



Game Based Learning in Physical Education Sport and Health Subject

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Abstract

The purpose this article review was to examine and analyze suitable learning methods for students aged 6 to 12 years in Elementary School to improve their learning outcomes in learning Physical Education Sport and Health subject. The reviewed articles were selected from Google Scholar database published in the last 10 years. The research question and journal search employed PICO method, while the PRISMA flow chart was used to identify articles through data filtering and extraction process. Of 113 downloaded articles, the remaining 12 articles were the final results passing the screening and extraction process. The articles were then analyzed for discussion. Learning Physical Education Sport and Health subject using Game-based Method is compatible with the character of students aged 6 to 12 years in Elementary School level and has succeeded in improving student learning outcomes and increasing their motivation to participate in learning.

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INTRODUCTION

Physical Education Sport and Health subject, known as PJOK, is a learning process carried out through physical activities aimed at improving physical health and developing motor skills, liveliness, knowledge, healthy living behavior, sportsmanship, and emotional intelligence (Kanca 2018). Therefore, physical activity is needed in every learning model in Physical Education Sport and Health subject learning. To achieve the expected learning objectives, a teacher has to be able to prepare and carry out the learning process properly and correctly.

Teachers play an important role in the success of a teaching and learning process, including in the Physical Education Sport and Health learning at school (Stephani, 2016). Therefore, a teacher, as a figure who can develop an effective learning as well as paying attention to and understanding the characteristics and needs of students, is needed. At that age, all developmental aspects of the student, including cognitive, affective, and psychomotor aspects, undergo various changes, where the most striking changes include physical and psychological growth and development. By carrying out activities that suit the characteristics of children at that age, it is expected that besides the physical aspect, in the future, the intelligence and talent aspects will quickly emerge, so that the success of learning is quickly achieved.

Good learning outcomes lead to the high student motivation in taking lessons, hence they can think critically about the material and problems given. It is one of the results of the application of appropriate learning methods, one of which is the Game-based Method used by the teacher to convey the subject matter. Various forms of games that can evoke feelings of pleasure, joy, and enthusiasm in students are expected to develop the student potential and help them to grasp the subject matter well

(Handika & Slamet, 2017). If students play or are given games in the Physical Education context, the students will play the game with pleasure (in general, students will prefer to play games than do other sports) (Juliantine 2010). It concludes that, by playing games, students can actualize the potential of human activity in the form of motion, attitude, and behavior. In the end, it can be concluded that, through playing games, the learning objectives of Physical Education Sport and Health can be achieved.

There are a number of benefits derived from playing activities, one of the most important is being able to develop the physical aspect, because students will continue to move freely without any coercion (Hambali 2016). Through playing, children also understand the relationship between themselves and their social environment, learn to get along, and understand the rules or procedures for socializing. In addition, playing activities are closely related to a child cognitive development (Tedjasaputra 2014).

Games can improve student learning outcomes (Wirdayanto, Rifki 2013). In addition, Game-based Method can increase the student active role and their learning outcomes (Aribowo 2014). Furthermore, game approach can improve student learning outcomes (Kurniawan, 2014; Sasmita, 2015; Yuniasih, 2015; Saadah, 2015), motivation, confidence, courage, and discipline (Haryanto 2015; Suhaedi, 2016; Supratman, 2019; Saniyah 2019; Hartono 2019).

This article analyzed the results of studies published in national journals to clarify that applying the Game-based Method in the teaching and learning process could achieve the desired learning outcomes and help students to be active, happy, and not getting bored with the learning process, because learning through playing suits the characteristics of students aged 6 to 12 years in elementary school, which has

been proven to improve student learning outcomes and interest in learning Physical Education Sport and Health subject (Setiawan, et al, 2020).

lished older than ten years, the journals were also used. The data used by the author were secondary data from the review results of several national journals.

Table 1. Inclusion and Exclusion Criteria

Types of Article	Research Articles	Source
Language	Indonesia	Others
Methods	Classroom Action Research	Others
Participants	Students, Learners	Athletes, Coaches
Learning Methods	Small Games	Others
Publication Year	2011 - 2021	Before 2011
Article	Journal	Others
Results	Improving Learning Outcomes, Characters	

The author used the source of information utilized to track research articles, namely Google Scholar, for searching national journals. The publication time of the referenced article was from 2011 to 2021 for national journal articles. For the novelty level of the journal, the author limits it by searching for the last ten-year journals. When there were relevant journals pub-

The purpose of writing this review article was to describe the success of Physical Education Sport and Health learning using Game-based Method to improve learning outcomes, motivation, and critical thinking of students in implementing Physical Education Sport and Health learning.

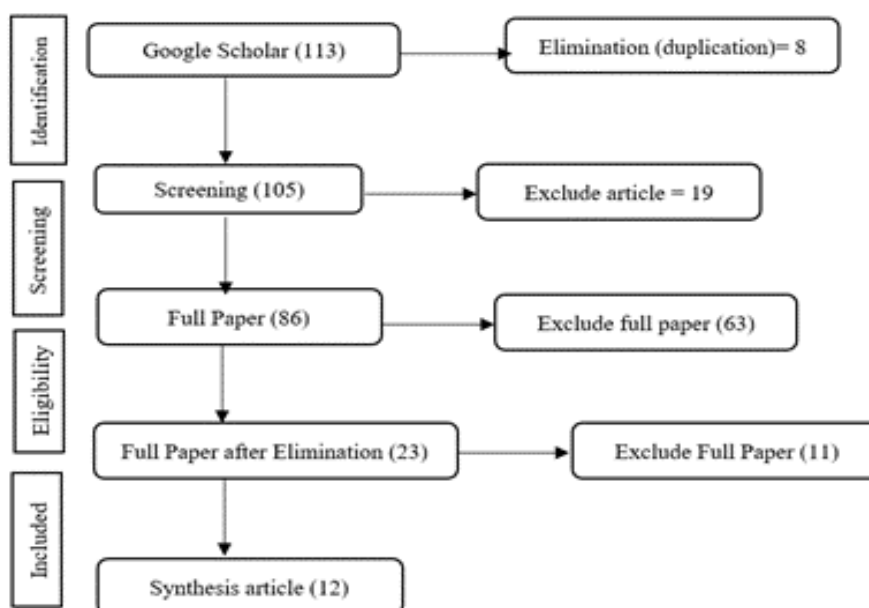


Figure 1. PRISMA Flow Chart

METHOD

The access used by the author to collect national journal articles was Google Scholar. The period of publication of the accessed articles was from 2011 to 2021. For the novelty level of the journal, the author limited the journal search on a scale of the last ten years. When there was a relevant research result older than ten years, it could also be used.

The inclusion and exclusion criteria are presented in Table 1. When there were criteria that did not fit the subjectivity of the author of the article, they were excluded.

There were 113 articles obtained based on the search. After 8 duplicate articles were excluded, there were 105 articles left. Furthermore, 19 articles were removed because they were not journals, not in the PJOK learning context, and incomplete, which left 86 full-text articles. Furthermore, another 63 articles were removed because they did not meet the inclusion criteria so that there were 23 articles remaining.

After further review based on abstracts, methods, results, etc., 11 articles were excluded so that there were 12 articles left to be analyzed using qualitative methods. The data extraction strategy and identification used PRISMA flow chart.

RESULT & DISCUSSION

Based on the results of the article analysis conducted by the author, the summary of the results of the article review is presented in Table 2. The use of physical activity to improve emotional and physical conditions is a hallmark of Physical Education Sport and Health subject. One of the successes of a teacher depends on mastery of each material and method that the teacher gives to the students. One of the learning methods that has succeeded in improving several aspects of students, according to several studies, is learning through

Game-based Method.

The use of physical activity to improve emotional and physical conditions is a hallmark of Physical Education Sport and Health subject. One of the successes of a teacher depends on mastery of each material and method that the teacher gives to the students. One of the learning methods that has succeeded in improving several aspects of students, according to several studies, is learning through Game-based Method.

Table 3 shows the outcomes supporting the reason of using the way of playing. In accordance with the characteristics of elementary school students, aged 6 to 12 years, most of them tend to like to play (Saputra, 2017). Therefore, we need a teacher who can develop an effective learning, pay attention to, and understand the characteristics and needs of students. At that age, all student development aspects, such as cognitive, affective, and psychomotor, undergo various changes, where the most striking changes include physical and psychological growth and development. By doing activities that suit the characteristics of children at that age, it is hoped that, besides the physical aspect, the intelligence and talent aspects will quickly emerge, so that learning success is quickly achieved.

Based on the results of the research in Table 3, we can conclude that the learning process using the game-based method published by several National Journals has a good impact on students and suits the character of students aged 6 to 12 years in elementary school. The application of the game-based method can produce good learning outcomes, improve motivation of students, and help students think critically about the material and problems given as well as instilling good character values. Therefore, the learning process using Game-based Method is good and suitable to be applied in elementary schools.

Table 2. Summary of Article Review Results

Author and Publication Year	Title of the Research	Type of Research	Number of Sample	Learning Methods	Result
Rifki Dwi Wirdayanto (2013)	<i>Peningkatan Hasil Belajar Lompat Jauh Melalui Permainan Lompat Kancil Pada Siswa Kelas IV SDN Jambangan 02 Kabupaten Batang Tahun Pelajaran 2012 / 2013</i> (Improving Long Jump Learning Outcomes through <i>Lompat Kancil</i> Game for Fourth Grade Students at Jambangan 02 Elementary School Batang Regency Academic Year 2012/2013)	Classroom Action Research	20 students (Elementary School)	Game Approach	Learning through <i>lompat kancil</i> (deer jump) game could improve learning outcome
Didi Aribowo (2014)	<i>Upaya Peningkatan Hasil Belajar Rounders Melalui Modifikasi Permainan Yang Disederhanakan pada Siswa Kelas V SD Negeri 04 Simpur Kecamatan Belik Kabupaten Pemalang Tahun Pelajaran 2012/2013</i> (Improving Rounders Learning Outcomes through Simplified Game Modifications for Fifth Grade Students at 04 Simpur Public Elementary School, Belik District, Pemalang Regency, Academic Year 2012/2013)	Classroom Action Research	28 students (Elementary School)	Game-based Method	Game Approach could improve student active roles and learning outcomes
Ivan Agung Kurniawan (2014)	<i>Meningkatkan Hasil Belajar Lompat Tinggi Melalui Permainan Pos Berangkai Pada Siswa Kelas IV Sdn Sidalang 02 Kecamatan Tersono Kabupaten Batang Tahun Pelajaran 2012/2013</i> (Improving High Jump Learning Outcomes through <i>Pos Berangkai</i> Games for Class IV Students Sidalang 02 Elementary School, Tersono District, Batang Regency Academic Year 2012/2013)	Classroom Action Research	12 students (Elementary School)	Game Approach	Learning through <i>pos berangkai</i> (sequenced post) game could improve student learning outcomes
Tri Rejeki Yuniasih (2015)	<i>Meningkatkan Hasil Belajar Lempar Turbo Melalui Modifikasi Permainan Bola Berkuncir</i> (Improving Turbo Throw Learning Outcomes through Tasseled Ball Game Modifications)	Classroom Action Research	26 students (Elementary School)	Game Approach	Game approach method <i>bola berkuncir</i> (tasseled ball) could improve student learning outcomes
Haryanto (2015)	<i>Upaya Meningkatkan Hasil Belajar Lempar Tangkap Bola Melalui Permainan Letabotai</i> (Improving Ball Throwing and Catching Learning Outcomes through <i>Letabotai</i> Game)	Classroom Action Research	40 students (Elementary School)	Game Approach	Learning through <i>letabotai</i> game could improve student learning outcomes

Table 2. Summary of Article Review Results (continue)

Gallank Sasmita (2015)	<i>Peningkatan Hasil Belajar Permainan Bola Kecil Siswa Kelas Vb Tunarungu Dengan Menggunakan Permainan Bola Adventure Dalam Pembelajaran Penjas Di SDLB Negeri Purbalingga Tahun Ajaran 2013/2014</i> (Improving Small Ball Game Learning Outcomes for Student with Hearing Impairment Class Vb Using Adventure Ball Games in Physical Education Learning in Purbalingga State Elementary School Academic Year 2013/ 2014)	Classroom Action Research	7 students (Special Need Elementary School)	Game Approach	Learning through adventure ball game could improve student learning outcomes
Nelly Saadah (2015)	<i>Peningkatan Hasil Belajar Lompat Tinggi Melalui Modifikasi Permainan Sebut Nama</i> (Improving High Jump Learning Outcomes through <i>Sebut Nama</i> Game Modification)	Classroom Action Research	23 students (Elementary School)	Game-based Method	Learning through modification of game <i>sebut nama</i> (name mentioning) could improve motivation, confidence, courage, discipline, and learning outcomes
Jumanto (2015)	<i>Upaya Peningkatan Hasil Belajar Shooting Dalam Bola Basket Melalui Permainan Ring Ganda</i> (Improving Shooting Learning Outcomes in Basketball through Double Ring Games)	Classroom Action Research	21 students (Elementary School)	Game Approach	Learning through <i>ring ganda</i> (double rings) game could improve student learning outcomes
Didi Suhaedi (2016)	<i>Meningkatkan Hasil Belajar Lari Sprint 60 Meter Melalui Pendekatan Bermain Dengan Alat</i> (Improving Learning Outcomes of 60 Meter Sprinting through a Game Approach Provided with	(Qualitative) Classroom Action Research model	50 students (Elementary School)	Game Approach	Learning through game approach provided with tools/properties could improve student learning outcomes
Saniyah (2019)	<i>Peningkatan Hasil Belajar Lempar Turbo Dengan Metode Bermain Lempar Bola</i> (Improving Turbo Throw Learning Outcome through Ball Throwing Method)	(Experimental) Primary Data Source Classroom Action Research	30 students (Elementary School)	Game-based Method	Ball Throwing method could improve student learning outcomes
Hartono (2019)	<i>Peningkatan Pembelajaran Lompat Jauh Dengan Metode Bermain Kelas V Semester 2 SD Negeri Surokidul 02 Tahun Pelajaran 2017/2018</i> (Improving Long Jump Learning Using Game-based Method Class V Semester 2 Public Elementary School Surokidul 02 Academic Year 2017/2018)	Classroom Action Research	31 students (Elementary School)	Game-based Method	Game-based Method could improve student achievement and activity

Table 2. Summary of Article Review Results (continue)

Supratman (2019)	<i>Upaya Meningkatkan Hasil Belajar Tolak Peluru Melalui Media Alat Bantu Dengan Pendekatan Bermain Siswa Kelas IV SD Negeri Srengseng 01 Kecamatan Pagerbarang Kabupaten Tegal Tahun Pelajaran 2015/2016</i>	Classroom Action Research	31 students (Elementary School)	Game-based Method	The implementation of supporting tool media and game-based method could improve student learning outcome
	(Improving Shot Put Learning Outcomes through Game Approach with Media Aids for Fourth Grade Students of Srengseng 01 Public Elementary School, Pagerbarang District, Tegal Regency, Academic Year 2015/2016)				

Table 3. Learning Outcomes through the Game-Based Method

Author and Year of Publication	Type of Research	Learning Methods	Results
Wirdayanto (2013)	Classroom Action Research	Game Approach	could improve student learning outcomes
Aribowo (2014)	Classroom Action Research	Game-based Method	could improve student active roles and learning outcomes
Kurniawan (2014)	Classroom Action Research	Game Approach	could improve student learning outcomes
Sasmita (2015)	Classroom Action Research	Game Approach	could improve student learning outcomes
Yuniasih (2015)	Classroom Action Research	Game Approach	could improve student learning outcomes
Saadah (2015)	Classroom Action Research	Game-based Method	could improve student motivation, confidence, courage, discipline, and learning outcomes
Haryanto (2015)	Classroom Action Research	Game Approach	could improve student learning outcomes
Jumanto (2015)	Classroom Action Research	Game Approach	could improve student learning outcomes
Suhaedi (2016)	(Qualitative) Classroom Action Research model	Game Approach	could improve student learning outcomes
Supratman (2019)	Classroom Action Research	Game-based Method	could improve student learning outcomes
Saniyah (2019)	(Experiment) Primary Data Source Classroom Action Research	Game-based Method	could improve student learning outcomes
Hartono (2019)	Classroom Action Research	Game-based Method	could improve student achievement and learning activities

CONCLUSION

The game-based method is one of the learning approaches that is highly recommended to be applied in Physical Educa-

tion Sport and Health subject because this method is suitable for the characteristics of elementary school-aged children, where this method has succeeded in increasing student

learning outcomes and improving other aspects, including motivation, psychomotor, and student activity. By using this method in the learning process, it is hoped that the learning process can be better and more effective.

Each method must have its own advantages and disadvantages. This article briefly explains the advantages and disadvantages of the Game-based Method. Playing is a basic principle of education for children aged 6 to 12 years, so it is natural that playing is one of the methods that teachers must do in the learning process for elementary school age children.

The advantages of this method are (1) Suit the stage of child development that requires a media for developing all developmental aspects, including physical development, cognitive development, and emotional development, (2) Can encourage students' interest in learning. By playing, students usually do not realize that they are learning something because their main focus is the interest in playing.

The disadvantages of this method are (1) If this method is carried out without careful preparation, there is a possibility that the learning objectives will not be achieved optimally because students too focus in the playing process, especially, for example, when the teacher pays less attention to the stages of learning in this method. (2) This method usually requires well-prepared learning strategies and media. Therefore, the availability of playing media is a necessity for the application of this method. The media is not only in the form of properties, but also various types of games that must be mastered by the teacher so that learning can go well. If the teacher does not provide learning media, the learning objectives will be difficult to achieve.

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