

Curriculum Development Based on Workplace-Oriented Learning to Improve The Competence of Prospective Early Childhood Education Teachers

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Abstract. This study aims to develop a curriculum design based on Workplace-Oriented Learning (WOL) to improve the professional competence of prospective Early Childhood Education (ECE) teachers. The Educational Design Research (EDR) approach was used in the development of this design, through problem identification, curriculum planning, prototype development, and design evaluation. Through needs analysis and careful planning, this curriculum integrates theory with practice in the field. The results showed that the WOL curriculum was designed according to the current needs in the field. Based on the existing needs, the curriculum design is divided into several stages, including career awareness, career exploration, career preparation, and career training, which allow students to understand the tasks and skills needed in the world of work. With collaboration between educational institutions and industry, this curriculum bridges the gap between theory and practice, preparing students to become PAUD teachers who are ready to face the dynamic demands of early childhood education. Thus, the development of WOL-based curriculum design is expected to make a significant contribution to improving the quality of education and learning in early childhood.

Keywords: curriculum; ECE pre-service teacher; workplace-oriented learning

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INTRODUCTION

Early Childhood Education (PAUD) plays a crucial role in forming the foundational development of children (Agustin, 2022; Windayani et al., 2021). This golden period is when children begin to develop various cognitive, social, emotional, and physical abilities that will influence all aspects of their future lives (Bredekamp & Joseph, 2011). Therefore, the quality of education at this stage is critical, not only in providing an academic foundation but

also in shaping the character, skills, and positive attitudes of children.

In the context of PAUD teacher education, the importance of the competencies required by teachers in facing the dynamics and challenges of the modern era cannot be ignored (Octavianingrum, 2020; Rahman, 2022). With the advancement of technology and changing societal needs, PAUD teachers are required to possess current and relevant skills and knowledge. PAUD teachers need to continuously update

their knowledge on effective teaching methods, child development, children's learning needs, and various current issues in education and child development. Schachter dkk (2019) revealed that teachers' knowledge of the above aspects is essential for improving the quality of education in PAUD. Enhancing the knowledge and competencies of PAUD teachers enables them to be responsive to changes and skilled in ensuring that they provide an optimal learning environment tailored to children's needs.

There are efforts that can be made to prepare PAUD teachers to be ready to enter the workforce, one of which is through learning activities that balance theory and practice while they are still in higher education (Tennant et al., 2019). In this regard, higher education institutions can produce prospective PAUD teachers who are ready to enter the workforce if they have a curriculum relevant to existing needs. Therefore, the concept of Workplace-Oriented Learning (WOL), which emphasizes the integration of theoretical learning with practical experience in the workplace, is very necessary to support the readiness of prospective teachers (Gerhardt & Annon, 2021; Tikva & Tambouris, 2021).

The development of a WOL-based curriculum design for prospective PAUD teacher students can be a strategic solution in bridging the gap between theory and practice, as well as between formal education and the needs of the workforce. Through this approach, prospective PAUD teachers are not only equipped with academic knowledge but also empowered to apply their knowledge and skills in real-world situations, ensuring that they are ready to face the challenges in the early childhood education environment.

Previous studies have highlighted the importance of PAUD teacher competencies and the need for innovative approaches in teacher education to meet contemporary demands (Lillvist dkk.,

2014). Research by Tsabitah & Fitria (2021) showed that teacher competence is crucial in influencing the quality of children's education. This research also demonstrated that teachers with the right skills and knowledge could significantly contribute to children's growth and development.

However, despite the awareness of the importance of PAUD teacher competencies, the alignment between theory and practice supporting the development of prospective PAUD teacher competencies needs to be further analyzed. The lack of integration between educational theory and field practice in the PAUD teacher education curriculum can affect the development of competencies and their readiness when entering the workforce.

Research conducted by Kent & Giles (2016) highlights that the lack of practical experience for prospective teachers can lead to unpreparedness in managing classrooms when they begin their careers. This barrier is often caused by insufficient practical opportunities during their education. This underscores the need for developing a learning approach that integrates theory and practice, such as the Workplace-Oriented Learning Curriculum. The goal is to ensure that prospective early childhood education (ECE) teachers have the readiness and competencies necessary to meet the complex and dynamic educational needs of young children in the contemporary era.

The competence of prospective ECE teachers is a key factor in ensuring their readiness to support the quality of early childhood education. According to the National Association for the Education of Young Children (NAEYC) (2019), ECE teacher competencies include a deep understanding of child development, learning strategies that meet children's needs, and interpersonal skills that enable positive interactions between teachers, children, and parents. Therefore, to

support their professionalism in the workplace, prospective ECE teachers are required to have competencies, particularly professional competencies, to ensure they possess the skills and knowledge necessary to implement their theoretical understanding in practice.

The professional competencies required are closely related to the teacher's understanding of child development, the use of appropriate teaching methods and strategies, classroom management, creative development of learning materials, and self-development (Novitasari & Fitria, 2021; Silalahi & Sahara, 2022; Putri, 2023). Several previous studies have shown the importance of professional competence for teachers. For example, research by Husain et al. (2022) indicates that teachers' professional competence significantly affects student learning achievement. This demonstrates that professional teachers can conduct the learning process in a way that meets students' needs, encouraging optimal development.

This indicates that from their time in higher education, prospective teachers need to be encouraged to enhance their professional competencies to become educators capable of providing optimal education. Furthermore, research by Goodfellow & Sumsion (2000) reveals the need for education and training focused on practical work to prepare prospective teachers to be ready and competent in facing real-world situations. These findings emphasize the urgency of developing a curriculum that meets the competency needs of prospective ECE teachers.

The WOL Curriculum refers to a learning approach that emphasizes the integration of theory and practice in the workplace (Tennant et al., 2019; Tikva & Tambouris, 2021). According to Gerhardt & Annon (2021), WOL can help create

learning centered on practical work, providing students with opportunities to develop skills, knowledge, and competencies relevant to the workforce. This approach focuses on project-based learning, simulations of real work situations, and collaboration with industry to ensure that students are prepared to face the challenges and demands of the working world.

Previous research by Årlemalm-Hagsér (2017) shows that workplace-oriented learning encourages prospective ECE teachers to understand their future work environment. Additionally, Årlemalm-Hagsér (2017) revealed that workplace-based learning experiences are an integral part of early childhood teacher education. Furthermore, research by Lohmander (2015) also demonstrates that the integration of theory and practice is crucial in providing real-world experiences for prospective teachers. This underscores the urgency and relevance of implementing a Workplace-Oriented Learning Curriculum in higher education to prepare prospective ECE teachers with the skills and competencies needed in a dynamic workforce.

METHOD

This study uses the Educational Design Research (EDR) method aimed at developing a Workplace-Oriented Learning (WOL) curriculum design as an effort to enhance the professional competence of prospective ECE teachers (Nieveen & Folmer, 2013). The research participants include prospective ECE teachers, alumni, ECE teachers, and partner institutions of the university. The study is conducted through several stages, including problem identification and needs analysis, curriculum design planning, curriculum prototype development, and curriculum design evaluation and reflection. The stages of the research are outlined in Figure 1.

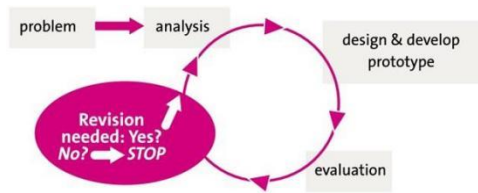


Figure 1 Research stages of the EDR method (Nieveen & Folmer, 2013)

In the problem identification stage, researchers identify issues related to early childhood education and the need for competency development for prospective teachers. This involves several activities, including observation and interviews, as well as needs analysis in the development of professional competencies for prospective teachers. The analysis also includes evaluating the existing curriculum and the gap between theory and practice required in the workplace. After obtaining the analysis results, the next step is to plan the curriculum design, which involves developing the curriculum framework. In this curriculum development, the research team formulates learning objectives.

Subsequently, the curriculum prototype is developed and evaluated. The evaluation is conducted through Focus Group Discussions (FGD) with one of the partner universities. These FGDs serve as a means to gather feedback from partner institutions on the designed curriculum.

Based on the above stages, data collection is conducted through interviews, literature studies, FGDs, and document studies. The data analysis technique used is thematic analysis, which aims to identify significant findings during the development of the WOL curriculum design.

RESULT AND DISCUSSION

The development of a WOL curriculum design aims to provide education that is more relevant to the demands of the

workforce. This design integrates principles of learning focused on real work environments with the ECE curriculum. The development process involves several stages, yielding the following results.

Problem Identification and Needs Analysis

The research begins with analyzing the professional competencies needed by prospective ECE teachers. Specific examples of professional competencies analyzed include classroom management, lesson planning, technology utilization, and effective communication skills. Additionally, the analysis aims to understand the challenges and demands within the ECE field. This analysis is conducted through interviews and document studies, involving alumni and ECE teachers. Below is documentation of meetings conducted to analyze the professional competencies that need to be strengthened in the curriculum design.



Figure 2 Meeting with alumni and early childhood education teachers

Based on the interviews, one teacher stated:

"As an ECE teacher, I believe that professional competence is essential for prospective ECE teachers. They need to master classroom management and the use of digital technology to support learning. Additionally, they should be capable of implementing the new curriculum to be better prepared for their future roles."

This statement highlights the need for ongoing enhancement of professional

competencies for prospective ECE teachers starting from their time in higher education. Overall, interviews with alumni and ECE teachers indicate several competencies that need development, including effective classroom management, communication skills, lesson planning abilities, and the use of technology in education.

Based on the needs analysis, it is clear that emphasis on certain competencies is necessary. These competencies should be developed not just through theoretical teaching but through a balance of theory and practice. Therefore, a curriculum design that facilitates balanced learning experiences is required. The proposed curriculum will be based on a WOL approach, focusing on previously analyzed professional competencies like effective classroom management, communication skills, lesson planning, and technology use in education. This is closely related to increasing students' awareness of their roles as teachers, encouraging them to develop professional competencies effectively, thereby positively impacting student development.

Before designing the WOL curriculum, the research team analyzed the existing curriculum, considering how well it prepares students for the workforce. The analysis revealed the need to strengthen the provision of practical learning experiences starting from the first semester. Students can be introduced to the ECE field early and start observing to increase their awareness and sensitivity to the work environment they will face.

Curriculum Design Planning

This stage involves setting learning objectives focused on developing professional competencies relevant to the ECE field. This ensures that the curriculum aligns with workforce needs. Further planning involves designing learning materials according to WOL

principles to optimize the integration of theory and practice, providing students with practical experiences relevant to the work environment.

Development of Curriculum Design Prototype

In this stage, the researchers create a WOL curriculum design. The curriculum integrates theoretical courses with a series of practical tasks for students. The curriculum design includes:

- a. Semester 1: Career Awareness (Observation and field practice to understand the characteristics of 2-4-year-old children in partner schools)
- b. Semester 2: Career Awareness (Observation and field practice to understand the characteristics of 4-6-year-old children in partner schools)
- c. Semester 3: Career Exploration (Observation and field practice to understand the career of an ECE teacher and the roles and responsibilities of an ECE teacher)
- d. Semester 4: Career Exploration (Further observation and field practice to understand the career of an ECE teacher)
- e. Semester 5: Career Preparation (Becoming an assistant ECE teacher)
- f. Semester 6: Career Preparation (Observation and field practice related to "Merdeka Belajar" in ECE)
- g. Semester 7: Career Training (Guided and independent teaching practice)
- h. Semester 8: Career Training (Problem-solving in early childhood education)

Curriculum Design Evaluation and Reflection

In the evaluation stage, researchers conduct FGD with a partner university. These FGDs gather feedback from partner institutions regarding the curriculum design. This feedback is part of the researchers' efforts to evaluate and reflect on the curriculum design. The researchers analyze the received feedback and conduct an in-depth evaluation of the curriculum design, considering various perspectives discussed. The evaluation results are then used to formulate recommendations for improvements or enhancements needed to increase the quality and relevance of the curriculum.

The FGD results indicated a positive response to the development of a WOL-based curriculum design. This curriculum development is seen as a good effort to facilitate practical needs for prospective ECE teachers in the workforce. A lecturer from the partner institution noted that, given the current situation and conditions, the necessary competencies for prospective teachers include the integration of technology in teaching, development of interpersonal skills, teamwork, and understanding of diversity or inclusion. Hence, this curriculum aims to optimize the competencies of prospective ECE teachers by balancing theory and practical work experience.

The development of a WOL curriculum design for prospective ECE teachers has sparked important discussions and implications. Amid the rapid changes in education and early childhood needs, this curriculum design allows education to be more responsive to current challenges. By equipping students with skills and knowledge relevant to the workforce, this curriculum helps bridge the gap between theory and practice (Lohmander, 2015).

The WOL curriculum design not only aids students in gaining practical skills but also offers opportunities for ongoing professional development. Beginning

with career awareness, this stage is an effort to build career consciousness by involving an initial understanding of careers in education. Hong et al. (2018) revealed that career awareness could influence the motivation of prospective teachers to commit to completing their programs and ultimately pursue a teaching career.

After the career awareness stage, students move to the career exploration stage to understand the tasks of a teacher and the skills needed in the workforce. Hong et al., (2018) stated that understanding the responsibilities of a teacher and the required skills would affect their readiness to enter the workforce. Their readiness determines their ability to adapt to various challenges in the workplace.

Next, students will be involved in the career preparation stage by serving as assistant teachers in partner institutions. Becoming an assistant teacher allows students to prepare the skills needed to enter the workforce. The final stage is career training, which involves direct fieldwork practice to support the mastery of practical skills and knowledge in a real work context.

Through the integration of work experiences in the curriculum, students can continually learn and develop, keeping up with advancements in early childhood education and adapting to changing job demands. As an ECE teacher mentioned, mastering digital technology to support teaching is currently essential. Therefore, the development of a Workplace-Oriented Learning-based curriculum seeks to facilitate this need by integrating theory with practice in learning activities (Gerhardt & Annon, 2021; Tikva & Tambouris, 2021).

The curriculum development process involves collaboration between educational institutions, industry, and other stakeholders. This creates a strong link between the educational and

professional worlds, ensuring that the curriculum meets the diverse needs and expectations of various stakeholders.

The development of a WOL-based curriculum design to enhance the professional competence of prospective ECE teachers is a progressive step in preparing the future generation of teachers to face challenges in early childhood education. Considering the dynamics in the workforce, this curriculum is expected to significantly contribute to improving the quality of education and learning for early childhood.

CONCLUSION

The development of a WOL curriculum design for prospective ECE teachers is a commendable initiative aimed at enhancing the relevance of education to the needs of the workforce. The research shows that the curriculum development process involves in-depth needs analysis from stakeholders, including alumni and ECE teachers, as well as careful planning stages to ensure the integration of theory and practice. As a result, this curriculum design not only equips students with the necessary practical skills but also creates opportunities for ongoing professional development. By incorporating direct work experiences into the curriculum, it is hoped that students will become better prepared and more responsive to the evolving demands in early childhood education.

Implementing a WOL curriculum can present various challenges. These include student and faculty adaptation to an approach different from conventional learning, effective collaboration with industry partners, and the availability of adequate internship placements. Additionally, the quality of workplace mentors can also be a challenge. Strategies to address these challenges include providing orientation and training programs, and developing clear MoUs with partner institutions.

Comprehensive assessment and the use of technology are also crucial to track student progress. Curriculum flexibility, technological innovation, continuous feedback, and resource development are key to overcoming these challenges, ensuring that the implementation of the WOL curriculum can proceed smoothly and optimally.

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