



Evaluation of the New Generation PAUD Kit for Early Childhood Teacher Education: First-Year Findings from a Multiyear Study

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Abstract

Educational Play Materials (APEs) are essential in supporting practice-based learning and preparing prospective early childhood teachers with the pedagogical competencies required for effective classroom practice. Although numerous studies have evaluated individual instructional media, limited empirical evidence is available regarding the formative evaluation of integrated educational kits designed for pre-service teachers, particularly within open and distance learning environments. This study aimed to conduct a formative evaluation of the New Generation Early Childhood Education (PAUD) Kit developed by the Early Childhood Teacher Education Program (PGPAUD), Universitas Terbuka, during the first year of a multiyear research project. A mixed-methods formative evaluation design was employed to examine the kit's practicality, usefulness, relevance, implementation, and distribution as a basis for product refinement. Data were collected through online questionnaires, tutorial observations, focus group discussions, and workshops involving 2,877 students, 87 tutors, and 17 Learning Material Coordinators across Indonesia. The findings revealed that the PAUD Kit effectively supported practice-based learning, particularly in the Cognitive Development Methods and Children's Play and Games courses. Among students who received the kit, 93% reported understanding its intended use; however, the overall utilization of the kit remained inconsistent due to unequal distribution and varying levels of tutor encouragement. Tutors considered the PAUD Kit relevant, practical, and safe for instructional use while recommending improvements in user guidelines, curriculum alignment, and instructional content. The study concludes that the New Generation PAUD Kit demonstrates considerable potential to strengthen practice-based learning in early childhood teacher education. More importantly, this formative evaluation provides evidence-based feedback for refining the PAUD Kit and supporting its broader implementation in the subsequent stages of the multiyear development project.

Keyword: PAUD Kit; formative evaluation; educational play materials; early childhood teacher education; practice-based learning.

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1. Introduction

Early Childhood Education (ECE) plays a fundamental role in fostering children's cognitive, language, socio-emotional, physical, and creative development during the most critical period of human growth. The quality of learning experiences provided during early childhood is strongly influenced by teachers' pedagogical competence and their ability to design meaningful, play-based learning environments. Consequently, the preparation of prospective early childhood teachers has become an important concern for higher education institutions, particularly in ensuring that graduates possess both theoretical knowledge and practical teaching competencies. One of the essential components supporting practice-based learning in early childhood teacher education is the availability of appropriate Educational Play Materials (Alat Permainan Edukatif/APE), which enable prospective teachers to transform pedagogical concepts into authentic classroom experiences (Thomas, 2022; Yutong, 2023; LIU, 2023; Komis et al., 2021; Maftai & Gherguț, 2024; Sudhakaran, 2023). Recent international reports also emphasize that high-quality learning resources and instructional media are indispensable for strengthening teacher competencies and improving children's learning experiences in early childhood settings (OECD, 2001).

Educational Play Materials (APE) are widely recognized as instructional media that encourage children's active participation through exploration, experimentation, and meaningful interaction. In

early childhood classrooms, educational media not only enhance children's motivation and engagement but also facilitate the development of higher-order thinking, creativity, communication, and problem-solving skills. Accordingly, numerous studies have focused on developing innovative instructional media to improve learning quality. For example, Canva-based interactive media developed using the ADDIE model demonstrated high validity and received positive responses from users (Ginayah, Iswara, dan Karlina, 2024). Other studies similarly reported that visual and interactive learning media significantly enhance students' understanding, participation, and learning engagement (Saputra et al., 2022). In addition, training programs that improve teachers' competence in designing digital learning media have also been shown to strengthen instructional quality in early childhood education (Alamin et al., 2023; Ardiansah & Miftakhi, 2019; Farantika et al., 2024; Kisno & Fatmawati, 2023; Rasmani et al., 2022, 2023; Tambusai & Risnawaty, 2025).

Beyond digital instructional media, several researchers have evaluated conventional Educational Play Materials (APE) developed for early childhood learning. (Hayati, 2021) for instance, employed the Discrepancy Evaluation Model to evaluate a mini drum educational toy and concluded that the product fulfilled educational, technical, and aesthetic criteria. Likewise, (Budyawati, 2020) reported that an Osing culture-based Pop-Up Book was valid, practical, and effective in promoting children's creativity and classroom interaction. Even relatively simple educational media produced from recycled cardboard have demonstrated meaningful educational benefits when appropriately integrated into classroom instruction learning (Aghnaita et al., 2024; Arsana et al., 2019; Tean et al., 2025). Collectively, these studies consistently demonstrate that educational media contribute positively to children's learning outcomes and instructional effectiveness.

Nevertheless, despite the growing body of literature concerning the development and evaluation of educational media, most previous studies have concentrated on validating individual learning media or examining their effectiveness within relatively small classroom settings. Only limited attention has been devoted to evaluating integrated educational kits designed specifically to support the preparation of pre-service early childhood teachers, particularly within open and distance learning systems. Furthermore, previous evaluations have generally focused on learners' outcomes or media feasibility, while evidence regarding the large-scale implementation, practicality, usability, and stakeholder perceptions of educational kits remains scarce (Patton, 2011; Scriven, 1991). Consequently, empirical evidence explaining how educational kits are utilized by prospective teachers, supported by tutors, and implemented across geographically diverse learning environments is still limited. This gap indicates the need for a more comprehensive formative evaluation capable of generating systematic feedback for product refinement prior to wider implementation.

Responding to this need, Universitas Terbuka (UT), through its Early Childhood Teacher Education Program (PGPAUD), developed the New Generation PAUD Kit, an integrated collection of Educational Play Materials designed to strengthen practice-based learning for prospective early childhood teachers. Unlike conventional instructional media intended for direct classroom use by children, the New Generation PAUD Kit was specifically developed as a learning resource that enables university students to conduct teaching practice, simulate learning activities, and apply pedagogical theories during tutorial sessions and school-based practicum. The kit is organized into two complementary packages: PAUD Kit 1 for students in semesters 1–5 and PAUD Kit 2 for students in semesters 6–9. As part of a multiyear development project, the first year focused on evaluating the feasibility, usefulness, and implementation of both kits to provide evidence for subsequent product refinement.

The evaluation of the New Generation PAUD Kit is conceptually grounded in constructivist learning theory, which emphasizes that meaningful learning occurs through learners' active interaction with concrete objects and authentic learning experiences. Piaget's cognitive constructivism highlights

the importance of manipulating physical objects to facilitate children's conceptual development, whereas Vygotsky's sociocultural theory emphasizes learning through social interaction and instructional scaffolding. Furthermore, Ausubel's theory of meaningful learning suggests that instructional materials should be relevant, contextual, and systematically connected to learners' prior knowledge. These theoretical perspectives collectively support the use of Educational Play Materials not merely as teaching aids but as pedagogical tools that facilitate meaningful learning experiences for prospective teachers while simultaneously preparing them to implement developmentally appropriate practices in early childhood classrooms.

The present study offers several important contributions to the existing literature. First, unlike previous studies that primarily evaluated individual educational media, this research conducts a large-scale formative evaluation of an integrated educational kit specifically developed for pre-service early childhood teachers. Second, the evaluation incorporates multiple stakeholder perspectives, including students, tutors, and learning material coordinators representing various regions across Indonesia, thereby providing a more comprehensive understanding of implementation in an open and distance learning context. Third, rather than solely determining the quality of the product, this study adopts a formative evaluation perspective in which evaluation findings serve as systematic feedback for improving the PAUD Kit within a multiyear research and development framework. This approach aligns with contemporary perspectives on formative evaluation, which emphasize continuous improvement, stakeholder engagement, and evidence-informed refinement of educational innovations (Branch, 2009; Patton, 2011).

Therefore, this study aims to conduct a formative evaluation of the New Generation PAUD Kit developed by Universitas Terbuka by examining its practicality, usefulness, relevance, and implementation from the perspectives of students, tutors, and learning material coordinators. The findings are expected to provide empirical evidence for improving the PAUD Kit prior to its broader implementation in the subsequent stages of the multiyear research project. In addition, the study seeks to contribute to the growing body of knowledge concerning formative evaluation of instructional media in early childhood teacher education, particularly within open and distance learning environments.

2. Methodology

This study employed a formative evaluation design using a mixed-methods approach to evaluate the implementation of the New Generation Early Childhood Education (PAUD) Kit during the first year of a multiyear research project conducted by the Early Childhood Teacher Education Program (PGPAUD), Universitas Terbuka. Formative evaluation was selected because its primary purpose is to generate systematic feedback for improving educational products prior to wider implementation (Branch, 2009). Rather than determining the final effectiveness of the PAUD Kit, this study focused on examining its practicality, usefulness, relevance, implementation, and distribution from the perspectives of the primary stakeholders. The findings obtained from this first-year evaluation were intended to provide evidence-based recommendations for revising and refining the PAUD Kit before entering the second stage of the multiyear development project.

The study population consisted of all active students enrolled in the Early Childhood Teacher Education Program (PGPAUD), practicum tutors, and Learning Material Coordinators (PJBA) of Universitas Terbuka distributed throughout Indonesia, totaling approximately 25,056 individuals. The participants included 2,877 students, 87 tutors, and 17 Learning Material Coordinators. Participants were selected using purposive regional sampling, in which regional offices (UPBJJ-UT) were chosen to represent the western, central, and eastern regions of Indonesia. The western region included Jakarta, Malang, Yogyakarta, Surabaya, Semarang, Purwokerto, and Jember; the central region comprised

Banjarmasin, Pekanbaru, and Mataram; while the eastern region included Palu, Majene, Kendari, and Sorong. This sampling strategy was adopted to ensure that the evaluation represented diverse geographical contexts and implementation conditions of the PAUD Kit across Indonesia.

Data were collected from March to October 2023 through four complementary techniques, namely online questionnaires, tutorial observations, Focus Group Discussions (FGDs), and evaluation workshops. The questionnaire was administered electronically to students, tutors, and Learning Material Coordinators to obtain information regarding the practicality, usefulness, relevance, implementation, and quality of the PAUD Kit. Tutorial observations were conducted in both online and face-to-face tutorial sessions to document how the PAUD Kit was integrated into teaching practice activities. Focus Group Discussions were organized to explore participants' experiences, perceived benefits, implementation challenges, and recommendations for improving the PAUD Kit. In addition, evaluation workshops involving experts and practitioners were conducted to obtain comprehensive feedback that would support the refinement of the PAUD Kit in the subsequent phase of the project.

The study employed three principal research instruments. The first was a structured evaluation questionnaire developed by the research team based on the evaluation indicators of the PAUD Kit, including practicality, usefulness, relevance to course learning outcomes, suitability of learning materials, implementation, and product quality. The second instrument consisted of Focus Group Discussion guidelines designed to facilitate in-depth discussions with students, tutors, and Learning Material Coordinators regarding their experiences in using the PAUD Kit. The third instrument was an observation guide used during tutorial sessions and evaluation workshops to document the implementation process and identify strengths and areas requiring improvement. Prior to data collection, all research instruments were reviewed by experts within the Early Childhood Teacher Education Program to ensure the clarity, relevance, and appropriateness of the evaluation indicators. The consistency and trustworthiness of the findings were further strengthened through methodological triangulation by integrating evidence obtained from questionnaires, observations, Focus Group Discussions, and workshops.

Participation in this study was voluntary. Before completing the questionnaire or participating in the Focus Group Discussions and workshops, all participants were informed about the objectives of the study and agreed to participate voluntarily. The identities of all respondents were kept confidential, and the data collected were used exclusively for research purposes and the improvement of the New Generation PAUD Kit.

Quantitative data obtained from the questionnaires were analyzed using descriptive statistical techniques, including frequencies, percentages, and response distributions to describe participants' perceptions of the PAUD Kit. Qualitative data collected from Focus Group Discussions, observations, and workshops were analyzed using thematic analysis, in which participants' responses were coded, categorized, and interpreted to identify recurring themes related to the strengths, implementation challenges, and recommendations for improving the PAUD Kit. Finally, the quantitative and qualitative findings were integrated through methodological triangulation to generate comprehensive recommendations for revising the New Generation PAUD Kit in preparation for the second year of the multiyear research project.

3. Results

The research findings in this evaluation of the PAUD Kit are presented from three perspectives: the evaluation of the PAUD Kit based on students' perceptions, the evaluation of its usefulness from tutors' perceptions, and the evaluation of its distribution from the perspective of regional UT offices.

3.1. Evaluation of the PAUD Kit from the Students' Perspective

The students' evaluation was conducted to examine the implementation of the New Generation PAUD Kit during the first year of the multiyear research project. Specifically, the evaluation explored students' access to the PAUD Kit, their understanding of its intended use, the frequency of its utilization in practicum courses, perceptions of its practicality and quality, and the instructional materials most frequently used during teaching practice. Data were collected through online questionnaires distributed during both webinar and face-to-face tutorial sessions. A total of 2,877 students completed the questionnaire, representing students from various regional offices of Universitas Terbuka throughout Indonesia. Among these respondents, only students who had received either PAUD Kit 1 or PAUD Kit 2 were asked to provide detailed evaluations regarding the implementation and use of the kit.

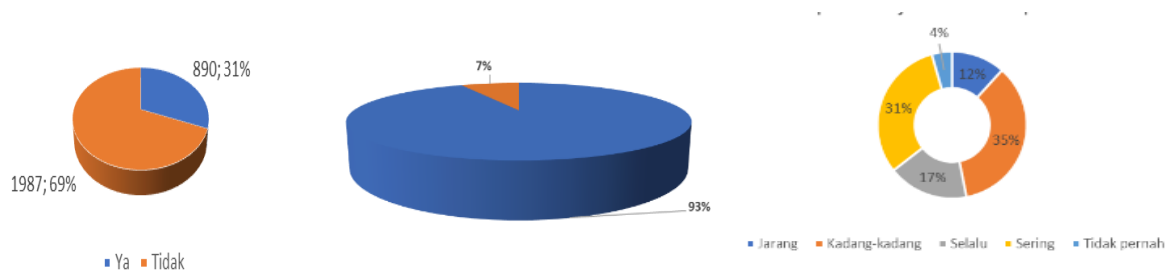


Figure 1

Distribution of PAUD Kit recipients, students' understanding of kit utilization, and frequency of PAUD Kit use during practicum courses

As presented in Figure 1, 890 students (31%) reported that they had received either PAUD Kit 1 or PAUD Kit 2, whereas the remaining respondents had not yet obtained the kit during the first year of implementation. Among the students who received the kit, 93% indicated that they understood how to use it, while 7% reported that they still experienced difficulties. Regarding utilization, 31% of respondents stated that they frequently used the PAUD Kit during practicum activities, whereas 17% reported that they always used it. Nevertheless, some students indicated that they rarely or never used the PAUD Kit when conducting teaching practice.

The questionnaire further examined students' perceptions regarding the practicality of the PAUD Kit and the extent to which tutors encouraged its utilization during practicum courses.

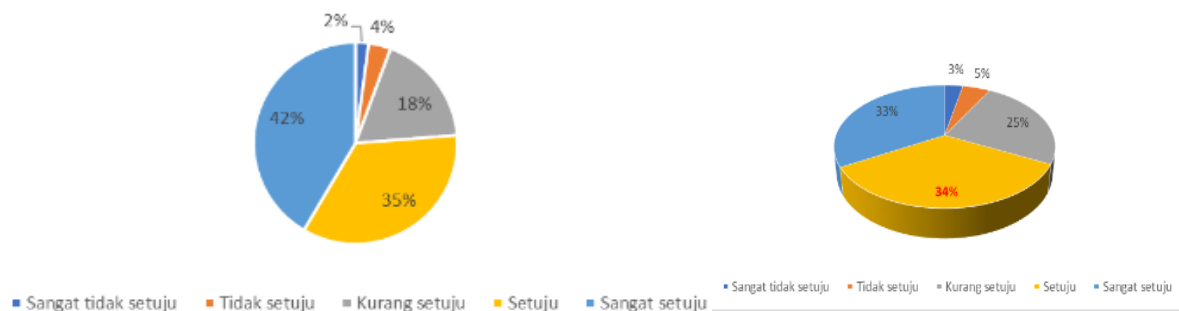


Figure 2

Students' perceptions of the ease of using the PAUD Kit and tutor encouragement during practicum activities

As illustrated in Figure 2, 42% of students strongly agreed that the PAUD Kit facilitated the implementation of practicum courses. In addition, 34% of respondents reported that their tutors actively encouraged the use of the PAUD Kit during teaching practice conducted at their respective schools. These findings indicate that the PAUD Kit was generally perceived as supportive of practical learning activities and was introduced by tutors during tutorial sessions, although the level of tutor encouragement varied among learning groups.

Students were also asked to identify the practicum courses in which the PAUD Kit was most frequently utilized.

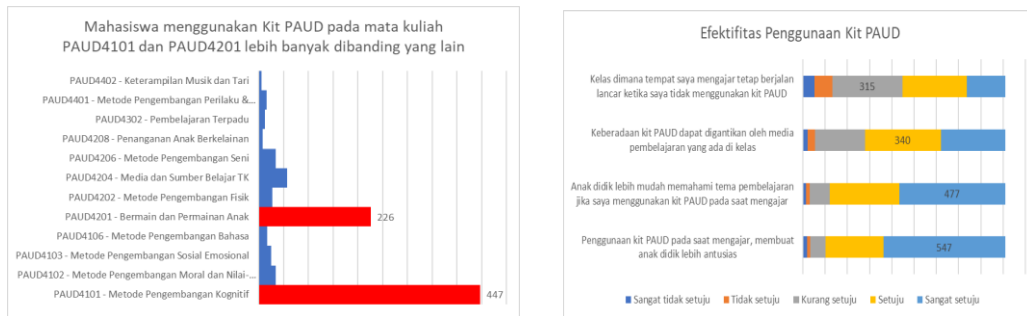


Figure 3

Utilization of the PAUD Kit across practicum courses and students' perceptions of its effectiveness in supporting teaching practice

The results presented in Figure 3 indicate that the PAUD Kit was predominantly used in two practicum courses, namely Cognitive Development Methods (PAUD4101) and Children's Play and Games (PAUD4201). Students reported that the kit supported teaching practice by facilitating children's understanding of learning themes and increasing their enthusiasm during classroom activities. However, several respondents also noted that some instructional media contained in the PAUD Kit could be substituted with educational materials already available in their respective early childhood education institutions.

The quality and cost efficiency of the PAUD Kit were also evaluated from the students perspective.

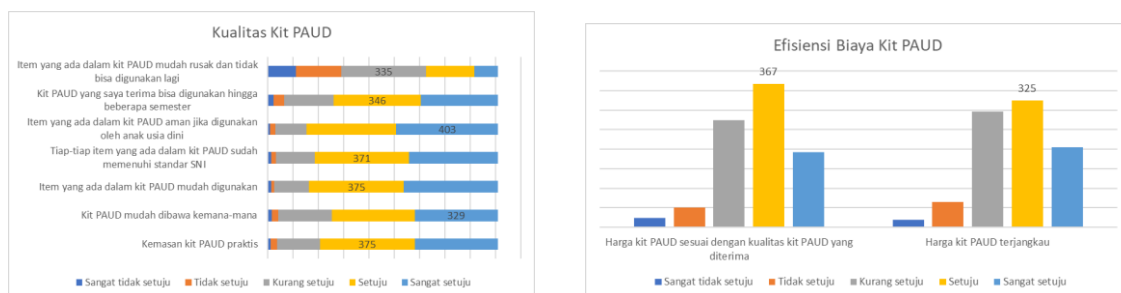


Figure 4

Students' evaluation of the quality and cost efficiency of the New Generation PAUD Kit

Based on the responses presented in Figure 4, students generally evaluated the PAUD Kit positively in terms of product quality. The kit was perceived as reusable across several semesters, durable, safe for children, compliant with Indonesian National Standards (SNI), easy to use, portable, and practical for classroom implementation. Furthermore, respondents considered that the kit provided a reasonable balance between quality and cost. Nevertheless, several students expressed expectations for a lower purchase price and improvements in the overall quality of several instructional materials contained in the kit.

Finally, students were asked to identify the instructional materials contained in the PAUD Kit that were most frequently used during teaching practice.

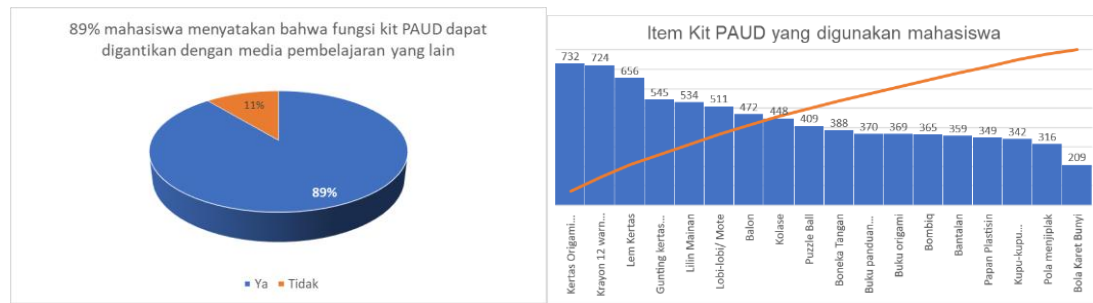


Figure 5

Functions of the PAUD Kit and instructional materials most frequently used during teaching practice

As shown in Figure 5, although the PAUD Kit functioned as a practical learning resource, many students reported that the instructional media available at their respective schools could also serve similar instructional purposes. This finding is understandable considering that most PGPAUD students are practicing early childhood teachers who already have access to educational play materials in their schools. Among all materials included in the PAUD Kit, origami paper, crayons, and glue were identified as the most frequently used instructional materials because they could be adapted to various learning themes and classroom activities.

Overall, the students' evaluation demonstrates that the New Generation PAUD Kit was positively perceived in terms of usability, practicality, and instructional quality. Nevertheless, variations in kit distribution, utilization, and tutor encouragement indicate that the implementation of the PAUD Kit during the first year of the project was not yet uniform across all learning regions. These findings provide an overview of students' experiences during the initial implementation phase and serve as the basis for further evaluation presented in the following sections.

3.2. Evaluation of the PAUD Kit from the Tutors' Perspective

Tutors play an important role in facilitating practicum-based learning and guiding students in utilizing the New Generation PAUD Kit during tutorial activities. Therefore, the tutors' evaluation was conducted to obtain their perceptions regarding the relevance, practicality, quality, and instructional usefulness of the PAUD Kit in supporting learning activities within the Early Childhood Teacher Education Program (PGPAUD), Universitas Terbuka. A total of 87 tutors from various regional offices participated in the online evaluation and provided feedback based on their experiences in assisting students during practicum courses.

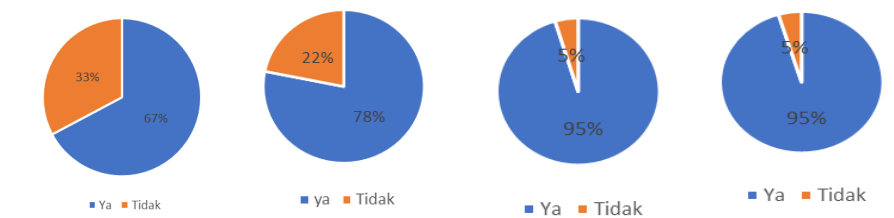


Figure 6

Tutors' evaluation of the New Generation PAUD Kit

As presented in Figure 6, the majority of tutors provided positive evaluations of the New Generation PAUD Kit across the assessed indicators. Overall, the tutors considered the PAUD Kit to be relevant to the learning outcomes of practicum courses and useful for supporting students in conducting teaching practice. The instructional materials contained in the kit were also perceived as practical, easy

to use, portable, and appropriate for various learning activities in early childhood education settings. In addition to evaluating the instructional value of the PAUD Kit, tutors also provided feedback regarding its implementation. Several tutors indicated that the kit would be more effective if accompanied by a comprehensive user guide that clearly explains the objectives, functions, and procedures for using each instructional material. Tutors also emphasized the importance of ensuring that the contents of the PAUD Kit remain aligned with the learning outcomes of practicum courses and reflect the learning needs encountered during teaching practice.

Furthermore, tutors recommended several improvements to enhance the quality of the PAUD Kit in future development stages. These recommendations included refining several instructional materials, enriching the kit with additional learning resources such as children's storybooks and contextual teaching materials, and improving the organization of the kit to facilitate its use during tutorial and practicum activities.

Overall, the tutors' evaluation indicates that the New Generation PAUD Kit was positively perceived as a practical instructional resource for supporting practicum-based learning in the PGPAUD Program. The feedback provided by tutors also generated several recommendations for product refinement, which will be presented together with other stakeholder feedback in the subsequent sections of this study.

3.3. Evaluation of the PAUD Kit from the Perspective of Regional Offices (PJBA)

The evaluation from the perspective of the Learning Material Coordinators (PJBA) was conducted to obtain information regarding the distribution and implementation of the New Generation PAUD Kit across regional offices of Universitas Terbuka. As the units responsible for coordinating the distribution of learning materials and supporting tutorial implementation, the regional offices play an important role in ensuring that the PAUD Kit reaches students in a timely and appropriate manner. A total of 17 Learning Material Coordinators participated in the evaluation by providing information on the distribution process, implementation constraints, and recommendations for improving the management of the PAUD Kit.

The findings indicate that the implementation of the PAUD Kit distribution varied across regional offices. While several regional offices reported that the distribution process had been carried out according to the planned schedule, others experienced operational constraints during implementation. The most frequently reported challenges included delays in delivery, unequal distribution among students, and damaged instructional materials received during shipment. These conditions affected the availability of the PAUD Kit for students enrolled in practicum courses during the first year of implementation.

In addition to distribution issues, Learning Material Coordinators reported that coordination among the university, regional offices, tutors, and students played an important role in supporting the successful implementation of the PAUD Kit. Effective communication regarding procurement schedules, delivery mechanisms, and kit utilization was considered essential for ensuring that students received the instructional materials before commencing their practicum activities. The coordinators also suggested several improvements to strengthen the distribution system of the PAUD Kit in subsequent implementation stages. These recommendations included improving distribution planning, enhancing coordination among regional offices, strengthening monitoring of delivery processes, and establishing clearer mechanisms for reporting damaged or incomplete instructional materials. Such recommendations were documented as part of the first-year evaluation and will serve as input for improving the implementation of the New Generation PAUD Kit during the next phase of the multiyear research project.

Overall, the evaluation conducted by the Learning Material Coordinators demonstrates that, although the distribution of the PAUD Kit had been successfully implemented in many regional offices,

several logistical and coordination challenges remained during the initial implementation period. These findings provide an overview of the operational aspects of the PAUD Kit implementation and complement the evaluations obtained from students and tutors.

3.4. Qualitative Findings from Focus Group Discussions and Evaluation Workshops

To complement the quantitative findings, qualitative data were collected through Focus Group Discussions (FGDs) and evaluation workshops involving students, tutors, and Learning Material Coordinators (PJBA). These activities explored participants' experiences in using the New Generation PAUD Kit, identified implementation challenges, and gathered recommendations for improving the kit before the second year of the multiyear research project. Overall, participants perceived the PAUD Kit as a valuable instructional resource that supported practicum-based learning by helping prospective teachers translate theoretical knowledge into classroom practice. Nevertheless, the discussions also revealed several implementation challenges, including inconsistent utilization across tutorial groups, variations in tutor guidance, and unequal distribution of the PAUD Kit among regional offices. As a result, some students relied on educational play materials already available in their schools during teaching practice.

The evaluation workshops generated several recommendations for improving the PAUD Kit. Participants emphasized the need for an official user guide, stronger alignment between the kit and practicum course learning outcomes, enrichment of instructional materials such as children's storybooks, and improved coordination among the university, regional offices, tutors, and students to support more effective distribution and implementation.

Overall, the qualitative findings complement the questionnaire results by providing practical feedback on the strengths, implementation challenges, and priority areas for improving the New Generation PAUD Kit. These findings serve as an important source of evidence for refining the kit prior to its broader implementation in the subsequent stages of the multiyear research project.

4. Discussion

The findings of this formative evaluation demonstrate that the implementation of the New Generation PAUD Kit has made a meaningful contribution to strengthening practice-based learning within the Early Childhood Teacher Education Program (PGPAUD) at Universitas Terbuka. Rather than merely evaluating the quality of an educational product, this first-year study provides empirical evidence to support the continuous refinement of the PAUD Kit prior to its broader implementation in the subsequent stages of the multiyear research project. The evaluation incorporated perspectives from students, tutors, Learning Material Coordinators (PJBA), and qualitative feedback obtained through Focus Group Discussions (FGDs) and evaluation workshops, enabling a comprehensive understanding of both the strengths and the implementation challenges of the PAUD Kit. Overall, the findings indicate that the PAUD Kit has fulfilled its primary function as a practical learning resource; however, its educational benefits are influenced not only by the quality of the instructional materials but also by equitable distribution, tutor facilitation, and institutional support throughout the implementation process.

From the students' perspective, the findings indicate that the PAUD Kit is generally perceived as practical, easy to use, reusable, safe, portable, and appropriate for supporting practicum activities. The high level of understanding among students who received the kit suggests that its design successfully reflects the principles of effective instructional media, particularly simplicity, accessibility, and usability (Batubara, 2020; Damayanti, 2021; Dasopang, 2021). Nevertheless, the variation in utilization demonstrates that the availability of learning media alone does not guarantee consistent implementation. Qualitative findings from FGDs and tutor interviews revealed that the extent to which the PAUD Kit

was used during practicum largely depended on tutor guidance and students' initiative. This finding reinforces previous studies emphasizing that instructional support and facilitator engagement play a crucial role in maximizing the educational value of learning media (Masnawati & Darmawan, 2024; Syahfrillina et al., 2025). Furthermore, the frequent use of instructional materials such as origami paper, crayons, and glue reflects the importance of flexible and developmentally appropriate educational resources that can be adapted to diverse learning activities (Acheampong, 2023; Mengstie, 2023). Similar findings have also been reported by (Rosalianisa, 2021), who demonstrated that educational play materials enhance children's engagement and creativity through concrete learning experiences. However, unlike previous studies that focused primarily on children's classroom learning, the present study extends this perspective by demonstrating how an integrated educational kit can strengthen the pedagogical preparation of pre-service early childhood teachers within an open and distance learning environment.

The tutors' evaluation further highlights that successful implementation of the PAUD Kit depends on systematic instructional support rather than solely on the availability of learning materials. Tutors consistently emphasized the importance of providing comprehensive user guidelines integrated with practicum course instructions, updating the contents of the PAUD Kit in accordance with current scientific developments and curriculum requirements, and enriching the kit with additional instructional resources such as children's storybooks. These recommendations are consistent with the concept of constructive alignment, which stresses the coherence between learning outcomes, instructional activities, assessment, and learning resources (Biggs & Tang, 2011). From the perspective of formative evaluation, such stakeholder feedback represents valuable evidence for continuous product improvement rather than merely an assessment of product quality (Branch, 2009). Therefore, the recommendations generated by tutors should be viewed as practical guidance for enhancing both the instructional relevance and long-term sustainability of the PAUD Kit.

The perspectives of the Learning Material Coordinators (PJBA) further demonstrate that effective implementation of educational innovations requires strong institutional coordination and efficient distribution systems. Variations in the distribution of the PAUD Kit among regional offices indicate that equitable access remains an important challenge in supporting practice-based learning across Indonesia. The recommendation to distribute the PAUD Kit directly from Universitas Terbuka's central office together with other learning materials represents a practical strategy to improve logistical efficiency and ensure timely delivery. Likewise, reports of damaged kits during shipment emphasize the importance of improving packaging quality as part of educational service management (Lambert, 2014). Maintaining the relevance of the PAUD Kit by continuously aligning its contents with curriculum developments, including the Merdeka Belajar policy, is equally important to ensure that the instructional materials remain responsive to contemporary early childhood education practices (Kurniyati et al., 2025; Ulfah & Suyadi, 2020; Wahyuni et al., 2024). These findings also complement those reported by (Murni, 2023), who emphasized that the effectiveness of educational media depends not only on the quality of the materials but also on their accessibility and meaningful integration into learning activities.

Overall, this study confirms that the New Generation PAUD Kit has met the essential characteristics of high-quality instructional media in terms of safety, usability, practicality, and cost efficiency. More importantly, this study contributes to the literature by demonstrating that the successful implementation of an integrated educational kit in distance-based early childhood teacher education depends on the interaction between product quality, instructional support, stakeholder engagement, and institutional management. Consequently, the recommendations generated through this formative evaluation including the development of comprehensive user manuals in both printed and digital formats, tutor capacity-building programs, improvements in distribution and packaging systems, and periodic revision of the kit's contents should be viewed as evidence-based priorities for the second phase of the multiyear research project. These findings extend previous studies that primarily focused on the

effectiveness of educational media in classroom settings (Asari et al., 2021; Dwita, 2019; Hasani et al., 2025; Kartini et al., 2022; Maghfiroh et al., 2024; Maulidiana et al., 2025; Yusuf, 2025) by demonstrating that the long-term success of educational innovations in teacher education also requires systematic implementation, continuous stakeholder feedback, and ongoing formative evaluation.

5. Conclusion

This study concludes that the New Generation PAUD Kit has considerable potential to support practice-based learning in the Early Childhood Teacher Education Program (PGPAUD), Universitas Terbuka. Overall, students, tutors, and Learning Material Coordinators perceived the PAUD Kit positively in terms of its practicality, usability, safety, and relevance to practicum courses. However, the study also identified several implementation challenges, particularly related to kit distribution, tutor guidance, and institutional coordination. As a **formative evaluation** conducted during the first year of a multiyear research project, this study provides evidence-based recommendations for improving the PAUD Kit before its broader implementation. The findings contribute to the development of instructional media in early childhood teacher education by emphasizing the importance of continuous product refinement, stakeholder feedback, and systematic implementation to strengthen practice-based learning in open and distance learning environments.

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