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The Use of Infocus to Improve Student Learning Activities in Class X Senior High School of SMAS *YPST Porame*

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ABSTRACT

This study aims to analyze the use of infocus technology in improving student learning activities in history lessons in grade X SMAS YPST Porame. The study used a qualitative approach with a field research design carried out in a natural setting. The research subjects consisted of seven grade X students selected using a purposive sampling technique based on the criteria of active involvement in history learning and technology-based learning experiences. Data collection was carried out through observation, semi-structured interviews, literature studies, and documentation. Data were analyzed using an interactive analysis model that includes data reduction, data presentation, and drawing conclusions. The results showed that the use of infocus had a positive impact on improving student learning activities, both in cognitive, affective, and social aspects. Visual media in the form of images, videos, and historical maps helped students understand the material more concretely, increased learning interest, and encouraged student activeness in discussions and group work. However, this study also found several obstacles in the use of infocus, such as technical constraints, limited number of devices, classroom conditions, and teacher preparation time. These obstacles were overcome through teacher adaptive strategies, including preparing alternative learning methods, involving students in preparing tools, and making adjustments during the learning process. This study concludes that the planned and creative use of infocus can improve the quality of history learning, even in conditions of limited facilities.

Keywords: *Educational Technology, Infocus, Learning Activities, History Learning, Qualitative Research*

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INTRODUCTION

Globalization in the context of education is a dynamic process that encourages renewal and change in the school environment and education system, with technology as its primary catalyst. Globalization not only accelerates the flow of information and knowledge across countries, but also demands that the world of education continuously adapt to rapid technological developments and increasingly complex global challenges. In practice, globalization has opened up much broader access to education through the use of digital technology. Through the internet and platforms Through online learning, students and teachers can now access learning resources from around the world without being

limited by time and space. This promotes equal learning opportunities, enriches learning materials, and enables collaboration and cultural exchange between students. (Lailan, 2024)

Muttaqin (2021:883) explain that development technology Rapid information and communication developments have brought significant changes to various aspects of life, including education. In today's digital era, technology is no longer just a tool but has become an integral part of the learning process in schools, particularly at the senior high school level . The use of educational technology, such as interactive learning software, multimedia, and online learning platforms, provides significant opportunities to improve the quality of the teaching and learning process. (Tompul et al., 2023)

Therefore, it can be concluded that the use of information and communication technology (ICT) has drastically changed the educational landscape, especially at the senior high school level . Technology, including interactive software, multimedia, and online learning platforms, is now an integral part of the teaching and learning process. This integration opens up significant opportunities to improve the quality of education. (Khotimah & Safirah, 2023)

One of the main benefits of implementing educational technology is providing broader access to learning resources. Through the internet and various educational applications, students can access course materials, learning videos, e-books, and other information sources from anywhere and at any time. This allows students to study independently, review material they don't understand, and deepen their knowledge outside of formal class hours. Furthermore, educational technology can create a more interactive and engaging learning environment. The use of multimedia, such as images, audio, video, and animation, can increase interest and Student motivation in learning. Students become more actively involved in the learning process, whether through online discussions, interactive quizzes, or collaborative projects facilitated by technology. (Purba & Saragih, 2023)

Siallagan (2019:1-2) explains that research shows that student engagement in technology-based learning tends to be higher, and they find the learning experience more enjoyable and meaningful. This condition can move learning activities to be more dynamic. educative, And walk in a way two direction. When knowledge knowledge And Technology is developing very rapidly, the learning process is no longer monopolized by the presence of teachers in the classroom. Students can learn anywhere and anytime. Information technology in the world of education has had a significant impact. By utilizing the sophistication of information technology, the quality and Educational efficiency can be improved. (Maritsa et al., 2021)

Furthermore, Putri and Thamsin (2019) emphasized that using an infocus in learning can be an effective strategy for achieving better educational goals. By using an infocus appropriately, students can enrich their learning experiences, improve the quality of teaching, and facilitate adaptive, student-centered learning. This makes learning activities more engaging and meaningful. (Salsabila et al., 2023)

Echoing Putri and Thamsin, Juwairiah (2023:7) explains that the implementation of

infocus also has a positive impact on improving student activity and learning achievement. Data from exam results and formative evaluations show an increase in conceptual understanding, problem-solving skills, and efficiency in completing academic assignments after the integration of infocus into the learning process. Teachers can easily present material visually and engagingly, monitor student engagement, and adapt learning methods to their needs. Thus, the use of infocus not only supports the achievement of better learning outcomes but also prepares students to face the challenges of modern learning. (Andi Sadriani et al., 2023)

The use of infocus has a very positive impact on the learning process and academic achievement. This tool helps teachers deliver material visually and attractively, so that students can more easily understand and focus on the lesson. However, realizing the application of infocus in learning is not easy, there are many factors that influence it such as limited electricity, geographical conditions, and human resource capabilities. This condition is a challenge that needs to be resolved considering that first, *SMA S YPST Porame,* located in Porame Village, Kinovaro District, Sigi Regency, is a school with limited infrastructure such as unstable electricity availability and a limited number of infocus devices. This certainly hinders the use of infocus in the daily learning process.

of teachers at *SMA S YPST Porame* do not yet possess the same level of competence in using educational technology effectively. Ongoing training and mentoring are essential to improve teachers' ability to integrate technology into the curriculum and teaching methods. The availability of digital learning materials is Relevance to the curriculum and student needs may still be limited. Teachers need to make greater efforts to find, develop, or adapt appropriate digital learning resources, which requires time and specialized skills.

The urgency of this research lies in the appropriate use of technology, which is expected to significantly improve student activity and learning outcomes. This can give description about How technology can integrated effectively to achieve learning objectives and enhance learning activities. In addition, this research is expected to identify solutions to overcome various limitations and challenges. faced by *SMA S YPST Porame* in educational technology.

Based on initial observations, the use of infocus in the learning process by Mrs. Hilda, one of the teachers at *SMAS YPST Porame* , is still not optimal. In several classroom observations, the infocus is only used as a tool to display presentation slides simply, without utilizing the interactive features that are actually available. The use of the infocus is limited to displaying static text and images, without media variation or a more dynamic visual approach. This indicates that the use of this technology is not directed at creating an interesting learning atmosphere and encouraging active student participation.

Infocus has significant potential to improve the quality of classroom learning, particularly in encouraging student activity and engagement. Features such as educational video playback, visualization of abstract concepts, or the use of projection-based collaborative applications can create a more interactive and meaningful learning experience. Limitations in this utilization may be due to a lack of comprehensive training on device use or a lack of technical assistance in schools. Therefore, it is crucial for schools to

provide support and training to teachers so they can maximize the potential of Infocus as an effective learning tool.

METHOD

This study employed a **qualitative research approach** with a field research design to explore the implementation of educational technology in history learning. A qualitative approach was chosen to gain an in-depth understanding of social phenomena as experienced directly by research participants in a natural setting. Qualitative research emphasizes meaning, interpretation, and participants' perspectives, with the researcher serving as the primary instrument for data collection and analysis (Creswell, as cited in Murdiyanto, 2020). This approach allows the researcher to construct a comprehensive and contextualized understanding of the phenomenon under investigation. (Sugiyono, 2018a)

The research was conducted at ***SMAS YPST Porame*** , located in Sigi Regency, Central Sulawesi, Indonesia. Preliminary observations were carried out on **20 February 2025** to identify initial conditions related to the use of educational technology in historical learning. The main phase of the study was conducted over a two-month period, from **June to July 2025** , allowing sufficient time for data collection and verification.

Research participants were selected using **purposive sampling** , based on specific criteria to ensure the richness and relevance of the data. The criteria included students who actively participated in history learning, had experience with technology-assisted instruction (such as the use of focus), demonstrated the ability to express opinions clearly, and showed a strong interest in history as a subject. Based on these criteria, **seven Grade X students** from a total population of twenty-five students were selected as research participants.

Data were collected through **literature study, observation, interviews, and documentation** . The literature study was conducted to establish a theoretical foundation and contextual background for the research. Observations were carried out through direct classroom observation to examine the implementation of educational technology in historical learning activities. Semi-structured interviews were conducted to obtain participants' perspectives and experiences related to the learning process, while documentation was used as supporting evidence to validate data obtained from observations and interviews, including lesson-related records and school documents.

Data analysis was conducted through a systematic process consisting of **data reduction, data display, and conclusion drawing** . Data reduction involved selecting, focusing, and simplifying raw data obtained from field notes, interview transcripts, and documentation. The reduced data were then organized and presented in a narrative form to facilitate interpretation. Finally, conclusions were drawn through continuous verification to identify patterns, relationships, and meanings relevant to the research objectives. This iterative process ensured that the findings accurately reflected the conditions observed in the field and were supported by credible evidence. (Sugiyono, 2018b)

RESULTS AND DISCUSSION

RESEARCH RESULT

General Conditions of the School

In general, SMASS YPST Porame has shown positive progress in both academic and non-academic areas. This is reflected in the increase in student enrollment, the achievement of A-grade accreditation, and the involvement of teachers and students in various training activities and competitions at the district and provincial levels.

The school's strategic location in a rural area makes SMASS YPST Porame a key educational center in Kinovaro District, serving as a platform for developing the local community's potential in secondary education. Students' attention can be maintained for longer periods, preventing them from getting bored easily during lessons.

> *Jesica also shared her experience in history lessons using an infocus. "Usually, when the teacher shows a video about the struggle, we're asked to summarize it afterward. So we watch while writing down important points," she explained. She feels this method makes her more engaged and helps her understand the lesson more quickly. (Interview Monday, September 22, 2025)*

From interviews with Jessica, researchers observed that the use of an infocus projector encouraged students to engage in advanced activities such as writing and analysis. Students not only watched the video but also learned to filter important information and reorganize it into notes. This activity allowed them to focus more on the learning content and trained them to remember the key points.

> *Chelsea also expressed her opinion. He said, "If there are pictures or maps in Infocus, it's easier for me to understand. For example, when studying kingdoms in Indonesia, I can see directly their location and the shape of their remains." He added that the clear pictures made him more interested in studying history and often made additional notes in the book. (Interview Monday, September 22 2025)*

According to Chelsea, researchers found that using an infocus can foster student interest in learning. Visual displays, such as maps and images, make students more curious about the material being discussed. This fosters new habits, such as students being more active in asking questions and wanting to learn more about the topics being taught.

> *Michael also shared his positive experiences. He said, "We're usually divided into groups to discuss the videos shown. Then, each group is asked to explain the results of their discussion in front of the class. So everyone gets a chance to speak." He believes that such activities make learning more engaging and less boring. (Interview Monday, September 22, 2025)*

Researchers found that the use of infocus also encouraged collaboration among students. Through group activities, students learned to discuss, listen to each other's opinions, and share their thoughts. The classroom atmosphere became more active because all students participated and felt a sense of ownership in the learning process.

> *History teacher Nasarudin also explained his habit of using an infocus in class. He said, "I almost always use an infocus when teaching history. I usually show a PowerPoint presentation with images, maps, and short videos to keep the students*

engaged." He added that this method helps students more quickly grasp historical events, which involve multiple sequences and figures. (Interview Monday, September 22, 2025)

From the interviews, researchers observed that teachers had utilized infocus as a primary tool to enliven the classroom. By preparing engaging visual materials, teachers successfully transformed the learning environment from a passive one to an active one. Students understood the lesson more easily because they not only listened but also directly saw what the teacher was explaining.

In another interview, Nasarudin added, "Students are more courageous and active when I show videos. They often offer their opinions and sometimes even guess the causes of historical events they've just watched." (Interview, Monday, September 22, 2025)

This statement demonstrates that the use of an infocus not only improves students' focus but also fosters logical and critical thinking skills. Students are encouraged to connect historical facts, analyze events, and form judgments based on the content they see. These activities demonstrate high levels of engagement in the learning process.

Based on interviews and field observations, the researchers concluded that the use of infocus in class X *SMAS YPST Porame* significantly improved student learning. Nearly all students responded positively, becoming more active, focused, and enthusiastic in their history lessons. They not only paid attention to the teacher's explanations but also expressed their opinions, engaged in discussions, and wrote summaries of the presentations.

Overall, the use of infocus technology has significantly impacted the classroom learning environment. This technology transforms previously monotonous learning into a more interactive experience. Students appear more enthusiastic in every activity, whether listening to teacher explanations, engaging in discussions, or working in groups. Teachers also benefit from being able to present material more clearly and engagingly. Thus, the use of infocus technology has become an effective tool in enhancing the activity and quality of history learning at SMAS YPST Porame.

4.1.7 Obstacles and Solutions in the Use of Infocus Technology in History Learning in Class X *SMAS YPST Porame*

Based on observations and interviews conducted in class X *SMAS YPST Porame* , researchers found that the use of infocus technology in history learning does provide many benefits, but its implementation is also not without several obstacles. These obstacles arise from various aspects, ranging from the technical condition of the equipment, teacher and student readiness, to limited school facilities. Nevertheless, teachers and students continue to strive to find solutions so that the use of infocus can continue to run well and not disrupt the learning process.

In an interview with Mila, she said that the most common obstacles are technical glitches with the equipment. "Sometimes the infocus won't turn on, Sis, or the display is blurry. There have also been times when the power went out while a video

was playing, interrupting the lesson," she explained. Mila added that if such glitches occur, teachers usually continue the lesson verbally to avoid wasting learning time. (Interview Monday, September 22, 2025)

From Mila's account, researchers understood that technical difficulties were one of the main obstacles to using the infocus. Unstable power outages in the Porame area often caused the device to malfunction. However, teachers attempted to devise alternatives, such as continuing lessons with lectures or using backup images on the whiteboard to ensure students could still understand the material.

Citra also expressed a similar sentiment. She said, "Once, the infocus got really hot and then turned itself off. The teacher asked a friend who knew about the equipment to help turn it back on. In the end, we waited a while before we could continue." She noted that such problems sometimes delay lessons, but students still try to help the teacher fix them. (Interview Monday, September 22, 2025)

Based on this experience, researchers observed that limited equipment maintenance was another barrier to infocus use. The school lacked specialized technicians, requiring teachers and students to work together to find ways to repair the equipment when it broke. Despite this, enthusiasm for learning remained steadfast, as students demonstrated a sense of responsibility and concern for their learning resources.

Voni added her perspective on another obstacle she encountered. She said, "Sometimes it's hard for teachers to adjust their time, Sis. Because when using an infocus, you have to prepare the slides first, and sometimes the files are incomplete or you forget to bring them." According to her, this means teachers need to prepare materials longer than for regular lessons. (Interview Monday, September 22, 2025)

Based on interviews with Voni, researchers concluded that time and material preparation were among the barriers facing teachers. Using an infocus requires greater preparation, both in creating PowerPoint presentations and adapting materials to visual media. This requires teachers to be more skilled at preparing equipment before the lesson begins to ensure the activity runs smoothly.

Christian also shared the challenges he experiences as a student. He said, "Sometimes it's hard to see the text on the screen because of the reflection of light from the windows. So during the day, the infocus isn't very clear." He said that some of his classmates often move seats to get a better view. (Interview Monday, September 22, 2025)

From this statement, researchers learned that classroom conditions also influence the effectiveness of infocus use. Outdoor light often makes the screen display less clear, especially on sunny days. To address this, teachers and students often cover some windows with curtains to make the projection display clearer and less glare-prone.

Jesica also shared her experience of encountering problems while using the infocus. She said, "Once, when we wanted to watch a history video, the sound wouldn't come out of the speakers. In the end, the teacher read the narration herself so we could still understand the content." She said that despite the equipment's problems,

the teacher still tried to ensure the lesson was uninterrupted. (Interview Monday, September 22, 2025)

Researchers believe that teachers' responsiveness in dealing with such situations is a real solution in the field. Teachers don't rely solely on tools but are also able to adapt to the situation. By taking over the role of narrator and explaining the video content, learning continues even without the full support of technology.

Chelsea revealed another frequent obstacle related to teaching time. "By the end of the lesson, the infocus is usually hot, so sometimes teachers don't use it anymore. They say they're afraid it will break," she said. She added that if the device isn't being used, teachers replace it with a question-and-answer session or group reading. (Interview Monday, September 22, 2025)

From this statement, researchers understand that the use of infocus is not always possible during every lesson due to technical limitations and the device's durability. However, teachers still strive to adapt methods to maintain interactive learning without relying entirely on the device. This demonstrates flexibility in the teaching and learning process, adapting to real-world conditions.

Michael also shared his thoughts on the challenges he faced. He said, "Actually, there's only one infocus at school, so sometimes we take turns with other classes. If another class uses it first, we have to wait for their equipment to be finished." He believes the limited number of devices is the main obstacle at his school. (Interview Monday, September 22, 2025)

Researchers' observations also indicate the same thing: the number of infocus devices in schools is still limited, and their use must be rotated between classes. This situation often disrupts teaching schedules. As a solution, history teachers typically schedule use together with other subject teachers to avoid conflicts and prepare backup plans in case the devices are unavailable.

History teacher Nasarudin also shared his experience of overcoming various obstacles while using an infocus. He explained, "Sometimes problems arise from sudden power outages or malfunctioning equipment. But I always prepare two teaching methods: one with an infocus and one without." (Interview, Monday, September 22, 2025)

This statement demonstrates that the teacher has anticipated every possibility that could arise during the lesson. By preparing two plans simultaneously, learning activities can continue even if technology cannot be used. This approach is an effective form of adaptation to ensure students continue to receive meaningful learning in each session.

In a follow-up interview, Nasarudin added, "Another solution is to ask students to help set up the equipment before class starts. Some are responsible for turning on the infocus, and others are responsible for installing the cables. So they share the responsibility." (Interview Monday, September 22, 2025)

Based on the researcher's observations, the teacher's steps were quite effective. By involving students in the preparation process, a sense of responsibility and concern for

school facilities grew. Furthermore, the collaboration between teacher and students created a more cohesive and participatory classroom atmosphere.

In addition to technical challenges, researchers also found that some students were not yet fully accustomed to using technology-based learning media. Some students reported having difficulty following the flow of the lesson if the infocus video was too fast-paced. To address this, teachers typically replayed the video twice to ensure all students fully understood the content. This method was considered very helpful because it gave students more time to take notes and pay attention to the teacher's explanations.

Overall, the obstacles to infocus use at *SMAS YPST Porame* can be grouped into three main categories: technical constraints, limited facilities, and human resource readiness. However, teachers and students have made various efforts to overcome these challenges, ranging from developing alternative methods, adjusting the device usage schedule, to independently repairing the devices. All of this is done to ensure the learning process continues effectively without compromising the quality of learning activities.

Based on the research results, the researchers concluded that despite various obstacles, the enthusiasm of teachers and students to continue using infocus shows a high commitment to creative and modern learning. The obstacles that arise actually become a learning tool for teachers and students to work together and find the best solution so that educational technology can be optimally utilized in schools with limited facilities such as *SMAS YPST Porame* .

DISCUSSION

1. The Use of Infocus as a History Learning Medium and Its Impact on Student Learning Activities

The results of the study indicate that the use of infocus technology in history learning in grade X *SMAS YPST Porame* contributed significantly to increasing student activity and engagement. Visual media in the form of videos, images of historical figures, and regional maps helped students understand the material more concretely and contextually. This finding is in line with Rahayu (2023) who emphasized that visual media can clarify abstract concepts and increase student learning interest. Infocus functions as a link between teacher explanations and students' understanding of historical events, so that learning is not only informative but also meaningful. (Miarso, 2016)

In addition to improving cognitive understanding, the use of infocus also impacts students' affective and social aspects. Students demonstrate greater enthusiasm, express their opinions boldly, and actively participate in class discussions. This supports Sari's (2022) findings that visual-based learning can increase student engagement because students feel directly involved in the learning process. The two-way interaction created through discussion and shared reflection makes history learning more dialogic and less teacher-centered. (Murtopo et al., 2023)

The use of an infocus projector combined with discussion strategies and joint conclusion-drawing also strengthens collaborative learning. Putri and Santoso (2024) stated that visual media can be an effective discussion trigger because it provides the

same stimulus to all students. Field findings indicate that students help each other understand the presentation, note important points, and share discussion results, indicating an increase in overall learning engagement. (Fania et al., 2021)

2. Barriers and Strategies of Teachers in Optimizing the Use of Infocus

Despite its positive impact, this study also identified several barriers to the use of infocus, primarily related to technical constraints and limited facilities. Disruptions such as power outages, malfunctioning devices, and limited number of infocuses present challenges that can hinder the smooth flow of learning. Furthermore, poor classroom lighting and relatively long preparation times for materials also impact the effectiveness of the media's use.

However, teachers demonstrated adaptability and creativity in overcoming these obstacles. Strategies employed included preparing alternative learning methods without an infocus, replaying video footage, and verbally re-explaining key points. This approach reflects teachers' pedagogical flexibility in adapting learning to field conditions. Student involvement in assisting with equipment preparation also demonstrates shared responsibility for the learning process. (Muhammad, 2023)

Overall, these findings indicate that the successful use of learning technology is determined not only by the availability of facilities, but also by the readiness, creativity, and collaboration between teachers and students. Existing barriers can be minimized through careful planning, good communication, and a shared commitment to creating active, interactive, and meaningful history learning.

CONCLUSION

Research shows that the use of infocus technology in class X *SMAS YPST Porame* can increase student activity and interest in history. Through the display of images, videos, and maps, students can more easily understand the material and actively participate in class discussions. Infocus makes learning more interesting, interactive, and less monotonous, so the learning atmosphere feels more lively.

Despite this, obstacles remain, such as technical glitches, limited equipment, and lengthy teacher preparation times. However, these obstacles can be overcome through collaboration between teachers and students, such as developing alternative methods and jointly repairing equipment. With enthusiasm and creativity, the use of infocus remains effective and has a positive impact on the teaching and learning process at school.

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