

# Development of Physical Education Teaching Materials Based on Small Games and Traditional Games in Primary Schools in the Implementation of the Independent Curriculum

Suryadi Damanik<sup>1</sup>, Usman Nasution<sup>2</sup>, Doris Apriani Ritonga<sup>3</sup>, Saipul Ambri Damanik<sup>4</sup>, Suci Mutiara Dewi<sup>5</sup>

{suryadi67@unimed.ac.id<sup>1</sup>, usman@unimed.ac.id<sup>2</sup>, dorisritonga@unimed.ac.id<sup>3</sup>, ambridamanik@unimed.ac.id<sup>4</sup>, sucimutiaradewi43@gmail.com<sup>5</sup>}

Physical Education Health and Recreation Study Program, Faculty of Sports Science, Universitas Negeri Medan, Indonesia<sup>1</sup>, Physical Education Health and Recreation Study Program, Faculty of Sports Science, Universitas Negeri Medan, Indonesia<sup>2</sup>, Physical Education Health and Recreation Study Program, Faculty of Sports Science, Universitas Negeri Medan, Indonesia<sup>3</sup>, Physical Education Health and Recreation Study Program, Faculty of Sports Science, Universitas Negeri Medan, Indonesia<sup>4</sup>, Physical Education Health and Recreation Study Program, Faculty of Sports Science, Universitas Negeri Medan, Indonesia<sup>5</sup>

**Abstract:** It is vital to provide learning that is engaging, enjoyable, and tailored to the requirements of students in addition to developing the 21st-century learning paradigm and implementing an autonomous curriculum. The goal of this development research is to provide PJOK teaching materials for elementary schools that are based on traditional and small games that can be used to implement the independent curriculum. The Research Development (R&D) development model from Brog and Gall is employed in the stages of the research model used in the creation of the PJOK Teaching Materials Based on Small Games and Traditional Games in Elementary Schools in the Implementation of the Independent Curriculum. In line with the development of the 21st-century learning paradigm and the implementation of students' independent curriculum through small/simple games and traditional games in the form of good category teaching materials, the development has resulted in small games or simple games and traditional games as a means of developing students' basic movement abilities, character, and physical fitness.

**Keywords:** Teaching Materials, Physical Education, Small Games, Traditional.

## 1 Introduction

The Minister of Education and Culture gave the go-ahead for independent learning to be introduced in Indonesian educational institutions in 2020. Freedom in learning is the freedom of educational institutions to design their policies so that educators avoid complicated bureaucratization and students can choose the field of education that they like [1]. Then the principle of independent learning is that an individual who carries out learning activities should not feel shackled, oppressed, not yet free, and has limited and monotonous access to learning resources [2]. The development of education that is based on independent learning is in line with the development of Industry 4.0, where each individual must be able to master data literacy, technological literacy, and human literacy [3]. The ability to think critically and creatively, to invent, to solve problems, to communicate, to collaborate, and to exhibit noble traits are all benefits of literacy. Freedom in learning needs to be implemented for students struggling to obtain maximum knowledge. The nation's greatest asset is the creation of a superior generation that is competitive enough to advance the country and state in the Republic of Indonesia's Unitary State. To realize independence in learning, educators need to plan learning activities carefully and seriously, not just fulfilling obligations, but not implementing the master plan that has been made.

Physical education is one of the courses that must be taught in elementary and secondary education. The overall goal of Indonesia's 21st-century curriculum's physical education classes is to teach students through movement exercises, enhance their overall health and fitness, and assist them in achieving both general education goals and 21st-century competencies like critical thinking, communication, teamwork, creativity, and innovation, as well as the ability to adapt to rapidly changing technological environments [4]. The learning process, which is the core of physical education, involves a lot of movement and physical exercise. Put another way, students do not genuinely spend time listening to teachers explain topics in the form of theories, even within the trend of independent learning known as the literacy revolution. Literacy in physical education is often associated with reading and writing, which are essentially more common in knowledge. Another term for the motivation and self-assurance, physical aptitude, knowledge, and understanding to appreciate and accept responsibility for lifetime physical activity involvement is physical literacy [5].

The concept of independent learning is really consistent with the physical literacy concepts of physical education, which include teaching kids about their physical condition and how to safely maintain it with the knowledge they have learned in the classroom. Therefore, physical education instruction must be designed in a way that will naturally inspire and thrill students to engage in active physical exercise while still imparting the essential academic information. The successful completion of the learning process in physical education learning design depends on the application of independent learning trends.

Teaching materials contain a set of materials that are arranged systematically, clearly, and in writing to present a complete picture of the competencies that students will master and use in the

learning process so that learning objectives are achieved [6]. Textbooks are compiled and prepared by experts or experts according to their fields of knowledge and are equipped with appropriate and harmonious teaching suggestions [7]. Textbooks used as teacher guidebooks must continue to be updated in terms of systematics, curricula, content, and the language used. When researchers conducted field observations and discussions with teachers during community service activities at teacher group work in 2022 regarding problems with physical education learning systems and strategies, it was seen that many educators in schools still used conventional teaching materials, namely teaching materials that were ready to use, instant, and without any effort to plan, prepare, and compile them themselves. Thus, the teaching materials used are not interesting, monotonous, and do not meet the needs of students. During the implementation process of the 2022 and 2023 In-Service PPG, the researcher as an instructor concluded that the ability of teachers to prepare teaching materials that are to the needs of students and the demands of implementing the independent curriculum is still very low.

Small game sports are essentially a physical education method of learning that is structured in this way for physical activity and physical fitness of students in schools that must be given by a physical education teacher. Learning small-game sports is one of the strategies in providing good physical education learning because the goal in small-game sports think it is essential that students be able to recognize various types of traditional sports and can modify forms of sports games to support physical activity and physical fitness of students. Small games are games in the form of modified sports and can also be taken in traditional games whose main purpose is to get satisfaction, increase student enthusiasm in physical education learning, and increase student fitness by playing.

Along with the phenomena that occur in elementary schools (SD) and the development of the 21st-century education paradigm, efforts are needed to develop interesting, fun, and supplying appropriate teaching materials according to the characteristics of the students in order to carry out the execution of the autonomous curriculum. Researchers are therefore interested in the study topic "Development of Physical Education Teaching Materials Based on Small Games and Traditional Games in Elementary Schools in the Implementation of the Independent Curriculum."

## **1.1 Theory**

### **1.1.1 Teaching materials**

Efficiently implemented education also contributes to the progress of the country. To meet the national education goals, thorough efforts must be made to create effective planning, tactics, and strategies. In the 21st century, every individual needs to be dedicated and innovative in their adaptation to educational changes if they want to turn obstacles into opportunities. To develop themselves, they must also continue their studies continuously [8].

Part of the development process involves creating educational materials that comply with applicable curriculum specifications. Teaching materials consist of a collection of written materials that are logically arranged and provide a complete picture of the competencies that

students will acquire and apply during the learning process to achieve learning objectives [6]. Textbooks are equipped with careful teaching guidelines and are written by experts or specialists in the scientific fields they cover [7]. Textbooks used as teaching reference materials must be updated regularly in terms of content, language use, curriculum, and organization. The basis for developing textbooks consists of four elements: graphic feasibility, language, content, and presentation [9].

### 1.1.2 Independent Curriculum

With higher quality content and a variety of extracurricular learning options in the independent curriculum, students have plenty of time to study subjects and improve their abilities. To adjust education to students' needs and preferences, teachers are free to choose from a variety of pedagogical materials. Thanks to the Independent Curriculum, teachers can create excellent classes that suit students' needs and their learning environment. The three main components of the Independent Curriculum are: 1) development of non-technical skills and character; 2) focus on important subjects; and 3) flexible learning.

The government has designed a special concept that is the basis for efforts to improve the achievement of Pancasila student profiles. Because this project does not have specific learning objectives, it is not tied to subject content.

### 1.1.3 The Nature of Physical Education, Sports and Health

The Nature of Physical Education, Sports and Health offering a clear starting point of reference for all PE teachers it is highly recommended that quality PE be adopted internationally and used consistently [10]. Rules and criteria should be considered from the outset of content selection to make the physical components of PE age-appropriate for the student, physical skills that enhance cognition and range of motion should also be included [11]. All content must be relevant and engaging for students so they can progress toward the goal of becoming skilled learners in physical movement literacy. PE is the study of human movement, namely studying the relationship between movement and health, and movement performance there are various variations of movements performed to maintain health and others performed to gain a competitive advantage in sport [12].

Thus it can be concluded that Physical Education Sports Health is a physical activity carried out to achieve general educational goals so that students gain knowledge, skills, and attitudes from their learning outcomes. Thus physical education teachers need to understand the objectives of Physical Education Sports Health so that movement learning is in line with the competencies achieved by the independent curriculum standards.

The overarching objective of modern PJOK is to assist people in gaining the understanding, abilities, and motivation required to engage in physical activity throughout their lives [13]. The three components of Physical Education Sports Health goals are affective, psychomotor, and cognitive. The cognitive component focuses on improving academic performance, student interest in learning, assessment, goal-setting for health, and preventing or enhancing depressive

symptoms. From an emotional perspective, it then seeks to foster a healthy lifestyle and boost social skills, self-control, discipline, and self-confidence. Psychomotor goals include lowering the risk of colon cancer, high blood pressure, diabetes, heart disease, and obesity; improving flexibility, strength, and cardio-respiratory endurance; controlling body composition; honing basic movement and sports skills; and maintaining general fitness. Promoting children's social, emotional, and physical growth while they are in school is the primary objective of physical education sports health in practically all nations [14].

The objectives of Health and Physical Education in Indonesia can be sorted into sub-objectives, with the specification of short-term goals. The achievable goal is to meet the individual needs of students and adapt to the needs of students and changes in the community environment. In the Regulation of the Minister of Education and Culture Number 24 of 2016 concerning Core Competencies and Basic Competencies, the objectives of the Health and Physical Education subject lead to the formation of spiritual attitudes, social attitudes, knowledge, and skills [9]. Each level of education has differences and different levels of objectives, in realizing the objectives of Physical Education for Health and Sport in Indonesia, it is compiled and translated into basic competencies. The content of the basic competencies of each level of education in the knowledge aspect is translated into 10 basic competencies which are aligned with the skills aspect and also translated into 10 basic competencies. From the basic competencies of Health Sports Physical Education contained in the 2013 curriculum, the material is developed by physical education teachers who adjust the conditions and environment that exist in the education unit they teach.

Thus it can be said that the objectives of Physical Education and Sports Health include the domains of knowledge, attitudes, and skills. Every student who has learned Physical Education and Sports Health is expected to understand and be able to live a healthy lifestyle that will support their future career. Therefore, a physical education teacher wants to strive to provide the right learning services to achieve the goals of Physical Education and Sports Health comprehensively.

#### 1.1.4 Small Games and Traditional Games

Small game sports are essentially a physical education learning process that is designed in such a way for physical activity and physical fitness of students in schools that must be given by a physical education teacher [15]. Small-game sports learning is one of the strategies in providing good physical education learning because the goal in small-game sports think it is essential that students be able to recognize various types of traditional sports and can modify forms of sports games to support physical activity and physical fitness of students. Belka in Erianti explained that "games can be classified into five types, namely; touch games (tag games), target games (target games), net and wall games (net and wall), invasion games (invasion games), and fielding games (fielding games)". So it can be said that games are a benchmark to support physical activity that is useful for a person's physical fitness, and games also have many clarifications that will later be chosen by a teacher and are appropriate to use and given to students at school [16].

Traditional games are sometimes known as folk games. Traditional games are those that are made by the community itself, have positive values that are passed down through the

generations, and are played from the past to the present. According to Rizki Yulita [17], games that have been passed down from generation to generation since antiquity are regarded as traditional. Traditional games use wood, bamboo, shells, and other local materials as tools. Tools are not even utilized sometimes. This suggests that traditional games do not require large sums of money.

Of course, an activity needs to have traditional elements that are closely related to the traditions or customs of a certain community group in order to be labeled as a traditional game. In addition, the activity must have play elements that further the objectives of the activity and substantial physical components that clearly involve the group. As a result, an activity is classified as a traditional game if it plays in a group, keeps some of the traditional elements, and avoids making the strategy or its basis evident when it is used [18]. Because of their nature, tenets, and objectives, traditional games can therefore also be used as instructional tools.

## 2 Method

The research method used in this research is research and development (Research and Development) related to product development, through the process of planning, producing, and evaluating product validity.

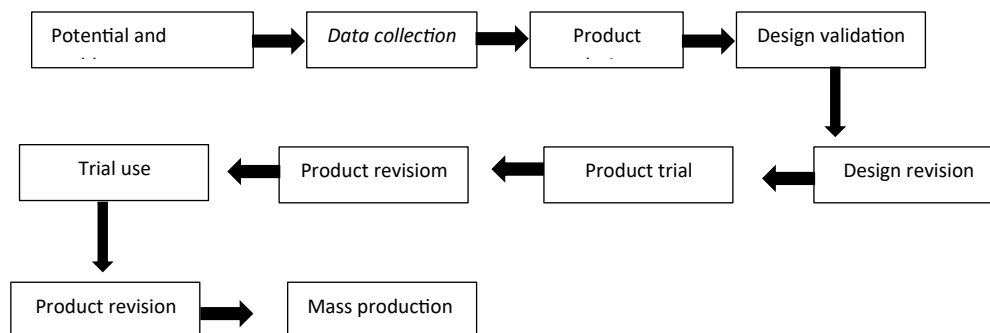


Fig. 1. Steps to Use Method Research and Development (R & D) [19].

## 3 Results and Discussion

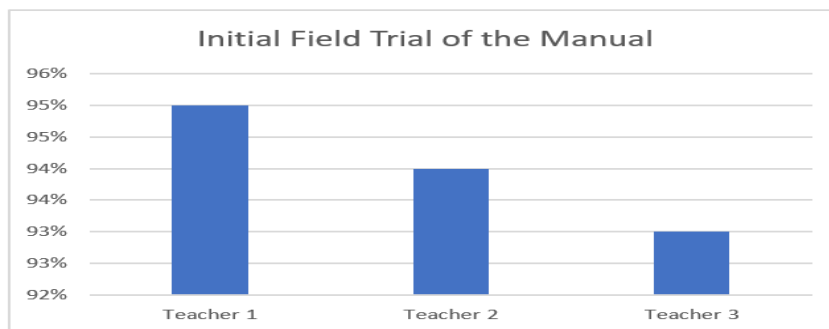
The teaching modules in the school have implemented the autonomous curriculum based on professional comments and recommendations for teaching materials for Physical Education, Sports, and Health based on small games and traditional games in elementary schools. The recommendation is as follows: "In elementary schools, where the curriculum for Physical Education, Sports, and Health is based on small games and traditional games, it must be supplemented with aspects of Physical Education, such as cognitive, psychomotor, and affective aspects. These three aspects can be built using small games and traditional games in the implementation of the independent curriculum, so in building character can also build aspects of education that are implemented." The games will be used in conjunction with the autonomous

curriculum and the physical education idea. To ensure that the creation of game variations is flawless, efforts are made to incorporate the assessment's findings into the variations through enhancements and modifications.

The assessment is related to the aspect of suitability to the independent curriculum in schools and the Learning Program Plan that will be used. Suitability of learning presentation, suitability of student competency needs, suitability of needs in the learning process that will take place such as planning, implementation, cognitive, affective, psychomotor aspects, and closing. From the components that have been explained, the validation of the Physical Education, Sports, and Health learning assessment has a percentage of 86% or the "Valid" category. The II Stage of the Assessment obtained a percentage result of 98% which is said to be "Very Valid". In addition, learning also provides suggestions so that the material is worked on by the learning process or teaching module by the Physical Education, Sports, and Health teaching materials which will provide broad insight so that more perfect variations can be obtained.

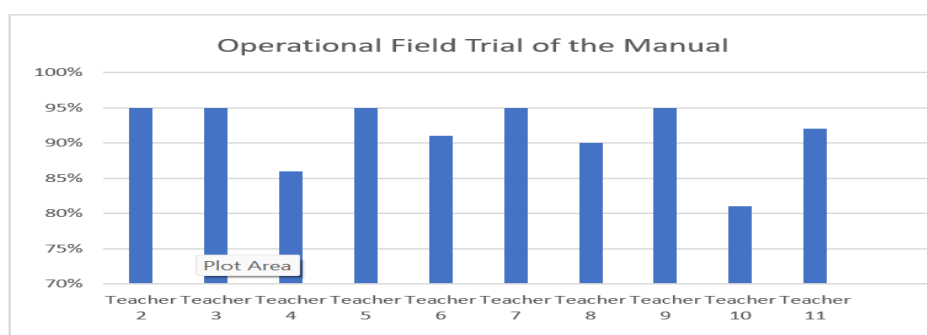
The versions of the games are good and easy to understand, but there are a few that need to be made easier so that kids do not have difficulty playing. These comments and suggestions are related to teaching materials for physical education, sports, and health based on small games and traditional games in elementary schools in the implementation of the independent curriculum as a whole. The students' characters serve as the actors in the game, but it needs to be augmented with guidelines and equipment that keep them safe while they play. Researchers improved the game to make it more organized and tidy in the game process based on the discussion's outcomes.

Based on revisions received from media experts in the form of remarks and recommendations about different game variations used in physical education and health sports teaching materials, specifically "the cover images are teacher assessment characteristics, the colors are appealing, and the overall design is good." There are several details of the physical education and health sports teaching materials, such as the title page, foreword, table of contents, concept maps, and subjects that need to be taken into consideration to be neater and more attractive. The book cover is clarified and added with material related to the independent curriculum. The material arrangement is further improved. The identity on the front cover is incomplete. The basis for developing better physical education and health sports teaching materials based on small games and traditional games in elementary schools during the implementation of the independent curriculum is all the feedback and recommendations from media experts. This process results in more ideal teaching materials.



**Fig. 2.** Initial field trial on teachers

This stage of the trial was conducted in a school that has a Physical Education Teacher Group Work community in Medan with 3 respondents. The first teacher is 95%, the second teacher 94%, the third teacher 93%, the average trial result is 94% or a very valid category. The remaining 6% can be seen based on comments and suggestions, such as adding concepts about the character of elementary school students.



**Fig. 3.** Operational Field Trial

The next step is to conduct an operational field trial to determine how much attractiveness and feasibility of the product being developed. This stage is a test on a larger number of samples than the field test that has been done previously, namely conducting a trial on 11 physical education teachers in the Medan City physical education teacher working group and the trial results reached 92% or the category "Very Valid", As for 8% of deficiencies in the development of traditional games can be seen based on comments and suggestions. The comments and suggestions are so that the layout of the image is neater, and uniform in the size of each image.

Prior studies have shown that incorporating multimedia material into traditional North Sumatra children's games can improve student learning outcomes and increase sports engagement in the classroom. In the field experiment, sports participation increased by 21.05% when compared to pre-test results [20]. The results of the study show that this equipment is very good in terms of safety and can help fourth-grade elementary school students develop their basic jumping movements and character. It can be used to vary physical education, sports, and health lessons using a method of playing obstacles, dribbling balls, arranging triangle blocks, and arranging puzzles [21].

Based on the aforementioned explanation, the researcher has concluded that the instruction materials for physical education, sports, and health are based on traditional and small games in elementary schools. These materials are part of the independent curriculum that will be implemented in elementary schools for teacher textbooks.



## 4 Conclusion

This research yields a product in the form of instructional materials for physical education, sports, and health based on small games and traditional games in elementary schools to implement the curriculum. The research was conducted in accordance with the Research and Development research procedure. Physical education teachers can use these books as companions when conducting lessons in the classroom. They provide teaching resources for physical education, sports, and health that are based on little games and classic activities seen in primary schools.

## References

- [1] Kemendikbud. 2020. Buku Panduan Pelayanan Merdeka Belajar dan Kampus Merdeka. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- [2] Widiyono, A., Irfana, S. & Firdausia, K. 2021. Implementasi Merdeka Belajar Melalui Kampus Mengajar Perintis di Sekolah Dasar. *Jurnal Pendidikan Ke-SD-an*, 16(2), 102–107.
- [3] Yamin, M. & Syahrir, S. 2020. Pembangunan Pendidikan Merdeka Belajar (Telaah Metode Pembelajaran). *Jurnal Ilmiah Mandala Education*, 6(1), 126–136.
- [4] Mustafa, P.S. & Dwiyoogo, W.D. 2020. Kurikulum Pendidikan Jasmani, Olahraga, dan Kesehatan di Indonesia Abad 21. *JARTIKA Jurnal Riset*
- [5] IPLA. 2017. The International Physical Literacy Association (IPLA). (online), (<https://www.physical-literacy.org.uk/>), diakses Februari 2024.
- [6] Prastowo, A. 2014. Panduan Kreatif Membuat Bahan Ajar Inovatif. Jogjakarta: DIVA Press
- [7] Tarigan, Henry Guntur. 2009. Pengajaran Semantik. Bandung: Angkasa
- [8] Rakhmawati, D. 2017. Konselor Sekolah Abad 21: Tantangan dan Peluang. *Jurnal Konseling GUSJIGANG*, 3(1), 58–63.
- [9] BSNP. 2016. Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 24 Tahun 2016 tentang Kompetensi Inti dan Kompetensi Dasar Pelajaran pada Kurikulum 2013 pada Pendidikan Dasar dan Pendidikan Menengah.
- [10] Lynch, T. 2016. *The Future of Health, Wellbeing and Physical Education*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-31667-3>
- [11] Clements, R. L., & Schneider, S. L. 2017. *Moving With Words & Actions Physical Literacy for Preschool and Primary Children*. (V. Reston, Ed.). Human Kinetics.
- [12] Mustafa, P. S., Winarno, M. E., & Asim. (2016). Pengembangan Variasi Latihan Service Atas untuk Peserta Ekstrakurikuler Bolavoli di SMK Negeri 4 Malang. *Jurnal Pendidikan Jasmani*, 26(1), 159–175. <https://doi.org/http://dx.doi.org/10.17977/pj.v26i1.7740>
- [13] Walton-Fisette, J. L., & Wuest, D. A. (2018). *Foundations of Physical Education, Exercise Science, and Sport* (19th ed.). New York: McGraw-Hill Education.
- [14] D’Anna, C., Forte, P., & Gomez Paloma, F. 2019. Physical education status in European school’s curriculum, extension of educational offer and planning. In *Journal of Human Sport and Exercise* - 2019 -

Spring Conferences of Sports Science (Vol. 14, pp. 805–817). Universidad de Alicante. <https://doi.org/10.14198/jhse.2019.14.Proc4.43>

[15] Saipul Ambri Damanik, Suryadi Damanik, Usman Nasution, Doris Apriani Ritonga, Zulfan Heri. 2023. Development Of Basic Motion Learning Model To Develop Creative Thinking Ability Through Approach To Play In Elementary School. Intern. Journal Of Profess. Bus. Review. Miami, V. 8 (N. 4) P. 01-12. E01542.

[16] Erianti. (2009). Pendidikan Jasmani Adaptif. Malang: Wineka Media

[17] Rizki Yulita. 2017. Permainan Tradisional Anak Nusantara. Jakarta Timur: Badan Pengembangan dan Pembinaan Bahasa.

[18] Agus Mahendra. 2012. Permainan Anak dan Aktivitas Ritmik. Permainan Tradisional 1. Universitas Pendidikan Indonesia. Modul 4, Maret 2012

[19] Sugiyono. 2016. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung. Alfabeta.

[20] Suryadi Damanik, Saipul Ambri Damanik, Doris Apriani Ritonga. 2024. Creating Digital Content for Traditional Children's Games in North Sumatra to Preserve Culture and Enhance Sports Participation. Al-Ishlah: Jurnal Pendidikan Vol.16, 2 (June, 2024), pp. 2211-2219 ISSN: 2087-9490 EISSN: 2597-940X, DOI: <https://doi.org/10.35445/alishlah.v16i2.4683>

[21] Doris Apriani Ritonga, Suryadi Damanik, Saipul Ambri Damanik, Suprayitno Suprayitno, Galih Priyambada. 2022. Development of Learning Variations to Improve Basic Jumping Skills and Play Approaches of Elementary School Students. International Journal of Education in Mathematics, Science, and Technology (IJEMST), 10(2), 360-371. <https://doi.org/10.46328/ijemst.2246>.