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Implementation of physical education with blended learning based on teacher readiness in Indonesia: systematic review

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Abstract: This conceptual article is an overview of the implementation of the blended learning model for physical education learning in the modern era, especially in Indonesia. The data obtained in this conceptual article is secondary data using the google schoolar database using a systematic review approach with PRISMA (Preferred Reporting Items for literature reviews) analysis. Based on the results of the conclusions related to the systematic review that has been carried out, it can be concluded that the synergy between teacher readiness in mastering technology, the role of government through constructive programs, and high student literacy awareness. The combination of fulfilling these roles creates a good combination in the application of blended learning to physical education learning in this modern era.

Keywords: blended learning; physical education; teacher readiness.

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INTRODUCTION

Education must continue to be present and side by side with the existence of technology that continues to develop, therefore teachers are required to improve competence in the field of learning and especially regarding the latest technological media (Warsita, 2017). One of the internet-based learning models as access to learning resources is blended learning. Blended learning was popularized since the 1990s and continues to grow today. Blended learning in its application is to bring students closer to their learning resources (Dwiyogo, 2016). Blended learning is believed to be a flexible learning model that relies on the digital fluency of academics (Mirriahi et al., 2015). Then blended learning emphasizes teachers to provide the appropriate proportion of learning, both online and offline in accordance with student learning load for the success of learning objectives. In this context, the application of the blended learning model provides easy access to information to teachers and students (Victoria et al., 2021).

The education in the modern era regarding the mastery of technology in education, is a requirement for the implementation of good, blended learning-based learning (Dwiyogo, 2016). Fother actors supporting learning must also be considered and supported by the Government, one of which is facilities and infrastructure. The important obstacles in the implementation of blended learning include poor signal quality in remote areas (Nurjanah, 2014). This is evidenced from the perception of teachers, where the implementation of blended learning is still hampered by the quality of learning support networks (Akmalia et al., 2021). Then according to students' perceptions of online or *online* learning, which is considered effective

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but, in its implementation, students are burdened with the cost of buying data packages in the implementation of the learning (Martina et al., 2021). In this context, teachers and students agree that blended learning can be used as a learning approach that overrides distance, time and place (Wulantina & Maskar, 2019). However, its implementation is still hampered by the availability of network quality and data packet costs.

Physical education at this time is predicted to be carried out in a mixed or blended learning manner. Judging from the implementation of blended learning during the pandemic, especially in the implementation of face-to-face learning, the percentage of learning implementation is 50% face-to-face and 50% in the network, 75% face-to-face and 25% in the network, and 25% face-to-face and 75% in the network (Victorian et al., 2021). Then the implementation is carried out with the help of a Learning Management System (LMS) in the form of google classroom, edmodo, and moodle. Physical education its application focuses on cognitive, affective and psychomotor aspects. Due to the scope of this complex aspect, it is a challenge for teachers and students to carry out blended learning.

The purpose of writing this systematic review is to examine the readiness of teachers for the implementation of physical education learning with blended learning, especially in Indonesia through the findings in the review. The database used is google schoolar with a search using the keywords "Survey" AND "Blended Learning" AND "Physical Education" AND "Indonesia". This keyword gives rise to 915 data that will later be sorted and presented with a prism table.

METHOD

The data used is sequential data obtained by collecting articles based on database Google Scholar. The search was carried out on tuesday, 22 July 2022 with keywords used are "Survey" AND "Blended Learning" AND "Physical Education" AND "Indonesia". The inclusion criteria for the articles collected are: 1). Fulltext article, 2). The range of publication of articles in 2018-2022, 3). Indexed Science and Technology (SINTA) 4). According to the theme or title 5). Survey research. As for the exclusion criterion 1). Articles stored in the repository, 2). Inaccessible, 3). Articles published in proceedings, and 4). e-books. Based on these inclusion and exclusion criteria, selected articles are produced and then analyzed through the objectives, topic suitability, samples, research protocols, and results of each article. Based on 6 articles that discuss the implementation of physical education learning using blended learing with the subject, namely physical education teachers. With the research method taken is survey research. Based on the findings of the article shown in Figure 1 as follows:

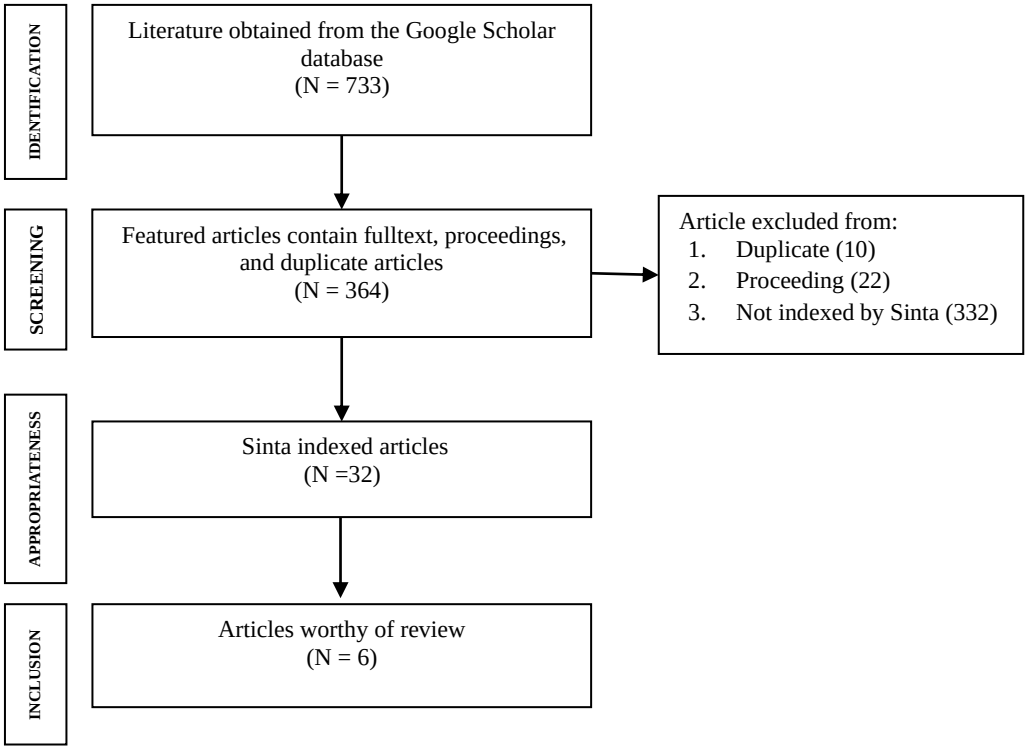

Figure 1. Prisma Flowchart Chart

RESULTS AND DISCUSSION

In detail the results of article filtering obtained with inclusion criteria as in the Prisma *flowchart* above, as for the corresponding article search results as displayed in Table.1 as follows:

Table 1. Data on the readiness and implementation of physical education with blended learning

No	Name & Year	Method	Sample	Variable	Result
1	(Anggita et al., 2020)	Survey	30 teachers	Understanding, Creativity of student activity	Ease of application ↑, comprehension ↑, creativity ↑
2	(Wicaksono & Utama, 2022)	Survey	70 teachers	Use of learning media by PJOK teachers in *blended learning*	Pemanfaatan media berbasis *Information and Communication Technology* ↑
3	(Rozak et al., 2022)	Survey	23 teachers	Efficiency, and perception of teachers functionally and structurally	Understanding and delivery of material by teachers ↓
4	(Wijaya et al., 2021)	Survey	14 teachers	Motivation	Teacher motivation in teaching ↔
5	(Haryanto et al., 2022)	Survey	28 teachers	Knowledge of blended learning implementation	Teacher's understanding of the implementation of *blended learning*↓
6	(Jaya et al., 2021)	Survey	19 teachers	Mastery of the material, attitudes, methods, creativity	Planning, Execution, and Evaluation ↔

Description: ↑ increase symbol, drop symbol↓, and sufficient or medium ↔

Based on the search related to teacher perceptions of blended learning in physical education learning, teacher readiness for the implementation of physical learning at the junior high school / MTs level in functional aspects including clarity of material delivery, and ease of learning is in the low category. Then for structural aspects based on time management is in the moderate category (Rozak et al., 2022). Other findings in the survey study involving 19 physical education teachers concluded that the implementation of learning was in the moderate category, as for the problems found, including thatphysical education teachers had not mastered competencies. Thus causing the physical education learning process to not be able to run optimally (Jaya et al., 2021). In other articles, it is related to the teacher's experience in physical education learning through aspects of understanding, characteristics and implementation of blended learning is in the high category (Haryanto et al., 2022). The application of blended learning requires teachers to use Information and Communication Technology media using media in the form of google classrooms and whatsapp groups in the good category (Wicaksono & Main, 2022). On the variable of teacher motivation towards learning with blended learning in physical education is in the category of sufficient (Wijaya et al., 2021).

The application of blended learning in Indonesia is considered to be able to achieve learning objectives through various aspects such as effectiveness, efficiency, and attractiveness of the entire learning process (Masgumelar et al., 2019). Then the application of blended learning to good physical education can significantly increase student learning motivation. Blended learning in modern times, can be applied to all subjects (Prastyo et al., 2020). Including physical education, the application of blended learning models to physical education has produced many learning media products that support physical education learning. The application of blended learning models that are right on target and appropriate can increase student learning motivation (Rodriquez et al., 2020). However, to achieve the learning objectives that have been designed, in the application of the blended learning model there are several problems such as expensive quotas, signal quality, and other internal factors (Prastyo et al., 2020). This problem can be found in various developing countries, so basically the implementation of learning with a blended learning model requires the role of the government or authorized institutions, as well as all academic communities to synergize with each other.

The right proportion in the implementation of blended learning according to needs can overcome the swelling of quota costs in the implementation of learning (Dewantara & Nurgiansah, 2020). The application of blended learning in learning requires the right proportions. These exact proportions, adapted to the learning objectives and the load of tasks on the students . The proportion of blended learning that is often used in physical education is 50% face-to-face and 50% in networking, 75% face-to-face and 25% in networking, and 25% face-to-face and 75% in networking (Utomo & Wihartanti, 2019). The proportion of learning can also be adjusted to the problems that occur in the community. Problems experienced by the academic community related to the implementation of online learning include teachers having difficulty in packaging their learning attractively so that students are interested and easy to understand in understanding

learning, while student problems are in the form of lack of interest in learning, difficulty in signals, and also limited quotas (Victoria et al., 2021). Then the problem of parents is that there is an additional expenditure to buy children's learning equipment in the form of quotas. Another problem besides quotas is poor network quality in several regions in Indonesia.

The problem of the lack of signal quality in each region, in Indonesia itself through the Ministry of Communication and Informatics of the Republic of Indonesia has made efforts to improve network quality in each region, this is evidenced by the increase in Base Transceiver Station (BTS) towers in 2003 has been as many as 4,820 towers and continues to grow, until in 2013 it has increased to 69,905 BTS throughout Indonesia through operators Telkomsel. At present Indonesia itself, in addition to continuing to increase the number of BTS, has planned to carry a 5G network to overcome the problems of poor signal quality in the 3T (Outermost, Frontier, and Disadvantaged) areas. Then the infrastructure development that continues to be realized by the Indonesian state through government programs that build and are predicted will overcome the problem of poor signal quality in remote areas (Rahmawan et al., 2015; Andalisto et al., 2022).

Meanwhile, the inhibiting factors in the learning process according to internal factors are the motivation of students, and external factors in the form of the learning environment, family environment, teacher competence, facilities and infrastructure. Therefore the teacher in carrying out learning must also pay attention to the inhibiting factors and strive to deal with them with different approaches . Then the difference that occurs markedly where teachers experience a significant decrease in competence towards age addition . However, blended learning approach and balanced with proficiency in the use of technology, teachers get an improvement in the quality of learning with a variety of information through various social media platforms (Winarni & Lismadiana, 2020; Sujarwo & Rachman, 2020). The use of technology in the modern era in physical education learning and combined with blended learning models, can increase students' understanding cognitively and psychomotorly (Sabillah & Nasrulloh, 2022).

CONCLUSION

Problems in the application of blended learning models in this modern era have gradually begun to be resolved with a series of teacher training programs related to the mastery of the latest technology-based learning media in learning, with the aim of attracting students' interest in physical education learning. So that the achievement of learning objectives both in cognitive, affective and psychomotor aspects. Meanwhile, it has become the role of the government in supporting and providing learning facilities and infrastructure on the blended learning model in the form of good signal quality. Based on this, it can be concluded that synergy between the government through constructive programs, as well as increasing teacher competence in mastering technology, and high student literacy awareness can create a good combination in the application of blended learning models in this modern era.

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