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### Application Of E-Module and Video Tutorials to Student Learning Motivation and Learning Effectiveness In Physical Education, Sports, And Health

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#### Abstract

This study aims to develop an online and offline-based small ball learning electronic module to perfect the PJOK learning design needed today. The subjects of this study were junior high school (SMP) PJOK teachers in the Surabaya area. The research method used is mixed methods. The research phase consists of designing a training model, selecting samples purposively, conducting training, facilitating the development of small-ball electronic modules, monitoring the implementation of training products, and assessing student motivation. The results of this study can help PJOK SMP teachers improve their competence in digital literacy so that the quality of their learning becomes more improved, not only practical but also efficient and exciting. 21 junior high school PJOK teachers and 58 junior high school students were involved in this study. 100% of teachers said they needed training in developing e-modules and video tutorials for physical education learning. The 21 PJOK teachers who participated in the movement gave an excellent assessment of the activity carried out and have been able to develop an electronic module complete with video tutorials. 99.9% of students stated that they were very motivated in learning and involved in PJOK learning after using the electronic module from the teacher.

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#### INTRODUCTION

The COVID-19 pandemic is attacking all aspects of life, and one of the areas that have been greatly affected is education. It is alleged that this will impact the quality of

future generations due to delays in the learning process that is usually carried out. Indonesia is one of the countries that has been badly affected by this pandemic, especially in the education sector. One of the actions taken by the government in the field of education is

implementing rules for learning from home. This is based on the Republic of Indonesia Minister of Education and Culture Circular Letter No. 3 of 2020 concerning preventing COVID-19 in Education units.

Based on this circular letter, all levels of education experienced a very extraordinary change, namely from conventional learning patterns to being based on the net (online) or what is commonly known as online. Rahadi (2020) states that the key to the effectiveness of an online learning system is how a teacher remains creative to present online learning in a fun and easy-to-understand manner, so students do not feel bored and stay productive at home.

Moreover, Susanto in Rahadi (2020) states that teachers have 5 challenges in this online learning process. He conveyed several positive challenges, including the first to demonstrate the ability of teachers to utilize technological media. Second, present planned and effective learning within a limited time. This can be done by preparing a quality lesson plan and arranging detailed learning steps. Third is how the teacher can unite the perceptions and concentration of students who are all far apart. This can only be done by teachers with a clear vision of learning and can bond with students by carrying out their roles as motivators, facilitators, mediators, and communicators. The fourth conveys the message of being a tough child considering that in conditions where society is being tested physically and mentally due to the spread of Covid - 19 which has an impact on student learning to be completely limited in

communicating, interacting, and being creative, so students must be able to adapt to things that new. Fifth, encourage collaboration between parents and the school. Teachers must be creative in concocting material, using fun methods, and giving assignments that stimulate students to ask questions to teachers, classmates, or their parents. This can encourage collaboration between parents and students in helping students learning needs.

Even though the current trend of the COVID-19 pandemic has decreased both globally and nationally, the government does not necessarily open the learning process directly to be carried out face-to-face. Educators and policymakers still face challenges in re-implement education units' learning process normally. One of the challenges faced is the adjustment of the learning process. Post-pandemic learning may not fully return to pre-pandemic conditions; instead, there will be models that will continue to be used in post-pandemic education. One is a blended learning model combining face-to-face meetings, online, and independent learning. Thus, PJOK teachers must also be prepared to adapt and improve their competence, especially in aspects of digital literacy which are now unavoidable.

This teacher challenge will be very easy to answer by teachers who are used to using technology during the learning process. However, this challenge is quite a big obstacle among PJOK teachers, who rarely use technology during the learning process. PJOK teachers generally focus more on

practice and field activities during learning; this is correct. Still, on the other hand, now PJOK teachers must also improve their mastery of technology to facilitate practicums outside of conventional classes, online classes, and students' independent work.

Transforming learning in the field, where the whole process is movement and physical activity, into online activities is challenging. PJOK teachers must adjust their communication skills, provide various learning resources, especially electronic-based learning resources, and conduct face-to-face, independent and online assessments of student learning outcomes.

The use of online learning resources using both computers and smartphones is more effective than traditional methods of delivering lectures in front of the class, so it requires more support in developing learning content compatible with these devices (Shakarami et al., 2020). Learning based on online learning resources can support students' ability to collect information sources as learning materials. The use of online learning resources is thus not only beneficial because of their interactivity and accessibility but can also increase students' functional independence in learning (Alomari, 2009).

Teaching online is not only by yourself, but to equate the quality of learning. Despite the occasional limitations to the use of technology, such as the need for maintenance and loss of connectivity, teaching online (web-based) empowers students and maximizes their learning. Students in the study reported liking being

able to proceed at their own pace and their own pace, downloading teaching materials, and repeating the module as many times as needed. The seven principles of good practice, emphasizing technology, provide a cohesive framework for quality online instruction (Johnson et al., 2009).

The analysis supports that students' preferences use Edmodo mainly for resources, support, and communication, such as forums, discussions, and online activities. Students use the Edmodo platform for social and user-friendly learning, which allows them to facilitate learning in online classes (Balasubramanian et al., 2014).

The use of learning modules is now no longer limited to printed modules but has led to offline and online electronic modules. Accepting electronic modules from student and teacher perspectives shows positive results (Al-Said, 2015; Darmaji et al., 2019; Pebriantika, 2019; Pili Cruz et al., 2021). The study results also show that the application of electronic modules can improve academic learning outcomes and student skills in physical education subjects (Tharmar, 2019).

One of the Electronic Modules is Web-based. This module can be interpreted as teaching material displayed using an electronic device like the Web. Several electronic devices that can be combined to build this kind of electronic module are the Content Management System (CMS) as a place to present material, the YouTube video sharing site, which allows for presenting information in the form of videos, and the Classmarker Quiz Management System

(QMS) which can present an automatic scoring system. Web-based (Barton, 2004).

The electronic module carries the characteristics of a complete web-based learning resource, in which there are sources of information in the form of text, images, worksheets, and learning videos. In addition, the electronic module is also equipped with interactive web discussion features, practice questions, and evaluation questions, and then a "self-assessment" process occurs. Web-based electronic module with mobile version format (Suyoso & Nurohman, 2014).

Content management in module-based learning can be presented in print and electronically. Electronic-based learning content management, complete with identity, materials, objectives, and evaluation, is a form of the electronic module. This electronic module presents interesting material accompanied by pictures and videos and is equipped with real-time evaluation and other interesting features.

Despite having various advantages, initially, the development of electronic modules by PJOK teachers experienced difficulties, especially related to the diversity of digital literacy competencies of PJOK teachers in Indonesia. However, with various forms of proper training in developing electronic modules, both online and offline, teachers can develop their potential to develop quality electronic modules (Irfannuddin et al., 2021). The teacher's success in designing and developing electronic modules will impact the quality of the learning presented to achieve an increase

in the quality of student learning outcomes both academically and non-academically, for example, tie the side of a healthy and active lifestyle.

In the Middle School Physical Education learning curriculum, several mandatory learning topics, including small ball games, must be conveyed to students. PJOK teachers often teach small ball games such as badminton, baseball, table tennis, court tennis, and other small ball games. Small ball material is difficult to convey in PJOK learning because small ball games are characterized by manipulative movements with open-loop control movement skills, requiring good coordination between the nervous system, senses, and muscles. However, with various creative approaches through game modifications, PJOK teachers can carry out this learning well face-to-face, but problems arise when it must be done online.

Researchers find the problem arises and at the same time also see it as an opportunity. A student has difficulty performing certain movement skills because he needs more understanding of how they are done correctly and how to practice them. In general, students will ask for repetition of movement demonstrations to better understand the movement skills being taught, this phase is called the cognitive phase. The cognitive phase has an important role in making it easier for students to practice movement skills. Online learning, supported by electronic learning resources in text, images, and videos, will facilitate students to

understand and learn movement skills better. Afterward, the teacher will guide the practice process through synchronous and asynchronous videos. Therefore this research seeks to equip teachers with the skills to develop electronic learning resources that are able to support the achievement of better movement skills during practicum.

Through this research, teachers will be guided to develop small-ball learning resources in one package in electronic modules containing text, images, video, and audio. The applications to develop these electronic learning resources include movavi video, Microsoft PowerPoint, Microsoft Word, FlipHTML, and screencast O Matic/other screen recording applications. Meanwhile, the electronic module platform was not determined by the researcher but adapted to the previous online learning platform used by the teacher.

## **METHODS**

The approach used in this study is mixed (mixed method). In this research, there are quantitative, qualitative, and developmental research. This study applies electronic learning resources and reveals the impact of these applications on learning motivation and student learning outcomes in small ball material. Qualitative research was conducted when collecting data on teacher perceptions and students' motivation towards the electronic module in learning small ball material. In addition, this research also carried out the process of developing learning

resources with the Luther-Sutopo version of the digital learning resource development model, which includes six stages: concept, design, material collecting, assembly, testing, and distribution.

The population in this study were PJOK teachers at State Middle Schools in Surabaya. Meanwhile, the sample was taken by purposive sampling, where one school was selected by only one sports teacher who already had an online learning platform.

Data collection was carried out online through test and non-test instruments. The non-test instrument is in the form of a questionnaire which contains several questions to determine the effectiveness of the online learning media that has been developed. The next non-test instrument is an interview guide, where questions and answers are carried out either directly or indirectly or online via WA call media or other online media to parties considered knowledgeable and influential in the research. Test instruments are used to measure student motivation and learning outcomes in small ball material while using electronic modules in learning. Based on Swastika & Lukita (2020), Indicators of online learning motivation include (1) encouragement to learn, (2) persistence in carrying out assignments, and (3) efforts to deal with difficulties in learning. Student motivation also affects the success of learning.

After the questionnaire and data from the interviews were collected, the data were transcribed, coded, and given a score. Then make tabulations to enter data into tables and

arrange the numbers so that you can count the number of cases in various categories. This is done to make it easier to read data that has been coded and scored. To make it easier for researchers to process data that has been obtained in the field so that the data obtained is useful for answering problems in this research, the authors use the Statistical Program for Social Science (SPSS) v.17 for windows software. Furthermore, the analysis will be continued with the triangulation stage.

The research process will involve researchers with the following division of tasks: The chairperson is in charge of coordinating, supervising, and evaluating the research process and stages. Research members 1 and 2 are responsible for developing research concepts and frameworks and collecting data. The third and fourth research members were responsible for validating the questionnaires and testing and analyzing the data. Together the researchers conducted a review.

## **FINDINGS AND DISCUSSION**

The targets of this study were Physical Education, Sports, and Health (PJOK)

teachers at the junior high school (SMP) level, both public and private.

Training materials consist of assessment instruments, training materials, and student motivation instruments. The following presents the research materials used:

### **1. Training Materials**

The subject matter consists of the following:

- Development Direction of innovation
- The Importance of Educational Innovation
- The Meaning of Innovation in Education
- The Role of Creativity and Innovation in Teaching
- PJOK innovation
- Best practice for developing e-modules

### **Findings**

Training Outcomes Consist of two parts. The first relates to the evaluation of the training implementation and the participants' products from the training results. Each training result is presented as follows:

Participant Assessment of Implementation of e-Module Development Training and Video Tutorials on Student Learning Motivation and the Effectiveness of Learning Physical Education, Sports, and Health.

Usia (Tahun)  
 21 responses

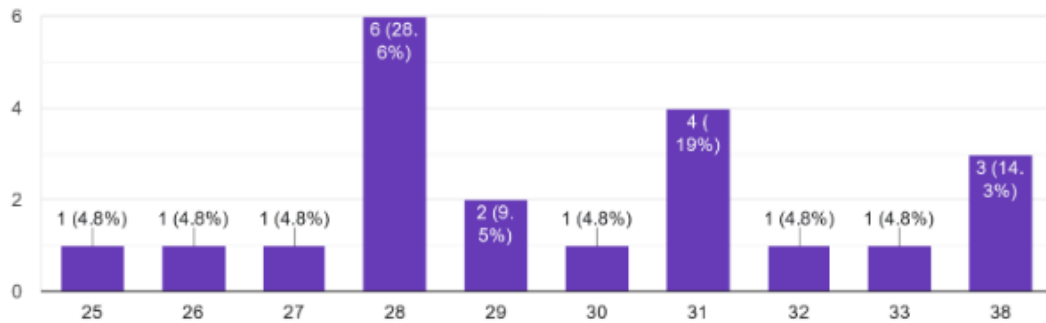


Figure 1 Characteristics of the participants from the age distribution

Jenis Kelamin  
 21 responses

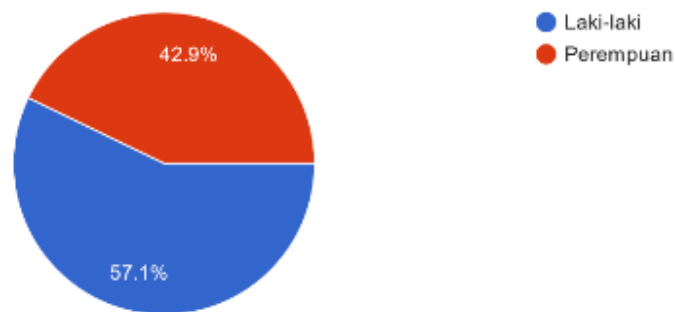


Figure 2 Characteristics of participants from the gender distribution

The overall result of the training assessment is very good, with a percentage of 85% and a Good criterion of 15%. (results in attachment). Product Results of Training

Participants in developing e-Modules and Video Tutorials on Student Learning Motivation and Learning Effectiveness in Physical Education, Sports, and Health.

Nama ↑	Pemilik	Terakhir diubah
BOLA TANGAN/HANDBALL_CIPTO APRI W	Cipto Apri Widiyanto	10 Okt 2022
BULUTANGKIS - Arya Prasetya Ambara,S.Pd.	Arya Pras	4 Okt 2022
JALAN CEPAT LAILATUL LUTFIYAH P18	Lailatul Lutfiyah	30 Sep 2022
Lompat jauh Rima A	Rima Anindiyah	05.49
POLA MAKAN SEHAT BERGIZI DAN SEIMBANG OLEH YE...	Yesticia Erwinda Jo...	6 Okt 2022
SEPAKBOLA	Huda Miftakul	30 Sep 2022
Tenis Meja Agus Pri Yanto-Shafta	agus pri yanto	30 Sep 2022

The final task of this training is for teachers to develop e-module products and video tutorials. Product assignments are done

in groups, and there are also individual ones. Product assignments are collected on Google drive provided by the researcher.



Figure 3 Products developed by participants

## Discussion

This study of technology-integrated physical education learning found various needs for SMP PJOK teachers in the Surabaya City area in the context of increasing teacher professionalism, especially in increasing competency in technology utilization. From the various dimensions of needs studied, it was found that the majority of the SMP PJOK teachers in Surabaya City who were studied needed an e-module development training program and video tutorials aimed at improving abilities, skills, attitudes, and values towards the teaching profession in schools.

This study involved 21 respondents from PJOK teachers at SMP Kota Surabaya,

with the largest percentage coming from public schools. In terms of gender, 57.1% were male and 42.9% female. In terms of age, the majority of respondents who were studied were aged between 25-38 years, with most being 28 years old, as many as six people. At the same time, the students involved in this study totaled 58 students from three schools.

This study found an interesting phenomenon, especially in terms of the teaching activities of PJOK teachers where there are still lecturers who do not develop learning resources for electronic learning modules as an important requirement in the learning process, especially in the current conditions where most of them use Blended learning or hybrid learning. From the number of respondents who have made electronic-



based learning resources, there are still teachers who have not used the main components of electronic module learning resources. This is evidenced by 45% of respondents not involving learning prerequisites in electronic modules. On the other hand, 20% of respondents did not analyze student characteristics when developing electronic modules.

This study also found increased student motivation after teachers used electronic modules in their learning. Students have a high awareness of the importance of sports, evidenced by 64.9% of students who strongly agree that sports can make them fit, and 40.4% agree. On the other hand, regarding learning readiness, 29.8% of students stated that they did not study or read the material before participating in PJOK learning. Students need the will to be ready to read the material but are also due to a lack of interesting learning resources. 85.8% of students stated that they needed electronic modules for their learning needs, and they considered the existence of these modules to be able to provide enthusiasm for learning/desire to learn. 90.9% of students who have used the electronic module stated that they were very motivated to learn after using the electronic module developed by the teacher.

Although all research respondents had carried out the evaluation, the focus of the evaluation carried out by the teacher was more oriented towards the end of the semester test and followed by the midterm test. This model shows that the evaluation used so far is

still only to measure aspects of learning effectiveness. At the same time, the dimensions of efficiency and attractiveness have yet to catch teachers' attention.

Following up on this, it is necessary to prepare teachers to conduct learning evaluations. This can be supplemented with student motivation questionnaires so that in addition to the result orientation carried out in the middle and end of the semester, PJOK teachers also receive data on the efficiency and attractiveness of the learning.

## CONCLUSION

Based on the research findings and discussion in the previous chapters, several conclusions can be put forward as follows:

The overall results of the evaluation of the e-Module Development training and Video Tutorials on Student Learning Motivation and the Effectiveness of Learning Physical Education, Sports, and Health were very good, with a percentage of 85% and a Good criterion of 15%.

This study found an interesting phenomenon, especially in terms of the teaching activities of PJOK teachers where there are still lecturers who do not develop learning resources for electronic learning modules as an important requirement in the learning process, especially in the current conditions where most of them use Blended learning or hybrid learning. From the number of respondents who have made electronic-based learning resources, there are still teachers who have not used the main

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