



## Enhancing Students' Interest in Learning Mathematics through the Use of Information Technology Based Learning Media at MTsN 11 Agam

Endang Susilawati<sup>1\*</sup>

<sup>1</sup>Madrasah Tsanawiyah Negeri 11 Agam, Indonesia

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### Correspondence Author:

Endang Susilawati,  
Madrasah Tsanawiyah Negeri 11 Agam,  
Indonesia.  
P5XH+GQC, Koto Kaciak, Kec. Tj. Raya,  
Kabupaten Agam, Sumatera Barat 26471

Email: [susilawatiendang168@gmail.com](mailto:susilawatiendang168@gmail.com)

**Abstract.** This research was conducted at Madrasah Tsanawiyah Negeri (MTsN) 11 Agam. The research method used was a qualitative descriptive method. The aim of this research is to describe the use of information technology-based learning media in mathematics education with the goal of attracting and enhancing students' learning interest. Data was collected through observation, interviews, and documentary studies. Data processing involved data reduction, data presentation, and drawing conclusions. This research emphasizes efforts to increase students' interest in learning mathematics through the utilization of information technology-based learning media at MTsN 11 Agam. The research findings indicate that students' interest in learning mathematics in conventional education tends to be low and declining. However, the use of information technology-based learning media has been proven effective in enhancing students' enthusiasm for learning mathematics. Therefore, it is expected that teachers actively use and promote the use of information technology-based learning media in their teaching practices.

**Keywords:** Interest in learning, learning media, technology information.

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## 1. INTRODUCTION

Learning is at the core of any educational institution (Miftahussaadah & Subiyantoro, 2021). An educational institution, no matter how grand its buildings, multi-story structures, and comprehensive facilities, is meaningless without the process of learning. Likewise, highly qualified teachers with advanced education degrees hold no significance within an educational institution if they are not involved in the learning process. Education gains meaning and significance when the learning conducted is meaningful. The meaningfulness of learning is greatly influenced by the learning process itself.

However, the learning conducted today is often dull and monotonous, leading to student boredom and decreased interest in learning. This is especially true when it comes to subjects

perceived as challenging by some, such as mathematics. Teachers should employ more attractive and effective teaching methods, one of which is interactive learning. The use of this method can help students improve the teaching and learning process and enhance student learning outcomes (Satria & Handayaningsih, 2013). Engaging and interactive learning can motivate students to actively participate in mathematics lessons provided by their teachers. Attractive and involving learning experiences will make students feel driven and engaged in the learning process, rather than feeling like they are in an empty space with no meaningful learning taking place.

Student reluctance to learn is sometimes caused by the dull learning environment, which is often created by the teachers themselves. Teachers often use the same teaching methods and strategies repeatedly, with lectures being the most common and proficient approach. In this conventional teaching system, teachers are at the center of learning, while students are passive objects.

Such conventional teaching methods are no longer deemed suitable in today's era of technological advancement. Conventional teaching systems lack flexibility in accommodating the evolution of competency materials because teachers must continually adjust the lesson content to keep up with the latest technological developments.

Teachers are expected to be more professional in carrying out their teaching responsibilities. They must be proficient in the subject matter they teach, as well as in employing appropriate teaching strategies and methods. Equally important is their professionalism in using engaging teaching media. Learning media are tools, methods, and techniques used to enhance communication and interaction between teachers and students in the education process (Hasan et al., 2021). Engaging media for students are those that align with the evolving world and technology they encounter.

Therefore, research is needed to describe the use of information technology-based learning media in enhancing students' interest in learning mathematics at MTsN 11 Agam.

## **2. THEORETICAL STUDIES**

### **2.1 Improving Students' Interest in Learning Mathematics**

Improving students' interest in learning mathematics is an essential effort in the field of education (Ristyani & Nurhayati, 2020). Interest in learning mathematics is an internal drive that encourages students to actively engage in the process of learning mathematics (Azmidar et al., 2017). High interest can enhance students' motivation, help them overcome learning obstacles, and lead to a better understanding of mathematical concepts.

Interest in learning mathematics is influenced by various factors, including previous experiences, perceptions of the subject, teaching quality, and the methods used in instruction (Vainikainen et al., 2015). One effective way to increase students' interest in learning mathematics is by creating an engaging, interactive, and relevant learning environment.

In creating an engaging learning environment, teachers can utilize various resources, including information technology-based learning media. These media can enrich students' learning experiences by presenting mathematical content in more captivating forms, such as animations, instructional videos, simulations, and mathematical games.

Furthermore, the use of active, collaborative, and problem-oriented teaching methods can also help enhance students' interest in learning mathematics. Students can become more actively involved in exploring mathematical concepts, engaging in discussions with peers, and seeking solutions to real-life mathematical problems.

In addition to the role of teachers, schools can play a significant role in increasing students' interest in learning mathematics. School support in the form of adequate facilities, teacher training, and innovative educational programs can contribute to creating a conducive environment for improving students' interest in mathematics.

Therefore, enhancing students' interest in learning mathematics is an ongoing effort aimed at improving their understanding, performance, and enthusiasm for this essential subject, which plays a crucial role in their academic development and future careers.

## 2.2 Information Technology Based Learning Media

Information Technology Based Learning Media is a tool or resource used in the education and learning process that integrates information technology (Puspitarini & Hanif, 2019). This media utilises technology such as computers, the internet, mobile devices and educational software to deliver educational material to students. Information Technology Based Learning Media can be in the form of text, images, audio, video, and animation.

One of the key features of Information Technology Based Learning Media is interactivity. Students can interact with this media, allowing them to control the pace of learning, explore content more deeply, and gauge their understanding through online exercises and assessments (Sholihin et al., 2020). It also allows students to access additional online learning resources, such as instructional videos, simulations and digital reference materials.

In addition, it can be used in a variety of educational settings, from traditional classrooms to distance learning, providing flexibility in delivering educational content and allowing students to access it anywhere and at any time that suits their needs.

The use of Information Technology Based Learning Media can increase student engagement, making learning more interesting and relevant. By utilising information technology, educators can present educational materials in a dynamic and interesting way, motivating students to learn more effectively.

In this digital era, Information Technology Based Learning Media has become an important component in the effort to improve the quality of education and provide a more valuable learning experience for students.

## 3. METHOD

This research uses a descriptive qualitative research method. Describing the use of information technology-based learning media in learning mathematics to attract and increase students' interest in learning. The author collected data using observation techniques, interviews and documentation studies. The author directly witnessed the process of learning mathematics in the classroom using information technology-based media during the observation. The author also dug deeper information by interviewing the teacher who taught the maths. To strengthen the data obtained through observations and interviews, the author also conducted a documentation study by collecting supporting documents about the material of this research (Sugiyono, 2013). The data that the author has collected is analysed by reducing, presenting and drawing conclusions (Miles et al., 2014).

## 4. RESULTS AND DISCUSSION

The development of technology in this era is very rapid. This development begins with the existence of network technology (internet) that connects millions of computers. In addition, Information Technology has also become a technology that is universal or in other words Information Technology can be used in various fields of human life, as well as in the field of education. Education

today is an education that has led to education supported by information technology (Suprpto, 2006). The use of information technology has now become a demand and an urgent need in the world of education.

Learning that does not use information technology will tend to make students' interest decline in following it, especially learning mathematics which tends to be considered difficult by students.

Based on the results of observations made by the author of the mathematics learning process carried out by teachers at Madrasah Tsanawiyah Negeri (MTsN) 11 Agam, it is clear that there are differences in the attitudes and behaviour of students in participating in mathematics learning using information technology and those who do not use information technology. Not all mathematics teachers use information technology media such as computers/laptops and infocus when teaching. Even teachers who use computers/laptops and infocus do not always use them.

From the author's observation, there is a striking difference in the attitude and enthusiasm of students in learning mathematics when teachers use information technology media compared to when teachers do not use information technology media. When the teacher teaches by using a laptop and showing the subject matter through the infocus screen, it can be seen that students are so enthusiastic about following it. Students look more focused on paying attention to the learning provided by the teacher. Especially if the teacher is more creative in making the learning media by using interesting images and sounds.

The attention of students who are more focused on paying attention and following learning activities, makes mathematics learning activities more interesting. Students respond more during the learning process. So that learning is not only centred on the teacher like learning in the past. Student activeness is only centred on the ongoing learning. Students who leave the class are rarely seen.

It is very different from the atmosphere of learning mathematics when the teacher teaches using only the blackboard and marker media, supported by the package book. Students look bored especially if the maths teacher only relies on the lecture method from start to finish. Various activities outside of learning activities appear to be carried out by students to relieve boredom. Telling stories with their classmates about something that is not the subject matter at hand.

Students' attention to learning mathematics is not as optimal as when the teacher only uses learning media that is not based on information technology. Students are less responsive in learning, so it seems that learning is only centred on the teacher. Students with various reasons for asking permission to leave the class in turn look more. Especially if the learning of mathematics is not done in the morning hours, so it adds to the boredom of students in participating in the lesson.

## 5. CONCLUSION

From the comparison of learning conditions when teachers use information technology-based mathematics learning media with not using it, it is clear that the use of information technology-based learning media in teaching can increase students' interest in learning mathematics at MTsN 11 Agam. This is indeed recognised and corroborated by several teachers who teach mathematics using information technology-based media. Therefore, it is expected that mathematics teachers should equip themselves and improve their competence in using information technology-based learning media, so that there is always an increase in students' interest in participating in mathematics learning.

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