

## **PROFESSIONAL DEVELOPMENT AMONG PRESCHOOL TEACHERS: TRENDS AND PRACTICES**

### **ABSTRACT**

Teacher professional development is a necessary component in enhancing quality education and fostering optimal development among young children. This paper aimed at exploring the current trends and practices of professional development for preschool teachers. The review involved papers published between 2005 and 2023. The main search engine used in this study were Google scholar, Taylor and Francis, Online Wiley, Emerald Insight data base and Sage. After screening we got 68 articles; dissertations and book chapters were excluded during review. Literature revealed several trends such as technological and curriculum change that require professional development, Furthermore, it was revealed that preschool teachers have been involved in several practices that reflect professional development among preschool teachers. These were done through interventions, training and scaffolding. However, literature on professional development for preschool teachers are available in developing countries such as European, (USA) and Asian countries. There is dearth of literature on professional development for preschool teachers in African countries especially in a Tanzanian context. We therefore recommend exploration of prevalence of professional development for preschool teachers in African countries. Trends and practices and way forward for professional development have been identified and reported in this study.

*Keywords:* Trends, practices, teacher education, professional development, preschool teacher

## INTRODUCTION

Professional development refers to training opportunities that aim at enhancing the effectiveness of teaching by providing pre-service and in-service teachers with guidance and feedback (Buysse et al., 2009). Professional development for preschool teachers is essential for ensuring the quality of early childhood education and fostering the optimal development of young learners (Markussen et al., 2017, Nawab et al., 2021, Sawangmek, 2019). As the understanding of child development and needs is increasing, the need for trained and skilled educators in the early years is also increasing. EL Islam et al. (2022) state that professional development is important for all teachers to improve the quality of teaching and learning. The dynamic nature of early childhood education necessitates continuous growth and adaptation among educators since teachers are the implementers of the changing education policy and curriculum (Masnan et al. 2018). Professional development helps preschool teachers to enhance their skills and enable them to stay informed on the current trends and contribute to teachers' implementation of quality education in preschools (Masnan et al. 2018).

Professional development for preschool teachers is crucial for maintaining high-quality of early childhood education. Current development in teacher professional development in preschools encompass many preschools prioritizing play-based learning as a developmentally appropriate technique (See also Lindmeir et al. 2020). Teacher professional development programs frequently provide instruction on effectively integrating play-based learning into the curriculum which need competent professionals which can be achieved through continual professional development (Melnyk et al. 2021).

Enhancing the skills and knowledge of preschool instructors is essential for maintaining good standards in early childhood education. Masnan, et al. (2018) state that preschool is the most critical period to prepare children with various skills, self-esteem and positive attitudes towards schools, thus, a need for qualified teachers. Furthermore, preschool teachers are essential in establishing the groundwork for a child's future academic and social achievements. Ongoing professional development is crucial to keep educators updated focusing on developmentally appropriate practices, instructional methods, and best practices in early childhood education (Hamre et al. 2017; Markussen-Brown et al., 2017; Masnan et al., 2018; Sheridan et al., 2009). In

addition, professional development involves grooming teachers to become innovative and more competent. Preschool teachers engage in several activities to improve their knowledge, abilities, and effectiveness in the classroom as part of their professional development (Dadi, 2015; Hamre et al. 2017; Markussen-Brown et al., 2017; Mwila et al. 2022); these activities may encompass workshops, seminars, conferences, online courses, and collaborative learning experiences (Desimone & Caret, 2015; Lau & Jong, 2022; Yang & Lao, 2020;). The main role of professional development is to equip instructors with the necessary strategies to establish engaging and developmentally suitable learning settings for young children (See also Masnan et al, 2018). Professional development for preschool instructors involves keeping up-to-date with research-based practices and teaching practice in early childhood education (Markussen et al. 2017; Snyder et al., 2018; Zeng, 2023)). Staying informed on these developments allow instructors to implement evidence-based strategies that are customized to the specific requirements of preschool-aged children. Professional development not only emphasizes academic knowledge but also concentrates on refining teaching methods that promote healthy social and emotional growth for children (Lau & Jong, 2022; Masnan et al. 2018; Snyder et al., 2018). Preschool teachers are advised to develop abilities that promote successful communication, conflict resolution, and the establishment of a nurturing classroom environment (Dadi, 2015; Hamre et al. 2017; Mwila et al. 2022). These factors are essential for establishing a supportive setting that promotes the best possible learning and development for young children.

Collaboration and networking are crucial elements of professional growth for preschool teachers. Interacting with coworkers, taking part in peer evaluations, and exchanging experiences help to foster a culture of ongoing professional development (Desmone & Caret, 2015; EL Islam et al. 2022). Collaboration among educators creates a communal atmosphere and allows for the sharing of ideas and tactics, which benefits the entire educational community (El Islam et al. 2022). Literature confirm that professional development improves teacher professionally, academically and technically for the purpose of improving quality of education especially in preprimary schools (Ji-Qi & Charles, 2006). Wilinski et al. (2016) state that currently, many preprimary school teachers did not specialize in early childhood education which call for professional development for the teachers. Dailing-Hammodn et al. (2005) support that quality of teachers especially in preschools is not innate but linked to a well-planned preparation.

Professional development is an intrinsic motivation which influences the behavior in a teacher to perform better. Self-determination Theory is a motivational theory that guide personality and development (See also Prickett & Hayes, 2023). Teachers feel motivated to take action because they feel that workshop or training will improve their performance in terms of skills, competency and will gain an autonomy to perform confidently, things which make teachers feel happy in their teaching professional (Prickett & Hayes, 2023).

In summary Professional development beyond their initial development helps teachers on the followings:

1. Nurture the talent of the teachers which makes teachers innovative
2. Teachers become better educators and become competent administrators in education matters.
3. Update individuals' knowledge, skills, attitudes, approaches and perceptions.
4. Teachers get time to exchange and share information.
5. To cope with technological changes.
6. It improves teacher professionally, academically and technically.
7. Equip teachers with current knowledge and skills which are relevant for the changing knowledge to teach our students.

### **CURRENT TRENDS IN EARLY CHILDHOOD THAT REQUIRE PROFESSIONAL DEVELOPMENT**

Professional development has been noted as an important aspect to the teachers for different reasons. Sheridan et al. (2009) state that the field of early childhood education is growing rapidly, thus, a need for new attention and discoveries. This confirms that education is an endless process since it does not stop after earning a degree or starting a career; after career an individual is required constantly to improve skills which help teachers to become proficient in the job.

UN (2015) states that to ensure sustainable development by 2030, all girls and boys should have access to quality early childhood education which will ensure readiness for primary schools, a situation which call for professional teachers to teach children in preschools. Teachers' professional development courses aim at equipping educators with relevant and up to date

knowledge and competences which is critical for preparation of quality teachers (See also EL Islam et al, 2022). Several current trends require a design of professional development programs for preschools teachers. For example, the current technological changes in curriculum require skilled teachers. Introduction of information technology has been reported as an important aspect due to unexpected events such as COVID 19 which impacted different curricula in many countries. In this case, every teacher was required to have skills in ICT issues so as to cope with the teaching and learning modality. As part of professional development, a teacher is supposed to have skills in WhatsApp, email, searching materials on different websites, and teaching using online technologies. Therefore, professional development has been useful during COVID-19 and thereafter and teachers became efficient in their adoption of new teaching methods and preparing relevant learning and teaching materials

Since curriculum are constantly changing, teachers face a challenge of keeping with the best practices for teaching students. El Islam et al. (2022) state that, collaborative learning through exchange and sharing information which are important for learning new skills and methods require professional development through training or workshop. Professional development equips teachers with current knowledge and skills which are relevant for the changing technology to teach students of today. It also makes teachers efficient in their subject presentations and courses evaluations, new delivery methods and evaluation modes. OECD (2009) argues that no matter how good preservice training for teachers is, it cannot be expected to prepare teachers for all changes they will face throughout the career. The Education system should provide teachers with opportunities for in-service professional development which will retain high quality of the teacher workforce especially in the new emerging curriculum implementation (Yang & Rao, 2020). Furthermore, Richter et al. (2019) argue that the increasing current trends increase the need of professional teachers who are competent to teach children in preschools.

### **PRACTICES IN PROFESSIONAL DEVELOPMENT**

Teachers are the implementers of the policy, curriculum and goals in all schools (Masnan et al. 2018). Preschool is the most critical period to prepare children with various skills and promotion of self-attitude towards children. Melnyk et al. (2021) observe that teachers need to be competent through competence-based training which require continual professional development. Melnyk et al. (2022) points out that teachers need to be trained on pedagogical knowledge and pedagogical

content through active participation which is necessary for developing expertise. Training for professional development is given to preschool teachers who are already working in schools. Studies report that teachers are trained on early literacy, language, teaching practices and social emotional development that are done through workshops, short courses and seminars. These trainings are essential to cope with the technological changes in early childhood curriculum (Dadi, 2015; Hamre, et al. 2017; Pianta et al. 2017). According to literature, teachers have been engaging in different practices as part of their professional development; examples include: awareness of implementation of quality pedagogy enhance professional competence for teachers through interventions, developmental skills, Language and literacy skills through workshop and coaching (Fonsén, E., & Ukkonen-Mikkola, 2019; Landry et al, 2009; Mendive, 2016; Sheridan et al. 2009; Snyder et al. 2018; Yang & Rao). Other common practices reported in literature for preschool teachers proved to enhance quality professional development are: modelling, demonstration by instructors and classroom-based interventions (Yang & Yao, 2012). Zeng (2023) states that common practices for developing professional competency for preschool teachers teaching skills and subject knowledge improve students' learning outcome. For example, several practices have been provided to teachers to manage classroom. A study by Yamauchi et al. (2017) reports that teachers are trained on the workshops on strategies to promote complex thinking in children which mainly focused on cognitive development.

According to literature, preschool teachers are qualified trained teachers through different modes of practices such as action related to play and or reflective competence (Lindmeier et al. 2020, Sarama et al, 2016). For example, according to Sarama et al. (2016) teachers participated to provide concept of Mathematics which involved counting and cycling through 10 digits for 8 days. This was done in tasks of small groups and coaching where teachers visited their students in the classroom. Sharmahd et al. (2018) argue that teacher professional development is much related with competent work force which involve practices such as group reflection method, critical reflection on pedagogical practices and trainer of the trainer; this was done in three days. This kind of professional development involve active participation which enable teachers to reflect on the content and competence. However, Jie-QI and Charles (2006), argue that professional development among preschool teachers is inconsistent. This study therefore aimed at exploring trends, and practices necessary for professional development for preschool teachers through systematic literature review. Preschool teachers participate in professional

development to expand their professional competence and motivation which was found to increase teacher proficiency academically.

**Table 1: Summary of Trends for professional development**

s/n	Reported trends	Demand
1	Body of knowledge has grown	Demand for competent practitioner for EC teachers
2	Field of early childhood is growing rapidly	Efforts are needed to help teachers for specialized training
3	New requirement for pedagogy increased	Need to enhance professional competence for ECE
4	Technological change and integration	Need to train teachers on digital, e-learning using video as tool of learning and teaching for ECE
5	Change of curriculum	Need to enhance professional development for teachers to cope with changes such as competence based
6	Project based learning	Common for professional development to emphasize such as teaching methodology to promote children's engagement on critical thinking, and problem solving.
7	Social-emotional development in children	Teacher need skills on developmentally appropriate strategies and appropriate behavioral management skills

**Table 2: Summary of Practices for professional development and their activities**

s/n	Practices	Activities	Duration
1	Workshop and scaffolding	<ul style="list-style-type: none"> <li>• Training on awareness ECE</li> <li>• Pedagogy implementation</li> <li>• Scaffolding young children's peer social competence</li> </ul>	NA
2	Intervention	Task was done in small groups: <ul style="list-style-type: none"> <li>• Verbal counting</li> <li>• Cycling through 10</li> <li>• Participated in back-to-back building block</li> <li>• Action related and reflective competency</li> <li>• Play base</li> <li>• Reflective competency</li> </ul>	Eight (8) days  Duration not indicated
3	Group reflection method	<ol style="list-style-type: none"> <li>1. Training of the trainer</li> <li>2. Adaptation of teaching material for ECE</li> <li>3. Promoting active participation</li> </ol>	Three (3) days for each activity
4	Coaching	<ul style="list-style-type: none"> <li>• Teacher visits in the pre-school classroom</li> </ul>	Three (3) days
5	Curriculum implementations	<ul style="list-style-type: none"> <li>• Pedagogical practices</li> </ul>	N/A
6	Modelling	<ul style="list-style-type: none"> <li>• Demonstration by instructors.</li> <li>• Feedback</li> <li>• Classroom based intervention</li> </ul>	Duration not indicated

7	Teaching practices for young children	<ul style="list-style-type: none"> <li>• Ability to manage classroom</li> </ul>	N/A
8	Training and intervention	<ul style="list-style-type: none"> <li>• Readiness of language</li> <li>• Self-regulation for teachers</li> <li>• Reflective competency</li> </ul>	N/A
9	Teacher motivation workshop	<ul style="list-style-type: none"> <li>• Increasing ICT activities</li> <li>• Training on strategies to promote children's complex thinking</li> </ul>	N/A
10	Training on collaborative	<ul style="list-style-type: none"> <li>• Training for pre-school teachers to expand relationship.</li> <li>• Establish collaborative learning</li> </ul>	N/A

NA= Not applicable which means time was not indicated

## **METHODOLOGY**

This theoretical paper included empirical study conducted between 2005 and 2023, which investigated trends and practices on professional development among preschool teachers. However, we included few international and national policies which addressed specific issues in the context of this study. This study assessed the coverage of professional development for pre-primary teachers focusing on trends and practices. In identifying practices, activities performed during professional development and time taken were identified. To explore professional development for preschool teachers, only trends and practices were considered. Majority of articles were found in Google scholar where raw search generated a total of 18,200 articles. Other articles were generated from Taylor and Francis, Online Wiley, Emerald insight data base and Sage. Only the first four pages of research were selected. A total of 560 articles in all data base were selected. The final screening produces 68 articles.

In this study, only articles published in English from journals and policy papers from international were considered. Dissertation, theses, books and book chapters were not considered in the literature review.

## **RESULTS AND DISCUSSION**

This study aimed at exploring professional development in terms of trends and practices among preschools teachers. This study was done systematically. The following research question guided our review:

- i. What trends are reported for professional development for preschool teachers?
- ii. What practices are commonly reported for professional development for preschool teacher?

## **Trends of professional development**

Our review on trends of professional development for preschool teachers revealed several trends which need professional development (See table 1). According to literature, there are several trends that require professional development among preschool teachers, and teachers are aware about the trends. For example, literature revealed that there is a growing pressure on preschool in many aspects that need qualified teachers. Sheridan et al. (2009) assert that the field of early childhood is growing very fast thus, increase in demand of competent teachers to cope with changes which may involve the need of specialized staff and new discovery. This need requires ongoing support efforts for qualified teachers who are able to manage and guide preschool children whose brain development are very rapid.

Most of professional trends involve the increased demand of new requirement for pedagogy and technological change, issues which require professional development among preschool teachers (Jansen et al. 2017). There is a need to enhance professional competence for preschool teachers to equip them with competence and innovative skills to cope with the demand as raised in the literature. Professional development qualified and innovative teachers are able to meet the increased and changing pedagogy for preschool learners such as new ways of teaching and learning which have been reported to grow fast (Fonsén, E., & Ukkonen-Mikkola, 2019). On the other hand, trends on technological change require skilled teachers in digital that are needed during teaching and learning using e-learning and videos as important tools during teaching. All these kinds of technological changes require skilled teachers who can be obtained through professional development. In the changing world, professional development is a necessary component to equip teachers with skills that are necessary to help young learners and engaging children to learn using video. For example, El Islam et al. (2022) argue that STEM and STEAM caused a global interest from education perspective and the increase of scientific literacy.

Furthermore, curriculum, including that of early childhood is changing in many countries from content based to competence based (see also Zhukova, 2018). These changes demand qualified teachers which require professional development among the preschool teachers (See also Yao & Rao, 2020). For example, skills in teaching methodology will equip teachers with skills that are

necessary for teachers to engage children in critical thinking, problem solving, innovative issues and help children engage actively during the learning process.

The issue of social emotional development in children is a very important aspect that need qualified teachers to handle children's emotional and behavioral problems (Jansen et al. 2017). During their growth, children imitate and copy almost everything from parents, neighbors, peers, teachers and people around them (Shavega, 2024). In this context, a class can have a mixed of behaviors of children that need a qualified teacher to handle them. For example, literature report that classes have a mixture of children who display prosocial, aggressive, anxiety and hyperactive behaviors, a situation that is necessary for social emotional development in children (Han, 2012). Furthermore, due to technological changes, children learn behavior in the internet that might contradict to the societal norms and values in this situation, planning for professional development for the teachers become crucial. Professional development therefore, is necessary to equip teachers with skills for handling and managing children's behaviors. In addition, according to literature, preschool children are at developmental stage which means their behavior and emotional are still developing according to age (Sheridan et al. 2009). These behaviors need skilled teachers to managed and handle children's behaviors correctly using appropriate management skills and strategies. In this aspect, professional development is important to keep teachers with skills that will help them to manage children's behavior and emotions during their development. In addition, professional development will enhance teachers' role in promoting young children's social competence such as relating with others, forming positive relationship with their teachers and peers in schools (Han, 2014). However, Han (2014), comments that professional development for preschool teachers on emotional competence is very limited.

### **Common practices of Professional development for preschool teachers**

Furthermore, this study aimed at exploring professional development for preschool teachers in terms of practices. In this review, we explored several practices that were reported to be done through workshops, intervention, training, coaching and scaffolding (See Table 2). For example, workshops and scaffolding involved several activities such as pedagogy implementation, scaffolding children in schools on peer social competence (Fronsen. & Mikko 2019). Other activities involved training teachers on awareness of early childhood education. Literature

revealed that activities such as preschool teacher training on skills in teaching young children on reading and writing skills were achieved through professional development (Fronsen & Mikko 2019; Mendive et al., 2016). Furthermore, in this review we found that during training, preschool teachers are being given strategies and are trained practically, a situation that helps teachers in promoting children's critical thinking which was done through interventions.

Blömeke et al. (2017) argue that actions related to professional development for preschool teachers are such as ability to recognize mathematical affordance through children's plays or through everyday situations. Literature reports also that teacher participation on mathematical concepts such as counting, cycling through 10 digits were part of professional development (Saram et al., 2016). These activities were done through intervention where different tasks were done in small tasks in small groups where preschool teachers participated in building block learning and coaching were done by teachers through visiting their classes (Blömeke et al., 2017).

In this literature review, we further found that in preschool several programs are designed to obtain qualified professional preschool teachers (Sahrmand et al., 2018). We found that competent force was obtained through training teachers which is done in group work and group reflection, methods reflection, critical reflection on pedagogical practices, training of the trainer and adaptation of teaching and learning material. This kind of professional development through practices enabled preschool teachers to make reflection on active participation among them (Neuman & Cunningham, 2009). Sharmal et al (2018) state that intervention which involves group reflection leads to reciprocal responsibility and collaboration which help networking and knowledge sharing among preschool teachers. Prickett and Hayes (2023) highlight that relatedness and competence revealed during professional development qualify a teacher to deliver quality education in early childhood education and help a teacher to be up to date in many aspects.

Professional development involved application of child-specific interventions among preschool teachers. Practices such as demonstration, guidance, shared observations and feedback are commonly used during professional development (Hanft et al. 2004). In addition, Sheridan et al. (2009) add that teachers gain skills through different practices such as direct instruction, modeling, trial, error and discovery. This implies that professional development through

practices is much associated with children's improvement especially when children give feedback, and practices are in form of repetition and guidance for the teachers. Furthermore, it was revealed that workshops empower and foster participants to be more confident. In addition, workshops and other practices help participants to establish relationships among the undertaken practices (see also Ekawati & Kohar, 2016). Generally, professional development provides preschool teachers with opportunities to develop knowledge, skills and learning approaches that are useful for preschool children to align with the emerging trends for establish a proper foundation in education.

### **Conclusion and way forward**

Professional development for preschool teachers must continually evolve to align with the latest trends and practices in early childhood education. Ongoing professional development equips teachers with innovative strategies, up-to-date knowledge, and reflective practices, which are essential for fostering and nurturing and stimulating learning environment. During our review we found that research on professional development for preschool teachers on awareness of trends are done in European countries, United States of America and some parts of Asian countries. There is a dearth of literature on such studies in developing countries such as Africa, which may imply that preschool teachers are not aware or are not trained in these countries, commonly on science and mathematics which have been reported widely in other countries. While there is wide professional development for preschool teachers in many aspects such STEM, STEAM, pedagogy, and technological advancement, we didn't find enough supportive evidence on professional development on the area of emotional development. There is scarcity of literature on teacher training on emotional development, area which is a foundation and cuts across all aspects of child development. Furthermore, sustainability of professional development has not been reported in many studies, this also raises questions on the sustainability of professional development among the preschool teachers. Since there is dearth of literature in most developing countries on professional development for preschool teachers, the area which is a foundation of what follows later, it is high time to explore the prevalence of professional development of preschool teachers in these countries. This will highlight whether preschool teachers in these countries are aware on the current trends that need professional development or whether they

have attended trainings or whether they need training and on what aspects. This situation will inform policy makers, and educational practitioners to advocate for professional development for preschool teachers.

Every level of education should be responsible to plan for professional development of their staff. Educational policy should put clear strategies on how to engage preschool teachers in professional development. Arrangement and monitoring strategies should be clear to make sure that every preschool teacher is actively participating on professional development programs. Strategies should be clear, that will inspire preschool teachers to build a feeling of being involved in the professional development. Ultimately, investing in the sustainable professional growth of preschool teachers translates to improved outcomes for children, by laying a strong foundation for their future success.

#### REFERENCE

1. Buysse, V., Winton, P.J., & Rous, B. (2009). Reaching consensus on a definition of professional development for the early childhood field. *Topics in Early Childhood Special Education, 28*, 235-243. DOI: 10.1177/0271121408328173
2. Dadi, H. (2015). Teacher Professional Development: Experiences of Three Selected African Countries and the Lessons Based Chinese Practices. *International Journal of African and Asian Studies, 6*, 63-72
3. Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society and Education, 7*(3), 252-263
4. Ekawati, R. & Kohar, A. W. (2016). Innovative teacher professional development withi PMR in Indonesia. *International Journal of Innovation in Science and Mathematics Education, 24*(5), 1-13
5. El Islam, R. A.Z., Anantanukulwong, R. & Faikhamta, C. (2022). Trends of teacher professional development strategies: A systematic review. *Shanlax International Journal of Education, 10*(2), 1-8. doi: <https://doi.org/10.34293/education.v10i2.4628>
6. Fonsén, E., & Ukkonen-Mikkola, T. (2019). Early childhood education teachers' professional development towards pedagogical leadership. *Educational Research, 61*(2), 181–196. <https://doi.org/10.1080/00131881.2019.1600377>

7. Hamre, B. K., Partee, A., & Mulcahy, C. (2017). Enhancing the Impact of Professional Development in the Context of Preschool Expansion. *AERA Open*, 3(4).  
<https://doi.org/10.1177/2332858417733686>
8. Han, H. S. (2014). Supporting early childhood teachers to promote children's social competence: Components for best professional development practices: *Early Childhood Educational Journal*, 24, 171-179
9. Jansen, B., Jansen, P. & Ras ussen, A. W. (2017). Does professional development of preschool teachers improve children's social emotional outcomes? *Labour Economics*, 45, 26-39. <https://doi.org/10.1016//.labeco,2016.11.004>
10. Jie-Qi, C. & Charles, C. (2006). Testing the "Whole Teacher's approach to professional development: A study of Enhancing early childhood teachers' technology proficiency. *Early Childhood Research and Practice*, 8(1), 1-9
11. Landry, S. H., Anthony, J. L., Swank, P. R., & Monseque-Bailey, P. (2009). Effectiveness of comprehensive professional development for teachers of at-risk preschoolers. *Journal of Educational Psychology*, 101(2), 448–465. <https://doi.org/10.1037/a0013842>
12. Lau, W. W. F., & Jong, M. S. Y. (2022). Typology of teachers' stages of concern for STEM education. *Research in Science & Technological Education*, 41(4), 1560–1578. <https://doi.org/10.1080/02635143.2022.2064447>
13. Lindmeier, A., Seemann, S., Kuratli-Geeler, S., Wullschleger, A., Dunekacke, S., Leuchter, M., Heinze, A. (2020). Modelling early childhood teachers' mathematics-specific professional competence and its differential growth through professional development – an aspect of structural validity. *Research in Mathematics Education*, 22(2), 168–187. <https://doi.org/10.1080/14794802.2019.1710558>
14. Markussen-Brown, J., Julil, C. B., Piasta, S. B., Blesses, D., Højen, A. & Justine, L. M. (2017). The effects of Language and literacy-focused professional development on early educators and children: A best-evidence meta-analysis. *Early childhood Research Quarterly*, 3(38), 97-115.
15. Masnan, A. H., Sharif, M. H., M., & Josin, E. H. (2018). Preschool teachers' professional through appropriate practices (DSAP) curriculum. *Journal of Social Science and Humanities*. 1(5), 2025, doi:10.26666/rmp.jssh.2018.5.4

16. Melnyk, N., Maksymchuk, B., Gurevych, R., Kalenskyi, A., Dovbnya, S., Groshovenko, O., Lesya Filonenko, L. (2021). The Establishment and Development of Professional Training for Preschool Teachers in Western European Countries. *Revista Romaneasca Pwntru Educatie Multidimensional*, 13(1), 208-233. <http://doi.org/10.18662/rrem/13.1.359>
17. Mendive, S., Weiland, C., Yoshikawa, H., & Snow, C. (2016). Opening the black box: Intervention fidelity in a randomized trial of a preschool teacher professional development program. *Journal of Educational Psychology*, 108(1), 130–145. <https://doi.org/10.1037/edu0000047>
18. Nawab, A., Bissaker, K. and Dattoo, A.K. (2021), "Contemporary trends in professional development of teachers: importance of recognizing the context", *International Journal of Educational Management*, 35 (6), 1176-1190. <https://doi.org/10.1108/IJEM-10-2020-0476>
19. Neuman, S. B., & Cunningham, L. (2009). The Impact of Professional Development and Coaching on Early Language and Literacy Instructional Practices. *American Educational Research Journal*, 46(2), 532-566. <https://doi.org/10.3102/0002831208328088>
20. Pianta, R., Hamre, B., Downer, J., Burchinal, M., Williford, A., LoCasale-Crouch, J., Howes, C., La Paro, K., Scott-Little, C., & Cabell, S. Q. (2017). Early childhood professional development: Coaching and coursework effects on indicators of children's school readiness. *Early Education and Development*, 28(8), 956–975. <https://doi.org/10.1080/10409289.2017.1319783>
21. Prickett, N. & Hayes, B. (2023). A systemic approach to supporting motivation and behaviour in secondary classrooms during COVID: a professional development intervention using self-determination theory. *Educational Psychology in Practice: Theory, Research and Practice in Educational Psychology*, 39(1), 364-381. <https://doi.org/10.1080/02667363.2023.2221023>
22. Richter, D., Kleinknecht, M., & Gröschner, A. (2019). What motivates teachers to participate in professional development? An empirical investigation of motivational orientations and the uptake of formal learning opportunities. *Teaching and Teacher Education*. 86 doi.10.1016/j.tate.2019.102929

23. Sarama, J., Clements, D. H., Wolfe, C. B. & Spitler, M. E. (2016). Professional development in early mathematics: effects of an intervention based on learning trajectories on teachers' practices. *Nordic Studies in Mathematics Education*, 21(4), 29–55.
24. Sawangmek, S. (2019). Trends and Issues on STEM and STEAM Education in early childhood *Training and Practice*, 17(3), 99-109, doi:10.1765/TP,2019.3-4.8
25. Sharmahd, N., Peeters, J. & Bushati, M. (2018). Towards continuous professional development: experiencing group reflection to analyze practice. *European Journal of Education*, 53(1), 58-65, <https://doi.org/10.1111/ejed.12261>
26. Shavega, T. J. (2024). Prosocial behaviour development among preschool children: Effect of Peer Socialization. *East African Journal of Education Studies*, 7(1), 284-292. <https://doi.org.10.37284/eajes.7.1.1772>
27. Sheridan, S. M., Edwards, C. P., Marvin, C. A. & Knoche, L. L. (2009). Professional development in early childhood programs: Process issue and Research Need. *Early Education and Development*, 20(3), 377-401, <https://doi.org/10.1080/10409280802582795>
28. Snyder, P., Hemmeter, M. L., McLean, M., Sandall, S., McLaughlin, T., & Algina, J. (2018). Effects of Professional Development on Preschool Teachers' Use of Embedded Instruction Practices. *Exceptional Children*, 84(2), 213-232. <https://doi.org/10.1177/0014402917735512>
29. Wilinski, B., Nguyen, C. H. & Landgraf, J. M. (2016). Global Vision, local reality, transforming pre-primary teacher education in Tanzania. *Current Issue in Comparative Education (CICE)*, 19(1), 6-25
30. Yamauchi, L. A., Im, S., Lin, C. J., & Schonleber, N. S. (2013). The influence of professional development on changes in educators' facilitation of complex thinking in preschool classrooms. *Early Child Development and Care*, 183(5), 689–706. <https://doi.org/10.1080/03004430.2012.685934>
31. Yang, Y., & Rao, N. (2020). Teacher professional development among preschool teachers in rural China. *Journal of Early Childhood Teacher Education*. 14(3), 219-244. <https://doi.org/10.1080/10901027.2020.1726844>

32. Zeng, J. (2023). A theoretical review of the role of teachers professional development in EFL students' learning achievement. *Heliyon*, 9(5), 1-6. <https://doi.org/10.1016/j.heliyon.2023.e15806>

UNDER PEER REVIEW