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Integrating Digital Media in Early Language Learning for Young Children with Special Needs: A Study on Learners Aged 4-5 years

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Abstract

The utilization of digital media in language learning for children with special needs aged 4-5 years at KB Aisyiyah Pracimantoro. The research objective is to determine how digital media can enhance the language abilities of children with special needs and to identify the challenges educators face in its implementation. The research method uses a qualitative approach with a case study design. Data were collected through in-depth interviews with the Principal, educators, and parents, as well as 30 minutes of participatory observation in class using a structured observation guide that assessed seven ability indicators of children on a scale of 1-4. Data analysis techniques used the Miles and Huberman interactive model, which includes data reduction, data presentation, interpretation, and conclusion. Data validity was ensured through source triangulation and method triangulation. The research results show that digital media, particularly educational videos with songs and movements, as well as interactive educational applications, are effective in improving the language abilities of children with special needs by increasing focus, motivation, vocabulary acquisition, and articulation. Interview results confirm that children who previously had difficulty pronouncing simple words showed significant development after routinely using digital media. However, implementation faces challenges, including limited devices and internet connections, difficulty finding specific content, managing children's behavior, and the need for continuous teacher training. The research concludes that digital media is a potential tool for language learning among children with special needs, but requires infrastructure support, relevant content development, and increased educator capacity for optimal use.

Keywords : *Children with Special Needs, Early Childhood, Digital Media, Language Learning*

Introduction

Early Childhood Education is a crucial stage in child development, especially during ages 4-5, when children experience rapid growth in cognitive, language, and social domains (Ningsih, 2021). At this age, the ability to think and interact with the environment greatly influences future personality development. PAUD plays an essential role in creating a strong educational foundation, where children are exposed to varied learning experiences that support basic skills such as reading, writing, and arithmetic, as well as the development of social and emotional skills (Katoningsih S. H., 2025). Through a positive learning environment, children can develop self-confidence, communication skills, and cooperative attitudes that are very important for their success at the next level of education (Slamet S. A., 2025).

Children with Special Needs are children who have special educational needs resulting from physical, mental, or emotional conditions that set them apart from children in general (Widiastuti, 2021). In the educational context, the main challenge in teaching children with special needs is developing effective teaching methods that are tailored to each child's abilities and individual characteristics (Hidayati, 2022). The use of flexible approaches and differentiated teaching is crucial for creating inclusive learning experiences and supporting the optimal development of children with special needs. Every child with special needs has potential that can be developed maximally if given interventions and learning approaches that suit their needs (Sandbank, 2020). At KB Aisyiyah Pracimantoro, an interesting phenomenon occurred with one child with special needs who was challenging to communicate with but showed positive development through activities involving songs and movements (Rukmini, 2020).

Digital media in learning includes tools and platforms that leverage technology to support the teaching and learning process, such as educational applications, learning videos, and interactive games (Prabowo, 2021). The utilization of technology in the education of children with special needs has shown significant development in recent years, with various studies confirming its effectiveness in improving learning outcomes (Rofi'i, 2025). Educational applications are designed to provide intuitive, engaging learning experiences, enabling students to learn in more interactive and enjoyable ways

(Warsita, 2022). Learning videos provide visualizations that enrich materials, making it easier to understand difficult-to-convey concepts (Yulianti, 2021). The use of mobile applications and artificial intelligence in language learning has shown promising potential with positive learner experiences (Yuen, 2024).

Various studies show that learning with digital media can increase student motivation and engagement, especially for children with special needs, whose conventional approaches are often not engaging enough to capture their attention. Digital media teaching and learning is a method using smartphones, phablets, tablets, netbooks, or notebooks as learning devices (Katoningsih S. W., 2020). Digital parenting and the use of digital media have a significant impact on early childhood development, including in language and literacy aspects (Choy, 2024). Digital media can meet diverse learning needs and serve as a platform for broader exploration. Digital media serves as an effective language and literacy learning space, with great potential across diverse language learning contexts (Obojska, 2025). The advantage of digital media in providing multisensory stimuli makes it a very effective tool for language learning for children with special needs, combining images, sounds, movements, and interaction (Azizah, 2024).

Although various international studies have shown that digital media has the potential to improve language acquisition in children with special needs through consistent multisensory stimulation (Smith J. &., 2024), as well as strengthen children's learning experiences through emotional engagement and more immersive interactions (Rahmanu I. W., 2024), most of these studies have focused on primary education or special education contexts that have adequate technology facilities. In addition, research on the application of digital media in multilingual families shows that there are opportunities to use technology to enrich early literacy, but there has not been much study on how educators adapt digital content according to the individual characteristics of children with special needs in early childhood education settings (Obojska M. A., 2025). This gap shows that research on how digital media is used effectively in language learning for children with special needs aged 4–5 years in an early childhood education setting with limited facilities, such as KB Aisyiyah Pracimantoro, is still very much needed to provide a more contextual and relevant empirical picture.

The novelty of this research lies in the disclosure of the effectiveness of digital media in language learning for children with special needs aged 4–5 years in an early childhood education environment that has limited facilities, a context that is still rarely studied in depth. Unlike previous studies that were generally conducted at the elementary education level or institutions with adequate technological support, this study presented complete empirical data through structured observations of seven indicators of language development, interviews with principals, teachers, and parents, and classroom documentation that illustrated real changes in children's language behavior. Data showed that digital media produced high scores on attention focus (4), nonverbal expression (4), learning motivation (4), and physical interaction with media (4), as well as the development of word imitation and instructional responses with a score of 3. The interviews also confirmed the improvement of children's ability to imitate words, add new vocabulary such as "apple", "banana", and follow simple commands after being exposed to educational videos regularly. Thus, this study offers a new contribution in the form of strong empirical evidence on how digital media can work effectively in real conditions in schools with limited facilities, while showing the role of educators as active facilitators in optimizing the use of digital media for language development of children with special needs.

However, implementing digital media in language learning for children with special needs is not without its challenges. The importance of teacher readiness in digital-inclusive transformation for language education is relevant for language learning for children with special needs (Chilla, 2025). These challenges include limitations in technological infrastructure, difficulties in finding content suitable for the specific needs of children with special needs, and the need for continuous educator training. Based on this background, this research aims to evaluate the effectiveness of utilizing digital media in the language learning process for children with special needs aged 4-5 years at KB Aisyiyah Pracimantoro.

Methods

This research is a qualitative case study design (Moleong, 2020). The qualitative method was chosen because it allows researchers to explore in depth the experiences and perceptions of participants regarding the utilization of digital media in language learning for children with special needs (Creswell J. W., 2019). The research was conducted at KB Aisyiyah Pracimantoro, focusing on children with special needs aged 4-5 years. Data collection techniques used include observation, in-depth interviews, and documentation (Sugiyono, 2019). Observations were conducted with the principal, teachers, and parents. Observation activities were conducted to capture how digital media is used to improve the language skills of children with special needs. Interview activities were conducted with the principal, teachers, and parents. Document study in the form of teaching modules, learning videos, articles, and books.

As part of the field observation process, researchers used a structured observation guide to assess the development of language abilities of children with special needs during digital media-based learning activities. This guide was prepared based on seven main indicators that describe attention focus, verbal imitation ability, nonverbal expression, response to instructions, learning motivation, physical interaction with media, and articulation ability and acquisition of new vocabulary. Each indicator was assessed using a four-level scale (1-4) showing the level of ability emergence, from not yet emerging to developing spontaneously and consistently. Details of observation indicators are presented in the following Table.

Table 1 Observation Indicators of Language Abilities of Children with Special Needs Aged 4-5 Years

No	Language Ability Indicators	Observation Description	Assessment Scale	Success Criteria
1	Focus and Attention to Digital Media	Children are able to maintain attention on the screen during learning activities using videos or educational applications.	1-4	Score ≥ 3 indicates good focus on visual and auditory stimuli.
2	Ability to Imitate Words or Speech	Children are able to imitate simple words heard from digital media (for example : "ball", "apple", "bird").	1-4	Score ≥ 3 indicates developing verbal imitation ability.
3	Nonverbal and Emotional Expression	Children show positive expressions such as smiling, laughing, pointing at objects, or nodding when understanding visual/audio instructions.	1-4	Score ≥ 3 indicates good emotional involvement.
4	Response to Verbal Instructions	Children are able to respond to simple instructions such as "touch the apple !" or "point to the bird !" correctly.	1-4	Score ≥ 3 indicates developing receptive language ability.
5	Interest and Learning Motivation	Children show high enthusiasm in participating in digital media-based learning activities.	1-4	Score ≥ 3 indicates high learning motivation.
6	Physical Interaction with Digital Media	Children actively participate by touching the screen, pointing at objects, or imitating movements from videos.	1-4	Score ≥ 3 indicates active involvement in learning.
7	Articulation Ability and New Vocabulary	Children are able to pronounce new words more clearly and add vocabulary after being exposed to digital media.	1-4	Score ≥ 3 indicates development of articulation and language acquisition.

Data analysis techniques were carried out using an interactive model which includes data reduction performed to group data obtained from observations, interviews, and document studies. Data presentation is used to present data that has been grouped in the form of descriptive narratives, tables, or diagrams that facilitate understanding (Miles, 2020). Drawing conclusions is done to conclude the results from all data that has been collected, ensuring that conclusions answer the research questions that have been formulated. Data validity through source triangulation and method triangulation (Patton M. Q., 2020). Source triangulation was conducted by comparing data from the principal, educators, and parents, while method triangulation was conducted by comparing interview results, observations, and document studies.

Results and Discussion

Resarch Results

The results of observations in class A (ages 4-5 years) at KB Aisyiyah Pracimantoro on August 15, 2025, show the effectiveness of digital media in language learning for children with special needs, with five indicators achieving a score of 4 (very good) and two indicators scoring 3 (good). Child "A" showed perfect focus on the screen, with eyes fixed on the animations and rarely distracted, unlike conventional methods, which often struggle to maintain attention. The ability to imitate simple words such as "ball", "apple", and "bird" was scored 3. Very positive expressions included smiles, laughter, pointing at objects, and nodding when understanding visual instructions (score 4). The ability to respond to simple instructions such as "Touch the apple !" received a score of 3, although complex instructions still require teacher assistance. Interest and learning motivation were very high (score 4) with enthusiasm throughout the session. Physical interaction with media reached a score of 4.

Research documentation at KB Aisyiyah Pracimantoro provides strong visual evidence of the implementation of digital media in language learning for children with special needs. Interviews with the principal revealed a formal yet warm atmosphere, with serious and open expressions, indicating the institution’s commitment to improving learning quality through technology. Interviews with teachers were more relaxed and natural, with expressive gestures reflecting enthusiasm, and captured the use of tablets and projectors as the primary learning tools. Interviews with parents in informal settings showed expressions of interest and satisfaction with the digital media-based learning program. Documentation of student observations became the most important part, depicting children interacting with digital media, accompanied by educators as facilitators in a conducive classroom space.

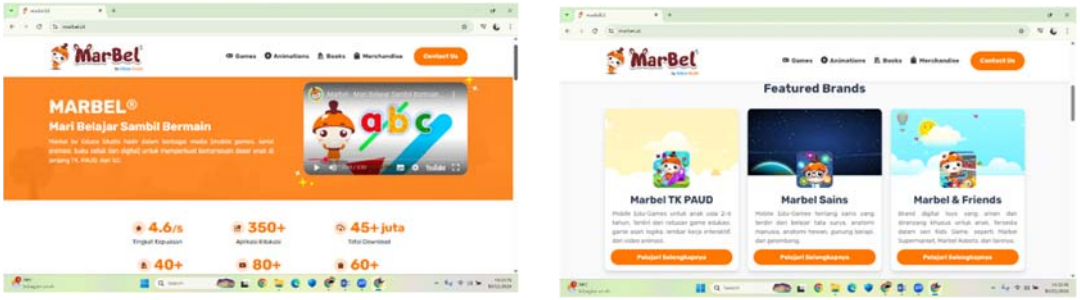

Figure 1. Digital Learning Media for PAUD Children

Based on interviews with the three respondents, the use of digital media at KB Aisyiyah Pracimantoro has a significant positive impact on the language abilities of children with special needs aged 4-5 years. Digital media used includes educational videos with songs and movements, simple educational applications, and interactive images displayed through projectors. The selection of this type of media is tailored to the characteristics of children with special needs who require attractive visual and auditory stimulation to facilitate language learning. All three respondents consistently stated that children with special needs showed very positive responses when interacting with digital media, marked by increased focus, enthusiasm, and active involvement in learning activities.

> *"At KB Aisyiyah Pracimantoro, we utilize educational videos with children's songs and movements, educational applications for letter, number, and vocabulary recognition, and interactive images through projectors." (Principal)*
>
> *"I use learning videos containing children's songs with movements, animated picture stories, and educational applications on tablets for learning letters, numbers, and matching images." (Teacher)*
>
> *"My child often watches educational videos of children's songs with movements at school, and the teacher also uses tablets to show images or simples applications." (Parent)*

The use of various digital media demonstrates KB Aisyiyah Pracimantoro's comprehensive efforts to provide a range of learning resources that accommodate the diverse learning styles of children with special needs. Educational videos featuring songs and movements are the preferred choice because they provide multisensory stimulation that effectively attracts attention and facilitates children's understanding. Simple educational applications are chosen to provide interactive, personalized learning experiences, where children can engage directly with learning content at their own pace. The use of projectors to display interactive images also supports classical learning, which still involves active participation from all children.

> *"The response of children with special needs is very positive ; they are more focused and enthusiastic when material is presented through digital media with attractive visuals and sounds, helping to attract attention that is difficult to obtain with conventional methods." (Principal)*
>
> *"They are very enthusiastic ! Compared to just storytelling or showing picture cards, digital media makes them more focused, their eyes sparkle more, they are calmer, and responsive to instructions." (Teacher)*
>
> *"My child really likes it when faced with a screen, becomes quieter, more focused, and looks happy. He can pay attention until it's finished, whereas usually it's difficult to get him to sit still to learn." (Parent)*

The positive response of children to digital media indicates that technology can create a more attractive and motivating learning environment for children with special needs. The observed increase in focus and enthusiasm shows that digital media effectively addresses one of the main challenges in learning for children with special needs, maintaining children's attention. Attractive visuals, bright colors, clear sounds, and moving animations can capture and maintain children's attention for longer than conventional methods. This condition is critical because focused attention is a prerequisite for effective learning.

> *"We see improvement, for example, children who have difficulty pronouncing animal names are starting to be able to imitate and pronounce better after routinely playing videos with clear sounds and images because of consistent visual and auditory repetition." (Principal)*

"Very helpful. Through videos with clear fruit images, bright colors, and sounds that mention their names, children more easily remember. Some children previously could only say 'mango' haltingly, now can say 'apple', 'banana', and 'orange' more fluently." (Teacher)

"Previously, my child was confused when just asked the name of a fruit, but after frequently watching videos about fruits at school, he can now mention 'apple' or 'banana' and imitate animal sounds from videos, so he understands faster." (Parent)

Content adaptation efforts by educators and parents demonstrate a strong understanding of differentiated teaching principles in inclusive education. Every child with special needs has unique characteristics, strengths, and challenges, thus requiring individually adjusted approaches. Choosing videos with visuals that are not too busy for autistic children shows sensitivity to the needs of children who may experience sensory overload. Focusing on lip movements for children with hearing difficulties facilitates learning through lip reading and proper articulation. More frequent repetition for slow learners provides more opportunities to strengthen learning and build a strong understanding.

"There are significant changes. Children become braver in trying to speak, their vocabulary increases, they are more active in imitating speech, and they show improvement in following simple instructions through digital media." (Principal)

"Yes, there are. Children become more actively communicating both verbally and non-verbally, braver in imitating sounds, trying to pronounce new words, starting to string simple words together, and more easily following instructions from the screen." (Teacher)

"There are definitely changes. My child becomes more actively speaking, although sometimes not yet clear, more often imitating speech from videos, and braver in pointing at objects while trying to name them." (Parent)

The consistent language behavior changes observed by all three respondents indicate that digital media has a measurable positive impact on the development of children's communication abilities. The increased courage to speak shows that digital media helps build children's confidence in communicating, which is an essential aspect of language development. Increased vocabulary and improved ability to imitate speech show that the language acquisition process is effective. Improved ability to follow instructions indicates that children's receptive understanding also develops, not just their expressive ability.

"The role of teachers is very crucial as facilitators. They not only play media, but also accompany children, re-explain, provide examples, encourage children to interact, monitor children's responses, and intervene if children appear to have difficulty or are bored." (Principal)

"Our role is very important. We sit with the children, point to objects on the screen, repeat words from videos, ask questions to elicit responses, connect what is seen on screen with real objects, and ensure they are actively involved, not just passively watching." (Teacher)

"Teachers are very helpful. They accompany children while watching, re-explain what's in the video, invite children to imitate, and give praise, so there is two-way interaction, not just passive watching." (Parent)

The active role of teachers as facilitators is crucial in ensuring that the use of digital media does not become passive learning, but rather an interactive and meaningful process. Intensive accompaniment, re-explanation, provision of examples, and questions that stimulate children's responses demonstrate that teachers apply scaffolding principles in learning. Efforts to connect digital media content with real objects around children help build contextual understanding and strengthen transfer of learning to real-life situations. Giving praise and positive reinforcement is also critical in building children's intrinsic motivation to continue learning and trying.

"Most parents are very supportive and happy to see their children's development, becoming more enthusiastic about learning. Some parents also ask for recommendations for applications or videos that can be used at home to support children's learning." (Principal)

"Parents are pleased and supportive. They see that children are more enthusiastic about coming to school and more actively telling stories about learning. Some parents ask about changes in children's behavior and ask for suggestions on media that can be used at home." (Teacher)

"I am pleased and very supportive. My child becomes more enthusiastic about learning, and his development is more visible. I also know better how to accompany my child at home after seeing examples at school." (Parent)

Positive parental support shows that the use of digital media effectively creates synergy between learning at school and at home. Parents' enthusiasm for receiving media recommendations for use at home indicates a motivation to expand and strengthen children's learning outside the school context. Parents' questions about changes in children's behavior show that the impact of learning with digital media extends beyond the school context and manifests in children's daily lives. This is important because the generalization of skills across contexts is an indicator of effective learning.

Regarding aspects that need improvement :

> *"What needs to be improved is the development of more specific and personalized digital media content for various types of children with special needs, training for teachers to be more proficient in selecting and integrating digital media, and more equitable device availability." (Principal)*

> *"There needs to be more specific content for children with special needs, such as videos with clear subtitles or applications that can adjust difficulty levels, and in-depth training for teachers on how to select and integrate digital media effectively." (Teacher)*
> *"Maybe there needs to be more variety of digital media specifically for children with special needs, and if possible, there should be guidance from schools for parents about what media is good to use at home." (Parent)*

Improvement suggestions from all three respondents demonstrate awareness of the development potential that remains to optimize digital media utilization. The need for more specific and personalized content indicates that the currently available digital media is still general and has not fully accommodated the diverse needs of children with special needs. The importance of continuous teacher training shows that pedagogical competence in integrating technology is a key success factor. Requests for guidance for parents indicate the need for learning continuity between school and home, which should be supported by clear, structured information.

Regarding the most effective digital media :

> *"Educational videos combined with songs and movements, and educational applications with gamification features are most effective. Videos combine visual, audio, and movement that attract attention, while applications with gamification make learning feel like playing so children are motivated without feeling pressured." (Principal)*

> *"Educational videos with attractive visuals, cheerful music, and movements that are easy to imitate are most effective because they can capture children's attention for quite a long time, provide auditory and visual stimulation simultaneously, and facilitate imitation of movements and speech. Applications with simple and repetitive activities are also very good for reinforcement." (Teacher)*

> *"Videos with songs and movements are most effective for my child. Because he likes to move, so if there are songs while dancing he is happier and willing to follow. The clear pictures and attractive colors also help him focus more." (Parent)*

Although the utilization of digital media shows very positive results, its implementation is not without various challenges faced by educators at KB Aisyiyah Pracimantoro. Based on interview results with the three respondents, these challenges include infrastructure and resource limitations, difficulties in selecting and adjusting specific content for various types of children with special needs, managing children's behavior during digital media use, and the need for continuous training to improve teacher competence in digital literacy and special pedagogy for children with special needs integrated with technology. These challenges are multidimensional, spanning technical, pedagogical, and professional development aspects, and require comprehensive attention and solutions to ensure digital media use runs optimally and inclusively.

Regarding main challenges :

> *"The main challenges are limited access to adequate devices for all children, ensuring a stable internet connection, choosing appropriate content so children are not overstimulated, and continuous training for teachers to maximize digital media utilization." (Principal)*

> *"The main challenges are ensuring all children get equal opportunities to interact with digital media, extra supervision because children are too enthusiastic, limited device availability, and finding digital materials suitable for each child's specific needs takes time and research." (Teacher)*

> *"The challenge for me at home is limiting the child's time so he doesn't stare at the screen too long because I'm afraid of dependence. At school, maybe the challenge is ensuring all children get equal attention when using digital media." (Parent)*

The challenge of infrastructure and resource limitations identified at KB Aisyiyah Pracimantoro is a fundamental obstacle that directly affects accessibility and quality of learning with digital media, where limited numbers of devices result in not all children being able to interact individually with media that is ideally needed for personalized learning according to each child's special needs requirements. The challenge in selecting appropriate content is also a significant issue because most digital media available in the market is designed for children in general, so teachers must spend extra time to filter, evaluate, and adapt content to suit the characteristics and ability levels of each child, including considering the risk of overstimulation for autistic children who may be easily overwhelmed with overly intense stimulation.

Discussion

The utilization of digital media at KB Aisyiyah Pracimantoro shows high effectiveness in improving the language abilities of children with special needs aged 4-5 years. Digital media, such as educational videos with songs and educational applications, successfully create an engaging and motivating learning environment. Children with special needs show significantly higher levels of focus and enthusiasm than those using conventional methods. The use of technology in the education of children with special needs has developed rapidly and shows positive impacts on various aspects of learning (Rofi'i, 2025). Attractive visuals and audio on digital media play a crucial role in attracting the attention of children with special needs, who tend to be more responsive to multisensory stimulation. Improved language abilities include increased vocabulary and articulation through consistent visual and auditory repetition in educational videos, accelerating understanding and language acquisition for children with special needs who need concrete, repetitive learning approaches.

The implementation of digital media in language learning for children with special needs faces various challenges despite offering much potential. The main challenge is infrastructure and resource limitations, especially the availability of adequate devices and stable internet connections. It is crucial to understand the impact of digital media use on early childhood development, including its effects on language and literacy (Choy, 2024). Another challenge is selecting and adjusting digital media content, as educators struggle to find specific, personalized materials to meet the varied needs of children with special needs. Managing children's behavior during digital media use is also a significant challenge, with concerns about screen time duration and potential dependence. The role of teachers as facilitators is crucial for optimizing the use of digital media, not only playing media but also accompanying, re-explaining, providing examples, and encouraging active child interaction to maximize digital media-based learning.

The success of digital media implementation in language learning for children with special needs at KB Aisyiyah Pracimantoro is also inseparable from the critical role of parental support and collaboration between school and family. It emphasizes that digital parenting has a significant impact on early childhood development, showing the importance of parental involvement in accompanying children when using digital media (Choy, 2024). Three-way collaboration between school, teachers, and parents creates a holistic and sustainable learning ecosystem, ensuring language stimulation is not limited to the school context. Still, it is strengthened through consistent practices in the home environment and considering the importance of paying attention to cognitive-gap during the transition period of early childhood education, which is relevant to findings that digital media needs to be adjusted to the cognitive ability level and sensory sensitivity of each child with special needs to avoid overstimulation and ensure optimal learning according to their developmental stage (Katoningsih S. H., 2025).

The results of this research strengthen previous findings that digital media is highly effective in improving language acquisition for children with special needs through multisensory stimulation. The use of digital media in learning for children with special needs provides more concrete learning experiences by combining visual, auditory, and kinesthetic elements, thereby directly strengthening children's capacity to absorb language information (Yulianti, 2021). Children with communication disorders or speech delays show significant improvement in the ability to imitate and understand language after receiving video-based educational interventions. These findings are in line with research findings at KB Aisyiyah Pracimantoro, where children show increased focus, improved verbal imitation, and the addition of new vocabulary through the use of interactive digital media (Smith, 2021).

The effectiveness of digital media in learning is not only determined by the sophistication of technology used, but also by teachers' ability to facilitate and direct the learning process. As revealed by Chilla, teacher readiness in digital-inclusive transformation is an essential factor determining the success of digital media integration in language education for children with special needs (Chilla, 2025). Teachers play a role not only as technology users, but also as learning mediators who ensure children are active, not just passively watching. In this research, teachers at KB Aisyiyah Pracimantoro showed an active role by accompanying children, repeating words from videos, and providing positive reinforcement through direct interaction. This demonstrates the application of scaffolding principles as explained by Vygotsky in the interpretation that gradual teacher support can help children reach their zone of proximal development (Suyanto, 2021).

Support and collaboration among teachers, schools, and parents are the key to the success of digital media implementation in language learning for children with special needs. Based on findings that digital parenting practices aligned with school learning activities can strengthen the consistency of language stimuli received by children at home. In this research, parents' enthusiasm for requesting recommendations for educational videos and applications indicates active involvement in their children's learning process (Choy, 2024). Synergy between school and family creates a learning

environment that fosters greater confidence in communication. Therefore, the success of digital media-based learning does not only depend on infrastructure and content, but also on harmonious collaboration between teachers and parents in supporting children's language development sustainably (Kurniawati, 2023).

Conclusion

This research shows that digital media, particularly educational videos with songs and movements as well as interactive educational applications, are very effective in improving the language abilities of children with special needs aged 4-5 years at KB Aisyiyah Pracimantoro through increased focus, motivation, vocabulary acquisition, and articulation ability supported by content adaptation according to individual needs and the active role of teachers as facilitators. However, implementation faces challenges, including limited devices and stable internet connections, difficulty finding specific and personalized digital content, managing children who tend to be overly enthusiastic, and the need for continuous teacher training to improve competence in digital literacy and special pedagogy for children with special needs. Overall, digital media is a highly potential tool and has been proven to provide positive contributions to language learning for children with special needs. Still, optimizing its use requires comprehensive attention to adequate infrastructure, the development of relevant and adaptive content, effective classroom management strategies, and increased educator capacity through continuous training programs.

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