



JURNAL ASESMEN DAN INTERVENSI ANAK BERKEBUTUHAN KHUSUS

Jurnal homepage: <https://ejournal.upi.edu/index.php/jassi/index>



Technology-Based Media Innovation for Students with Special Needs

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ABSTRACT

The research aims to find out technology-based media innovations for students with special needs. The research method used is a mixed method. The research results show that it is important to create technology-based media innovations for students with special needs. This is because the learning process is easy.

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ARTICLE INFO

Article History:

Submitted/Received 17 Feb 2024

First Revised 30 Mar 2024

Accepted 28 May 2024

First Available online 01 Jun 2024

Publication Date 01 Jun 2024

Keyword:

Innovation,

Media,

Technology,

Student with special needs.

1. INTRODUCTION

Technology-based media innovation is currently very much needed. The media used is well designed to help students understand the lesson material. Developing information technology makes learning media increasingly advanced (Andrejevic & Selwn, 2020). Innovation to create technology-based learning media is needed, especially for students with special needs. Students with special needs have problems both due to internal and external factors, both permanent and temporary (Maryanti et al, 2021; Maryanti et al, 2021; Maryanti et al, 2021). There are several types of students with special needs, including blind students, deaf students, students with intellectual disabilities, students with physical disabilities, students with social emotional barriers, students with autism, and others (Maryanti et al, 2020; Maryanti et al, 2020; Maryanti et al, 2020). The emergence of problems in the learning process is caused by the characteristics of children with special needs (Maryanti et al, 2022; Hidayat et al 2022). Technology-based learning media innovations in learning media must be developed. We must innovate to make good use of existing technological developments (Lee & Trimi, 2018).

Currently, there is a lot of research regarding innovation in technology-based learning media, including the benefits of using technology-based learning media (Rustamova, 2020), technology-based media for students (Chugh & Ruhi, 2018), technology-based learning in science lessons (Zulfadewina et al, 2020), the impact of technology use (Bal-Tastan et al, 2018), and application-based media (Muzayyanna et al, 2018). However, until now there has been no research that discusses technology-based media innovation for students with special needs.

This research aims to determine technology-based media innovation for students with special needs. The mixed method research method was used in the research. The research results explain that technology-based media innovation is important to use in the learning process. This is because it is based on the results shown from the analysis of the learning process. Technology-based media innovation is expected to make things easier for educators and students with special needs.

2. METHODS

We used a mixed method research method in this research. Students with special needs are the subjects of this research. In this research, data acquisition was used through qualitative and quantitative methods.

The research procedure is that there are three stages, and the final stage is explained in **figure 1**. The stages include: analysis, determining and designing, development, implementation and evaluation.



Figure 1. The end Procedure of research.

3. RESULTS AND DISCUSSION

3.1. Subject Demographics

This research requires children with special needs as subjects. Children with special needs are children who have problems in developmental and academic aspects (Maryanti et al, 2021). They usually have problems in the learning aspect. There are various types of children with special needs according to their age, including: blind, deaf, mentally retarded, physically disabled, hearing impaired, and dually disabled (Maryanti et al., 2020).

3.2. Innovation Making Activity Procedures

Innovation in technology-based learning media for children with special needs is very important. The stages carried out are:

3.2.1. Identification of students with special needs. Identification is carried out to find out students' needs (Rusyani et al, 2021). Literature and field studies were carried out to create technology-based media innovations. The results of this stage obtained profiles and innovation ideas for technology-based learning media. Effective learning media must be adapted to student needs (Suherman et al, 2021).

3.2.2. Design process. We innovate by designing technology-based learning media. It is important to carry out this process by looking at the results of identification and assessment. Assessment is the process of obtaining students' needs, problems and potential (Maryanti et al., 2021).

3.3.3. Development of innovation results. We conducted discussions to prepare the process of implementing innovative results for students with special needs.

3.3.4. Implementation activities. We search for subjects and implement the results of innovations for students with special needs.

3.3.5. Evaluation activities. Testimonials and analysis of implementation results are carried out by us.

3.3. Analysis Data

Technology-based learning media innovations are currently important. Every child has different potential and therefore has different needs, especially the media used. For children with special needs, technology-based media innovation is very important and needed. Children with special needs are children with various characteristics and obstacles that have an impact on the learning process (Maryanti, 2021).

4. CONCLUSION

This research discusses technology-based media innovation for students with special needs. In making it, a mixed method research method was carried out. The research results show that technology-based media innovation is really needed, especially for students with special needs in the learning process. Innovation is based on student needs. It is hoped that this innovation can be developed in the world of education, especially for children with special needs.

5. ACKNOWLEDGMENT

R. M. acknowledged Dana Bantuan Inovasi Pembelajaran Pendidikan Khusus from BELMAWA KEMENDIKBUDRISTEK DIKTI.

6. 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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