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Online Learning Using Audio-visual for Elementary School Students during the Covid-19 Pandemic

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A B S T R A C T S

The COVID-19 pandemic has greatly affected the world of education, where all schools for all levels were closed. This causes learning to take place online or full study at home. Various efforts were made to attract students' interest in learning, one of the efforts made by the teacher was to make learning videos with the aim of students being able to understand the lessons. The purpose of this study is to find out how online learning using audio-visual media can influence students to increase interest in learning. The subject taken in this study were elementary schools' students from Bandung, Indonesia. The data collection technique uses a questionnaire that will be distributed by us to students, this questionnaire must be filled out before the research begins and after the research is carried out or pre-test and post-test. The result of the research show that the average of post-test score of students is 88% greater than the average pre-test score of 67% so the difference is 21%. The conclusion of this study is there is a good influence in video learning and also shows positive results on student learning outcomes.

A R T I C L E   I N F O

1. INTRODUCTION

In 2019, precisely in December in Wuhan, Hubei province, China, an outbreak identified by WHO as severe acute respiratory syndrome was named COVID-19 (Helmy *et al*., 2020). This pandemic is a problem that has caused more than 200 countries in the world including Indonesia to suppress the spread by holding a lock down, improving health services including the availability of personal protective equipment (PPE) and notification of Stay-at-Home. Indonesia itself has been heavily affected by COVID-19 with a case fatality rate (CFR) of 8.9% at the end of March 2020 (Setiati & Azwar, 2020).

In March 2020 COVID-19 was identified as a global pandemic that has a negative impact on everyone in the world, for example, mental health which is accompanied by stress (Horesh & Brown, 2020). The literature on the PubMed database relating to mental health suggests that self-reported symptoms of anxiety and depression (16-28%) and stress (8%) are common psychological reactions to the COVID-19 pandemic, and may be associated with sleep disturbances (Rajkumar, 2020). The worst impact of mental health is extraordinary stress such as isolation, unemployment, and death (Shader, 2020).

The current reality with the COVID-19 pandemic encouraged all education sectors to conduct online learning, even with positive academic results but students reported increased stress, anxiety and also difficulty concentrating because they were not used to it (Lemay *et al*., 2021). To overcome students difficulties in learning in this pandemic condition that does not support students to learn in an attractive way, teachers can provide learning media in the form of audio-visuals that can support the learning process effectively and are also interesting for students, for students who have poor memory skills because audio visual can be the right solution (Karlina & Setiyadi, 2019). For this reason, our goal is to provide interesting audio-visual learning media in order to improve student concentration and learning outcomes (Kafah *et al*., 2020).

The problem of this pandemic is very influential on the world, especially in the field of education, and we never know when this pandemic will end nor when offline schools will restart. In this case, schools of all levels will always be online and children will study fully at home. So, we think audio-visual learning will help students better understand the lesson and help teachers to convey learning in this more engaging and helpful way.

2. THEORETICAL FRAMEWORK
2.1. Covid-19

The COVID-19 pandemic began with the reporting of an outbreak in Wuhan, Hubei province, China in December 2019 to be exact at the Huanan Seafood Wholesale Market which was identified by WHO as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), resulting in a disease called the disease. Coronavirus-2019 (COVID-19) which is closely related (96.3%) to the bat coronavirus RaTG13 (Helmy *et al*., 2020). With the rapid acceleration of transmission, and the lack of preparedness to treat and prevent this virus, covid-19 was quickly marked as a global pandemic in March 2020 (Horesh & Brown, 2020). More than 200 countries in the world are struggling with a pandemic known as Covid-19, Indonesia is also a country that is struggling with a case fatality rate (CFR) of 8.9% at the end of March 2020 (Setiati & Azwar, 2020). This health crisis already has more than 720.000 cases and 33.000 deaths (Rajkumar, 2020).

2.2. Online Schools

Similar to disasters, school buildings cannot be used in this pandemic era for students to carry out knowledge which requires every school to be applied in online schools because students are prohibited from crowding and interacting with each other directly, the school must also provide school services and immediate and ongoing support in this pandemic era so that schools can operate optimally (Rush *et al*., 2014). In 2020, there are already around 188 countries in the world who have no other choice but to suspend the education process in their country because of the Covid-19 pandemic, this is the beginning of the implementation of the distance learning process or commonly called a brave school that can be delivered by teachers through a supported platform. governments such as online school portals as well as Microsoft teams as well as alternatives such as Zoom, Slack and Google Meet (Basilaia & Kvavadze, 2020). Indonesia developed a bold-based learning program during the Covid-19 pandemic that started at home, which was broadly determined by the readiness of technology in accordance with the curriculum, support and cooperation from all parties, namely the government, schools, teachers, parents, and the community itself (Rasmitadila *et al*., 2020).

2.3. Audio-visual Learning

The effect of media such as text, video or video subtitles on student learning outcomes, whereas in previous studies there were concerns about the effectiveness of online video learning and the results of the study confirmed the equivalence of all conditions in direct understanding, but it has a weakness for deep understanding (KyoungwonSeo *et al*., 2021). Audio-visual media is a medium for delivering messages or information that can display images and sound simultaneously (Budiarti & Tantri, 2020). Learning by using video is more strategic and adaptive and helps students easily find important information in the video, especially on exam week students re-watch the videos they watched before and show positive results (Tarchi *et al*., 2021). As a medium for distributing messages and information in learning, well-designed audio-visual media will help with learning objectives and can optimize the learning materials (Fuady & Mutalib, 2018).

3. METHODS

This study uses a quantitative descriptive study design. The data collection technique uses a questionnaire that will be distributed by us to 10 students of Bianglala Elementary School Indonesia. This questionnaire must be filled out before the research begins and after the research is carried out or pre-test and post-test with Google Form with multiple choices. The questions in the questionnaire relate to learning videos which will then be processed into a table. Then using a literature review technique is a research conducted by researchers by collecting a number of sources related to the problem and research objectives. This technique is carried out with the aim of revealing various theories that are relevant to the problems being faced/researched as reference material in the discussion of research results. Literature reviews can be carried out from several sources, such as national and international journals.

Evaluation using pre-test/post-test is a recommended assessment tool to use because it is a concise and effective direct evaluation that produces a reasonable dialogue to improve student learning (Chabot *et al*., 2014). Data collection was done quantitatively with a questionnaire used for pre-post testing (Daif-Allah & Aljumah, 2020). Pre-test results show that there is a lack of education in sports learning. After being shown a learning video and

given a post-test questionnaire, the students were able to answer the questions in the questionnaire correctly. This shows that there is an influence from online learning videos.

4. RESULTS AND DISCUSSION
4.1. Students Demography

This research was conducted in an elementary school in Bandung, Indonesia. The first step in this research is to conduct an interview with the principal about the class that will be used as the research sample. We chose a sample from the population and obtained as many as 10 students with details of men as much as 50% (5 students) and women as many as 50% (5 students). It can be seen that they have good communication skills, it can be seen from how they communicate with each other and also with us. Academically they have almost the same score so they are also academically equivalent. They also seemed enthusiastic when they found out that we would provide videos for their audio-visual learning media. Since sports lessons have a lot of physical activities in them that students should do together on the school grounds and with direct supervision from teachers and students this learning is completely online based, so we thought it was perfect for our sample.

4.2. Phenomena in the Learning Process

Judging from the data of each student, it can be seen that there are some differences that distinguish one student from another, especially in sports lessons. This is an interesting thing for us because here we can see how students view sports lessons after we provide learning through audio-visual media.
The learning stages carried out as follows:
(i)   In the first session the students did not seem too interested in what we had to say
(ii)   In the second session the students became interested when we said that we would provide them with additional learning media apart from books and online meeting applications, namely audio-visual media.
(iii)   When the students were given audio-visual learning media, it seemed that they were very interested in the way they watched the video carefully
(iv)   After the test ended and the audio-visual learning media had been given, it was seen that the students liked the learning media and they actively asked what media they could use to learn the lesson if they did not understand what their teacher explained, not only the lesson. sports but other subjects.

The results of this study prove that learning with audio-visual media can be used by teachers because audio-visual media can attract greater interest from elementary school students and they can learn enthusiastically in this pandemic condition even though they study online.

4.3. Analysis of Research Data

In this study, data were obtained from the results of the pre-test and post-test with a questionnaire regarding students' understanding of the process of learning sports in elementary schools. Moreover, these students are not provided with textbooks by the school so they purely only get sports lessons through online teacher explanations.

From **Table 1**, we can see that in the pre-test questions students still do not fully understand online sports learning which can only be obtained from other sources such as Google, YouTube, and other kind of sources also indirect explanations from the teacher. And in the post-test questions we can see that they starting to gain some interest on studying on

them on by learning from other sources, in this case they also more actively ask their teacher about what they learn by their own.

Table 1. Students pre-test and post-test result.

Number	Questions	Pre-test	Post-test	Gain
1.	Do you like to read?	70%	80%	10%
2.	Does the school provide sports textbooks?	0%	0%	0%
3.	Apart from sports books given from school, do you use other sources to learn about sports?	30%	70%	40%
4.	Is it just by reading, you can immediately understand the lessons?	60%	70%	10%
5.	Is it difficult to understand sport lessons by learning online?	80%	70%	-10%
6.	After reading a sports book, what you have to do before you exercise?	65%	90%	25%
7.	What should you wear when you exercise?	50%	80%	30%
8.	What kind of footwear should you use for exercise?	90%	100%	10%
9.	After exercising what should we do?	50%	100%	50%
10.	Is learning by using video more understandable?	75%	100%	15%

The result shows several discussion points:

(i)   For question number 1 shows that on the pre-test 70% of the students like to read and it gain 10% after the treatment

(ii)   For question number 2 shows that students are not provided by the school a textbook for sports lessons

(iii)   For question number 3 shows only 30% of the entire sample studied sports lessons other than the books provided by the school on the pre-test and in the post-test shows that they have studied sports lessons using other sources other than textbooks provided by the school.

(iv)   For question number 4 shows that on the pre-test not all student can immediately understand the lesson just by reading it, they for sure need their teachers help to explained but when they know that they can study by themselves with the help of audio-visual media they independently learn on their own about things they do not understand

(v)   For question number 5 shows that the student find it difficult to learn online, especially on sports lesson when they have to meet each other face to face, not only with friends but with the teacher because especially in sports lessons there are movements that must be carried out perfectly, therefore direct supervision from the teacher is needed in order to avoid movement errors that will cause injuries in the future

(vi)   For question number 6 shows that 65% of the students did not know what they had to do before they exercise

(vii)   For question number 7 shows that 50% students did not know what kind of clothing they had to wear for exercising. This usually happens when the students are taking a break and see other class children exercising and they want to join in playing ball without wearing their proper clothes.

(viii) For question number 8 shows that the students know what kind of footwear they have to use

(ix)   For question number 9 we asked basic questions about sports which proved that they also still lacked information about this.

(x)   For question number 10 shows that all samples answered that learning using audio-visual media could be understood well by them.

The results of the post test showed that after the students were given audio-visual learning, the sample was able to answer the questions better than before, namely the pre-test. This is a testament to the progress resulting from audio-visual learning which causes students to have a greater desire to learn things they don't understand by searching for audio-visual sources for example on YouTube or other media sources and watching them to better understand what they don't understand when the teacher explains in online school classes begins.

Learning that applies audio-visual media is proven to be effective because in addition to audio-visual media, it can combine several components into one, namely images, video and sound, audio-visual media are also able to increase students' interest and strengthen their understanding of the material presented (Cendra *et al.*, 2019). This shows that audio-visual learning can be applied by sports teachers in elementary schools. This method can also help students learn learning little by little slowly and surely by delivering information that shows images and sounds simultaneously (Aiinun & Wijanarko, 2018).

4. CONCLUSION

The conclusion of this study is from the research that has been reviewed there is a good influence in video learning and also shows positive results on student learning outcomes although there are still shortcomings, namely increased stress, anxiety and also difficulty concentrating. Online video learning can also be a good choice to do in learning because it is driven by the pandemic situation that has not improved, students will not feel bored with the same learning media. As well as the results of research examined on elementary school students showed positive results where interesting audio-visual learning could be better understood by these students.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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