $df = 136$; $p < .05$).

we conclude that having the access to online PD courses that focus on improving teacher-child interactional quality may help teachers develop stronger beliefs and intentions to address children's needs with sensitivity, engage children in communications, and organize interactive activities. Additionally, PD may lead teachers to consider more open and communicative approaches to manage difficult situations and redirect children's misbehaviors, instead of immediate interventions.

We advise PD researchers to further explore how online PD programs could promote the transformation of teachers' beliefs and intentions. Moreover, we suggest that PD practitioners should pay attention to the content of PD courses that may influence teachers' beliefs and intentions regarding teacher-child interactions. Finally, we recommend that policymakers should consider cultural factors when designing professional learning programs.

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Pa12

Effectiveness of a Personalised Healthy Eating Report Card on Improving Children's Healthy Eating in Hong Kong

Ms. Alison Wing Lam Wan

PhD Student

alisonwan@s.eduhk.hk

The Education University of Hong Kong

Dr. Derwin K.C. Chan

The Education University of Hong Kong

Keywords

healthy eating intervention, report card, eating behaviours, family home food environment, preschool-aged children

Abstract

Background: Building on the previous regional and international-level Healthy Eating Report Cards to assess the prevalence of healthy eating among preschool-aged children, an individual-level Healthy Eating Report Card was developed to provide parents with personalised insights into how well their child adhered to the international nutrition guidelines and engaged in favourable family home food environments (FHFEs).

Purpose: This randomised controlled trial employed a single-blinded, three-arm parallel group design to assess the effectiveness of presenting parents with a personalised Healthy Eating Report Card on improving preschool-aged children's eating behaviours and FHFEs.

Methods: Three hundred thirty-one parent-child dyads from the eight local Kindergarten in Hong Kong were recruited. Parents were asked to complete the International Healthy Eating Report Card Scale (IHERCS) at baseline and post-intervention (1 month after). Participants were randomly assigned to one of three groups: (i) the report card intervention group (who received a personalised report card that included letter grades on their child's eating habits and FHFEs, along with actionable recommendations for improvement), (ii) a usual care control group (who received a standard government-issued leaflet on healthy eating) or (iii) a mere-measurement control group (who received no healthy eating materials). Outcomes were assessed by comparing the improvement in the overall report card scores from baseline to post-test between the different groups.

Results: ANCOVA analyses revealed that the overall report card score was statistically different between the three groups after adjusting for the baseline value [$F(2,327) = 3.98, p < .05, \eta_p^2 = .02$]. Bonferroni post-hoc tests revealed that children in the intervention group showed a significantly greater improvement compared to those in the mere-measurement control group ($p < .05$). Specifically, the mean score for the intervention group improved by 4.7% compared to the control group. Children in the usual care group showed no significant improvement compared to either the intervention group or the mere-measurement control group ($p > .05$).

Conclusion: This study provided promising evidence on the effectiveness of a personalised Healthy Eating Report Card in promoting healthy eating among preschool-aged children. The report card demonstrated an effective and scalable strategy for health intervention.

Pa13

Fostering a Collaborative Community for Early Childhood Development in Rural Areas Through Home Visits

Peijing Qiao

PhD student

1155186181@link.cuhk.edu.hk

The Chinese University of Hong Kong

Si Chen

Assistant Professor

schen@cuhk.edu.hk

Hong Kong, The Chinese University of Hongkong

Lin Deng

PhD

lindeng2012@gmail.com

University of Florida, Gainesville, USA

Keywords

home visit, rural China, community partnership

Abstract

Rationale for the Study

Researchers have explored various approach to support families in low-resources areas with caring for their children. Home visiting programs are widely implemented to strengthen parenting skills, connect families to resources, and promote child development (Edwards et al., 2020; Sweet & Appelbaum, 2004). While these programs are common in English-speaking countries, they remain underexplored in China, particularly in community-based models within low-resource areas.

The China REACH program, initiated by the China Development Research Foundation (CDRF) in 2015, supports families in rural China through weekly, free home visits. Home visitors deliver scientific parenting knowledge that promote children's development. Studies show that participating children experience gains in language and cognitive skills (Zhou et al., 2023). Expanded to Guzhang County (Hunan Province) in 2018, REACH continues to enhance family support and strengthen caregiver-child interactions.

Purpose and Research Question of the Study

As a well-established program with potential for broader impact (Heckman et al., 2020), this study aims to understand how REACH builds collaborative partnerships between families and home visitors to promote children's development. Using a qualitative approach through the "Community of Practice" (CoP) framework (Wenger, 1998), which views learning is a social process rooted in a community interaction, we seek to explore these dynamics within home visits. This lens guides our inquiry into the following research questions:

- 1) How do families and home visitors collaborate to create a supportive learning and development community for children aged 6-36 months through home visits and educational activities?
- 2) What effective practices and routines, co-constructed by families and home visitors, support children's development, and what barriers do they encounter?

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Method

For the REACH project in Guzhang, we conducted qualitative interviews with five families and their home visitors. Each interview took place in the family's home. Using semi-structured questions, we guided one-on-one, audio-recorded interviews, each lasted 40-60 minutes to encourage participants to share their experiences. We transcribed and analyzed the interviews thematically, using both inductive and deductive methods. To ensure credibility, we verified translations, consulted education experts, and triangulated the findings with home visit videos (interaction activities) and family questionnaires.

Summary of findings and Significance

This community-based home visiting program creates a collaborative environment where parents, home visitors, and caregivers work together to support children's development. With a shared commitment to fostering children's growth, parents gain confidence in their caregiving skills as trust and support deepen. Home visitors, adapting their guidance to each family's unique needs, provide tailored support that strengthens this partnership. A key to the program's success is the reciprocal learning process between parents, home visitors, and children, which enhances children's cognitive, language, and social-emotional skills.

China REACH Project in Guzhang highlight the potential for home visiting programs to bridge gaps in educational support, particularly in areas where formal educational services may be lacking or difficult to access. This community-oriented model could empower parents to take an active role in their children's learning. Parents are given hands-on support in understanding educational strategies and are encouraged to integrate these strategies into their daily routines.

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Pa14

Working Memory Capacity and Early Math Achievement: The Role of Learning-Related Behaviors

Ms. Leran Meng

EdD student

s1146951@s.eduhk.hk

The Education University of Hong Kong

Abstract

Previous research has suggested that training interventions focused on working memory may increase working memory capacity (Scionti et al., 2020; Ramani et al., 2017). However, the extent to which these improvements transfer to broader cognitive tasks that rely on working memory, such as mathematics, remains a topic of debate (Sala & Gobet, 2020; Passolunghi & Costa, 2016; Melby-Lervåg et al., 2016). The inconsistency of far-transfer effects highlights the need to improve working memory training protocols by exploring other relevant pathways.

One such pathway involves learning-related behaviors (LRBs), such as attentional control, persistence, and strategic problem-solving. Research has shown that LRBs are associated with working memory capacity and significantly influence academic success, especially in mathematics (Day et al., 2015; Anthony & Ogg, 2020; Sasser et al., 2015). Therefore, it is possible that LRBs affect how effectively students utilize their working memory in learning situations, specifically, through mediating or moderating the direct effect of working memory on math achievement.

Given the limited research in the relations among LRBs, working memory, and academic achievement, this study focuses on the potential role of LRBs in the relation between working memory capacity and mathematics performance. I hypothesize that the relation between working memory and mathematics may vary depending on children's LRBs. Specifically, I will explore whether LRBs moderate the association between working memory and math performance. This investigation will use a cross-sectional design, assessing children's working memory, LRBs, and math achievement at the start of the school year.

The participants in this study are K2 children in Shijiazhuang, totaling 163 kindergarteners (ages 4-5 years) recruited from two different kindergartens. Each participant completed an individual assessment with the researcher, including a Corsi test (forward and backward) to measure working memory, a number line game, and a symbolic/non-symbolic test to assess math ability. Classroom teachers completed the Preschool Learning Behaviors Scale (PLBS) to report each child's in-class learning-related behaviors. To enhance the reliability of the LRB scores, the researcher also observed each child's in-class learning performance and recorded observations based on PLBS items. Data collection is complete, and data cleaning and analysis is underway.

I will conduct two parallel linear regression models to examine the effects of working memory, LRBs, and their interaction on children's (1) number line estimation scores and (2) symbolic/non-symbolic test scores, respectively. I hypothesize that children with higher levels of working memory and/or LRBs will perform better in math. Additionally, among children with similar working memory levels, those with lower LRB scores will score lower in math. The findings will inform our understanding of mathematical learning and development, as well as the design of working memory and LRB interventions that are sensitive to individual child's needs.

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Pa15

Exploring Teachers' Challenges in Hong Kong Kindergarten Moral Education: Insights from Philosophy for Children

Mr Ho Sum Jon

Research assistant
shsjon@eduhk.hk

Department of Early Childhood Education, The Education University of Hong Kong

Dr. Kong, Siu-hang

shkong@eduhk.hk

Department of Early Childhood Education, The Education University of Hong Kong

Dr. Bautista, Alfredo

abautista@eduhk.hk

Department of Early Childhood Education, The Education University of Hong Kong

Ms. Leung, Iris Tuen Yung

irisleung@eduhk.hk

Department of Early Childhood Education, The Education University of Hong Kong

Keywords

moral education, Philosophy for Children, early childhood education

Abstract

Nurturing children's moral character and promoting appropriate behavior is a fundamental responsibility of society. Therefore, enhancing the quality of educators in teaching moral education is essential. Previous scholars in curriculum development have established an educational approach known as Philosophy for Children (P4C), which includes specific teacher education, curriculum, and pedagogy to support Western educators in delivering moral education (Lipman, 2003; Sharp, 1984, 2009). P4C is recognized as one of the most frequently implemented approaches, yielding significant benefits for students' moral development in Western society. However, its effectiveness for young children and the current state of moral education within the context of Chinese early childhood education remain underexplored.

Therefore, this exploratory study aims to investigate the current state of teaching and learning experiences related to the moral education curriculum in Hong Kong by addressing the following research questions:

1. What challenges do in-service teachers encounter when implementing the moral education curriculum in kindergarten?
2. To what extent is P4C beneficial for teachers in delivering moral education in kindergarten?

We employed qualitative analysis on the data collected from semi-structured interviews with ten kindergarten teachers in Hong Kong, China. Using Stake's (1967) model of curriculum evaluation as a framework, the analysis centres on identifying recurring words, phrases, and sentences through in vivo coding, utilizing both manual and assisted thematic analysis methods. The findings indicated significant challenges in delivering moral education among Chinese kindergarten teachers, including insufficient

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resources, entrenched practices, and inadequate professional development opportunities. Additionally, our research indicated that integrating P4C into the school-based curriculum could enhance the consistency and effectiveness of delivery of moral education in kindergartens.

We conclude by advocating that future initiatives should prioritize enhancing the quality of teacher training and instructional materials through the integration of the Philosophy for Children (P4C) framework into the educational curriculum, particularly in areas where educators face challenges such as insufficient resources and inadequate professional development. Ultimately, this study demonstrates that the implementation of P4C in educational practices can foster advancements in kindergarten educational contexts in Hong Kong, thereby contributing to the development of the kindergarten education curriculum and the application of P4C in the region.

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Pa16

Early Childhood Teachers' Attitudes, Perceived Challenges and Self-efficacy in STEM Teaching

Ms Ruoyu Wen

Lecturer

ruoyu.wen@yccece.edu.hk

Yew Chung College of Early Childhood Education

Keywords

STEM Education, STEM Methods Course, Attitudes and Self-efficacy

Abstract

STEM education, integrating science, technology, engineering, and mathematics to foster innovation, is receiving increasing global attention. Early exposure to STEM is believed to have long-lasting impacts on children's cognitive and academic development (Campbell et al., 2001; STEM Working Group, 2017). As such, there is a growing push for well-prepared early childhood (EC) teachers to implement STEM education effectively. However, as STEM represents a relatively new approach in EC, many teachers report lacking the confidence and skills needed to understand and apply STEM in their classrooms (Kurup et al., 2019; Lange et al., 2021; Lee et al., 2019). As teacher attitudes and self-efficacy are known to be a predictor of future teaching practices, this mixed-method study examines the attitudes, perceived challenges, and self-efficacy of preservice and in-service teachers in STEM teaching in ECE. Participants included 29 first-year and 31 second-year preservice teachers from a teacher training college, as well as 45 in-service kindergarten teachers. A 35-item survey was developed and used as the instrument to explore participants' attitudes, challenges, and self-efficacy while also identifying discrepancies between these groups. An intervention in the form of a STEM methods course was provided to the second-year preservice teachers to assess their changes. Quantitative findings revealed significant differences in self-efficacy between in-service and preservice teachers, while no statistical differences were found in attitudes or perceived challenges. Notably, the STEM methods course significantly improved the self-efficacy of second-year preservice teachers. To further explain these results, follow-up interviews were conducted, and qualitative data were analysed using reflexive thematic analysis (Braun & Clarke, 2019). Four themes emerged: 1) Understanding of STEM Education; 2) Effective Approaches and Perceived Challenges to STEM Teaching; 3) Past Experience with STEM Learning and Teaching; and 4) Changes Following the STEM Methods Course. This study, therefore, provides valuable insights into EC teacher training for STEM education in Hong Kong.

Pa17

Play-based Learning in Early Childhood Education across Cultural Contexts: A Scoping Review

Ms. Yuqing LIN

EdD student

s1158163@s.eduhk.hk

The Education University of Hong Kong

Sum Kwing CHEUNG

sskcheung@eduhk.hk

The Education University of Hong Kong

Keywords

play-based learning; early childhood education; cultural contexts

Abstract

While play-based learning has gained prominence in early childhood education internationally, there remains a significant gap in understanding its implementation through a sociocultural lens. This scoping review aims to examine how cultural contexts influence early childhood educators' implementation of play-based learning. The review analyzes and synthesizes empirical research published between 2000 and 2024, focusing on cross-cultural variations in the implementation of play-based learning in early childhood settings, as well as early childhood educators' conceptualization, roles, and challenges faced in play-based learning.

Findings reveal distinct cultural paradigms in approaching play-based learning. One possible explanation is the cultural variations in the emphasis on developing academic skills versus socio-emotional competence in early childhood education. This, in turn, influences early childhood educators' interpretation of the relationship between play and learning, as well as the extent to which and how they participate in children's play. Additionally, this review identifies several culturally-specific challenges in the implementation of play-based learning. They include curricular demands, societal expectations, and levels of professional development training and support.

This synthesis contributes to the theoretical understanding of the role of culture in shaping pedagogies in early childhood education. The findings underscore the necessity for culturally responsive approaches to implementing play-based learning and the importance of considering local cultural contexts for effective implementation. These insights can be valuable for early childhood educators and policymakers in developing culturally sensitive practices that help children learn through play.

Role of Preschool Teachers' Attitudes Towards Mathematics in Their Intention for Early Mathematics Teaching

Dr. Hay Mar Myat Kyaw

Senior Research Assistant

mhaymar@eduhk.hk

The Education University of Hong Kong

Dr. Sum Kwing Cheung

sskcheung@eduhk.hk

The Education University of Hong Kong

Keywords

attitudes towards mathematics; intention for early mathematics teaching; early mathematics teaching

Abstract

Rationale for the study

It is crucial to identify the predictors of preschool teachers' intention to teach mathematics because those with higher intentions may introduce mathematical concepts to children more frequently during various kinds of play and daily routines (Ajzen, 1991).

Purpose(s) and research question(s) of the study

The present study therefore investigated whether and how preschool teachers' attitudes towards mathematics, including their perceived value towards mathematics and enjoyment of mathematics, were related to their intention to teach early mathematics.

RQ1: Are Preschool teachers' enjoyment of mathematics and perceived value of mathematics related to their perceived importance, subjective norm (SN) and self-efficacy regarding early mathematics teaching?

RQ2: Are Preschool teachers' enjoyment of mathematics and perceived value of mathematics related to their intention for early mathematics teaching?

RQ3: Are Preschool teachers' perceived importance, SN, and self-efficacy regarding early mathematics teaching related to their intention for early mathematics teaching?

Brief description of the methodology

The participants were 204 preschool teachers in Myanmar. Through questionnaires, they reported their attitudes towards mathematics, along with their perceived importance, subjective norm, self-efficacy, and behavioral intention regarding early mathematics teaching. A set of path analyses was conducted.

Summary of findings, conclusion, and implications

It was revealed that perceived value of mathematics was directly associated with intention for early mathematics teaching, as well as indirectly through perceived importance and subjective norm regarding early mathematics teaching. Enjoyment of mathematics was directly associated with intention for early mathematics teaching, but indirectly through subjective norm regarding early mathematics teaching only. These results suggest that organizing professional development activities to foster positive attitudes towards mathematics in preschool teachers is worthwhile, as this can boost their motivation to teach young children mathematics.

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Investigating the Factors Influencing Early Childhood Educators' Mathematical Teaching Practices: A Scoping Review

Mengge Liu

EdD Student

s1158188@s.eduhk.hk

The Education University of Hong Kong

Sum Kwing CHEUNG

sskcheung@eduhk.hk

The Education University of Hong Kong

Abstract

The importance of high-quality mathematics education in early childhood has reached a consensus, because such education can lay the foundation for successful mathematics experiences throughout the school years. However, there is currently limited understanding regarding the factors influencing how early childhood educators help young children learn mathematics. This scoping review therefore analyzes empirical research published from 2005 to 2024, with the aim of investigating the factors that influence early childhood educators' mathematics teaching practices.

The results indicate that early childhood educators' mathematics teaching practices are affected by a range of personal factors, such as their views of the nature of mathematics, knowledge of early mathematical development, beliefs about the content of early mathematics education, conceptions of mathematics learning, and professional identity. Environmental factors, such as the training provided by schools and parental expectations, also influence early childhood educators' mathematics teaching practices.

The findings of this scoping review can provide invaluable insights into the content of professional development activities for in-service teachers, as well as initial training for pre-service early childhood educators. They highlight the importance of promoting early childhood educators' pedagogical content knowledge for early mathematics teaching, and show the broad range of skills and attitudes that early childhood educators need to possess to implement high-quality early mathematics education. Additionally, the findings can inform school leaders and policymakers on how to support early childhood educators in creating a learning environment conducive to young children's early mathematical development and adopting effective strategies to help young children master mathematical concepts.

Pa20

Pedagogical Strategies for Integrating Chinese Culture in Early Childhood Education: Utilizing "Chinese Mengxue Children's Stories"

Huimin Tao

Senior Fellow

taohuimin@yccece.edu.hk

Yew Chung College of Early Childhood Education

Ruifeng Pan

Senior Fellow

penny.pan@yccece.edu.hk

Yew Chung College of Early Childhood Education

Dandan Zhang

Senior Fellow

dandan.zhang@yccece.edu.hk

Yew Chung College of Early Childhood Education

Keywords

Chinese Cultural , Pedagogical Strategies, Mengxue Children's Stories

Abstract

· Rationales

"Chinese culture" refers everything that Chinese people are used to depending on in life, in which written Proverbs and old-saying and Chinese children's primers were a historical testimony of Chinese culture stretching for thousands of years(Xu & Rebecca, et al., 2018). Other studies have shown that early childhood education is a crucial stage for developing cultural identity and understanding(Shih & Huang,2022), which should commence with their daily life experiences.

However, some research indicate that the children classical prime education practice doesn't fit the children's developmental characters and the pedagogical strategies employed are teacher-led(Duan,2011). These may not be congruent with the contemporary educational philosophy that places emphasis on child-centered learning and learning through play. Particularly in international schools, there is an increased emphasis on fostering intercultural understanding(Hayden, et al.,2002). Some international schools in China place emphasis on integrating Chinese and Western cultures, while also emphasizing the preservation and respect of traditional Chinese culture(Sanders-Smith, et al.,2023). Therefore, strategically incorporating Chinese culture into the daily lives of children presents significant challenges for educators in this context.

Based on these, This study has developed a series of picture books titled "Chinese Mengxue Children's Stories", which are presented in bilingual. These books are designed to connect traditional Chinese culture with modern-day life by selecting content from traditional Chinese primers that is relevant to children today. However, how teachers could use this set of stories in their practice with a child-centered approach becomes a practical challenge.

· Purposes and research question(s) of the study

The purpose of this study is to explore pedagogical strategies that emphasizes the cultivation of relationships and interactive learning, and is developmentally appropriate to support young children's perception and appreciation of Chinese culture .The research questions are as follows:

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What pedagogical strategies can teachers implement to effectively integrate "Chinese Mengxue Children's Stories" in supporting children's perception of Chinese culture in an age-appropriate manner? How does the integration of "Chinese Mengxue Children's Stories" impact teachers' attitudes, knowledge, and confidence in fostering young children's perception of Chinese culture?

• **Methods used**

We adopted an action research approach, which involved two cycles of choosing to changes, developing plans, taking action, reflecting on experiences, and sharing results. Participants were 10 teachers from 5 classes in one international educational foundation, and data was collected through classroom observation, teacher interviews, and surveys. This approach allowed us to engage in a collaborative process that emphasized practical application and continuous improvement.

• **Findings and implications**

The findings indicated that teachers have gained more strategies in using "Mengxue children's stories" to support children's understanding of Chinese culture. They have become better equipped to integrate Chinese cultural elements into their teaching practices. The stories were found to positively influence teacher attitudes, beliefs, and practices towards to support for Children's Perception of Chinese culture. Specifically, it increased teachers' knowledge and confidence in supporting children's perception of Chinese culture.

Additionally, this study contributes to the field of educational pedagogy by providing insights for educators aiming to effectively integrate cultural content into their teaching practices, particularly in the context of international education and multiculturalism.

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Pa21

Evaluating the Impact of School Uniform and Dress Codes on Early Years Pupils' Confidence, Safety, and Social Dynamics

Mr. Abayomi Olaofe
Graduate Students
olaofeabayomi@ymail.com
Lagos State University

Keywords

School Uniform Policies, Early Childhood Education, Pupil Safety

Abstract

Rationale for the Study

The issues of uniforms and clothing policies appeared very topical for increasing fairness, discipline, and safety in learning institutions. While they have been extensively integrated into teaching learning settings, few empirical investigations have been conducted to determine the impact of the strategies on the multiple development of early years students let alone within the context of the Nigerian socio-economic diversity which poses unique challenges.

Purpose(s) and Research Question(s) of the Study

As the research into the effects of school uniforms and clothing regulations across early childhood scholars in Nigeria, this research explores the perceived influences of the garments worn on students' confidence, safety, and social relationships. Essential inquiries encompass:

1. In what way do the school uniforms affect the class confidence and self- confidence of the students?
2. What role do they play in creating safe societies when used in both within and outside the school compound?
3. 3. In what ways may restrictive dress codes lead to fair practice and help address bullying situations?

Brief Description of Methodology Including Data Analysis

The approach used in this study is quantitative research, in which participants included teachers, parents, and school administration, and data collected through questionnaires with 300 participants. The poll aim was to assess the knowledge level, perceived effects, and satisfaction with existing uniform policy. The research data were analyzed using both frequency and inferential analysis with a view of establishing the relationship between certain variables.

Summary of Findings, Conclusion, and Implications

In the survey, it is proposed that majority of the respondents perceive that school uniforms enhance significantly the pupils' self-confidence while engaging in class activities and reduce appearance-related harassment. More so, reasonable clothing codes are deemed necessary in providing safety to kids during school events and outings. However, there is some disagreement about the appropriateness of application of the clothing standards was helpful in minimizing the injuries on the bodies during the sports activities. Thus, these outcomes underscore the need for politicians to associate equal standards with learning outcomes and safety standards.

Pa22

"What should I do about it?": An Action Research On Integrating STEM Practises In a Hong Kong Kindergarten

Ms. Esther Chong

Programme manger of the higher diploma programme of early childhood education
esther.chong@yccece.edu.hk
Yew Chung College of Early Childhood Education

Ms. Ruoyu Wen

Lecturer
ruoyu.wen@yccece.edu.hk
Yew Chung College of Early Childhood Education

Ms. Ada Lee

Project Manager
ada.lee@yccece.edu.hk
Yew Chung College of Early Childhood Education

Ms. Delia Ng

Project Curriculum Development Officer
delia.ng@yccece.edu.hk
Yew Chung College of Early Childhood Education

Keywords

Early STEM Education, Action Research, STEM coaching program

Abstract

With the growing emphasis on innovation and STEM education in Hong Kong, driven by government efforts and public awareness (EDB, 2016), the integration of STEM into early childhood education (ECE) remains underdeveloped. Despite the increasing attention, there are no specific policy documents or established frameworks to guide STEM practices in ECE, leaving kindergarten teachers uncertain about how to implement STEM effectively within their existing curriculum (Prasad, 2023). Research on kindergarten teachers' perceptions, attitudes, self-efficacy, and actual classroom practices regarding STEM education in Hong Kong is also limited.

This study adopts an action research approach to explore integrative STEM practices in ECE. A local kindergarten in Hong Kong will be selected as the research site, focusing on a K2 classroom comprising one head teacher and 13 children. Over a two-month period, the participants will engage in a STEM coaching program facilitated by the research team. Data collection includes principal and teacher interviews, informal classroom observations, teacher reflective journals, and analysis of children's work.

The study aims to identify factors that facilitate or hinder teachers' implementation of integrated STEM practices, focusing on three dimensions: contextual influences, teacher capacity, and children's engagement. The findings will provide valuable insights into the challenges and opportunities of STEM integration in kindergartens and inform professional development programs to support teachers in enhancing STEM practices within the ECE context.

Pa23

Investigating the expected teaching and learning outcomes in Chinese early childhood education policy documents

Dr. Mengran LIU

Assistant Professor

serena.liu@yccece.edu.hk

Yew Chung College of Early Childhood Education

Abstract

Clarifying the expected teaching and learning outcomes outlined in early childhood education policy documents is essential for enabling teachers to deliver high-quality education and care to young children. Though Chinese ECE policy documents set requirements for teaching and learning activities (see MoE, 2001, 2012, 2016), educators may understand and implement the expectations differently, therefore, raising concerns in practice. Additionally, current research in the Chinese context indicates issues that need to be addressed based on critical review of ECE policies (e.g., Cheng, 2023; Huo & Shi, 2013; Li et al., 2019). Few studies have explored how the expectations in policy documents are reflected through teaching and learning activities. In response to this gap, and to support teachers in everyday practices, it is helpful to identify existing practices that closely relate to policy expectations, encourage teachers to reflect on these connections and enhance the implementation of the expected practices.

This paper reports from an ongoing pilot study investigating the connections between teachers' teaching and learning enactment and relevant expectations in Chinese ECE policy documents. To achieve the research objective, the investigator adopts a qualitative research methodology, using policy documents, video recordings, and focus group interview transcripts as data for a contemplative analysis. In specific, the investigator started by conducting a systematic review of three key Chinese ECE policy documents. The review focuses on 1) how the learning outcomes of young children from ages 3-6 are described and explained at the national level, and 2) how Chinese ECE teachers are expected to teach and support children's learning. The investigator has synthesised key expectations for teaching and learning concerning five domains of children's learning. The document analysis will be followed by video-recording teaching and learning activities in 12 classrooms from 3 kindergartens. All kindergartens were recruited through selective sampling, based on the investigator's existing relationships with kindergarten teachers and principals. The digital video resources are to be edited and presented to relevant teachers and principals during a focus group meeting in each setting. The focus group interview will be audio-recorded for transcription and analysis.

The study will demonstrate and illustrate how expectations stated in policy documents are reflected in everyday educational practices. The main impact of the research project will be threefold. First, the research participants' reflection on the edited video footage concerning policy documents will deepen their understanding of the government's expectations for teaching and learning. This research activity, therefore, will have an immediate impact on the teachers' professional development. Second, the edited video footage can support pre-service teachers' learning at tertiary educational institutes, upon permission from participating kindergartens and teachers. Last, this pilot study will inform future larger research projects using videos to support ECE teachers in enhancing alignment between practices and government expectations.

PECERA-HK Young Scholars Conference 2024-2025

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Pa25

A Preliminary Exploration of Learning English as a Second Language at Home - Case Study in Hong Kong Local Kindergartens

Dr. Xuan Wang

Assistant Professor

melinda.wang@yccece.edu.hk

Yew Chung College of Early Childhood Education

Ms. Payal Mansukani

Lecturer

payal.mansukani@yccece.edu.hk

Yew Chung College of Early Childhood Education

Keywords

Parent-child co-learning Teaching English as a Second Language, Home-based Approach

Abstract

- **Rationale for the study:**

Many studies have shown that young children learn English as a second language by acquiring it (Slattery & Wills, 2001). Children first acquire their vocabulary from the speeches and utterances of adults in their homes and through interactive activities such as play-pretend and read-aloud. Providing desirable conditions is the key to success in children's learning English as a second language (Edelebenbos et al., 2006; Moon, 2005; Nikolov & Curtain, 2000; Singleton, 2003; Rixon, 2000). Desirable learning contexts include not only the school but also the home. Enhancing home-based learning, especially in vocabulary, benefits ESL children's language knowledge and skills development since collaboration between parents and schools can further reinforce students' learning at school.

- **Purpose(s) and research question(s) of the study:**

The Learning English at Home Through Play (LEAP) project addresses the challenges of learning English as a foreign language to young learners in Hong Kong's unique biliterate and trilingual environment. This project, operating within the Systemic Functional Linguistics (SFL) framework, aims to cultivate kindergarten students' interest in learning and using English and to enhance the collaboration between teachers and parents and parent-child co-learning to reinforce students' English learning at home.

- **Brief description:**

The project, implemented in five kindergartens affiliated with the same charity, involved the schools' principals, K3 English teachers, and their classes. The SFL framework guided comprehensive at-home learning activities focused on the different strata systems in language and context. Throughout a 2-year research, the project team will develop and introduce English-related toolkits to parents to help the school better extend English learning beyond the classroom and support students' English development at home. The support will also be given mainly through the three themed workshops, where the parents can better understand the L2 development mechanism and strategies to support their children's L2 learning at home. Questionnaires will be distributed to them, and individual interviews will be conducted pre- and post-intervention to collect the relevant information. Finally, student and parent assessments will be required to present their learning outcomes during the project.

- **Summary:**

PECERA-HK Young Scholars Conference 2024-2025

The project reveals that adopting a systematic home-based approach to ESL would raise English awareness and create a more ESL-friendly environment at home. Besides, parents' interactions with the children and the quality of their English input have been enriched, as have the students' English literacy skills and communicative interests. The findings offer valuable insights into ESL home-based learning practices in the local ECE context of Hong Kong.

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Adopting Anji Play: Experiences of Kindergarten Teachers in Miao Ethnic Minority Areas of Southwest China

Ms Xueyan Huang

Candidate of MPhil Degree

mc24688@um.edu.mo

Faculty of Education, University of Macau

Keang leng Peggy Vong

peggykiv@um.edu.mo

Faculty of Education, University of Macau

Keywords

Anji Play; Teachers' Roles; Miao Ethnic Minority Areas

Abstract

- **Rationale for the study**

In recent years, quality kindergarten education in ethnic minority areas have received much attention (Zhu & Zhang, 2008; Dillon, 2013). There has been local effort to import or transplant Anji play, originated from Zhejiang province of China, into the Miao ethnic minority areas in Qiandongnan Prefecture of Guizhou. Teachers' experiences and their agency play a critical role in the successful improvement of curricula (Priestley, Biesta, & Robinson, 2015; Zeichner, 2019), especially in places where cultural contexts significantly differ from those of the curriculum's origin. Kindergarten in Miao ethnic minority areas are known for resource limitations and shortage of qualified teachers (Lu, 2013; Li, 2018). Together with cultural mismatches, and differing educational philosophies from the eastern part of China, localizing the Anji Play is no easy task. Empowering teachers to exercise their professional judgment while adapting unfamiliar curricula to local contexts is essential for addressing educational challenges (Zeichner, 2019). This study focuses on how teacher agency navigates the complexities of curriculum localization, ensuring that educational practices resonate with local cultural values and meet the learning needs of minority children.

- **Purpose and research questions of the study**

This study aims to investigate the various facets of teacher agency in the localization of the Anji Play curriculum within Miao ethnic minority kindergartens in Qiandongnan Prefecture. More specifically, it aims to address the following research questions: How does teacher agency shape the localization process of Anji Play in Miao kindergartens in respect to the local contexts? Can teacher agency formulate solutions to help overcome the obstacles and challenges, thereby achieving high-quality learning and ensuring children's right to education?

- **Brief description**

A qualitative phenomenological approach (Alase, 2017) was used. The study was conducted in several public kindergartens in Kaili City and its nearby rural areas. Purposive sampling was adopted and kindergartens implementing the Anji Play and a Miao-culture enriched curriculum were recruited. A thematic approach was employed to inductively interpret the qualitative data. Following Creswell's procedural spirals, data were organized according to timelines and types, including interviews, field notes, and observations. Researchers engaged in iterative readings of participants' responses in relation to the research questions. Initial codes were generated, and similar codes were grouped into categories

PECERA-HK Young Scholars Conference 2024-2025

with reference to the theoretical frameworks of teacher agency and localization. These categories were then abstracted into overarching themes. This analytical process facilitated an in-depth understanding of the teacher agency in localizing the curriculum within the Miao cultural context.

- **Summary**

The study is still ongoing. We expected to identify specific obstacles faced by Miao teachers during the localization process, such as cultural mismatches, resource limitations, and conflicts in understanding localization or inadequate implementation of localization. It anticipates demonstrating how teacher agency is instrumental in adapting the Anji Play curriculum to align with the local Miao cultural context. By emphasizing the critical role of teacher agency in curriculum design and implementation, the research aims to contribute to the broader discourse on educational localization and provide practical insights for policymakers and educators in minority regions.

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Efficacy of a Routine-based Telehealth Intervention for Low-income Chinese Families of Children with Autism

Dr. Qing Liu

Assistant Professor

qing.liu@yccece.edu.hk

Yew Chung College of Early Childhood Education

Keywords

Autism Spectrum Disorder, Family Routine, Telehealth

Abstract

1. Rationale for the study

Daily routines serve as meaningful family rituals fostering social interactions crucial for early development (Spagnola & Fiese, 2007). Empowering parents of children with autism spectrum disorder (ASD) with evidence-based strategies integrated into daily routines will not only enhance the likelihood of their implementation but is also vital for establishing lasting family habits (Ibañez et al., 2018). This study aims to investigate the distinct routines within low-income Chinese households following their child's ASD diagnosis. Building upon the identified routine characteristics, a tailored telehealth intervention will be developed to enhance support for these families.

2. Purpose(s) and research question(s) of the study

The first phase of the study will utilize a daily diary approach to understand the array of daily activities taking place in low-income Chinese households among mothers, children with ASD, and jointly. We aim to determine the frequency of daily activities and intervention activities, examine the relationship between the time mothers spend in a particular activity and their perceived value, and investigate how daily activities and intervention activities are integrated in a child's natural environment.

In the second phase, a culturally responsive telehealth intervention will be developed based on the findings of the first phase. A randomized controlled trial (RCT) will be conducted to evaluate the effectiveness of the intervention on various proximal and broad outcomes. The objective is to empower parents by integrating evidence-based strategies within their daily routines, leveraging the repetitive nature of these rituals to instill lasting habits.

3. Brief description

In the initial phase, daily routines of 40 families with children diagnosed with ASD will be scrutinized using experienced sampling methods. 10 of these families will also undergo interviews and home visits. The corpus of data will be coded by activity setting based on principles of grounded theory (Miles et al., 2014). Proportion scores for participation in each type of activity will be used for standardization across participants.

Subsequently, a telehealth routine-based intervention will be developed based on the initial findings. The efficacy of this intervention will be evaluated through an RCT involving 80 Chinese parents of children with ASD from disadvantaged backgrounds. Parents will report their own behaviour and their children's behaviour at baseline, post-intervention, and 1-month follow-up. The Intention-to-Treat (ITT) model will be employed and Hierarchical Linear Models (Singer & Willett,

PECERA-HK Young Scholars Conference 2024-2025

2003) with Maximum Likelihood estimation will be conducted to apply the ITT approach and avoid list-wise deletion of participants with missing responses.

4. Summary

This research seeks to address a significant gap in the literature by focusing on a population that has been underrepresented in previous studies. By employing experience sampling methods to delve into the social context of this demographic, this study will pioneer the generation of crucial data that is currently lacking in existing research. Furthermore, the study aims to optimize the limited resources for low-income families through routine-based interventions, fostering sustainable parental strategies within the home environment. The cost-effective nature of telehealth can further enhance the feasibility and accessibility of the intervention.

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Pa28

The Power of Free Play: A Professional Development Journey through the Use of ECERS

Ms. Wing Yi KONG

Principal

winniekong53@yahoo.com.hk

NTWJWA YUEN LONG NURSERY SCHOOL

Ms. Maggie TSE

Senior Teacher

seniorqkt@ntwjwaylns.edu.hk

NTWJWA YUEN LONG NURSERY SCHOOL

Ms. Debbie CHUNG

Teacher

yl@ntwjwaylns.edu.hk

NTWJWA YUEN LONG NURSERY SCHOOL

Keywords

ECERS, free play, professional development

Abstract

In early childhood stage, play is not only an essence for children's life but also serves as their primary means to explore and develop different concepts about the world. The importance of play for children has also been established in international research. In 2017, the free play was highly advocated in the latest official curriculum guide. It is indispensable that the successful implementation of free play depends on the quality of environment provided for children. In this regard, the evidence-based Early Childhood Environment Rating Scale (ECERS) seamlessly aligns with the standards of a high-quality environment that schools should create, fostering an enriching atmosphere for children's play and learning.

This presentation documented a professional development journey in a nursery school serving children aged 2 to 6 in Hong Kong. In 2021, the school had their initial exposure to ECERS and embarked on a learning journey of using it to scrutinize the school environment, with a goal of creating a more authentic and enriching free play experience for their children. From self-studying each subscale and item of the ECERS, to attending an official introduction session, and participating in a professional development program about the ECERS, the school demonstrated their progressive professional development in the use of ECERS and the implementation of free play.

Throughout their learning journey, the school team displayed their collective commitment and were invigorated to review the existing circumstances, engage in professional dialogues, and formulate constructive ideas. Guided by the ECERS standards, they aimed to make impactful changes to the indoor and outdoor play areas, the provision of materials, the interactions among peers and between teachers and children. Qualitative data collected from teacher questionnaires revealed that teachers perceived the use of ECERS with their implementation of free play as a positive experience, providing them with (1) clear criteria of a high standard of free play environment, (2) a platform for self-assessing their free

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play practices, (3) practical strategies for enhancing their free play practices, and (4) an opportunity to further develop their reflective practices.

In conclusion, the school team in this study demonstrated their dedication to continuously improving the high-quality environment provided for children. Their shared learning experiences and efforts further facilitated their competence in the implementation of free play in their school setting. The experience of this nursery school highlighted the importance of teacher professional learning, not only in enhancing teacher capabilities but also in contributing to overall school development and ultimately supporting the growth and development of children. Further studies exploring the use of ECERS as a catalyst for teacher professional development in the field are encouraged.

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Developing a Learning Organization in a Nursery School: ECERS as a Catalyst

Ms. Ho Lai CHEUNG

Principal

principal@ntwjwaphns.edu.hk
NTW & JWA Pok Hong Nursery School

Ms. Ling Ka TSANG

Senior Teacher

seniorqkt@ntwjwaphns.edu.hk
NTW & JWA Pok Hong Nursery School

Ms. Check Yin CHENG

Teacher

ph@ntwjwaphns.edu.hk
NTW & JWA Pok Hong Nursery School

Keywords

ECERS, Positive education, professional development

Abstract

The establishment of a learning organization within a school is imperative for the attainment of professional learning and development, as well as the provision of quality education and care for young children. There is no doubt that early childhood education practitioners play a pivotal role in creating a nurturing environment for the positive development for children, especially those from disadvantaged backgrounds. In 2019, a non-profit-making nursery school, where the majority of families received government subsidies for their children's schooling and daily living expenses, introduced a new initiative in curriculum planning and implementation, aiming to further enhance the learning environment for children.

In the new initiative, both the principal and teachers were exposed to the Early Childhood Environment Rating Scale (ECERS) and positive education in different professional development programs. They attended workshops and field studies to develop a deeper understanding of the ECERS. They also attended training sessions to develop professional knowledge on positive education and explore strategies for incorporating positive elements such as emotion, engagement, relationship, and growth mindset into their curriculum and daily activities. The school made efforts to integrate the principles of the ECERS and positive education, creating a developmentally appropriate physical and psychological environment for their children. Meanwhile, the utilization of the ECERS served as a platform for the school to self-evaluate the provision of a high-quality environment and the implementation of positive education, with a particular emphasis on teacher-child interactions and their relationship. Formal meetings, debriefing sessions, sharing activities, and even informal discussions held after each ECERS assessment provided opportunities for the teachers to adopt a reflective mindset in reviewing and making suggestions to enhance their practices.

The professional learning and development journey undertaken in this school illustrated the emergence of a developing learning organization within their team. Qualitative data collected from teacher questionnaires revealed that teachers highly valued and actively involved in every moment of professional exchange on the ECERS and positive education, whether internally among the school team

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or externally with different stakeholders such as academia and professional bodies. They also demonstrated receptiveness to feedback and eagerness to make changes in order to optimize a beneficial environment and teaching practice for children in their nursery school. It is conceivable that the nursery school principal's leadership approach contributed to the professional growth and development of the teachers. Through consistently heartfelt encouragement and support, the principal cultivated a positive and constructive atmosphere among the team, empowering the teachers to be competent in managing different opportunities and challenges encountered in the new initiative. Within this respectful and collegial environment, not only was the teachers' positive mindset fostered, but also their sense of belonging and commitment to the school were also nurtured and reinforced. Further studies are encouraged to explore the impacts of this learning organization dynamics within the school on the children's outcomes and development.

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