DEVELOPMENT OF A TEACHER'S GUIDEBOOK FOR ORGANIZING EDUPLAY ZONE PLAY ACTIVITIES FOR EARLY CHILDHOOD BASED ON CHILDREN'S INTERESTS

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Article Info	Abstract
	This study develops "MUMTAZ" flashcards as an innovative medium to improve the speaking skills of young children with speech delay. The background arises from the fact that many children at TKIT Al-Qana, North Tambun, show limited vocabulary, unclear articulation, and difficulty forming sentences, influenced by monotonous learning media and reduced verbal interaction due to gadget use. The research employed the Research and Development (R&D) method with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). Participants were 15 children aged 3–6 years with speech delay, while teachers and the principal acted as supporting informants. Data collection was conducted through observation, interviews, and expert validation involving material, language, and media specialists. Validation results indicated very high feasibility, with an average score of 88.7%. Implementation in classroom learning showed significant progress: children who were previously silent or used gestures began to pronounce simple words, improve articulation, and form short sentences. The number of children in the "less developed" category decreased to zero, while "developed" and "exceeding development" categories increased. These findings align with socio-cultural, cognitive, and behaviorist theories, emphasizing the role of interactive and dialogic media in language development. The "MUMTAZ" flashcard is therefore recommended as a valid, practical, and effective tool for teachers, parents, and therapists in supporting early childhood learning.

Abstrak

Penelitian ini bertujuan mengembangkan media pembelajaran berupa kartu "MUMTAZ" sebagai inovasi untuk meningkatkan keterampilan berbicara anak usia dini yang mengalami speech delay. Latar belakang penelitian didasarkan pada temuan di TKIT Al-Qana, Tambun Utara, di mana sebagian anak menunjukkan keterbatasan kosakata, artikulasi kurang jelas, serta kesulitan merangkai kalimat. Kondisi ini dipengaruhi penggunaan media pembelajaran yang monoton dan minimnya interaksi verbal akibat tingginya penggunaan gawai di rumah. Penelitian menggunakan metode Research and Development (R&D) dengan model ADDIE (Analysis, Design, Development, Implementation, Evaluation). Subjek penelitian meliputi 15 anak usia 3–6 tahun dengan keterlambatan bicara, serta guru dan kepala sekolah sebagai informan pendukung. Data dikumpulkan melalui observasi, wawancara, dan validasi ahli. Hasil validasi menunjukkan tingkat kelayakan sangat tinggi dengan skor rata-rata 88,7%. Implementasi di kelas membuktikan adanya peningkatan signifikan: anak yang sebelumnya hanya menggunakan isyarat mulai berani mengucapkan kata sederhana, memperjelas artikulasi, hingga membentuk kalimat singkat. Jumlah anak pada kategori "belum berkembang" menurun menjadi nol, sementara kategori "berkembang" dan "sangat berkembang" meningkat. Temuan ini sejalan dengan teori sosio-kultural, kognitif, dan behavioristik yang menekankan pentingnya media interaktif-dialogis. Dengan demikian, kartu "MUMTAZ" dinyatakan valid, praktis, dan efektif, serta direkomendasikan untuk guru, orang tua, maupun terapis dalam mendukung pembelajaran anak usia dini.

Kata Kunci : ***Speech Delay***, **Anak Usia Dini**, **Kartu Flash**, **Keterampilan Berbicara**

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Introduction

Early Childhood Education (ECE) plays a fundamental role in laying the foundation for a child's holistic development. The early years are often referred to as the golden age, a period where the child's brain develops rapidly and requires targeted stimulation. One of the most crucial aspects of this phase is language skills, particularly speaking ability, which serves as the groundwork for cognitive, social, and emotional development in subsequent stages (Izzati & Kamaludin, 2024). Children with good speaking skills tend to be more confident, socialize easily, and are better prepared for the next level of education(Andrian et al., 2025; Hotimah, 2024). However not all children achieve speaking milestones appropriate for their age. A common problem in Indonesia is speech delay, which is estimated to affect about 5–10% of young children (Pitsia & Kent, 2023). Children with speech delay face difficulties in pronouncing words, forming simple sentences, or communicating effectively (Honarzad & Soyoof, 2023; Rachmadi et al., 2023; SARI & APRILIA, 2023) This condition was also observed at TKIT Al-Qana, North Tambun, where initial observations showed that some children still relied on nonverbal cues and struggled to express themselves despite regular participation in learning activities. Several factors contribute to speech delay, including limited verbal stimulation at home and school, as well as the use of passive and unengaging learning media. Furthermore, high exposure to gadgets in the family environment reduces verbal interaction between children and parents, thus diminishing opportunities for meaningful communication experiences (Arifin et al., 2024; Lindawati et al., 2023) This situation underscores the need for innovative learning media that can stimulate two-way communication, capture children's interest, and align with their developmental context(Anggreni et al., 2024; Rahmah et al., 2023; Widya & Juwita, 2023).

Previous research indicates that flashcard media can help children enrich their vocabulary and improve speaking skills(Hotimah, 2024; Ingebrigtsen et al., 2025; Kaitsu & Nakata, 2025; Syamsiyah & Ma'rifatulloh, 2023). However, most existing flashcards are passive, limited to picture recognition or one-way word repetition. Such media lack an emphasis on dialogic interaction that encourages children to express themselves verbally. This creates a research gap, highlighting the need for interactive flashcard media that can facilitate two-way communication and stimulate children with speech delay more effectively. Based on this background, this study aims to develop the "MUMTAZ" flashcard, designed with a dialogic strategy using real images, bright colors, and simple prompting questions. This medium is expected to be an innovative, valid, practical, and effective solution for improving the speaking skills of young children with speech delay, while also providing practical contributions for teachers, parents, and speech therapists in inclusive education.

Method

his study employed a Research and Development (R&D) approach using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). This model was chosen for its systematic stages in designing, developing, and evaluating a learning product tailored to the needs of young children (Sugiono, 2017).

1. Participants and Research Location

The research was conducted at TKIT Al-Qana, North Tambun, Bekasi Regency, from March to June 2025. The subjects were 15 children from group B, aged 3–6 years, who were identified as having speech delay. The class teacher and school principal were involved as supporting informants during the observation and interview processes.

2. Research Procedure

The research procedure followed the stages of the ADDIE model:

a. **Analyze:** Conducted through interviews with the school principal and teacher, as well as classroom observations to identify children's needs and language learning obstacles.

b. **Design:** The concept of the "MUMTAZ" flashcard was developed, featuring real images, bright colors, and simple prompting questions to encourage two-way communication.

c. **Development:** A product prototype was created and then validated by three experts: a material expert, a language expert, and a media expert. Revisions were made based on expert feedback.

d. **Implementation:** The flashcards were trialed in learning activities through role-playing and storytelling with the children.

e. **Evaluation:** The product's effectiveness was measured by comparing the children's speaking skills before and after using the flashcards.

3. Data Collection Instruments

Data in this study were collected using several techniques. Interviews were conducted with the school principal and teacher to obtain qualitative data on needs and initial conditions. Observations were used to directly assess the children's initial speaking abilities and the effectiveness of the media during the implementation stage. Lastly, assessment questionnaires were given to the material, language, and media experts to collect quantitative data on the feasibility level of the developed product.

4. Data Analysis Technique

Data analysis in this study was conducted using two approaches:

a. **Qualitative Data Analysis:** Data from interviews and observation notes were analyzed descriptively to formulate the basis for product development and to describe the media's effectiveness in learning practice.

b. **Quantitative Data Analysis:** Data from the expert assessment questionnaires were analyzed using percentage techniques. The scores from each item on the questionnaire (using a Likert Scale of 1-5) were summed and converted into percentages to determine the media's feasibility category: very feasible (86-100%), feasible (76-85%), fairly feasible (61-75%), less feasible (41-60%), and not feasible (0-40%).

Result and Discussion

The development process of the "MUMTAZ" flashcards to improve the speaking skills of children with speech delay at TKIT Al-Qana, North Tambun, was carried out using the ADDIE development model, which includes the stages of analysis, design, development, implementation, and evaluation.

1. Result Analyze Stage

The analysis stage began with classroom observations and interviews with the teacher. The observation results showed that 15 children experienced speaking difficulties, characterized by limited vocabulary, unclear articulation, and trouble forming simple sentences. The teacher revealed that learning tended to rely on worksheets with monotonous pictures, causing children to become bored and uninterested in speaking. Additionally, excessive gadget exposure at home reduced verbal interaction with parents. This situation highlighted the need for an interactive medium that could stimulate two-way communication.

Table 1. Results of Initial Needs Analysis

No.	Aspects Observed	Main FIndings
1.	Children's speaking skills	15 children experienced delays (2 in "less developed," 8 in "fairly developed" categories)
2.	Learning media	Tended to be passive (pictures on worksheets), less engaging, one-way.
3.	External factors	Children exposed to gadgets, very limited verbal interaction at home.
4.	Needs	Interactive, simple, fun, and communicative media.

2. **Design Stage**

Based on the analysis, the researcher designed the "MUMTAZ" flashcards with a size of 15 × 10 cm, made from thick, laminated cardboard to be durable and safe for children. The card visuals featured real images with bright colors, paired with simple questions like "What is this?" or "What color is it?" to encourage children to respond verbally or nonverbally. The design was consistent, with the image at the top and text at the bottom.

Figure 1. Example of "MUMTAZ" Flashcard Design

3. **Development Stage**

In this stage, the flashcard prototype underwent a comprehensive validation process involving three experts: a material expert, a language expert, and a media expert. This step was crucial to ensure the quality and feasibility of the prototype before it proceeds to the next phase.

Table 2. Results of Expert Validation for "MUMTAZ" Flashcards

| No.	Validator	Aspects Asessed	Score (%)	Category
1.	Material Expert	Content Relevance, usefulness	89	Very Feasible
2.	Language Expert	Word clarity, readability	87	Very Feasible
3.	Media Expert	Visual design, practicality	90	Very Feasible
		Average	88.7	Very Feasible

Overall, the validation results showed a very high level of feasibility, with an average score of 88.7%. Based on the experts' feedback, some suggested improvements include increasing the text size, simplifying abstract vocabulary, and adjusting colors to be more child-friendly. These revisions will be implemented to optimize the final product.

4. **Implementation Stage**

The revised product was tested on 15 children with speech delay through role-playing and storytelling activities. The learning method used the TANYA approach: Show the picture, Ask a question, State the word, Encourage the child to try, and Appreciate the child's effort. The teacher reported that the children were more active in responding; even those who previously only pointed began to dare to say simple words.

5. **Evaluation Satge**

The evaluation was conducted by comparing the observation results of the children's speaking skills before and after the intervention. The results showed a significant improvement.
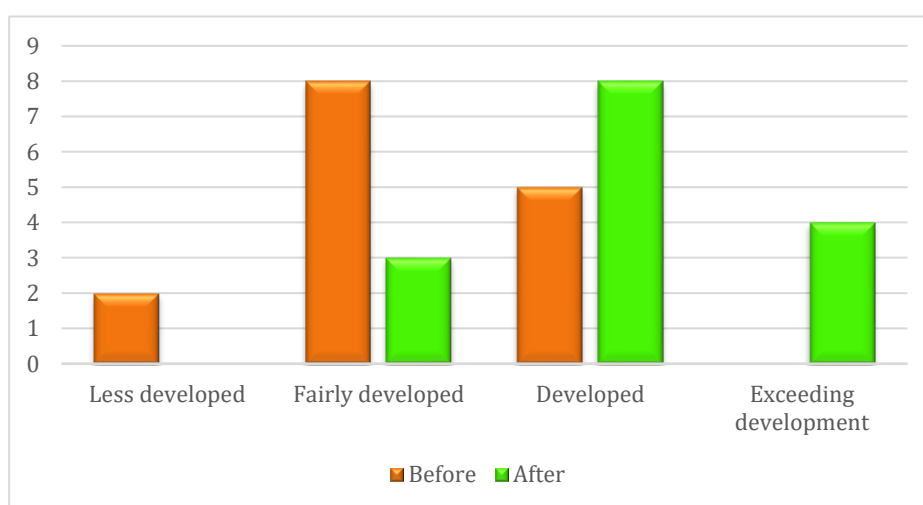
Figure 2. Diagram of the Improvement in Children's Speaking Skills

The evaluation results prove that the "MUMTAZ" flashcard is effective in improving the speaking skills of young children with speech delay. This medium not only increases children's vocabulary but also improves articulation, trains responses to questions, and enhances speaking fluency through dialogic activities.

Discussion

The research findings indicate that the use of "MUMTAZ" flashcards effectively improves the speaking skills of young children with speech delay. Children who were previously only able to imitate parts of words began to say simple vocabulary with clearer articulation and form short sentences. This finding is consistent with Vygotsky's theory, which emphasizes the importance of social interaction and scaffolding in children's language development, where the teacher acts as a facilitator encouraging active responses from the child (Ingebrigtsen et al., 2025; Milosavljevic & Reynolds, 2024)

From the perspective of Piaget's cognitive theory, children aged 3–6 are in the preoperational stage and require concrete representations. The "MUMTAZ" flashcards, which display real images, make it easier for children to connect visual symbols with verbal utterances. This result supports Doman's view (in Xodabande et al., 2023) that flashcards presented briefly, clearly, and repeatedly can accelerate vocabulary acquisition through visual and auditory repetition.

The effectiveness of this medium can also be explained by Skinner's behaviorist theory, which emphasizes the importance of reinforcement. Children who are praised each time they try to say a word are more motivated to repeat it (Bachiri et al., 2023). The research findings prove that providing positive feedback during the implementation of the "MUMTAZ" flashcards made children more confident and brave to express themselves, even those who previously used only gestures.

These results are consistent with previous research. Mardalena et al., (2025) found that using flashcards could enrich the vocabulary of children with speech delay. However, this study's distinction lies in the innovation of a dialogic strategy, where the cards not only display images but are also equipped with simple questions (Blake et al., 2024). This approach is more effective because it encourages two-way communication, not just word memorization.

Research by Sudiro et al. (2025) also confirms that interactive image-based flashcards can stimulate children's language development. This study's findings strengthen that empirical evidence by showing a significant improvement in speaking development categories: the number of children in the "less developed" category decreased to zero, while the "exceeding development" category increased from zero to four children. This proves that the "MUMTAZ" flashcard can improve not only vocabulary but also speaking fluency.

The expert validation, showing an average feasibility of 88.7%, supports the research by Spring & Takeda (2024), which asserts that the development of speech delay intervention media must go through an expert judgment process to ensure its appropriateness for child development. This validation process guarantees that the product used in learning is not only visually appealing but also pedagogically and linguistically relevant.

Overall, this study extends previous findings by emphasizing the importance of integrating a dialogic strategy into flashcard media. While previous research focused more on vocabulary introduction, the results of this study show that a dialogic approach can enhance other aspects such as articulation, response, and speaking fluency. Thus, the "MUMTAZ" flashcard can be recommended as an innovative, communicative, enjoyable, and effective medium to support young children with speech delay.

Conclusion

The development of the "MUMTAZ" flashcards using the ADDIE model has proven to be an effective innovation in addressing speech delay in early childhood. The needs analysis showed that children faced significant challenges in vocabulary mastery, articulation, and forming simple sentences, largely due to monotonous learning media and limited verbal interactions. This highlighted the urgency of providing interactive and dialogic learning tools that are developmentally appropriate.

Validation results confirmed that the flashcards achieved a very high level of feasibility, with an average expert score of 88.7%. The design, which incorporates real images, bright colors, and prompting questions, was considered relevant, clear, and practical for classroom use. The implementation stage demonstrated meaningful improvements: children who initially relied on gestures began to pronounce words, articulate more clearly, and construct short sentences, marking a transition from "less developed" to higher development categories.

Overall, the findings emphasize the importance of integrating interactive and dialogic strategies into early childhood learning. The "MUMTAZ" flashcards are therefore considered valid, practical, and effective, and they can serve as a recommended medium for teachers, parents, and therapists. Beyond addressing speech delay, this product also contributes to inclusive education practices by fostering children's confidence, communication, and social development.

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