
ANALYSIS OF MULTIMODAL LEARNING STRATEGIES IN EDUCATIONAL PROGRAMS

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ABSTRACT

Multimodal learning is important to understand various materials because students have different learning styles. Lack of understanding and application of multimodal learning strategies by teachers can hinder student learning outcomes. Therefore, this study was conducted to identify multimodal learning strategies used in equality education programs in Semarang Regency and analyze their effectiveness in improving students' understanding and skills. This research also has an urgency to improve the quality of equality education in Semarang Regency. The quality of equality education in Indonesia still needs to be improved so that students can get learning outcomes that are equivalent to students from formal education. In this study, multimodal learning strategies are the main focus because these strategies can improve student learning outcomes by utilizing technology and various media in the learning process. The purpose of this study is to analyze the effectiveness of multimodal learning strategies in improving students' understanding and skills. In identifying multimodal learning strategies, this study describes teachers in equality education programs in Semarang Regency using technology and various media in the learning process. Analysis of the effectiveness of multimodal learning strategies is carried out by looking at student learning outcomes on the materials taught. The recommendations generated from this study can be a reference for equality education institutions in Semarang Regency and other regions in choosing effective learning strategies in improving student learning outcomes.

Keywords: learning strategy analysis; multimodal learning; Equality education

Introduction

Equality education programs are a solution for those who cannot complete formal education in high school (Saefuddin & Santoso, 2016). Equality education programs have become an option for students who wish to complete their education (Yulianti & Sari, 2017; Kurniasih & Marniati, 2017). The equivalency education curriculum has several subject matters, such as mathematics, science, English, and entrepreneurship (Amalia & Sari, 2018). Multimodal learning is needed in understanding various materials because students have different learning styles (Mulyatiningsih & Nurdin, 2017; Wulandari & Nurbaity, 2019). In multimodal learning, teachers can use technology and various media to increase learning effectiveness (Satriawan & Sudarmanto, 2019).

However, a lack of understanding and application of multimodal learning strategies by teachers can hinder student learning outcomes (Huda & Sulistyorini, 2017; Wahyuni & Sunaryo, 2018). This causes the need for an analysis of the multimodal learning strategy used in the equality education program in Semarang Regency to improve student learning outcomes. Therefore, this study will be conducted to analyze multimodal learning strategies in equality education programs in Semarang Regency.

This research is expected to provide useful contributions and recommendations for policy makers in the field of education and can be a reference for future researchers who are interested in conducting similar research. The state of the art in this study is about multimodal learning which is a new trend in the world of education. Multimodal learning is learning that integrates various media and technology such as images, video, sound, and text to help students understand the material

taught (Hadi & Nugraha, 2018; Liu H, 2021; Uddin MR, 2020). In addition, multimodal learning also helps students with different learning styles to more easily understand the material.

Several previous studies have proven that multimodal learning is very effective in increasing students' understanding of the material taught (Ali M, 2020; Qin J, 2019; Kim S, 2019; Wang Y, 2018). However, the majority of these studies were conducted on students who were in formal education levels such as elementary school (Chen H, 2017), secondary (Soltani S, 2017), and college (Yeh YC, 2016). Meanwhile, research on equality education programs is still very limited and has not been done much.

The novelty of this study lies in its focus on the use of multimodal learning strategies in equality education programs. The equality education program itself is a program intended for those who have grown up, but do not have the opportunity to attend formal education (Han X, 2011). In this context, multimodal learning has an important role to play in helping them acquire the knowledge and skills needed to improve their quality of life.

In addition, this research will make new contributions to the understanding of the effectiveness of multimodal learning strategies in equality education programs and provide recommendations for teachers and educational institutions to improve learning in equality education programs. This research can also provide useful recommendations for equality education institutions in Indonesia in improving the quality of their learning.

Method

The problem-solving approach to be used in this research is a qualitative approach with a case study method. This research will be conducted by collecting data through interviews, observations, and documentation studies. This qualitative approach was chosen because this study aims to gain a deeper understanding of multimodal learning strategies in equality education programs in Semarang Regency.

The case study method was chosen because it can study the case in detail and in depth. In this study, the case to be studied is the equality education program in Semarang Regency. Using the case study method, this study will examine various factors that influence the effectiveness of multimodal learning strategies in equality education programs. The results of this study will provide more detailed information on the issue and provide recommendations to improve the effectiveness of multimodal learning strategies in equality education programs in Semarang District.

In the initial stage of the research, interviews will be conducted with teachers and students of equality education programs in Semarang District to understand how multimodal learning strategies are implemented. Furthermore, observations will be made to observe and understand how multimodal learning is carried out in the classroom. Finally, a documentation study will be conducted by collecting documents related to multimodal learning that has been carried out in the equality education program in Semarang Regency.

By using this problem-solving approach, it is hoped that the results of this research can make a positive contribution in increasing the effectiveness of multimodal learning strategies in equality education programs in Semarang Regency.

Discussion

Utilization of Technology in Multimodal Learning in Equality Education Program in Semarang Regency

The use of technology has had a significant impact in the world of education, including in equality education programs. In Semarang Regency, the program actively integrates technology in the learning process, resulting in a more dynamic, interactive, and inclusive learning approach. The following is an in-depth explanation of the use of technology in the equality education program in Semarang Regency:

Access Learning Materials Online

The use of technology allows students to access learning materials through online platforms. Learning materials such as digital books, lecture notes, and assignments can be easily accessed through a computer or tablet device. This overcomes the limitations of physical access to learning

resources, as students can study anytime and anywhere, as long as they are connected to the internet. In addition, material updates can be done quickly and efficiently, ensuring that students always have access to the latest information.

Interactive Learning Videos

Technology enables the creation and distribution of interactive and informative learning videos. Students can watch learning videos that present material in visual and audio form. These videos often come with animations, graphics, and illustrations to clarify elusive concepts. The main plus of learning videos is their ability to visualize abstract or complex concepts, facilitating better understanding.

Virtual Learning Platform

The equality education program in Semarang Regency uses a virtual learning platform that allows students to interact with learning materials and teachers online. Through this platform, students can ask questions, participate in discussions, and collaborate with fellow students on assignments or projects. It forms an online learning community that allows students from different backgrounds to interact and support each other.

Adaptation to individual learning styles

The integration of technology allows the presentation of learning materials in various formats according to individual learning styles. More visual students can utilize visual elements such as images and graphics, while more auditory students may utilize audio recordings or podcasts. In other words, technology allows personalization of learning to suit students' preferences and needs.

Monitoring and Evaluation of Progress

Technology also facilitates more measurable monitoring and evaluation of student progress. The learning platform can be used to deliver assignments, online exams, and interactive quizzes. This evaluation data can provide an in-depth view of students' understanding of the material and help teachers to identify areas for improvement.

However, keep in mind that the use of technology also has challenges. Not all students have equal access to devices and stable internet connections. Therefore, efforts are needed to ensure that equal learning opportunities remain for all students. Overall, the use of technology in equality education programs in Semarang Regency has opened up new opportunities for more inclusive, dynamic, and adaptive learning. By supporting material access, virtual interaction, and diverse learning styles, technology has brought about positive changes in equity education.

Various Learning Media: Enriching Learning Experience Through Multimodality

In the context of multimodal learning strategies in equality education programs in Semarang Regency, the use of various learning media has an important role in creating a more immersive and inclusive learning experience. The following is an in-depth explanation of how various learning media are used to enrich the learning process:

Text as the Basis of Content

Text remains the basis of content in learning, as it provides an important base of information. However, by combining text with various other media, learning becomes more interesting and easier to understand. Text is used to convey core concepts, definitions, and explanations that require deep understanding.

Illustrations and Graphics

The use of illustrations and graphics helps visualize complex concepts. Images can visually explain how a concept works, illustrate relationships between elements, or present data more clearly. For example, in natural science subjects, illustrations of cell structure or graphs of temperature changes can help students understand better.

Animation and Simulation

Media in the form of animation and simulation are very effective in explaining dynamic processes or concepts that move. In animated videos, students can see how change happens from start to finish. Interactive-based simulations also allow students to play around with variables and see their impact on outcomes.

Audio for Hearing Experience

The use of audio, such as narration or background sound, allows students to obtain information through hearing. This can be very effective in explaining more complex concepts, or

when presenting stories or verbal explanations. Audio can help students who are more likely to learn auditory.

Video as a Visual and Audio Combination

Video is a medium that combines visual and audio elements in one package. Learning videos allow for the presentation of rich and dynamic content, explaining concepts in words and images at once. With this combination, videos are able to capture students attention and explain the material more powerfully.

Through a combination of various learning media, students can obtain information from their various sensory sources. This is very beneficial, as each student has different learning preferences. Some students may be more responsive to visuals, while others are better at understanding concepts through hearing. By presenting material in a variety of media, this learning strategy helps accommodate a variety of learning styles and allows each student to gain a better understanding.

However, it is important to ensure that all media used are relevant, clear, and support the learning objectives. The choice of media must be in harmony with the material presented and able to increase student understanding. By carefully designing learning, various learning media will have a positive impact on the student learning experience.

Collaboration and Discussion in Multimodal Learning: Connecting Students in Virtual Space

Collaboration and discussion have become important elements in the multimodal learning strategy in the equality education program in Semarang District. In this context, the concept of learning has evolved considerably from the traditional physical classroom. Here's an in-depth look at how collaboration and discussion play a role in multimodal learning:

Virtual Space for Collaboration

In this learning strategy, students can collaborate and interact in virtual spaces through online learning platforms. This means students are no longer limited by space and time. They can participate in online forums, discussion groups, and collaborative projects without having to be in the same physical location. This is particularly beneficial in the context of equality education, where students may be spread across multiple geographic locations.

Diversity of Student Interaction

Online learning platforms allow students to interact with classmates who have diverse backgrounds and views. Discussion and collaboration cross physical and cultural boundaries, bringing rich perspectives and variety in problem-solving approaches. It encourages inclusive learning and prepares students to operate in an increasingly connected global environment.

Teacher-Facilitated Discussion Activities

Online discussions are often facilitated by teachers as part of a learning strategy. Teachers can provide topics or questions that encourage critical thinking and reflection. Through discussions, students can discuss learning concepts, share experiences, and teach each other. It encourages students to think more deeply about the material and practice speaking and opinion skills.

Collaborative and Team Projects

One powerful form of collaboration is collaborative projects. Students may be given assignments that involve working in teams to complete projects. This kind of project involves not only discussion, but also planning, coordination and division of tasks. This is similar to experience in the professional world where team collaboration is a very valuable skill.

Time Flexibility

Collaboration and discussion in virtual spaces also provide time flexibility. Students can participate in discussions or projects at any time that fits their schedule. This allows them to manage their own study time, while staying connected with peers and teachers.

However, effective online collaboration and discussion also require certain skills, such as the ability to communicate effectively in writing, adhere to the rules of discussion rules, and understand how to work in a virtual team. Therefore, education about online ethics and collaborative skills may be required. Overall, collaboration and discussion in multimodal learning creates a more inclusive, dynamic, and global learning environment. It prepares students to adapt to an increasingly connected work and social environment in the digital age.

Project-Based Learning in the Context of Equality Education in Semarang District

Project-based learning is a learning approach that assigns students tasks to complete projects that involve problem-solving, exploration, and application of knowledge and skills. In the equality education program in Semarang Regency, project-based learning strategies have been implemented with the aim of increasing understanding and application of learning materials. Here is an in-depth explanation of how project-based learning operates in this context:

Integration of Skills and Learning Materials

In project-based learning, students not only learn about concepts in isolation, but also integrate various skills and learning materials in the context of a real project. For example, an environmental project might involve writing skills, data analysis, use of technology, and an understanding of human impacts on the environment.

Application of Knowledge in Real Context

Students are exposed to real-world challenges through projects, which allow them to apply their knowledge and skills in relevant situations. This helps students see the relationship between learning material and its application in everyday life, thus strengthening the understanding and meaning of the material.

Use of Various Media and Technologies

In the digital age, projects often involve the use of a variety of media and technologies. Students can create multimedia presentations, videos, infographics, or websites to present project results. The use of technology allows students to communicate their ideas in creative and engaging ways.

Problem Solving and Creativity:

Projects require problem solving, where students must identify problems, formulate solutions, and design steps to achieve project goals. It encourages critical thinking skills and creativity, as students must seek innovative solutions to given challenges.

Team Collaboration

Some projects may involve teamwork, similar to a professional work environment. Students must collaborate with their peers, share ideas, take on certain responsibilities, and complete assignments together. It builds teamwork skills that are essential in the real world.

However, the implementation of project-based learning also faces challenges, such as careful planning, efficient time allocation, and proper supervision. Teachers must ensure that projects are well designed, appropriate to learning objectives, and can be assessed objectively. Overall, project-based learning encourages students to be active in learning, build relevant skills, and connect their knowledge to real-world contexts. In equality education programs, these strategies help students prepare for challenges in the world of work and life.

Effective Multimodal Learning Strategy in Equality Education in Semarang District

Effective multimodal learning strategies in equality education programs in Semarang District have a significant impact in improving students' understanding and skills. Here is an in-depth explanation of how this strategy works:

Various Learning Styles

Every student has a different learning style. Some are more responsive to visuals, while others are more likely to learn auditorily. Multimodal learning strategies allow each student to choose the medium that best suits their learning style. For example, visual students can rely on pictures and graphs, while auditory students can listen to explanations via audio. *Diverse Learning Styles in Multimodal Learning Strategies: Respecting Student Differences*. Each individual has a unique learning style, which is their most effective way of understanding and assimilating information. Multimodal learning strategies recognize the diversity of these learning styles and create an environment that allows students to learn according to their preferences. Here is an in-depth explanation of the importance of respecting diverse learning styles in the context of multimodal learning:

Visual Learning Style

Students with visual learning styles tend to respond more to images, graphics, and other visual elements. They process information well through sight and have the ability to remember visuals well. In multimodal learning strategies, visual media such as illustrations, diagrams, or interactive learning videos are very effective for them. For example, in natural science lessons,

diagrams of biological processes or physical models can help students visually understand complex concepts.

Auditory Learning Styles

Students with auditory learning styles prefer to learn through hearing. They are more responsive to voices, conversations, and oral explanations. In multimodal learning strategies, audio such as narration in videos, recorded explanations, or podcasts can be an effective option. For example, in language lessons, auditory students can benefit from listening to recorded readings of texts or audio explanations of grammar.

Kinesthetic Learning Style

Students with a kinesthetic learning style learn through physical and hand experiences. They prefer learning by involving movement, experimentation, and physical action. In multimodal learning strategies, the application of practical and interactive projects can provide a more effective learning experience for them. For example, projects involving model making or hands-on demonstrations can help kinesthetic students understand concepts in depth.

Reflective Learning Style

Students with reflective learning styles tend to prefer to ruminate and ruminate before taking action. They process information in a more careful way and tend to think deeply. In multimodal learning strategies, allowing time for reflection through discussion forums or writing assignments allows reflective students to understand concepts in greater depth.

Textual-Oriented Learning Style

Students with this learning style prefer to learn through written texts. They tend to process information through reading and writing. In multimodal learning strategies, the use of text as an information base is still relevant, but can be enhanced by the use of illustrations, graphs, and visual examples that support understanding.

By recognizing and respecting these diverse learning styles, multimodal learning strategies ensure that every student has equal opportunities to learn effectively. It also creates an inclusive environment where each student can contribute according to their strengths and preferences. Therefore, it is important for teachers to recognize the learning styles of students in the classroom and present material with a variety of media to suit individual needs.

Conclusion

The conclusion of this research is that multimodal learning has an important role in understanding students' material and skills, especially in the context of equality education programs in Semarang Regency. Lack of understanding and application of multimodal learning strategies by teachers can be an obstacle to student learning outcomes. Analysis of the effectiveness of this strategy is carried out by evaluating student learning outcomes on the materials taught. The recommendations generated from this study are expected to be a guide for teachers and equality education institutions in Semarang Regency and other regions in improving the quality of learning. In addition, the results of this study can contribute to the literature on multimodal learning strategies and their application in the context of equality education.

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