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The Effect of Smart Wheel Media on the Ability to Recognize Numbers in Children with Speech Delay Aged 3-4 Years at PPT Kartini Surabaya

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ABSTRACT

This study aims to determine the effect of using smart wheel media on the ability to recognize numbers with speech delays in children aged 3-4 years. The ability to recognize numbers is low as a background. This media provides stimulation and motor assistance to focus and be interested in learning, so that number recognition becomes effective. The quantitative pretest-posttest approach method with a pre-experimental design. Pretest and posttest data collection used the Wilcoxon test with the SPSS version 24 Windows program. The research sample was 5 boys with speech delays aged 3-4 years. The strategy used was perception and documentation techniques. Smart wheel media is a teaching aid that presents rotating numbers and images that stimulate motor skills and involve hands so that they stimulate memory. Based on the sample test, the results of the sig calculation (2-tailed) 0.000 <0.05 were obtained, so Ho was rejected so that the significance test became large. The results of the analysis showed a significant increase in knowing numbers during the intervention. The use of media has been proven to help children understand numbers more easily through an interesting visual approach, so that learning becomes fun.

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1. INTRODUCTION

Education is a lifelong learning process with the aim of developing individual potential in order to achieve progress in various areas of life. This process includes providing knowledge, skills, values, attitudes, and behaviors needed to shape a person's character and prepare them to make a positive contribution to society. Education is a fundamental element in improving the quality of human resources and a country can be considered advanced if it has a high level of education. This research is important to do considering that the early age of 0-6 years is often referred to as the golden age of human development which is able to absorb 80% of the information given (Rupnidah & Suryana, 2022). Therefore, this period is called the golden period of child development. This is in line with Roostin (2022) which explains that early childhood education is the basic capital for the education of the nation's generation. Thus, optimal education will provide progress to the nation's generation which will automatically also advance the nation and its country. This is because the progress of a nation lies in its next generation.

At this age, children are experiencing rapid development and education is fundamental for them to live their future lives (Intan, 2022). Children at an early age are children at an age where rapid physical and mental development occurs. Early childhood students are children in a period where physical growth and spiritual development occur simultaneously (Aprinawati, 2017; Gandana et al., 2017). This happens in accordance with the existing developmental aspects so that it requires help from adults to understand education at this time. Early childhood is a crucial phase in optimizing various aspects of child growth and development. States that this period is often referred to as the golden age which is a period in which children experience rapid growth and development, irreplaceable, and cannot be repeated in the next stage of life (Cahyani & Rasydah, 2020). The early childhood period is the golden age of growth and development of a human being (Rahimah & izzaty, 2018). Early Childhood Education (PAUD) is very important to develop children's personalities and prepare them for the next level of education (Puspitasari et al., 2019). Early childhood education is a process of fostering the growth and development of children aged 0-8 years in a comprehensive manner covering physical and non-physical aspects by providing stimulation for mental, intellectual, emotional, moral, and social development (Maryatun, 2016). Every child's development is different, some develop quickly and some develop late (Skibbe et al., 2019). Stages in language development sometimes experience delays and can become a disorder, the most common and easily recognized disorder is delayed speech (Maharani & Abidin, 2022).

Speech delay is a condition in which a child's speech development is late compared to children of the same age which can affect their self-confidence. Speech delay can also be called a speech disorder which is a delay in language or speaking (Istiqlal, 2021). The problem of speech delay in children is a serious problem that must be addressed immediately because it is one of the most common causes of developmental disorders found in children. Why should it be given serious attention because it can have an impact on the child's social, emotional, and academic development in the future. Children with speech delays usually start using words late or have difficulty pronouncing words clearly. According to research, factors such as excessive use of gadgets, lack of verbal interaction, and lack of environmental stimulation contribute to the emergence of speech delay in early childhood. In Surabaya, especially in PPT Kartini, this phenomenon is increasingly evident.

The phenomenon of speech delay in children aged 3-4 years is increasingly evident and is an important concern in early childhood development in Indonesia. Data from various sources show that the prevalence of speech delay in preschool children in Indonesia ranges

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from 5% to 10% (Hapsari, et al., 2025). However, this prevalence can vary depending on location, measurement method, and other factors. Speech delay in early childhood can have an impact on various aspects of development, including the ability to recognize numbers. Therefore, it is important to develop and implement learning media that can help children with speech delays in recognizing numbers effectively. Media such as Kincir Pintar, which combines visual and motor elements can be an interesting alternative and in accordance with the developmental needs of early childhood. Thus, although there is no specific data from the journal, the phenomenon of speech delay in children aged 3-4 years in Indonesia is a real issue and requires attention and appropriate intervention. This is a major challenge for educators and parents in supporting child development. Innovative and interesting learning media are needed to help children with speech delays.

The ability to recognize numbers in children with speech delays in PPT KARTINI shows that children still have difficulty in recognizing numbers well. Their number recognition is still limited and requires more attention. Children have not been able to recognize numbers fluently according to their age, which indicates a delay in the ability to recognize basic numbers. Children have difficulty distinguishing numbers and their number recognition process has not developed optimally. Their ability to recognize numbers is still in the early stages and requires additional stimulation. Children need further assistance to understand and recognize basic numbers according to their developmental stage. In addition, numbers can also train children's memory and teach them to think critically and logically.

At PPT Kartini Surabaya, the application of smart windmill media is expected to improve the ability to recognize numbers through dynamic and interesting number visualizations. Stimulate verbal communication by inviting children to mention numbers and interact during the learning process. Increase learning motivation with a fun and non-boring approach. To ensure the effectiveness of smart windmill media, the following steps need to be considered. Teachers need to be trained to use this media optimally, including how to interact with children during the learning process. Parents should be invited to collaborate in using this media at home, to strengthen the learning that has been done at school. Conduct regular evaluations to assess children's development and adjust learning methods as needed. Develop a variety of media that are appropriate to the characteristics and needs of children, so that learning remains interesting and effective. With the right approach and support from all parties, the use of smart windmill media can be a strategic step in overcoming the problem of speech delay in early childhood. Smart windmill media, which combines visual and kinesthetic elements can be an effective solution. In this study, smart windmill media must be able to attract their attention to have a significant effect on their ability to recognize numbers. If the media is not interesting enough or difficult to use, children may not be maximally involved. Smart windmill media is designed with bright colors that are very popular with children with speech delays with the aim of making the media more attractive and motivating children to interact. Children involved in learning activities based on smart windmill media show significant development in their cognitive abilities, especially in recognizing numbers.

Kincir Pintar media can improve early reading skills in children with mild mental retardation (Briliani et al., 2024). The results showed that there were several problems with the lack of attention to the aesthetic aspects of the media that could affect the appeal of children, especially in children with speech delays who may have more difficulty engaging without strong visual stimulation. Another study explains that the use of visual media has been proven effective in helping children aged 4–5 years recognize numbers 1–10 (Rambe & Konadi, 2022). The results showed that children could name numbers sequentially and

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randomly after being given learning using the media. Although picture media is effective, its static nature can make it less attractive to children. Especially those with speech delays, who may need more stimulation to increase their attention and engagement in learning.

The use of audio-visual media can improve the ability to recognize the concept of number symbols in children aged 5-6 years at Santa Clara Kindergarten Simalingkar-B Medan (Farida et al., 2023). However, although audio-visual media can improve children's responses to sound and moving images, the obstacle that arises is the lack of motor activity involved because this media focuses more on visual and auditory stimulation. However, this type of media has its own advantages, but also has disadvantages that need to be considered. Interactive audio-visual media, although it can improve children's responses to sound and moving images, does not involve motor activity which is important in early childhood development. Research by Maula (2025) at Darussalam Kindergarten shows that the use of big book media can improve children's vocabulary, clarity of pronunciation, and courage in speaking. However, although this media is effective in improving speaking skills, its main focus is on the verbal aspect and does not specifically target number recognition or other numerical aspects, effective in supporting early childhood development. Although big book media is effective in improving the speaking ability of children with speech delays, it should be noted that this media is not specifically designed to target number recognition. Therefore, the development of learning media that integrates verbal and numerical elements, such as media that combines stories with number elements can be an interesting and effective alternative in supporting the development of early childhood, especially children with speech delays.

Research by Fatmawati et al. (2025) also shows that the use of flashcard media can improve the ability to recognize number symbols in children with moderate intellectual disabilities. However, although this media is effective in improving the ability to recognize numbers, flashcards are static and do not involve direct verbal or motor interaction, which can be an obstacle for children with speech disorders. Flashcards are static and focus more on the visual aspect, so they involve less direct verbal or motor interaction. This can be an obstacle for children with speech disorders, who require verbal and motor stimulation to increase their engagement and understanding. Further research is needed to develop learning media that integrate visual, verbal, and motor elements to improve the ability to recognize numbers in children with intellectual disabilities, especially those with speech disorders.

Various previous studies have examined the use of learning media to improve cognitive and language skills in early childhood, such as flashcard media and static images (visual), interactive audiovisual media (video, animation). However, most of these studies have the following shortcomings. Not combining motoric, visual, and verbal aspects in an integrated manner, whereas children with speech delays require a multisensory approach. Not focusing on the age of 3-4 years, which is a critical developmental period in recognizing the concept of numbers and language. General research subjects, not specifically children with speech delays. The media used tends to be passive, so it is less interesting and maintains the focus of children with speech delays. This research is about the effects of smart pinwheel media on the ability to recognize numbers in children with speech delays aged 3-4 years is here to cover these shortcomings, namely by using active and interactive media. Smart pinwheel media involves children's motoric (rotated), visual (color and numbers). Focus on children aged 3-4 years who experience speech delay, a group that has not been studied specifically. Helps recognize numbers while stimulating language through interaction when playing with media and in accordance with the early childhood learning approach. The media is designed

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contextually and adaptively for use in PAUD environments such as PPT Kartini Surabaya. Providing space for teacher and therapist intervention, so that it is not only a learning aid, but also a part of developmental therapy.

The purpose of this study was to determine the effect of using smart windmill media on the ability to recognize numbers in children aged 3-4 years who experience speech delay at PPT Kartini Surabaya. To determine the difference in the ability to recognize numbers before and after using smart windmill media in children with speech delay. To identify the effectiveness of smart windmill media as a visual and motor-based learning aid for early childhood with speech delay. To provide an alternative educational media that is interesting and fun to support learning numbers in children with special needs. Through this study, it is expected to provide practical contributions for teachers and parents in choosing effective and fun media for children with speech delay. To become a scientific reference for the development of interactive learning media for children with special needs. To enrich studies in the field of early childhood education and special education, especially related to the multisensory approach in introducing the concept of recognizing numbers. To develop simple but impactful educational interventions in supporting the basic cognitive and communication skills of early childhood.

This study can also assess whether a more attractive design affects children's engagement in learning. The ability to recognize numbers in children with speech delay aged 3-4 years at PPT Kartini Surabaya refers to the use of a more innovative, targeted approach, both in the use of learning media, more precise measurements, and parental involvement and technology. This update can provide new, relevant and important contributions to understanding how best to support children with speech delay in recognizing numbers and developing their abilities in the early stages of their development. This study can have a positive impact on improving the quality of learning at PPT KARTINI. This is because the concept of numbers or recognizing numbers is abstract and early childhood children cannot think abstractly but rather they think concretely (Tai et al., 2021).

2. METHODS

This research was conducted using a quantitative research method with a pre-experimental design that can be used to measure its influence significantly and can be characterized as an exploration technique in the view of positivistic thinking and is used to see a particular population or test. To assess the speculation built by a particular population or sample, quantitative data analysis research tools are used in this research data collection method. Using a pre-experimental design because the subject conditions are limited and specific.

The research subjects were children aged 3-4 years with speech delays whose numbers are limited. Research on children with special needs requires an approach that is not too rigid experimentally, but can still measure the effect of intervention scientifically. Using a pretest-posttest design because to measure changes that occur after the intervention. With a pretest, researchers know the child's initial ability to recognize numbers. With a posttest, researchers can compare the results after being given the smart pinwheel media. The difference in pretest and posttest results shows whether or not there is an influence from the media used. Evaluating the effectiveness of learning media directly. This design allows us to assess whether the use of smart pinwheel media really has a positive impact on improving the ability to recognize numbers. Suitable for classroom-based action research or therapy. Because it is conducted in a real environment (such as a classroom or therapy center), this design is suitable for testing practical interventions. The design in this research

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uses a pre-experimental one group pre-test posttest design. The teaching and learning process which is preceded by using the pre-test method and ends with a post-test aims to see the extent of cognitive development in students with the material that will and has been taught. The design in this research uses pre-experimental one group pre-test posttest design. Where there is only one group given a pre-test before treatment and a post-test after treatment. This design allows researchers to determine changes or effects of treatment on dependent variables. The research design is explained through the following **Figure 1**.

Figure 1. Research design.

Note:
O1 = Pretest (Before being given treatment)
O2 = Posttest (After being given treatment)

The study population consisted of 1 group of PPT Kartini children consisting of 5 boys aged 3-4 years with speech delay who did not understand numbers and used the Kincir Pintar media. Why were children aged 3-4 years chosen because speech delay is often realized by parents at this age. Interventions carried out earlier (ages 3-4 years) have proven to be more effective because the child's brain is still very plastic. Children are easier to direct and accept new stimulation such as interactive learning media, and why were boys chosen because boys experience speech delay more often than girls. This is thought to be related to neurological differences in brain development (especially the language area). Genetic and hormonal factors (testosterone affects the development of the left brain, which regulates language). Clinical data and studies show a ratio of 2: 1 or even 3: 1 between boys and girls in cases of speech delay. This means that choosing boys is more representative of the dominant population of children with speech delay.

The research time was conducted for 4 weeks, with a frequency of 1 time per week and a duration of 30 minutes per session. The results of this group were compared before and after the research was conducted. After 4 weeks, it was found that when using the Kincir Pintar media showed a better understanding of recognizing numbers compared to before using the Kincir Pintar media. Therefore, children must first recognize letter symbols or letter concepts, then recognize syllables, recognize words and recognize sentences. Research instruments are tools used to collect data in a study. This tool is important to ensure that the data obtained can be used to answer questions about the research. For children with speech delays, population size and sample diversity. We did not use a sample in our study, but rather the total population of children aged 3-4 years. Number recognition can be done in a fun and interactive way so that they are interested and easy to understand and is expected to stimulate the ability to recognize numbers in children with speech delays. One of the instruments used is observation with a checklist method to monitor children's responses during the intervention, such as the level of enthusiasm, participation, and others. Data analysis used using pre-test and post-test data will be calculated using the Wilcoxon test assisted by the SPSS version 24 for windows application.

3. RESULTS AND DISCUSSION

3.1. Research results

After using smart media, children with speech delay showed an increase in recognizing numbers. Children could identify numbers better at the end of the session compared to before using this media. This finding shows that smart pinwheel media is effective in

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improving the ability to recognize numbers in children with speech delay. As a media that utilizes visual and kinesthetic stimuli (rotating pinwheel movements), this media can attract children's attention, which is very important for children with speech delay who often have a shorter attention span.

The significant improvement recorded in these children shows that they are not only engaged with the smart wheel media visually, but also through active participation. The movement of spinning the wheel provides kinesthetic stimulation, which helps children to focus better. For example, when the child spins the wheel and stops at the number 5 then the child is asked to say the number and it turns out that the answer matches the number that appears. They can associate numbers with objects more concretely, which is very beneficial for children with speech delays. In addition, the multisensory approach used in this media helps stimulate several different areas of the brain, improving the memory process and strengthening a deeper understanding of numbers.

Children with speech delays often have difficulty processing verbal information, so using visual and kinesthetic aids can speed up their understanding. However, although the results achieved are quite encouraging, there are several factors that need to be considered. One of them is the involvement of parents who play an important role in accompanying children during the use of smart wheel media. Children who receive support from parents during learning sessions show better results compared to children who interact with the media independently. This shows that active assistance can increase the effectiveness of the use of educational media, especially for children with speech delays. In addition, this study found that children with speech delays tend to show faster improvements compared to children with more severe speech delays. This suggests that the level of delay can affect the response to smart wheel-based educational media. Further research is needed to explore whether there are media modifications that can be more suitable for children with higher levels of delay. Vygotsky, with the theory of the zone of proximal development (ZPD), emphasized the importance of social support in helping children develop more complex skills through interactions with adults or peers. Vygotsky said it well, that young children do not yet understand how to think abstractly (Silalahi, 2019). Additionally, Vygotsky's theory of the zone of proximal development (ZPD) suggests that children need appropriate support and guidance to reach their learning potential (Irshad et al., 2021).

The researcher will describe the data and the results of the discussion. Thus, the use of interesting methods and media not only helps children in recognizing the concept of counting, but also creates a conducive and enjoyable learning environment thus preventing them from boredom and coercion. In this context, parents or companions who are active during the use of smart windmill media will make it easier for children to develop in recognizing numbers more deeply. The findings showing that children with parental support show better results indicate the relevance of Vygotsky's theory. Data collection and presentation were obtained from observations summarized in the observation sheet, then presented in a table. Then conducting a difference test between the pre test and post test by considering the research **Table 1** pre-test below.

Table 1. Pre test.

No	Name	Pre Test			
		I	II	III	IV
1	Child Z	I	I	I	I
2	Child A	II	II	II	II
3	Child R	I	I	I	II
4	Child I	I	I	I	I
5	Child K	I	I	I	I

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Description for the table above; (I) Children are able to mention numbers 1-3, (II) Children are able to mention numbers 1-5, (III) Children are able to mention numbers 1-8, (IV) Children are able to mention numbers 1-10. As for the results of the pre-test, students were not given directions by their class teacher and were free to answer and do what had been prepared, in the implementation of this post-test. As for the results of the pre-test implementation, students were not given directions by their class teacher and were free to answer and do what had been prepared. In the implementation of this post-test, most children had met the evaluation criteria, developed very well and developed according to expectations. In carrying out treatment using smart windmill media, children can communicate with teachers and friends can learn about the ability to recognize numbers. Information collection was carried out through a pre-test to determine the impact of smart windmill media on the capacity to recognize numbers in children with speech delays aged 3-4 years at PPT Kartini Surabaya showed that the ability to recognize numbers was still not well developed.

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Table 2. Post test.

No	Name	Post Test			
		I	**II**	**III**	**IV**
1	Child Z	IV	IV	IV	IV
2	Child A	III	III	III	III
3	Child R	III	III	III	III
4	Child I	IV	IV	IV	IV
5	Child K	IV	IV	IV	IV

Description for the table above, (I) Children are able to mention numbers 1-3, (II) Children are able to mention numbers 1-5, (III) Children are able to mention numbers 1-8, (IV) Children are able to mention numbers 1-10. The results of the post-test of the smart windmill media on the counting capacity of children with speech delay aged 3-4 years at PPT Kartini Surabaya showed that there was a change in the results in each child who was initially only able to count to 1-5, but based on the smart windmill media, the ability to recognize numbers became 1-10. Result paired samples can see in **Table 3**.

Table 3. Paired samples test.

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	dff	Sig.(2-tailed)
Pre-Post Test	1.720	0.5416	0.1083	-1.9435	-1.4964	15.879	4	0.000

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Based on the image above, it can be seen that if Sig (2-tailed) <0.05. Then there is a large or extraordinary influence between the smart windmill media on the ability to recognize numbers in children with speech delay during the pre-test and post-test. The results of the information examination show Sig (2-tailed) <0.05. Then, at the point Ho is removed so Ha is recognized. In the case that Ho is removed and Ha is recognized, then it can be said that there is an extraordinary influence based on testing with the help of the SPSS version 24 application with a Sig (2-tailed) value of 0.000 <0.05 and it is proven that there is an influence on the ability to recognize numbers in children with speech delay aged 3-4 years at PPT Kartini Surabaya.

3.2. Discussion

The results of the study showed that the use of smart windmill media had a positive effect on increasing the ability to recognize numbers in children aged 3-4 years with speech delay at PPT Kartini Surabaya. After being given an intervention using smart windmill media for several meetings, there was an increase in children's ability to recognize numbers 1 to 5 visually and verbally. This change was indicated by an increase in children's responses to numbers through the activity of turning the windmill, saying numbers, and showing the requested numbers. Children who were previously passive or less responsive in conventional learning became more enthusiastic and actively involved during the learning process with the media. Based on this background, the formulation of the problem in this study was obtained, 1) How is the ability to recognize numbers in children with speech delay aged 3-4 years before using Smart Windmill media? The ability of children with speech delay aged 3-4 years at PPT Kartini Surabaya to recognize numbers is still relatively low. Children generally have difficulty in distinguishing the shape and order of numbers and experience obstacles in pronouncing numbers due to limited speech. They need interesting media such as smart windmill media to help the learning process; 2) How is the ability to recognize numbers in children with speech delay aged 3-4 years after using Smart Windmill media? After being given the Kincir Pintar media, there was an increase in the ability to recognize numbers. Children became more focused, enthusiastic, and began to be able to say or show numbers correctly; 3) Is there a significant influence of the use of the Kincir Pintar media on the ability to recognize numbers in children with speech delay aged 3-4 years? There is a positive influence of the Kincir Pintar media on the ability to recognize numbers in children with speech delay aged 3-4 years. This media stimulates children's visual and motor skills, helping them in the process of recognizing numbers in a fun way.

Based on the research results, it can be interpreted that, 1) Smart Windmill media provides an interesting learning experience visually and kinesthetically for children with speech delay. Children appear more enthusiastic and motivated in participating in learning activities to recognize numbers because this media is designed to resemble a game; 2) Children are able to show and recognize numbers better, although some still have difficulty recognizing numbers due to speech limitations; 3) Smart Windmill media helps them to learn more actively and independently. By involving rotating movements, pointing at numbers or attaching numbers to the appropriate place; 4) Learning media does not have to be expensive or complex. Simple media such as Smart Windmill can have a big impact in helping children with special needs such as speech delay.

This finding is supported by several previous studies. Smart windmill media is effective in improving basic cognitive abilities in children with special needs, especially mild mental retardation through a visual and kinesthetic method approach. This shows that game-based educational media can attract children's attention and facilitate learning through fun

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experiences. Research by Rambe & Konadi (2022) highlights the importance of using the right media in helping young children recognize numbers. They emphasize that children aged 4–5 years often do not know the numbers 1–10 adequately and the use of associative image media can improve this ability. Through a descriptive qualitative approach with observation, this study shows that after two months of using associative image media, children are able to recognize numbers well, mention numbers in sequence, and recognize numbers that are randomly indicated. Research conducted by Maula (2025) at Darussalam Kindergarten shows that the use of big book media can increase vocabulary, clarity of pronunciation, and courage to speak in young children who experience speech delays. These findings reinforce the understanding that interactive and visually appealing media can support the development of verbal abilities in children with speech impairments. However, although big book has been proven effective in the verbal-linguistic aspect, the media does not directly target the numerical aspect, such as number recognition or cognitive abilities related to mathematics. In the concept of the Zone of Proximal Development (ZPD), Vygotsky explains that children will learn more effectively if assisted by the environment, media, or adults. The smart pinwheel media functions as an effective tool in bridging actual and potential abilities in recognizing numbers. Children with speech delay have limitations in communication and this media becomes an intermediary that facilitates their non-verbal communication through play activities.

These findings indicate that the selection of media that suits the characteristics of children with speech delay is very important in the learning process. Smart pinwheel media can be an effective alternative because it is able to bridge verbal limitations with visual stimulation and motor activities. Educators and therapists can consider using similar media as part of an individual learning strategy that is interesting and easily accepted by children.

4. CONCLUSION

This study shows that the use of smart windmill media has a positive effect on improving the ability to recognize numbers in children aged 3-4 years who experience speech delay at PPT Kartini. Children showed an increase in the ability to point, recognize, and say numbers independently after participating in learning activities using the media. The positive response shown by children, both in terms of cognitive and motoric aspects, shows that an approach involving visual-interactive media can provide an effective alternative in the process of stimulating numbers in children with speech disorders. However, this study has limitation. The limited number of subjects causes the generalization of the results to be less strong. This study has not comprehensively evaluated the relationship between increasing number recognition and the development of speaking ability itself, so that the verbal communication aspect has not been fully described. In addition, external variables such as home conditions, parental involvement, and severity of speech delay were not specifically controlled.

This study provides an important basis for the development of learning media that are more responsive to the needs of children with speech delays. In practice, the use of media such as Kincir Pintar has the potential to strengthen learning strategies that are not only focused on verbal aspects but also optimize visual, kinesthetic, and interactive stimulation. Therefore, educators and therapists are expected to be able to design learning activities that are more contextual, interesting, and in accordance with the characteristics of early childhood with special needs. In practice, the integration of media such as Kincir Pintar can be an alternative learning method that is both fun and structured. For future development, Kincir Pintar media can be refined through broader content adaptation. For example by

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integrating the introduction of color, shape, or letter concepts. Further research can be directed at testing the effectiveness of this media in different age groups, other types of developmental disabilities, or in different socio-cultural contexts to test its benefits. Furthermore, it is also important for early childhood education institutions to provide training to teachers and assistants so that they are able to utilize the media optimally.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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