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Digital Readiness in Physical Education and Sports Health Learning: Study at Elementary School, Yogyakarta

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Abstract: Existing technological developments require all fields to be able to adjust to conditions in terms of technology. Several studies related to the use of technology during the COVID-19 pandemic in Indonesia show the unpreparedness of educators to adapt to emergency conditions that demand the use of online and hybrid learning, especially in PJOK subjects. Based on this, the researcher aims to determine the pattern of distance learning carried out by Physical Health and Sports Education teachers in elementary schools in Yogyakarta. Sequential explanatory design is used with quantitative and qualitative research approaches that are carried out sequentially. This research aims to analyze the need to develop learning media that can be used online, offline and blended learning. The analysis of existing learning patterns shows that most teachers have met the standards of distance learning implementation. However, learning media development on certain materials still needs to be done to support each material delivery activity carried out by the teacher. The survey results show that most teachers still use teaching materials in print or electronic form and existing learning videos. The results of in-depth interviews indicate that there is still a need to develop learning media on athletic activities, self-defence, physical fitness development activities, gymnastics, rhythmic motion, water activities, personal safety, and a healthy lifestyle. With the results of this analysis, it is hoped that it can provide ideas and inspiration for further research in developing learning media, especially Physical Health and Sports Education in elementary schools so that educational goals towards the era of society 5.0 involve various technological developments can be achieved optimally both in emergency and normal conditions.

Keywords: distance learning, physical health and sports education, primary school, pandemic Covid-19

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Introduction

The COVID-19 pandemic that has hit various countries worldwide has changed Indonesia's education system paradigm. The paradigm shift is based on the policy issued by the government regarding learning activities from home through the distance education system (Kemendikbud, 2020). Distance learning policies emphasize principles: 1) the safety and health of students, teachers, school principals, and all citizens are the main considerations in distance learning; 2) Distance learning activities are carried out to provide meaningful learning experiences for students without being burdened by the demands of completing all curriculum achievements; 3) Focus on life skills education during the COVID-19 pandemic; 4) inclusive learning materials according to age and level of education, cultural context, character, and type of interest of students; 5) Activities and assignments during distance learning may vary between regions, schools, and students according to their respective interests and conditions, including the gap in access to distance learning facilities; 6) Feedback on student learning outcomes is qualitative and useful for teachers without providing quantitative scores/values; 7) Promote positive interaction and communication patterns between teachers and parents/guardians (Mujinem et al., 2021).

Distance learning can be implemented online, offline, and through blended learning (Wuryandani et al., 2021). Teachers can use gadgets or laptops through several portals and online learning applications for online activities. While distance learning is offline, teachers can use television, radio, self-study modules, worksheets, printed teaching materials, teaching aids, and learning media from objects in the surrounding environment (Purnomo & Herwin, 2021). In practice, the teacher must develop a distance learning implementation plan by ensuring each learning competency is achieved without forcing the completion of the curriculum. The focus of learning is on life skills education and the preparation of learning materials. In the implementation of distance learning, the material can be focused on; 1) literacy, 2) prevention and handling of the COVID-19 pandemic; 3) clean and healthy lifestyle (PHBS); 4) recreational activities and physical activities; 5) religious spirituality; 6) strengthening of character and culture (Gusty et al., 2020). A teacher needs to increase their capacity by participating in online training organized by the government and non-government institutions to support skills in conducting distance learning during the COVID-19 emergency.

Meanwhile, practical subjects such as physical education, sports, and health must adapt to the circumstances that have their challenges. In physical education, sports and health, for example, teachers must be able to improve the level of fitness, motor skills, and values that include students' cognitive, affective, and social aspects so that the subject matter must be carefully reorganized to get a learning experience (Petrie & Clarkin-Phillips, 2018). So far, learning patterns have impacted learning that emphasizes students' cognitive level. According to a recent study, distance learning has several impacts on students: learning that still confuses students; students become passive, less creative, and productive; the accumulation of information/concepts on students is of less value; stressed students (Argaheni, 2020). Further efforts are needed to develop models, media, and teaching materials to support every school learning activity, especially practical subjects.

Another study found that the only part of the learning was following the lesson plans (Putra, 2020). 100% of the assessments were based on assignments and exams, 83.3% of teachers said that online learning assessments were inadequate, and 50% of the obstacles in learning Physical Health and Sports Education online are difficulties accessing the internet. Thus, the advantages of online learning identified in other studies appear to diminish in value, while the disadvantages become more pronounced (Firmansyah et al., 2022). The hierarchy of problems that arise in online learning is changing in the crisis caused by the pandemic.

From the research results above, it can be interpreted that weaknesses in distance learning are still often encountered because of the limitations of various things, especially technically and understanding of human resources related to technology management. Technical issues are the most important, followed by teachers' lack of technical skills and their teaching styles that are not adequately adapted to the online environment. However, the last place students give is a lack of teacher interaction or poor communication. Based on these findings, research implications for universities and researchers are discussed.

According to online media sources, distance learning triggers students to drop out. They do not have the tools to support learning activities and cannot afford the internet quota. So the children, for months, did not take distance learning, so they decided to work and get married (Hermanto & Srimulyani, 2021). Another problem from the student's point of view arises when they find it difficult to concentrate on studying from home, and there are also complaints that the teacher's task is too heavy (Gaeta et al., 2021). Then, the increased student stress becomes a problem because it is prolonged. In junior high school students, there were cases of suicide that arose because of the many assignments. Not because students are lazy to study but because they have difficulty doing work from school. Meanwhile, parents could not help much with the assigned tasks. On the other hand, many parents are stressed because they feel busy helping their children follow lessons and do assignments (Tao et al., 2019).

This pandemic should be an opportunity for us to seek and build efforts to rearrange schools to prepare better for crises. In addition, we also need to jointly formulate concrete steps when facing the new normal situation after this pandemic. One concrete step is to analyze the learning process before evaluating the practice of learning sports subjects in elementary schools. Based on several studies on learning Physical Health and Sports Education, the researchers tried to find the learning pattern carried out by teachers in Yogyakarta. The results of this study are used as an initial analysis in developing several learning media that can support online, offline, and blended learning.

Methods

The method used in this study is a mixed method that combines quantitative and qualitative methodologies to obtain more comprehensive, valid, reliable and objective data. In this study, the researcher used a sequential explanatory design. Sequential explanatory design is a combination research method that combines quantitative and qualitative research sequentially, wherein the first stage, the study is carried out using quantitative methods, which are then used qualitative methods. A cross-sectional survey was used to find temporary problems by collecting quantitative data, and interviews were used to collect qualitative data in depth.

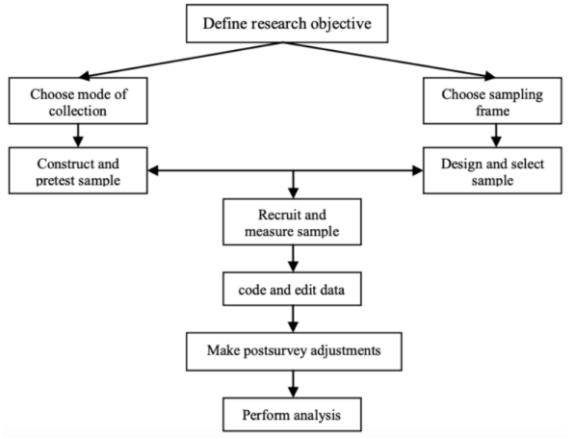

Figure 1. Research design cross-sectional survey

The survey and interview instruments were developed based on theoretical studies of distance learning and learning characteristics of Physical Health and Sports Education and then validated by the panellists. The construct validity test by the panellists used the Lawshe formula. CVR is a content validation approach to determine the suitability of items with the domain measured based on the panellists' assessment. The CVR formula is as follows.

$$\text{CVR} = \frac{M_p - \frac{M}{2}}{\frac{M}{2}} = \frac{2MP}{M} - 1$$

Where:

CVR = Content Validity Ratio (content validation index)
M = many experts checking
Mp = many experts who say it fits

The data in this study were collected through a survey conducted by teachers of Physical Health and Sports Education in elementary schools in Yogyakarta City. The survey results were then analyzed, and ten teachers were selected to conduct online interviews. Survey data analysis was carried out using a quantitative description approach, while the results of the interviews were analyzed using a qualitative descriptive analysis by Miles and Huberman (Miles et al., 2014).

Results and Discussion

The survey results online collected data from as many as 192 respondents of Physical Health and Sports Education teachers in elementary schools from 5 provinces in DI Yogyakarta, with the highest data distribution of 62.9% in the city of Yogyakarta. Analysis of the dimensions of learning planning conducted by teachers shows that 37.5% of teachers have developed knowledge, attitudes, and skills indicators at the beginning of the semester through group discussion forums, at least at the sub-district level during the pandemic. Meanwhile, 15.6% of teachers used the same knowledge, attitudes, and skills indicators before the pandemic. It shows that teachers still used competency achievements before the

COVID-19 pandemic. Some teachers adjust learning competencies to existing conditions with/without the understanding of the principal independently during the pandemic.

Table 1. The implementation and evaluation of learning for elementary school teachers of physical health and sports education

No.	Aspect	%
1.	Parental involvement	58
2.	Technology Utilization	51
3.	Application of healthy living	70
4.	Affective and psychomotor aspects	90
5.	Daily learning monitoring	71
6.	Feedback on the work/student assignments/learning experience reflection sheets	94

Figure 2 shows a graph of the planning of learning material competency achievements carried out by Physical Health and Sports Education teachers during the COVID-19 pandemic. The graph shows that the average competency achievement of Physical Health and Sports Education learning materials designed by teachers emphasizes aspects of maintaining personal hygiene and students' healthy lifestyles, steps to overcome and prevent the spread of the COVID-19 virus, emphasis on physical activity, and physical literacy.

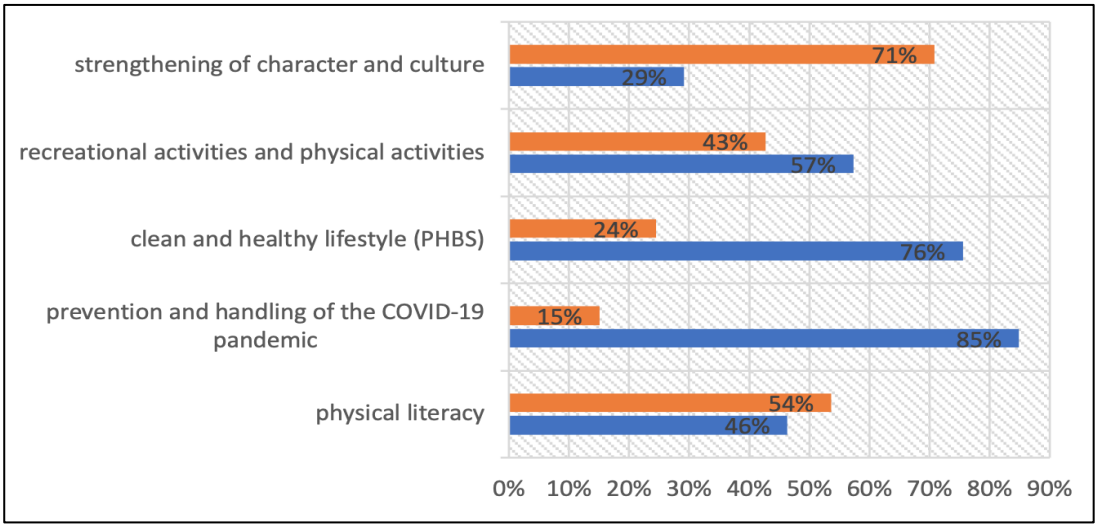

Figure 2. Physical health and sports education (pjok) learning material

Regarding the learning model in Physical Health and Sports Education, teachers applied it during the COVID pandemic; 53% of teachers used the blended learning method, 16% used offline learning, and 31% used online learning. Meanwhile, in terms of the media used in delivering learning materials, as many as 28% of teachers use video media, 16% of teachers use printed media that is given every week, 23% of teachers use electronic media, and 33% of teachers use a combination of all of them. During the COVID- 19 pandemic, the average teacher participated in online training activities provided by several formal and non-formal educational institutions in Indonesia.

In practice, the learning of Physical Health and Sports Education conducted by elementary school teachers in the D.I. Yogyakarta has involved the role of parents, technology, application of healthy living, and emphasis on students' affective and psychomotor abilities through various learning activities carried out. Meanwhile, the teacher's evaluation form is by the evaluation standards for implementing distance learning. The results of the analysis of the implementation and form of learning evaluation carried out by elementary school teachers in the D.I. Yogyakarta in the subjects of Physical Health, and Sports Education can be seen in Table 1.

Evaluation is carried out with an emphasis on cognitive aspects through assignments, attitudes with a focus on discipline and responsibility, and skills by sending video recordings of student learning

outcomes. The researcher conducted in-depth interviews with ten Provinces of D.I. Yogyakarta through online discussion group forums. The average teacher used the blended learning method. This is following the results of a previous survey. Meanwhile, for learning media, the average teacher uses printed learning media, such as giving weekly assignments using worksheets. However, some teachers state that they use learning video media in delivering learning materials, such as YouTube and TikTok.

The interview results also show a difference between the results of the survey and the statements during the discussion group forum. The average teacher who attended the discussion group forum stated that learning during the COVID-19 pandemic put more emphasis on student movement activities. Meanwhile, in the existing emergency curriculum, teachers should focus more on physical literacy, maintaining health and fitness, and emphasizing character education. Physical Health and Sports Education are vital subjects for students today. Because with knowledge about health and sports practices, students can fortify themselves by increasing their immune systems to prevent the coronavirus. Regular exercise is one way to maintain health. Physical education teachers must ensure that teaching physical subjects with distance learning from home can improve motor skills and functional values, including cognitive, affective, and social aspects. So that the subject matter must be carefully rearranged so that students get a physical education learning experience. However, it is adjusted to the ability to carry out student learning at home.

Economic limitations in purchasing quotas/data packages and equipment facilities owned by students are the biggest obstacles to implementing distance learning. It is undeniable that Physical Health and Sports Education teachers have not properly utilized electronic learning media in hardware and software. Then internet access is also limited in every area where teachers and students are domiciled. So far, Physical Health and Sports Education teachers are still confused about choosing and utilizing technology platforms or online learning to fulfil physical education teaching. If the Physical Health and Sports Education teacher cannot immediately follow up on these obstacles, the student's academic achievement will inevitably be affected. Physical Health and Sports Education experts are concerned about the threat of 'inactivity' that can cause fitness problems and various diseases to afflict our children due to weak immune systems.

The survey results indicate that learning Physical Health and Sports Education has been carried out following the guidelines for implementing distance learning. However, the results of subsequent interviews have shown differences (Firmansyah et al., 2022). Teachers made several statements from 5 regions in the discussions regarding learning planning, use of media, limited ability, and evaluation carried out during the pandemic. The following is a summary of some of the teacher's statements during the interview:

"During the pandemic, Physical Health and Sports Education learning focus on children's physical movement activities through the provision of materials. Students are expected to be able to analyze and understand in the context of being able to answer questions given through the google form. (Ari Kurniawan)"

"Learning that was carried out before the pandemic had been planned online. So, the modules, lesson plans, and learning videos used were set at the sub-district level. I also asked the class teacher about classroom diversity so they could determine the appropriate materials and media. However, the focus of learning is still on physical movement material such as locomotor and non-locomotor movements, motor manipulatives, etc. (Celine)."

"I adapt learning to the characteristics of students and emphasize more attitudes, such as; discipline and responsibility. Measurement activities are carried out through the tasks given. I also ask parents who are not busy working to accompany the learning process of Physical Health and Sports Education ".

"During the pandemic, Physical Health and Sports Education teachers held meetings to discuss the appropriate method. I mostly gave assignments by asking students to send videos of learning outcomes. I also gave questions that had to be done for a week, and then the questions were sent to me via email—the parents of students. I also created my own YouTube video channel, which contains

explanations of learning materials for movement activities, such as basketball games, so that students can practice independently at home and imitate existing movements. (Dimas)"

The statement shows that the learning of Physical Health and Sports Education has been adapted to the diversity of students at the beginning of learning. Learning planning starts by mapping competency achievements, the material to be taught to the media used. Teachers are more likely to use learning media from videos and printed teaching materials such as modules and assignments. Most teachers focus on students' physical activity movement in achieving learning materials. The difficulty of teachers in finding and developing appropriate media to support the learning of Physical Health and Sports Education is still widely felt. Moreover, most media developed do not come from people who understand the learning characteristics of Physical Health and Sports Education.

However, the use of learning media is limited to videos and modules in the form of printed and electronic teaching materials, which for some children are very boring, so in the end, it hampers the delivery of the existing material. Educators need to know that physical education is not only about physical exercise and sports, so students are not given enough information about the importance of physical activity for their present and future (Pangrazi & Beighle, 2019). How to package information so that it is interesting for students still needs to be developed in the future. Emphasis on aspects of physical literacy is required when the range of motion is limited.

Conclusion

The main purpose of analyzing learning patterns conducted by teachers of Physical Health and Sports Education in elementary schools is to analyze the need for developing learning media that can be used in online, offline, and blended learning. The analysis of existing learning patterns shows that most of the teachers in the D.I. Yogyakarta have complied with the standard of distance learning implementation. However, learning media development on certain materials still needs to be done to support each material delivery activity carried out by the teacher. The survey results show that most teachers still use teaching materials in print or electronic and existing learning videos. However, the developers of the learning materials and videos are not professionals who understand the developmental characteristics of elementary school students. The in-depth interviews indicate that there is still a need to develop learning media on athletic activity materials, self-defence, physical fitness development, gymnastics, rhythmic motion, water activities and personal safety, and healthy lifestyles. With the results of this analysis, it is hoped that it can provide ideas and inspiration for further research in developing learning media, especially in Physical Health and Sports Education in elementary schools, so that the goal of education towards the era of society 5.0, which involves various technological developments can be achieved optimally both in emergency and normal conditions.

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