ANALYZING THE IMPACT: EMERGING CLASSROOM TECHNOLOGIES AND THE EVIDENCE ON LEARNING

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1. INTRODUCTION

In this era of ongoing revolution, technology has become the main driving force for change in various sectors of life, and education is no exception. Technological modernization has had a significant impact on the teaching and learning process. Apart from providing wider access to information, technological modernization also creates more dynamic and adaptive teaching methods. Learning applications based on artificial intelligence and data analysis can create learning plans that are tailored to students’ level of understanding and individual needs. This creates a more personalized approach so that each student can progress at their own pace. With the integration of technology into the curriculum, learning no longer becomes a statistical process but becomes a unique journey for each learner.

Rapid changes in information and communication technology have opened up new opportunities in the world of education. Technological modernization has opened a new page in the teaching and learning process, changing the traditional paradigm into a learning environment that is more dynamic, interactive and globally connected. This
transformation creates an adaptive educational environment and leads to the evolution of teaching methods to make them more effective and relevant to current developments. In the modern era, driven by rapid technological advances, this has resulted in drastic changes in learning outcomes. Information and communication technology has had a striking impact along with the creation of various sophisticated tools and applications. Education is experiencing a paradigm shift that is not only changing how we access information, but also how we convey it and how students learn.

According to UNESCO (United Nations Educational, Scientific and Cultural Organization), technology has become a major force in opening the door to access to education throughout the world (UNESCO, 2021). The advent of smart devices, the internet and bold platforms forms the foundation for more dynamic and inclusive learning. Although technological modernization presents tremendous potential, it is also necessary to understand how this integration can have a positive impact and minimize potential challenges in the modern educational context. Technological modernization has been a key driver in revolutionizing education, opening the door to previously unimaginable innovations.

Technology is a whole means of providing goods necessary for the continuity and comfort of human life. Human use of technology begins with converting natural resources into simple tools. The use of platforms such as learning applications, and multimedia resources has changed how information is delivered and understood by students. The integration of technology in synchronization increases student engagement, enables more interactive learning, and prepares them for the challenges of the digital era. Technology has a role in education. It has an important role in learning as providing learning facilities. Technology has a role in education. It has an important role in learning as providing learning facilities.

Amidst all this, it is important to recognize that technological modernization brings challenges and ethical questions that require in-depth attention. Privacy rights, digital harmony, and the social psychological impact of children and adolescents need to be taken seriously. As we celebrate the potential of technology, we must also be critical of the social and moral impact of its use in education. This article will explain the impact of technological modernization on the teaching and learning process, dig deeper into how technological developments affect teacher and student interactions and form a new paradigm in education.

2. METHOD
The method used in this research is a quantitative method. Quantitative method is a research method that uses a lot of numbers. Quoted from the book Quantitative Research Methodology for Physical Education (2018) by Untung Nugroho, quantitative research is a type of research that is systematic, planned and structured. This data collection uses a questionnaire. The questionnaire was delivered to respondents, namely students of SMP Negeri 2 Yogyakarta. Questionnaires are a data collection technique known as a quantitative research instrument. According to Sugiyono (2017:142) a questionnaire is a data collection technique that is carried out by giving a collection of questions or written statements to respondents to answer.

The analysis stage of this research is designing an appropriate questionnaire. The questionnaire that had been designed was distributed online to students of SMP Negeri 2 Yogyakarta from initial to final level and 30 respondents were found with 10 respondents in each class. Respondents only gave answers such as strongly agree, quite agree, or disagree according to the questions the researcher asked. After collecting data using questionnaire techniques and selecting respondents, the data is then processed and analyzed to find strong conclusions.

3. RESULTS AND DISCUSSION
Education is a basic, planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, morals, life sciences, general knowledge and the skills they need for society based on the Law. Invite. The learning of knowledge, skills, and habits of a group of people that is passed from one generation to the next through teaching, training, or research. Education often occurs under the guidance of both biological parents and other people, but may also be autodidactic. The etymology of the word education itself comes from the Latin,
namely ducare (Educare), which means "to guide, direct, or lead" and the prefix e, which means "out". So, education means "leading outward" activities. Any experience that has a formative effect on the way people think, feel, or act can be considered education. Education is generally divided into stages such as education, elementary school, middle school, high school, and then college, university or apprenticeship.

In the world of education, technology is very necessary and has many benefits. Learning technology is an application or media that has been designed in a modern way and is used as theory and practice in learning, as a learning resource. Currently, the technology that is widely used in the world of education is information technology. Technology is considered to be able to facilitate the teaching and learning process for students.

The positive impacts of technology in the education sector are:

3.1. Can explore wider material

Students can explore learning material in more depth, and don't need to worry about having difficulty finding material sources. Students only need to search via Google and they will get a lot of knowledge. In fact, the internet provides a lot of learning media, not only Google, there are still other websites and other applications that students can use to study and search for material without limitations. Currently, we also provide online tutoring services to make the learning process easier for students to understand the learning material.

3.2. Provide varied learning media

In teaching and learning activities which generally only rely on reading books, after utilizing technology teachers are able to teach by providing varied and even more sophisticated learning media. For example, audio and video media displayed via computer, LCD screen, tablet or cellphone.

3.3. Means of obtaining information

From technology we can find it easy to get information. Often when doing assignments or getting material that is difficult to learn, students tend to look for it through the textbooks provided. However, now there is also another alternative, namely via Google thanks to advances in technology. With this, students can save time and have more time to explore other fields or knowledge.

3.4. Improved quality of education

Education is an opportunity to improve the quality of life. Technology can make the learning process easier and students can also increase their knowledge by exploring more and not just focusing on one source. If a teacher is able to use technology, the quality of education in Indonesia will be better.

3.5. Learning Activity Solutions

The use of technology has been proven to facilitate various tasks in education, and has even become a solution in e-learning activities which allows the transfer of knowledge to be carried out anywhere. With technology, information is increasingly quickly obtained and accessed for educational purposes. Then, the emergence of e-learning to support the ease of the education process can even make learning materials more interesting and interactive. Technology will develop much more quickly and rapidly in the field of education which will experience enormous benefits in changes in systems, techniques, and even the achievement of discoveries.

From the survey results, 95% of respondents said they agreed with the positive impact of technology in education, 3% answered that they disagreed, and the remaining 2% disagreed. It's true that not many people feel disadvantaged by technology, but sometimes we don't adapt to changes in increasingly modern times and some don't understand technology. Therefore, we need to familiarize ourselves with the use of technology and it is recommended to learn it from an early age.

Overall, the effect of technology in the field of learning creates a new paradigm that includes both challenges and opportunities. On the one hand, technological advances have enabled broader access to learning resources, increased interactivity, and made remote teaching possible. However, these changes also raise important questions about the balance between online learning and in-person learning experiences, and challenge the traditional role of teachers as classroom
leaders. Technological developments have opened the door to more adaptive and personalized learning, allowing students to access information in a way that suits their learning style. However, in realizing this progress, it needs to be recognized that challenges such as unequal access, data security issues, and lack of physical presence can negatively impact the learning experience.

4. CONCLUSION

Technology has enriched the learning experience by facilitating access to a wider range of verified online educational resources, interactive materials, and learning aids that support diverse learning styles. The use of technology has also had a positive impact on student engagement. It can be concluded that technology has a positive impact on the field of education and as time goes by it will continue to develop. Technology also really helps our daily lives (not just students). We can see the effect of technology that makes it easier to access the latest information and news. Therefore, information technology is very important and much needed.

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