Interactive Multimedia Innovation: Increasing the Interest in Learning of Children With Multiple Disabilities in Early Age

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Abstract:
Children who are deaf are children who experience hearing problems or obstacles which cause them to have difficulty communicating and receiving language information through hearing. Children who experience communication barriers can result in children experiencing intellectual disorders. The aim for this research to analyze problem of children's interest in learning in early childhood who experience hearing impairments (deaf and intellectually impaired) through interactive multimedia learning. The research method uses a literature study research method by reviewing various sources in the form of journals, research results and published books. The results show that interactive multimedia plays a very positive role in increasing the learning interest of children with special needs (deaf-impaired) from early age. Through of interactive learning multimedia, children become more enthusiastic and focused during the learning process so that it is believed that children will easily grasp the message from the learning delivered.

Asbtrak:
Anak yang mengalami tunarungu terindikasi mengalami gangguan atau hambatan pada pendengaran yang menyebabkan cenderung kesulitan dalam berkomunikasi serta menerima informasi bahasa melalui pendengaran. Anak yang mengalami hambatan berkomuniaksi dapat berdampak pada anak mengalami gangguan intelektual. Tujuan penelitian ini ialah untuk menganalisis permasalahan minat belajar anak pada anak usia dini yang mengalami gangguan tunaganda (tunarungu-tunagrahita) melalui multimedia interaktif. Metode penelitian menggunakan metode penelitian studi pustaka dengan mengkaji dari berbagai sumber berupa jurnal, hasil penelitian, dan buku yang diterbitkan. Hasil penelitian menunjukkan bahwa multimedia interaktif berperan positif dalam meningkatkan minat belajar anak berkebutuhan khusus tunaganda, dalam hal ini tunarungu-tunagrahita. Melalui penggunaan multimedia interaktif, menunjukkan anak menjadi lebih antusias dan fokus selama proses belajar sehingga diyakini anak akan mudah memahami pesan dari pembelajaran yang disampaikan.

INTRODUCTION

Deafness is a condition experienced by children with indicators of reduced or lost hearing ability so that there are obstacles to processing information through the sense of hearing. The ear is a very important body part that helps children develop their communication skills. Every sound captured by the auditory recorder will help children more easily explore the objects around them. Hearing loss in children will certainly hamper their ability to speak. In general, deaf children have difficulty in speaking. Although they speak fluently, there are still some letters or words that are difficult to pronounce, especially consonants. The pronunciation of children also tends to be not as clear as

people whose hearing is normal. But there is also when the child's hearing is already classified as severe or severe, the difficulty of speaking will increase.

Children who are indicated to have disorders and obstacles in communication can have an impact on intellectual barriers. In terms of education, children with disabilities often experience mental or intellectual barriers. They will experience difficulties in adaptive behavior, especially in establishing social relationships in the community. This can be seen from the low level of independence or social responsibility of children compared to their cultural group. For example, obstacles in carrying out basic learning tasks such as: reading, writing, counting, basic concepts of knowledge and delays in carrying out skills to meet their own needs.

Deaf children tend to have problems in aspects of language development and communication skills. Meanwhile, children with tunagrahita are children who experience learning delays. Therefore, the development of technology can be utilized to design learning media for early childhood, in this case with special needs. Advances in developing technologies can be utilized to develop learning media to help increase children's interest in learning, especially early childhood with special needs.

One of them is through the use of interactive learning media. It can be seen in the current digital era that most children are very interested in gadgets, therefore in order not only to cause negative impacts, it can be utilized as an interactive learning media for children. This learning media can be used in various educational institutions, such as the learning process carried out for children with special needs. Through the use of interactive media, it is hoped that it can help educators to develop the learning interests of students with special needs so that it can make it easier to concentrate and be more interested in interesting learning.

RESEARCH METHODS

The research that has been carried out uses the literature study method. The research process is carried out by analyzing various literature or library sources in the form of research results, scientific journal publications as well as books and other text sources that are in accordance with the research topic. The understanding of research methods according to Zed in Roosinda, Fitria Widiyani, et al (2021) has several characteristics, namely: (1) library research

deals directly with numerical or text data, not with primary data directly obtained from the field or eyewitnesses in the form of people or other objects and events, (2) data from library research is ready for use, this means that researchers can be carried out by not going directly to the field, except dealing directly in the library with available sources, (3) the data is secondary because the data is already available in the library and does not obtain primary data from the first researcher in the field, (4) the condition of the data available in the library is not limited by space and time (Roosinda et al., 2021).

RESULTS AND DISCUSSION

Multiple disabilities is often known as a term for individuals with multiple impairments. Multiple disabilities are often referred to as severe disabilities, which have more than one disability. According to Mangunsong in Juriana (2016), the intellectual intelligence of children with multiple disabilities or multiple disabilities varies greatly depending on the level of disorder the child has. However, they often encounter intellectual, emotional, and social ability disorders such as emotional disturbances, hyperactivity, concentration disorders, low tolerance for frustration, irritability, selfishness, depression, anxiety, and others (Juriana, 2016).

In a book written by Mirnawati (2019), it states that deaf children have a variety of different problems in language development and communication. Meanwhile, children with impairments show delays in learning. In children with multiple disabilities, it is possible that the child has a disability as well as deafness. These children are indicated to have hearing loss, then intellectual function barriers and have difficulty adapting to their environment. So the combination of these conditions causes children to need different services than children who are deaf or hard of hearing only. It is estimated that around 10-15% of children enrolled in schools for the deaf are deaf children, and a similar percentage of children enrolled in schools for the deaf are children with intellectual disabilities (Mirnawati, 2019).

Maesaroh & Mulyadiprana in Rasmani, Upik EE, et al (2023) mention, interactive learning multimedia is integrated learning that utilizes

information and communication technology by combining and integrating several lessons so that it can provide valuable experience and knowledge for students. Interactive learning multimedia is defined as a learning program that combines audio-visual media such as images, sound, and animation in a synergistic and integrated manner using multimedia devices, computers, or gadgets to achieve learning objectives in the classroom. The advantage of interactive multimedia learning is that it makes it easier for teachers to utilize technology in learning in accordance with current developments. In addition, the use of interactive learning media can foster children's enthusiasm and interest in learning activities (Rasmani & Dkk, 2023).

Sentikhe, et al (2023) conveyed in their research results that every child has an unequal background, culture and development and each child may have certain special needs and different learning disorders, so that each child really needs educational services that suit the needs of the child, for example, with children with special needs (Tumanggor et al., 2022). The utilization of learning media is needed for children with special needs, because they are children who experience obstacles in their development. Learning media that involves children's activeness will facilitate the learning process because it can help children's memory of the material presented (Agus Afandi, Nabiela Laily, Noor Wahyudi, 2022). Examples of interactive multimedia that can be used in early childhood can be seen in Figure 1 and Figure 2 below.
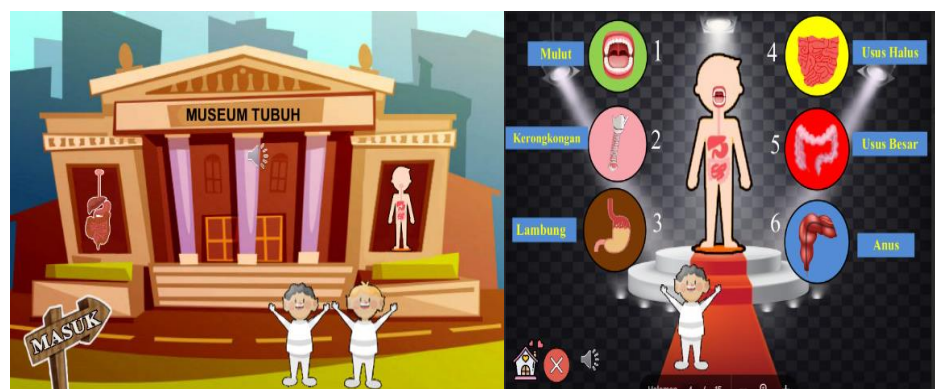

Figure 1. Interactive Multimedia Introduction to Digestive Organs for Early Childhood

Figure 2. Interactive Multimedia Introduction to Animals in Early Childhood

From the results of research conducted by Al Irsyadi, F, & Nugroho, YS (2015) that interactive learning media can be in the form of educational games that can attract and make children with disabilities more enthusiastic about using the game. the application of the kinect device in this game is quite interactive, because the kinect device has a sensor that can be used for game controlle can make children with disabilities can use their hands to play this game (Widiantono, 2017). The results of research conducted by Al Irsyadi, Puspitasari, & Kurniawan (2019) who created educational games related to prayer learning specifically for speech deaf children, namely combining the concept of games with education and learning with sign language for speech deaf children. The results of his research show that the ABA (Ayo Belajar Sholat) application in the form of educational games can be utilized as a learning medium that makes it easier for students to learn prayer movements and prayer prayers and can increase children's interest in learning (Al Irsyadi et al., 2019). Based on the results of the analysis obtained through the main data from various sources of research results, published journals, and books related to the topic of discussion, this study found that interactive media plays a very important role in learning activities for children with special needs. Through interactive learning media created and modified learning media can increase the enthusiasm, interest and confidence of children with special needs in learning.

CONCLUSION

Based on the research conducted, it can be concluded that interactive learning media really helps the learning process of children with special needs. Besides being used in class, interactive learning

multimedia can be used in various learning environments. Through the design of interactive learning media specially modified for children with special needs, it can attract children's interest in learning and can make children enthusiastic and confident in learning. Furthermore, interactive learning multimedia for children with special needs at an early age can be designed according to the age and development of children so that children can capture the message of learning conveyed through interactive multimedia.

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