

Social Sciences Teachers' Strategies in Utilizing Technology to Improve Learning Attractiveness at State Middle School 6 Bitung

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ABSTRACT

This study examines digital technology-based learning strategies implemented by Social Studies (IPS) teachers at SMP Negeri 6 Bitung in an effort to improve student engagement and learning outcomes. This study used a qualitative approach with a descriptive case study method. Data collection was conducted through in-depth interviews, direct observation, and documentation with three Social Studies teachers, students, the principal, and the deputy for curriculum affairs. The results showed that the use of technological media such as PowerPoint, learning videos from YouTube, projectors, and smartboards consistently increased student attention, activeness, and enthusiasm in Social Studies learning. Students showed a positive response to the use of visual and digital media, especially in understanding abstract Social Studies concepts. In addition, it was found that student learning motivation experienced a significant increase along with the intensity of technology use in the classroom. However, this study also identified several obstacles, including limited technological facilities and internet network disruptions, which remain obstacles to the optimal implementation of digital learning. These findings reinforce the urgency of institutional support from schools and the government in providing adequate technological infrastructure. Thus, digital technology-based learning strategies have been shown to positively contribute to increasing the appeal and effectiveness of social studies learning at SMP Negeri 6 Bitung.

INTRODUCTION

The digital era has brought significant changes to various aspects of life, including education. Technology has opened new opportunities and created challenges that require adjustments and innovations in teaching and learning methods. In this context, digital-based learning strategies are becoming increasingly relevant and crucial to understand and implement. Digital-based learning refers to the use of digital technology to support and enrich the educational process.

Educational transformation is not simply about replacing textbooks with tablets or whiteboards with interactive screens and smartboards, but also about designing more effective and interactive learning experiences. By leveraging technology, education can be accessed by more people, overcome geographical and economic barriers, and provide flexibility in learning time and place. We recognize that the current rapid technological development can be leveraged to improve the quality of education. Therefore, many educational programs are currently developing and growing through digital media, whether through social media or educational platforms that are easily accessible to educators and students. Since the implementation of the Independent Curriculum, the learning process in education has undergone a transformation toward digital learning.

This change encourages each educational unit to build collaboration through available resources and facilities. Education has now entered the digital era, where information and communication technology (ICT) has become an integral part of the teaching and learning process. Classroom conditions influence the learning process. The learning process carried out by teachers is inseparable from the application of learning strategies. Learning strategies are one of the methods used by teachers to deliver lesson material.

Learning strategies can be understood as the methods and techniques employed by teachers and students to bring about behavioral or attitudinal changes. Whether consciously or not, teachers must choose specific strategies to ensure smooth classroom learning and optimal outcomes. Every teacher must prepare a well-thought-out and appropriate learning strategy to improve student learning outcomes.

Teachers are expected to become accustomed to implementing creative learning processes using digital-based facilities and supporting tools, such as laptops, computers, Chromebooks, tablets, smartphones, interactive projectors, digital content creation, learning videos, Wi-Fi, and the latest government-issued smartboards. In this context, digitalization of education has become one of the solutions to improve the quality of education, especially teachers as agents who transfer knowledge must have strategies in teaching and using learning media.

Conceptually, learning is a process of change, namely behavioral change resulting from interactions with the environment to meet life's needs. Teaching is the creation of an environmental system that enables the learning process. Learning is a conscious effort made by teachers to teach students so they are willing and able to learn. Meanwhile, learning delivery strategies are ways to organize interactions between students and variables, including the strategy for organizing learning content and/or teaching materials, as well as the strategy for

delivering learning content and/or teaching materials. Teachers, as crucial agents in learning, play a crucial role in developing the national education system, thus producing intelligent and high-achieving students. Teachers are expected to use various learning media, such as PowerPoint, Canva, and YouTube to create videos to engage students. Digital media helps deliver easily understood content and makes learning more active, engaging, and meaningful through interactive materials such as videos, animations, and simulations (Widya, 2024).

Efforts to achieve effective learning depend heavily on teachers' ability to develop learning strategies and select appropriate strategies for learning activities. Strategy is an effort to achieve success and achieve goals. There are at least three types of learning strategies that teachers must master: (a) learning organization strategies, (b) learning delivery strategies, and (c) learning management strategies (Aswandi, 2010).

Learning is effective when teaching activities achieve their objectives, namely, students learn to achieve targets according to the criteria outlined in the initial planning. Learning is considered effective when students can absorb the subject matter and practice it, thereby achieving their best competencies and skills. Effective learning means teachers can use the shortest possible time to achieve the highest possible results. Although there is no guarantee that varying teacher strategies and methods will lead to effective learning, by using these strategies and methods, teachers are truly striving to increase the appeal of learning and achieve learning objectives. A variety of learning strategies can at least guarantee the growth and development of student motivation and interest in the learning process.

Teachers who teach effectively can certainly influence and determine the effective learning methods that students should employ. Teacher innovation in digital technology-based learning will encourage students to continuously learn, think, and behave positively, which can then develop technology-literate students. Research shows that the use of digital learning media can increase student interest and enthusiasm in learning (Widodo, 2020). Furthermore, digital media provides opportunities for students to access broader information and knowledge.

Learning is essentially the process of conveying information or developing new skills to students. Therefore, when a teacher considers what information and skills students should possess, they must simultaneously consider the strategies they will employ. The learning objectives to be achieved significantly determine the strategies employed. A teacher must fully understand the learning objectives before selecting a learning strategy (M. Murdiyono, 2012).

According to Sudirdja and Siregar (2004:6), a learning strategy is an effort to deliberately create conditions that facilitate the achievement of learning objectives. This aligns with Sudiarta's position that the application of learning techniques aims to solve problems encountered by students and teachers, leading to the achievement of learning objectives (Sudiarta, I & Putu, G. 2007). Based on the above description, to carry out their duties professionally, a teacher is

required to understand and possess adequate skills in developing effective, creative, and enjoyable learning strategies.

In the seventh grade of SMP Negeri 6 Bitung, Bitung City, teachers are striving to improve student learning outcomes in Social Studies by using projectors, smartboards, and YouTube videos to help students understand the material more quickly. By employing a diverse learning strategy approach, teachers can ensure that each student develops their potential, maximizing the achievement of learning objectives.

Therefore, the author is interested in examining the strategies used by teachers at SMP Negeri 6 Bitung to improve student learning outcomes. This research is expected to provide broader insight into whether learning strategies are appropriate and contribute to student learning outcomes. This understanding suggests that teachers and educational institutions can develop varied and effective teaching methods by adapting to student characteristics.

LITERATURE REVIEW

Learning Strategy

There are various definitions of learning strategy as proposed by experts. One such definition is provided by Dick & Carey, as quoted by Etin Solihatin (2013), who state that a learning strategy is a general component of a series of learning materials and procedures that will be used collaboratively by teachers and students during the learning process. There are five components of a learning strategy that need to be considered: learning activities, introduction, information delivery, student participation, tests, and follow-up activities.

Furthermore, according to Darmayah (2010), a learning strategy is the organization of lesson content, lesson delivery, and management of learning activities using various learning resources used by teachers to support the learning process so that it can proceed effectively and efficiently.

Digital Learning Technology

Learning Technology is the application of processes and resources to improve the quality of learning. According to the Association for Educational Communications and Technology (AECT), learning technology encompasses the theory and practice of designing, developing, utilizing, managing, and evaluating learning processes. Technology can increase motivation, facilitate interaction, and enrich students' learning experiences.

Kustandi and Stjipto state that learning media is a tool used to support the teaching and learning process, ensuring that learning objectives are achieved effectively and effectively (Batubara, 2021). In digital context, digital learning media is defined as learning media that utilizes digital data that can be processed, accessed, and distributed, or in other words, shared, using digital devices supported by popular social media platforms. Therefore, utilizing popular social media platforms is crucial for presenting educational content in digital learning.

Learning Appeal

Learning appeal is the extent to which learning can generate interest, engagement, and motivation in students. The Great Indonesian Dictionary (2008)

defines appeal as "the ability to attract or capture attention." Appeal is one of the main criteria for good learning, with the hope that students will be more likely to want to continue learning when they encounter engaging experiences. Effective appeal can increase student motivation and retention, encouraging them to stay engaged in learning tasks. Therefore, teachers must be able to create engaging learning, present challenging material, and present it in a way that suits the learning styles of today's students.

One model that can be used to measure appeal is Keller's ARCS (Attention, Relevance, Confidence, Satisfaction) Model.

1. Attention: How the learning captures students' attention.
2. Relevance: The appropriateness of the material to students' needs and experiences.
3. Confidence: Students' self-confidence during the learning process.
4. Satisfaction: The level of satisfaction after participating in the learning process.

Therefore, the use of appropriate technology can improve all of these aspects. In general, learning appeal encompasses the following elements:

- Student attention
- Interest
- Motivation
- Active involvement
- Learning comfort

METHODOLOGY

This research uses a qualitative approach with a descriptive case study method. The primary focus of the study is (1) social studies teachers' strategies in utilizing technology (including design, implementation, evaluation, and the type and effectiveness of technology), and (2) learning appeal (student interest, activeness, positive responses, and engagement in digital media). Additional focuses include the availability of school facilities and support, as well as digital learning policies.

Operational definition: Teacher strategy is a series of steps, methods, and techniques in planning, implementing, and evaluating technology-based learning, as evidenced by media selection, delivery techniques, digital learning models (e.g., YouTube videos), and adaptation to classroom conditions and student characteristics. Learning appeal is the extent to which technology can attract attention, increase enthusiasm, interaction, and make learning feel easy and enjoyable.

Population and sample: The primary informants were three social studies teachers at SMP Negeri 6 Bitung. Supporting informants were students, the principal, or curriculum representatives. Informants were selected using purposive sampling with the criteria of being directly involved in social studies learning, using technology, understanding digital strategies, and being willing to provide information.

Data collection techniques included in-depth interviews with teachers, direct observation of learning activities, and documentation (lesson plans,

photos/videos, digital teaching materials, technology facility archives). Data analysis used the Miles & Huberman (1994) model: data reduction, data presentation (matrices, tables, observation notes), and drawing conclusions.

RESEARCH RESULT

Interview Results Matrix Informant

Interview Results Table

Informant	Core questions	Answer short	Conclusion Data
9th Grade Social Studies Teacher	How use technology in social studies learning ?	The teacher uses powerpoint (PPT) and learning videos .	Technology help delivery material .
8th Grade Social Studies Teacher	How response student when the teacher uses technology in learning ?	Student seen more focus when the video is displayed .	Technology increase attention student .
7th Grade Social Studies Teacher	Whether There is improvement motivation or results Study student after use technology ?	Motivation Study student give show improvement .	Motivation influence results Study student .
9th Grade Students	Whether use technology make more social studies material easy understood ?	More interesting Because There is images and videos.	Technology increase attention and enthusiasm Study student .
8th Grade Students	What do you like most ?	videos and quizzes .	Visual media enhances interest Study .
7th Grade Students	Whether You want to technology more often used ?	Yes , in every class meeting .	Learning interactive more liked .

Research Findings

Based on results observation , interviews and documentation , research This find a number of matter important :

1. Technology increase Power pull learning.
Student more interested follow social studies lessons when teachers use technology media such as videos and presentation slides .
2. Technology increase participation student
Student more active ask and answer question when learning using technology media .
3. Technology help understanding material.
Visual media such as pictures and videos help student understand IPS concepts that are abstract .
4. There are still constraint in use technology.

Result data study This has tested its validity through triangulation techniques with involving teachers , students and representatives of affairs curriculum and will presented in the table following :

Table. Data Validity (Triangulation)

No	Aspect	Data source	Core Information / Focus	Consistency Level	Conclusion
1	Use technology	Interview (teacher)	The teacher uses powerpoint, LCD / projector , video and digital quizzes .	Tall	Valid, consistent data .
		Observation	Teachers use digital media when learning .	Tall	Valid data
		Questionnaire open (students)	Student states that teachers use technology	Tall	Valid data, stated almost all informant .
2	Attention student	Interview	Student more focus moment learning	Tall	Valid data
		Observation	Student notice material and take notes .	Tall	Valid data
		Questionnaire	Student feel more focus	Currently	Valid data, mentioned by almost all informant .
3	Activity student	Interview	Student more active ask and answer .	Tall	Valid data
		Observation	Student active in discussion and quizzes .	Medium - High	Valid data with A little variation experience Study .
		Questionnaire	Student feel more active moment learning .	Tall	Valid data
4	Enthusiasm student	Interview	Student more Spirit Study .	Tall	Valid data
		Observation	Student seen enthusiastic and responsive.	Tall	Valid data
		Questionnaire	Student state learning interesting .	Tall	Valid data
5	Attraction of Learning	Interview (student)	(Learning more interesting and fun	Tall	Valid data

			compared to lecture .		
		Observation	More class live and interactive .	Tall	Valid data
		Questionnaire	Majority answer learning become more understood and comprehended .	Tall	Valid data, majority informant agreed .
6	Constraint	Interview	Constraint network and facilities	Currently	Sufficient data
		Observation	There is obstacle technical moment learning .	Currently	Sufficient data
		Questionnaire	Part student experience constraint access .	Currently	Sufficient data

DISCUSSION

This digital era demand change in approach We to education . Technology offer a roadmap For navigate the world where information not limited, but attention We limited . With teach student method build strong network , filtering information and contribute to digital conversations , we prepare they for an increasingly bright future forward . In the room class moment this , the way student access , share and build knowledge changed more fast from previously . With integrated digital technology and networks to almost every aspect life , teachers face opportunities and challenges new in help student develop . For balance problem this , very important For understand strategy emerging learning that reflects mutual reality connected that , technology offer outlook practical for teachers, students and staff education .

Findings This in line with theory modern learning which states that use of learning media can increase motivation Study student as well as make learning more interactive . According to theory Connectivism was introduced in 2004 by George Siemens in his paper "Connectivism: A Learning Theory for the Digital Age", Siemens together with Stephen Downes, realized that technology fundamentally change method We life , way We communicating and its consequences , as well method We learning . Theory This confess characteristic continuous knowledge developing , driven by progress rapid technology and accessibility extensive information , so that very relevant in an interconnected world connected moment This .

Research results at SMP Negeri 6 Bitung show that use technology in social studies learning is capable increase interest and attention student to material lessons . Technology media like PowerPoint and learning videos become more interesting and not monotonous . This also helps student understand previous

material considered difficult . Findings This in line with theory modern learning which states that use of learning media can increase motivation Study student as well as make learning more interactive . However Thus , the utilization technology Still face a number of constraint like limitations facilities and internet network . Therefore that , is necessary support from party school For increase availability means technology.

CONCLUSIONS AND RECOMMENDATIONS

Based on results research conducted at SMP Negeri 6 Bitung , can withdrawn a number of conclusion as following :

Strategy learning based digital technology implemented by social studies teachers at SMP Negeri 6 Bitung covers use of PowerPoint media, learning videos from YouTube, projector interactive , and smartboard. Implementation strategy the designed in accordance with characteristics and needs participant education in the Independent Curriculum era which encourages digitalization of the learning process .

Use digital technology in proven social studies learning increase Power pull learning . Participants educate show improvement attention , activeness , enthusiasm , and motivation significant learning when teachers integrate digital media into in the learning process compared to with method conventional based lecture .

Visual and digital media help participant educate understand social studies concepts that are abstract in a way more concrete and easy understood . This is in line with theory Connectivism from George Siemens who emphasized role technology in change method learning in the digital age.

Triangulation data involving teachers , participants educate , and deputy affairs curriculum show consistency high in aspects use technology , attention students , activeness , enthusiasm , and power pull learning . This is strengthen validity findings that digital technology plays a role positive in improvement quality learning .

There is a number of constraint in implementation digital learning , especially limitations facility technology and stability internet network . Obstacles This become factor necessary inhibitors get attention Serious from party school and stakeholders policy education

Based on findings and conclusions research above , researchers submit some suggestions are expected can become input for various parties, including :

1. For Teachers: It is hoped that teachers will continue develop digital competence in independent through training , webinars, and communities learning professional . Teachers should more creative in designing content digital learning that is not only interesting visually , but also capable push think critical and collaborative participant educate . Election strategy and digital media are necessary customized with characteristics materials and conditions class.
2. For School : Party school need increase availability and quality infrastructure technology , including provision stable internet network , addition digital

devices , as well as maintenance routine facilities that have been there is . Besides that , school should facilitate training programs technology in a way periodically for all over power educators so that teachers' digital competence can increase in a way evenly.

3. For Participant Educate : Participants educate expected can utilise digital technology in wise and responsible answer , no only as means entertainment , but as tool exploration knowledge productive knowledge . Participants education is also necessary accustomed to For active contribute in learning digital- based so that created climate interactive and collaborative learning.
4. For Researchers Next : Research This limited to one school with approach qualitative studies case . Researchers furthermore recommended For expand coverage study with involving more Lots school or use approach quantitatively so that it can measure influence strategy digital learning in more measurable and verified . In-depth study about evaluation impact term long technology to results Study participant educate also become relevant topics For investigated more carry on.
5. For Government and Stakeholders Policy : Required more policies comprehensive in support digitalization education , especially in areas that are still own limitations infrastructure . Procurement program device technology and equality internet access in the environment school need prioritized so that digital transformation in education can walk in a way evenly and optimally throughout Indonesia.

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