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# IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN MOTOR LEARNING DURING THE COVID-19 PANDEMIC

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## ABSTRACT

During the Covid-19 epidemic, researchers wanted to see how information technology and telecommunications affected motor learning. Using the purposive sampling methodology, researchers selected 2284 individuals from a population of high school students. The findings revealed that the use of technology could aid the online learning of motoric movements. With a high percentage value of 36.43 per cent, motoric learning discussions used media types in Whatsapp Groups, followed by Google Classroom 28.06 per cent and Edmodo 15.63 per cent.

Audiovisuals in videos that can be accessed via the Youtube application at 30.30 per cent, followed by Facebook at 23.86 per cent, and Tik Tok at 14.05 per cent can be used to give motor learning resources and examples of motor movement learning practices. The type of media in the form of Google Form is the most widely used media for evaluation and motoric assessment. This aims to determine students' understanding of the material that the physical education teacher has delivered during online learning, with 31.09 per cent, Quizizz 24.43 per cent, and Testmoz 21.41 per cent.

One method that physical education teachers and students can participate in the learning process is through technology. Physical Education teachers can carry out learning process activities using the Whatsapp Group, which is very easy to apply to motoric learning by students. A physical education instructor can use the current technology to create motion videos that pupils can emulate using YouTube material. Teachers of physical education evaluate utilizing the google form media type since it is trendy and straightforward, resulting in a highly successful evaluation.

**Keywords:** *Physical Education, Technology, Motor Learning*

## INTRODUCTION

The education system is a very important aspect of human life (Harahap, 2018). Especially in these conditions, science and technology are needed to acquire knowledge. Of course, in developing a science, one of them is through the educational process. The process of developing knowledge will never be separated by education actors, namely teachers and students. Therefore, humans need to think logically in improving their knowledge. Education can be done anywhere and anytime. The implementation also always undergoes a change from time to time following the times. Education must be adapted to the needs of the times. Indonesia was hit by a disaster that impacted the learning process, which required the transformation of offline learning into an online system. There are problems in conveying the learning process.

The learning challenge in the 21st century emphasizes that a teacher must be understood in technology literate (Berawi, 2020). Especially with the covid epidemic, the scope of education has felt a tremendous impact due to the long holiday. There are very influential on the application and in formulating learning strategies. Information and communication technology is a system development by combining computer and telecommunication technology (Purnasari, 2020). That becomes a tool that can help a teacher in carrying out the teaching and learning process. Demands for human resources who can respond to developments in science and technology are urgently needed to create a pleasant atmosphere and eliminate boredom in students.

Information technology is developing quickly, which allows learning problems in Indonesia also to develop. One of the subjects that students must take is physical education. These subjects can entertain children and train children's motor skills (Latash., 2015). Therefore it is essential in learning related motion material to improve the quality of children's movement both physically and psychologically. Changing learning to an online system does not rule out the possibility of students being unable to practice directly (Ida Stockman, 2004). However, technology can support this gap, and

students can practice at home without coming to school. We can use technology as a means of maximizing the learning process with an online system.

## METHOD

In this study, researchers used a qualitative research approach, simple random sampling is used in this study. Data is collected through a questionnaire using the Google Form application. data sources come from high schools (SMAN, SMKN, MAN, SMA, SMK, MA). The data will be tabulated, and then analyzed using descriptive statistics.

## RESULTS AND DISCUSSION

### Utilization of technology in teaching and learning

Telecommunications and information technologies have radically altered human life. The existence of these alterations affects more than just human perceptions. Rather, it alters the way people think about information and allows them to increase their understanding (Testiani Makmur., 2019). Nothing but a teacher is necessary to think ahead in the learning process to inspire innovation. As a result, the current findings differ from the prior ones. The amount to which a teacher carries out the planning determines the effectiveness of a lesson.

Planning is a supplement to the curriculum, but it must be done as part of a larger process that includes multiple instructional design elements. The use of technology has a tremendous impact on the learning process. One of them is a teacher who, at first, uses technology to the amount that it is essential. Still, all activities in the online learning process must employ technology. Technology is merely a means to an end. As a result, technology will be useless without someone who can apply it. Of course, if a teacher wishes to achieve different results than previously, the most recent step is for the instructor to adjust his or her approach to imparting learning information.

Technology advancements in the sphere of knowledge have no bearing on the realm

of education (Mohammed Ali Berawi, 2020). Specifically, the growth of various sources of learning based on bravery, such as libraries, and even the daring conduct of conversations in the teaching and learning process. This serves no other purpose than to improve the quality of education. The revamp of social/virtual media represents a huge opportunity for education to fulfil its full potential. It has become a new challenge for a teacher to see the uniqueness and possessions of children due to the usage of technology. As a result, in this digital age, teachers must be able to link learning objectives with student development.

### **The importance of motor movement**

Motor development can be defined as the maturation of the ability to control body motions using the brain as the centre of motion (Reuchitra, 2018). Information processing systems relate to all of these brain functions. Information processing can be viewed as a system that can be used to explain how humans think and act, both intentionally and unintentionally.

Starting with the cognitive, emotional, and psychomotor elements, each person can improve their talents. As a result, two elements, namely growth and development, might influence the development of motor abilities; control of body movements and maturity, which encompasses social characteristics, morals, and personality, indicators of a person's maturation. Learning about motor control, in general, can be used to demonstrate the existence of a motor ability that is the same as an action (Jasmeet Kaur, 2017). Gathering accurate information can be used to gain knowledge. However, discovering this motor growth necessitates a meticulous observation process, necessitating the invention of a method to measure the feasibility of performing motor skills.

The development of a person's motor skills is critical to his or her overall development. Human development frequently undergoes a transformation that is out of sync with the rest of the development process. As a result, there are three techniques to study motor development:

longitudinal studies, cross-section studies, and mixed longitudinal studies (Henry Joe Tucker, 2017). The motor development process will undoubtedly vary over time. If a person's motor development progresses smoothly, it will undoubtedly impact his or her physical and psychological well-being. Similarly, poor motor development makes someone feel inadequate when performing things that aren't optimal.

### **The impact of the covid pandemic**

The covid epidemic has caused changes in all countries, one of which is Indonesia. In terms of direct interaction, humans are constrained. All activities that were previously performed outside the home were required to be completed in the home. This isn't good for the community. However, this is an unavoidable calamity that we must accept. Indeed, the covid pandemic does not show daily drop-in cases, but it does indicate an increasing number of new cases every day. The covid epidemic has presented new obstacles for diverse countries to overcome (Zaheer Allam, 2020). This means that the government must be able to respond quickly and work to prevent and slow the spread of the virus.

The government always encourages citizens to continue their activities at home. These measures are aimed at interrupting the virus's existing cycle of dissemination. Online learning does not rule out the possibility of becoming a worthwhile experience for students. This is because pupils are unable to connect directly with one another, but they still receive an education. Every situation, including this pandemic, must have a good and negative side. If viewed positively, it will make a fresh contribution to the advancement of science.

The advancement of existing technology is a means of getting information so that humans do not fall behind other countries in terms of technological advancement. When seen negatively, however, learning transformation causes students and teachers to become perplexed. Because it appears that there is something fresh in the learning process, a teacher must have creations and reconsider



the model or technique that will be utilized in carrying out teaching and learning activities. This epidemic is not a problem of pupils being unable to carry out teaching and learning activities because they cannot choose the right media in aligning the information to be taught. However, this pandemic has motivated humanity to appreciate the value of science to the point where instructors and students are expected to be knowledgeable in technology.

The community benefits greatly from the usage of technology. One of them works in the educational field. Activities involving the teaching and learning process that are carried out online unquestionably necessitate careful planning. This is due to the fact that the current learning process differs from the previous learning process. Data from the field indicates that students' knowledge levels are improving. Internal and external circumstances, of course, have an impact. Parents should always be present when their children are learning at home. Because while parents are at home, they play a part in filling the teacher's shoes.

When pupils are enthusiastic about learning, it is more likely that they will succeed. Students can only study or receive knowledge through virtual media employed by the teacher, especially in such circumstances. However, this learning transformation teaches teachers and students how to use internet media, which can help boost learning without sacrificing learning materials. E-learning, zoom apps, Google Classroom, YouTube, Google Form, Edmodo, SEVIMA Edlink, Moodle, Quipper, Brainly, and Whatsapp social media are only some media formats can be utilized to offer learning content. These resources can be utilized to supplement classroom learning in the most effective way possible. As a result, indirectly, teachers' and students' knowledge and talents in the field of technology would improve. This study looked into how technology may be used to aid in the online learning of motor motions. SMAN, SMKN, MAN, SMA, SMK, and MA were among the 2284 students studied at the high school level. In the figure below, you can see the graph.

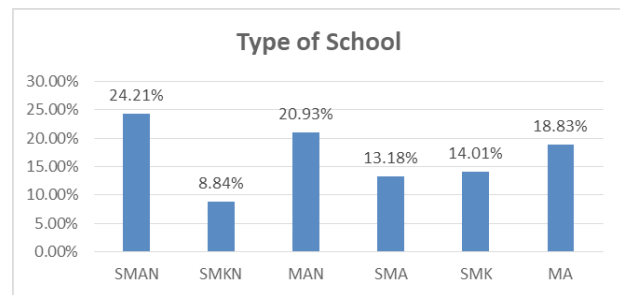


Figure 1.1 Type of School

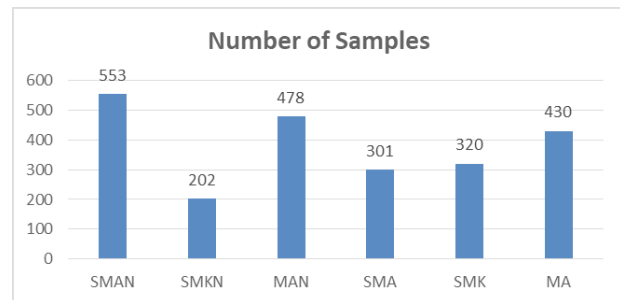


Figure 1.2. Number of Samples

One method teachers and students can participate in the learning process are through the use of technology. The media used ranges from Whatsapp Groups to Google Classrooms, Edmodo, SEVIMA Edlink, Moodle, Quipper, Brainly, and other platforms. Teachers and students will, of course, gain a better understanding of technology as a result of this. As a result, a teacher must deliver something new to students to pique their interest.

The usage of varied media allows a teacher to understand the several forms of successful media that may be used to promote learning. The existence of student responses to the media used can attest to this. It is known that the use of media with the Whatsapp Group type is more appealing to students than other types of media, based on the findings of data collected through surveys or closed inquiries. On the other hand, the media is simply employed to draw students' attention in following the learning process carried out with an online system. So that students and parents who accompany their children when they study at home have an easier time acquiring information from the teacher via these media. The graph depicting media usage is shown below.

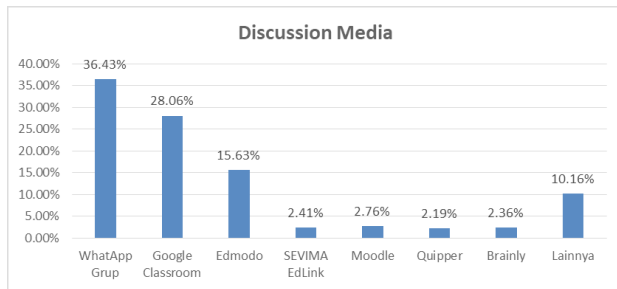


Figure 1.3 Discussion Media

Students will be unable to apply the learning material supplied by the teacher directly if they are learning through an online method. Furthermore, this content necessitates direct practice in order for pupils to comprehend the material to be provided. Motion learning is a crucial component of a child’s development, particularly in terms of motor skills. One of the things that can affect the development process in motion. The availability of easy workouts can aid in the growth of a youngster.

Learning through an online system makes it very easy for students to enhance their motor skills since they may benefit from technology that may help learn to the fullest extent possible. Students benefit from the development of this type of technology since it allows them to practice the subject taught by the teacher. A teacher, on the other hand, must have a motivation to improve the learning process. Making a learning movie linked to the material offered, particularly those relating to the motor, is one approach to accomplish this. Knowing how to use the motor necessitates practice. As a result, teachers can use technology to practice at home without having to go to school.

The findings revealed that YouTube material piqued children’s curiosity as a medium. Before the transition from an offline to an online learning system, most youngsters enjoyed watching YouTube videos. The movements can be represented through a film, and the students can well duplicate them in their different homes, making this one of the options for a teacher to develop the motor skills of children’s emotions. The information gathered through the distribution of questionnaires is depicted in the graphic below.

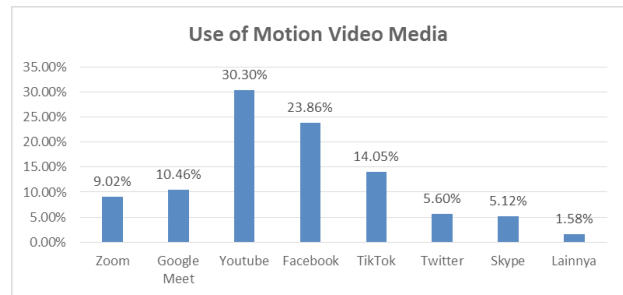


Figure 1.4 Use of Motion Video Media

Evaluation in the learning process is very important to find out how students understand the material presented by the teacher. The assessment process must cover three aspects: cognitive, affective, and psychomotor aspects. In learning motoric movements, the psychomotor elements can be assessed by the existence of practice so that the teacher can find out whether students do the practice or not. So that student is asked by the teacher to send a video related to motor learning delivered by the teacher with individual practice forms.

Meanwhile, the assessment in the cognitive and affective aspects of the teacher used the type of media, namely Google Form. The data results in the field show that the assessment carried out via Google Form effectively supports the learning process carried out online. The data obtained from the field can be seen in the image below.

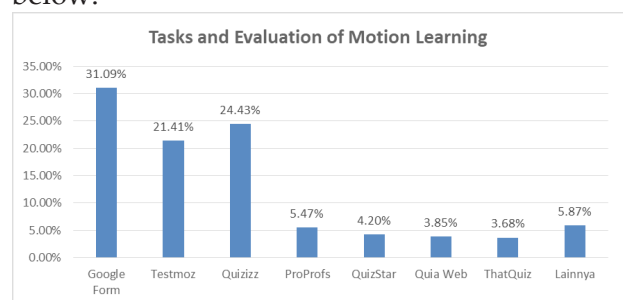


Figure 1.5 Tasks and Evaluation of Motion Learning

## CONCLUSION

Humans can use technology as a tool. The problems that exist in this era of disruption necessitate that all humans be technologically educated. Technology is evolving at a breakneck speed. As a result, it does not rule out the potential of learning. Adjusting the types of media that can be used in online learning is surely a novel experience for a teacher.

Even if the learning is done in their own houses, teaching and learning process activities can still be carried out. So that students can spend their free time at home to research unfamiliar facts via the internet. One of the most crucial aspects is motor movement learning. This type of learning is crucial for a child's development. We can deduce that a child's higher motor development suggests that his or her physical health is in good shape. It can more correctly analyze a movement, especially at this time, to promote maximum development and growth.

The existence of offline learning transitions into online learning surely alters the offline learning process. According to the findings of the research, a teacher's process of teaching and learning activities in the usage of discussion media employs a type of media in the form of a Whatsapp Group, which has a high percentage value of 36.43 per cent. The employment of this form of media in the learning process can be considered to draw students' attention.

Students can learn motor movement in the context of a practice that they can replicate. As a result, a teacher used current technology in this study by creating motion videos that students could emulate using YouTube material. With a percentage value of 30.30 per cent, this media is also very appealing to kids in terms of helping the learning process, which is highly high compared to other media kinds. Evaluation is critical in the teaching and learning process to determine how well pupils comprehend the material delivered by the teacher. As a result, the teacher analyzes online learning using the Google Form media type. It is well known that supporting the learning process online is quite effective, with a percentage level of 31.09 per cent, which is very high compared to other evaluation methods.

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