



## **THE NEEDS FOR TEACHING MEDIA DEVELOPMENT PHYSICAL EDUCATION SPORTS HEALTH (PJOK) WITH AN INTERACTIVE E-BOOK FOR PRIMARY SCHOOL STUDENTS**

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### **Abstract**

This research aimed to determine the feasibility and the needs for developing digital-based teaching media in elementary schools, as an alternative teaching media in implementing physical education, sports, and health (PJOK) learning for Phase B students at SDN 13 Sitiung. This development was relevant to students' learning needs in which students can utilize digital technology in the PJOK learning process. The presence of this interactive e-book is hoped to increase motivation and student learning outcomes and provide changes in the PJOK learning process which should be adapted to the learning needs of students and the digital era.

**Keywords:** learning development, teaching media, e-books interactive, PJOK, digital era

### **INTRODUCTION**

Physical education and sports are some lessons implemented at primary, secondary, and higher education levels. Physical education aims to develop aspects of fitness, movement skills, skills to think critically, social skills, reasoning, emotional stability, moral actions, and aspects of a healthy lifestyle (Kilborn, 2016; Beddoes et al., 2014; Lynch, 2014; Welch et al., 2020; Azzarito et al., 2017; Petrie et al., 2018).

However, the implementation of physical education, sports, and health (PJOK) learning is not following the needs and development of students. Education is a cultural effort that is intended to guide life for the growth of the soul and body of students so that along with the lines of personality as well as environmental influences, achieve progress in life physically and mentally (Moulin-Stožek, 2020; Beck, 2018; Maarif et al., 2020; Abdullah, 2019; Ahmad, 2015).

Learning models use learning methods and strategies that have been compiled sequentially and have been tested through research to achieve learning outcomes in the form of competencies specific to these models (Dewi, 2018; Arpan et al., 2020; Syaifullah et al., 2024; Nasution et al., 2024; Emiliya et al., 2023; Sii et al., 2017; Feladi et al., 2023). Skills in operating technology and creating learning media that are relevant to the demands of students in the 21st century are very important rights for educators (Supardi et al., 2023; Feladi et al., 2017; Arpan & Sadikin, 2020; Hernando et al., 2022; Budiman et al., 2018).

Digital media has become a choice favored by the current generation because it displays interesting features, such as a combination of images, videos, and interactivity, which significantly increases students' understanding of the subject matter (Budiman et al., 2022; Batubara, 2023; Sulistiyarini et al., 2018; Sholihah et al., 2023; Lesmana et al., 2019).

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Digital learning can be a stimulant of skills development for the potential transformation of digital organizations.

Digital transformation will happen when organizations embrace the potential of learning socially in design content and delivery process, including elements social embedded in digital content, informal problem-solving, shared knowledge, communities of practice, and user-generated content (Sousa & Rocha, 2019; Sailer et al., 2021; Kearney et al., 2018; Radkowsch et al., 2020; Adamson et al., 2014; Belland et al., 2017). Digital learning environments offer new learning and teaching opportunities as well as new ways to integrate for both students and teachers.

Up to you teachers to explore and take advantage of these opportunities. Considering the central role of teachers in providing attitudes about technology (Bollen et al., 2015; Chen et al., 2018; Hwang et al., 2020; Lewis et al., 2021). However, implementing digital-based learning is not an easy thing to do, because it is closely related to various factors, including teacher resource capabilities, supporting facilities and infrastructure, as well as planning and programs that arranged appropriate to the situation at school.

The characteristics of students are very important for educators. Because this is very important to use as a reference in formulating teaching strategies. Teaching strategies consist of useful learning methods to achieve the desired learning goals (Abulhul, 2021; Halawa et al., 2020; Bruckermann et al., 2017; Chen et al., 2017; Hodson, 2014). Many problems were found at the school level of Indonesian elementary schools such as the low ability of students to understand concepts and low learning outcomes (Rasmitadila et al., 2023; Yang & Sianturi, 2020; Rahayu & Asanti, 2021).

Based on expert opinion on the needs for the development of teaching media and traditional learning methods with utilization digital in student learning in elementary schools. Media is a component of learning, so the position of media is not just as an aid in teaching, but as an integral part of the learning process (Putri et al., 2022).

## **METHOD**

Data were collected using quantitative survey methods. The population and sample were 42 phase B students. The place where this research was carried out was at UPT SDN 13 Sitiung, Sitiung District, Dharmasraya Regency, West Sumatra, Indonesia. By using a quantitative research method, this method explains in a coherent manner leading to an in-depth description of the conditions and processes carried out.

## **RESULTS AND DISCUSSION**

The development of teaching media for physical education, sports, and health (PJOK) with interactive e-books for elementary school students needs to be developed by the learning styles and characteristics of students in elementary schools who need teaching media that is fun and in line with the demands of student learning needs in the digital era.

Giving questionnaires to students carried out to determine the learning needs and desires expected by the students. What was observed in the questionnaire was regarding the evaluation of interest in sports, interest in reading, the role of parents, benefits of technology, and using technology in learning PJOK. Table 1 was an analysis of the questionnaire distribution carried out.

**Table 1 Evaluation of Sports Interest**

<b>F</b>	<b>Amount Score</b>	<b>Percentage</b>	<b>Information</b>
42	325	96.73%	Very High

Table 1 shows that out of 42 students with a total score of 325, a percentage of 96.73% can be concluded that the student's interest in sports is very high. It was explained that interest is an important issue in education, especially when it is related to a person's activities in everyday life. A person's interests will provide an overview of activities to achieve goals (Sun et al., 2014; Farrow & Reyes, 2022; Ginevra et al., 2021; Saadatdoost et al., 2015; Berendt et al., 2020).

In learning, many students are less interested and those who are interested in lessons include practical and theoretical activities to achieve a goal (Lin et al., 2023; Swirski et al., 2018; Norman et al., 2022; Dierks et al., 2014). Various supports and goals, the influencing factor is interest in learning because interest is a student's action towards a learning process which

can be influenced by internal factors and external fitness factors. Next, there was an analysis of reading interest according to stage development students in elementary schools in Table 2.

**Table 2 Reading Interest**

F	Amount Score	Percentage	Information
42	236	93.05%	Very High

Table 2 shows that out of 42 students with a score of 236, a percentage of 93.05%, it can be concluded that students' interest in reading is very high. Reading interest is a desire or high tendency (passion) to read and also states that reading interest is a tendency to be interested in reading which encourages someone to do something about reading (Wang et al., 2018; Widiana et al., 2023; Zhao et al., 2018; Boerma et al., 2018). Next, the analysis of the role of parents in increasing students' learning motivation at home in Table 3.

**Table 3 The Role of Parents**

F	Amount Score	Percentage	Information
42	200	79.37%	Medium

Table 3 shows that out of 42 students with a score of 200, a percentage of 79.37% can be concluded that the role of parents in motivating students to study at home is in the medium category. Parents have a big role in motivating their children (Puspita, 2021; Thomas et al., 2019; Kong, 2020; Amanda et al., 2024; Abimanyu et al., 2023; Suryani, 2023). Next, there was an analysis of the utilization of technology in students' daily lives in Table 4.

**Table 4 Utilization of Technology**

F	Amount Score	Percentage	Information
42	241	95.23%	Very High

Table 4 shows that out of 42 students with a score of 241, a percentage of 95.23% can be concluded that the use of technology in students' daily lives is very high. The millennial generation can also be said to be a generation born in an era of advanced technology or a generation born in the computer age (Pramesworo et al., 2023; Jusuf, 2023; Ferdian et al., 2022; Adha et al., 2019).

Having a device always in someone's hand is one of the markers or characteristics of the millennial generation. Apart from that, the millennial generation is envious, cares less

about the environment, and cares less about other people (Lee et al., 2019; Dwivedi & Lewis, 2020; Maier et al., 2015; Munsch, 2021; Mäkinen et al., 2018; Singh, 2018). Next, there was an analysis of the use of technology in learning PJOK in elementary schools.

**Table 5 Using Technology in PJOK Learning**

F	Amount Score	Percentage	Information
42	241	95.63%	Very High

Table 5 shows that out of 42 students with a total score of 241, a percentage of 95.63% can be concluded that students' interest in using technology in learning PJOK is very high. The use of technology in learning explains that online learning can support students' ability to collect information sources as teaching materials (Suryandoko, 2023; Puttileihalat et al., 2022; Liu et al., 2023; Yang et al., 2015; Starks, 2022).

The use of online learning resources is thus not only beneficial due to interactivity but also accessibility (Beyene et al., 2020; Rets et al., 2020; Lomellini et al., 2022; Levenberg, 2023; Linder et al., 2015; Ndzinisa & Dlamini, 2022). In general, the survey results showed the needs for developing interactive e-book teaching media in the high category as explained in Table 6.

**Table 6 The Needs for Developing Interactive E-Book Teaching Media**

Aspects Surveyed	Number of Values	Percentage	Information
Evaluate sport interest	325	96.73%	Very High
Reading interest	236	93.63%	Very High
The role of parents	200	79.37%	Medium
Utilization of technology	241	95.63%	Very High
Technology in PJOK learning	241	95.63%	Very High
<b>Total</b>	<b>1243</b>	<b>92.49</b>	<b>Very High</b>

## CONCLUSION

Based on the survey results, there was a need to develop teaching media in physical education learning, following student learning needs, in the digital era. Utilization digital helps students in finding information and other references according to the learning material. The development of interactive e-book teaching

media will be profitable because of interactivity but also accessibility. Using Interactive e-books can be accessed easily and can be accessed easily both at school and at home.

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