Games Based Learning

by Lulut Gilang

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Game-Based Learning Model of Pencak Silat for Early Childhood to Build Self-Efficacy

Lulut Gilang Saputra[1], Lokananta Teguh Hari Wiguna[2], Arief Darmawan[3], Muhammad Ilham Vahrudin[4], Muhammad Akbar Cendra Wirayudha[5]

[1,2,3] Faculty of Sport Science, State University of Malang, Indonesia
[4,5] Faculty of Sport Science, State University of Malang, Indonesia
email: lulutgilang.fik@um.ac.id[1]

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Abstract

This study aims to develop a pencak silat training model for early childhood that is suitable as a pencak silat textbook for kindergarten students at Aisyiyah Bustanul Athfal 9 Malang. *Research and Development (*R&D) was the research method used in this study. The data collection instruments used by the researcher included interviews, observations, questionnaires, and documentation, with the results being qualitative and quantitative data. The product validation process involved several experts, including early childhood learning experts, pencak silat material experts, and media experts. Then, the product underwent a trial process in small and large groups. The results of the product validation obtained a percentage of 82% from early childhood learning experts, 87% from pencak silat material experts, and 90% from media experts, so it was considered very valid and meaningful to be used. The small group trial results obtained a percentage of 82%, and the large group trial results obtained a percentage of 84%, making it highly valid and meaningful for implementation. Thus, the pencak silat *game-based learning* model for students at Aisyiyah Bustanul Athfal 9 Malang Kindergarten shows that the game-based pencak silat *book* for kindergarten-aged children is highly valid and suitable for use.

Keywords: *Pencak SIlat, Game Based Learning, Early Childhood, Self-Efficacy*

INTRODUCTION

Self-confidence and social skills are the product of complex interactions between genetic factors, the environment, and personal experiences. Shy children tend to prefer to be alone and may feel uncomfortable when socializing with their environment. One step to achieve this level of confidence is to involve children in learning pencak silat. This is because pencak silat has great potential in shaping children's character from an early age.

Alamat Koresponden : Faculty of Sport Science, State University of Malang, Indonesia
Email : ulutgilang.fik@um.ac.id

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By developing learning activities that focus on games, it is hoped that children will be able to more easily understand and enjoy the process of learning pencak silat, thereby indirectly increasing their self-efficacy.

Nowadays, character education has become a topic of discussion in various circles, whether through schools, seminars, or various electronic media. Character is the motivation to choose the best in life as Indonesian citizens, and this must be instilled from an early age in the future generation of the nation, one of which is through pencak silat education in pencak silat lessons and through pencak silat extracurricular activities provided at school (Dolohmae, 2019). This is not merely a medium for learning and character building, but also for preserving the Indonesian culture that has been passed down for a long time. In fact, pencak silat is a sport that has gone global and is known by various circles.

Pencak silat learning is the process of acquiring knowledge, skills, and understanding of the traditional Indonesian martial art known as pencak silat. It involves various attack and defense techniques, body movements, as well as the cultural and philosophical values inherent in this martial art. The martial art of pencak silat is part of Indonesia's cultural heritage. Silat is a complex martial art because it involves the whole body to perform punches, kicks, and other fighting techniques. The forms of attack in pencak silat include falling techniques, kicking techniques, throwing techniques, and striking techniques. The forms of defense in pencak silat include evasion techniques, blocking or parrying techniques, side step or dodging techniques, and locking techniques. Learning pencak silat has a substantial impact on shaping the character of students in the context of sports education. In addition to teaching self-defense skills, pencak silat also reinforces moral and ethical principles that are important for good character development (Mulyana, 2015).

Pencak silat is often practiced in group or team activities. Students can learn together with friends, support each other, give each other feedback, and build strong solidarity (Mufarriq, 2021). In groups or teams, students can learn with their peers, which allows for cooperation in performing each movement in pencak silat training, so that they can understand each other's abilities and also provide feedback or support to their group or team members. This also helps build good relationships with each

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member of the group and team, enabling them to perform pencak silat activities well. In each training session, students will learn to improve their pencak silat skills and will follow all instructions from the coach or teacher to train their abilities and also provide progress reports in each meeting. So that each student will train as much as possible to improve their abilities and provide evaluations to the coach or teacher. In pencak silat training, each student must have patience and perseverance in every training session. Students can learn not to give up easily when faced with difficulties, thereby strengthening their character in facing life's challenges (Mulyana, 2015).

Based on research (Azizah, et al, 2020), it was revealed that, first, this pencak silat education program was specifically designed to develop five character values in students. Second, in its implementation, this program involved four ibingan moves that were taught. Third, the assessment in this program covered three important aspects, namely wiraga, wirahma, and wirasa. Fourth, the character traits that this program aims to develop are piety, strength, agility, alertness, and resilience. However, this study also found some obstacles faced by trainers, particularly related to limited learning media and difficulties in maintaining the concentration of young children during the learning process. Pencak silat learning has benefits in developing physical skills. Pencak silat learning allows students to develop superior physical abilities, including flexibility, speed, strength, and coordination. This is in line with mental and physical development towards adulthood. Pencak silat learning can train discipline, as every exercise performed in pencak silat is usually synonymous with discipline.

Pencak silat learning requires consistency and high commitment. Therefore, to achieve the objectives, it is necessary to follow the training and instructions from the coach and comply with the rules in practice (Muhtar, 2017). Pencak silat is deeply rooted in noble values and serves as a vehicle for education. The noble values contained in the art of pencak silat include aspects of sports, art, self-defense, and mental spirituality. These aspects become a unity that is integrated within a pencak silat practitioner (Dolohmae, 2019). Pencak silat is an effort to shape the character of students, which can be assisted and controlled by teachers through the application of good and appropriate learning models. Through the application of good and appropriate learning models, students' characters will be shaped and developed gradually. This theory is in line with the theory that says that the growth of morality and character in each individual can be determined by

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stages that have individual cognitive development from the easiest stage to the most difficult or complex stage. A character-based pencak silat learning model can be applied in learning that can produce a number of specific data related to the improvement of a student's character. The principle of learning in the development of national culture and character education aims for students to understand and internalize these values as their own and to be responsible for the choices they make (Fernanda & Muktiani, 2019). They learn through the process of thinking, persevering, establishing a stance, and organizing values in accordance with their self-confidence . These three processes aim to improve students' ability to participate in social activities and motivate them to consider themselves as social beings.

Through learning pencak silat, some students who previously admitted to speaking and behaving badly before practice, and some even raised their voices at their parents when angry because they felt guilty. The skills of speaking with polite manners, which are often emphasized in practice, are brought home. They can also help their parents more with heavy work if they exercise. In addition, several schools also offer pencak silat as an extracurricular activity for students who have a greater interest in this sport. Pencak silat extracurricular activities are a means of character education that can guide students to improve their potential, talents, and good attitudes, as well as minimize negative activities. Pencak silat extracurricular activities can be chosen as a learning activity that not only targets cognitive and psychomotor aspects but also focuses on affective aspects related to a person's values, attitudes, and behavior (Riani & Purwanto, 2017). Thus, it is hoped that pencak silat learning in extracurricular activities can be improved and achieve its targets, particularly in shaping the character of students. The character referred to is one that is responsible, more disciplined, courageous, able to optimize students in facing challenges, and able to control emotions and build a sense of solidarity. All of these things can be achieved if students are able to persevere and are supported by other elements, both teachers and the necessary facilities and infrastructure.

Based on research (Nuraida, et al, 2016), the local content program of pencak silat implemented at An-Nur Early Childhood Education has succeeded in fostering various positive character values in students, ranging from religious, social, to intellectual values. Children become more faithful, have good morals, are tolerant, independent, critical, and creative. This reinforces that the program is effective in realizing a balanced character in

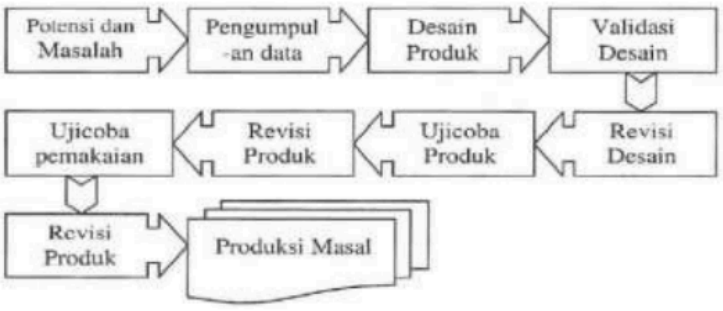
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children who are ready to face the challenges of the times. Another study (Rizal, et al, 2021) proves that Tapak Suci pencak silat training is not just a sport, but also a means of shaping a well-rounded personality. By combining physical and mental aspects, students are trained to become confident, disciplined individuals with a strong mentality. Promotion tests, where students are prohibited from looking or cheating, become an arena to show the results of their training and increase their confidence. Furthermore, (Ruswinarsih et al., 2023) said that kuntau training not only trains the body but also shapes the character of responsible and peace-loving fighters. These values are formed through the process of training, competition, and social interaction, as well as the example set by the trainers. Kuntau has great potential to become an effective means of character education in the community and schools.

Therefore, this study aims to examine the effectiveness of game-based learning in teaching pencak silat to early childhood. By turning learning into a game, it is hoped that children's motivation to learn and self-confidence will be boosted. This study is expected to contribute to the creation of an innovative and enjoyable learning model, as well as provide recommendations for the development of character education for early childhood in Indonesia.

METHOD

This type of research is research and development that aims to produce a learning medium using the model developed by Sugiyono (2013). The ten steps in the model developed by Sugiyono are as follows.



This study uses the technique created by Sugiyono (2013:298), which consists of 10 steps. However, this study only uses 8 steps, adjusted to the needs and considered to cover the overall process and efficiency of the research. The 8 steps used are: (1)

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potential and problems that occur, (2) data collection, (3) design and product development (textbook), (4) validation by several experts, (5) product evaluation and revision, (6) product testing, (7) product revision, (8) product production or final product.

In this study, the subjects for developing student responses to the pencak silat book Game-Based Learning media were students at Aisyiyah Bustanul Athfal 9 Kindergarten in Malang. Meanwhile, the instruments used in this study were questionnaires given to subject matter experts and media experts to obtain the feasibility of the Game-Based Learning and Self-Efficacy products. Additionally, questionnaires were distributed to students to obtain responses to the pencak silat Game-Based Learning media. The data obtained will then be analyzed using the following formula:

$$Presentage = \frac{\sum Score\ Given\ by\ the\ Validator}{\sum Maximum\ Score} x\ 100\%$$

The criteria score is determined based on the highest score X number of aspects X number of assessors.

The results of the analysis on the validation sheet and student responses to the pencak silat book Game-Based Learning media used the score interpretation in Table 2 below.

Table 1 Average Assessment Interval

No	Average Interval of Expert Assessments	Expert Criteria	Student Criteria
1	81≤Score≤100	Very Valid	Very High
2.	61≤Score≤80	Valid	High
3.	41≤Score≤60	Quite Valid	High Enough
4.	21≤Score≤40	Not Valid	Not High
5.	0≤Score≤20	Very Not Valid	Very Not High

Effectiveness is measured based on the level of success achieved from the implementation of the pencak silat book game-based learning media, which has been designed as well as possible by the researcher. The effectiveness assessment in this study is categorized as follows:

81% to 100%: Very Effective

61% to 80%: Effective

41% to 60%: Moderately Effective

21% to 40%: Less Effective Below 20%: Not Effective

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The process carried out to ensure the validity of the criteria for effectiveness and attractiveness of this silat book-based learning media will be validated by early childhood learning experts, pencak silat material experts, and media experts. Furthermore, an evaluation stage will be carried out to conclude and review the results based on questionnaires filled out by experts to determine whether the research objectives have been achieved.

RESULT

The silat book product for kindergarten children at ABA 9 Kindergarten in Malang is a pencak silat teaching book. The silat book product displays simple pencak silat movements performed by kindergarten children, which are then made into animations to make it easier for students to learn these movements.



Figure 2. Silat *Book* Cover Display



Figure 3. Silat *Book* Product Display



Figure 4. Pencak Silat Video Cover Display



Figure 5. Pencak Silat Video Display

This silat *book* product has undergone analysis and validation by several experts, including early childhood learning experts, pencak silat material experts, and media

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experts.

The product in this study has undergone analysis and validation by early childhood learning experts, martial arts experts, and a trial process. The results of the product analysis and trial are presented in the form of tables and descriptions below:

Table 1.1 Results of Early Childhood Learning Expert Analysis Data

No	Aspect	Percentage	Category
1.	Attractiveness	86	Very Valid
2.	Relevance	85	Highly Valid
3.	Ease	80	Valid
4.	Effectiveness	80	Valid
5.	Clarity	80	Valid
	Validation	82	Highly Valid

The process of analyzing the validation test results by early childhood learning experts refers to several aspects, including suitability, attractiveness, clarity, and usefulness, which obtained a percentage score of 82%. Therefore, it can be concluded in the percentage criteria table that the pencak silat *book* development product is in the highly valid category, which means it is suitable for use with minor improvements to the glossary section, which can then be tested.

Table 1.2 Results of the Silat Material Expert Analysis

No	Aspect	Percentage	Category
1	Attractiveness	90	Highly Valid
2.	Relevance	90	Highly Valid
3.	Ease	85	Valid
4.	Effectiveness	85	Highly Valid
5.	Clarity	85	Valid
	Validation	87%	Highly Valid

The process of analyzing the validation test results by pencak silat experts refers to several aspects, including suitability, attractiveness, clarity, and usefulness, which obtained a percentage score of 87%. so it can be concluded in the percentage criteria table that the pencak silat *book* development product is in the highly valid category, which means it is suitable for use with a few suggestions to add a variety of stances, so that it can then be tested.

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Table 1.3 Expert Media Analysis Results

No	Aspect	Percentage	Category
1	Attractiveness	95	Highly Valid
2.	Relevance	90	Highly Valid
3.	Ease	90	Very Valid
4.	Effectiveness	85	Highly Valid
5.	Clarity	90	Very Valid
Validation		90	Highly Valid

The process of analyzing the validation test results by media experts refers to several aspects, including suitability, attractiveness, clarity, and usefulness, which obtained a percentage value of 90%. so it can be concluded in the percentage criteria table that the silat *book* development product is in the highly valid category, which means it is suitable for use with a few suggestions to enlarge the subtitle font in the video, so that the silat *book* product can be field tested.

The field test was conducted by dividing the subjects into two separate treatments, namely a small group and a large group, using two different classes. This was done to ensure that both groups had unique members, thereby obtaining data independence.

Table 1.4 Small Group Trial Results

No	Aspect	Percentage	Category
1.	Attractiveness	85	Highly Valid
2.	Relevance	82	Highly Valid
3.	Ease	82	Very Valid
4.	Effectiveness	80	Valid
5.	Clarity	80	Valid
Validation		82	Highly Valid

Based on a comprehensive analysis of the small group trial results, a value of 82% was obtained, so it can be concluded in the percentage criteria table that the silat

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book development product is in the highly valid category, which means it is feasible to implement without revision.

Table 1.5 Large Group Trial Results

No	Aspect	Percentage	Category
1	Attractiveness	86	Very Valid
2.	Relevance	85	Highly Valid
3.	Ease	84	Very Valid
4.	Effectiveness	82	Valid
5.	Clarity	85	Valid
Validation		84%	Highly Valid

Based on the analysis of the results of the large group trial, the overall score was 84%, which, according to the percentage criteria table, indicates that the product is highly valid and therefore suitable for use without revision.

DISCUSSION

Game-Based Learning focuses on the student environment to foster their knowledge and skills through content and games. Game-Based Learning is applied when there is a change in a person's academic skills or knowledge. Through the application of Game-Based Learning, the development of this knowledge and skills is further enhanced by game activities that trigger an increase in problem-solving space and challenges as well as a sense of achievement. Well-designed education wrapped in games creates continuity in the level of student engagement in existing learning tasks. Game-Based Learning demonstrates that learning is more effective when students do something rather than just knowing how to do something (Banihashem et al., 2024). Pratiwi (2024) emphasizes the importance of implementing the Game- Based Learning model, one of which is to enhance students' creativity during the learning process.

The Game-Based Learning model integrates learning materials packaged in the form of games so that students can interact with each other in the teaching and learning

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process. The implementation of game-based learning can be a new step to foster greater interest in learning among students and create a more engaging learning atmosphere, with learning becoming more student-centered. Wahyuning (2024) states that the Game-Based Learning model is an interactive learning model for students because it is more enjoyable, encourages curiosity, and increases student involvement in learning. Furthermore, Game-Based Learning is the application of games, both digital and conventional, to support and improve teaching, learning, and assessment. Games can also be educational tools to train students, motivate them, and involve them in actively participating in teaching and learning activities. Sun et al. (2023) explain that it is important to realize that student learning, engagement, motivation, attention, and learning achievement are influenced by game-based aspects. Most of the success of game-based learning environments depends on educational design and learning objectives. Therefore, influencing student learning in game-based learning environments requires specific game characteristics and prioritizing the role of emotions in activities to improve learning and achieve learning objectives. This should be considered when using game-based aspects in teaching and designing game-based learning environments.

Jaaska et al (2022) in their research found important factors in designing and implementing Game Based Learning methods or models. Feelings of joy and fun are very important to consider. Game-based learning methods should include interesting narratives and project contexts to help maintain students' interest. The conditions in educational games should not be too easy or too difficult in order to stimulate student learning. The game environment can be structured using different levels of difficulty in the game to create heterogeneity in the game sessions. Game-Based Learning methods are designed to go beyond just the game elements. By combining instructions, materials, and tools relevant to educational games into a comprehensive learning experience, Game-Based Learning can be implemented effectively. Additionally, comprehensive game instructions or practice sessions must be provided to ensure all learners understand or learn the game mechanics and rules before the actual game begins, as not all learners are familiar with games.

An introduction to all game-based learning is important, such as the time needed to understand the rules, requirements, and practices of the game so that when the actual game takes place, students can focus their minds on learning the activities in the game.

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The continuity of game activities with learning objectives and reality must be ensured with carefully designed game narratives and contexts. In addition, games can be varied with the benefit of training skills, such as decision making and problem solving, so that students can prepare for and tolerate every success, uncertainty, and failure in reality. Furthermore, games need to be adapted and contextualized because there is no one size that fits all. They should be applied in accordance with the expected learning outcomes and appropriate activities. Connecting learning materials with students' everyday experiences or phenomena helps students understand the importance of learning and makes learning more valuable. Furthermore, pay attention to the technical stability of the usefulness and effectiveness of educational games by conducting a comprehensive evaluation before implementation to avoid obstacles that could damage the learning experience of students and provide careful and thorough assessments linked to game results, but teachers must ensure that the assessments are fair.

Hartt et al. (2020) explain that game-based learning has also been proven to stimulate intrinsic motivation, enjoyment, and emotional involvement in students. The integration of game-based learning is a fundamental form that does not use technology and involves social interaction, leadership, creativity, and strategy. All of these are important constituents of the practice of learning- . In addition, Game-Based Learning shows significant potential to motivate learners and help them build creativity skills in learning practices. Furthermore, based on research (Islam et al., 2024), the implementation of inappropriate learning models can disrupt the learning environment, greatly reduce student motivation, affect academic achievement, and cause extensive decline in student development. Therefore, the implementation of game-based learning can be realized. The use of Game Based Learning combines game elements, such as challenges, achievements, and real responses or feedback. Game Based Learning has profitability, namely increasing student engagement, learning motivation, and providing extra encouragement that exceeds what is obtained from conventional learning methods. Additionally, the use of game-based learning models can be a crucial aspect of innovative education strategies in the 21st century. In line with this, (Oktavia, 2022) states that Game-Based Learning is a learning model that can utilize digital features, such as game applications that have been specially prepared to support the learning process and optimize the effectiveness of students in the learning process. Through the application of

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game-based learning, teachers can provide stimuli to the most crucial aspects of the learning process, namely the emotional, intellectual, and psychomotor aspects of students. This application makes the learning process more interactive and enjoyable, creating a comfortable learning atmosphere. Adding to this, (Gunanto, 2021) also explains that games or play are learning tools and media that serve as alternative options and can accommodate structured learning elements.

The learning outline can be applied contextually, combining learning materials with students in a more natural way. Therefore, the learning process becomes more enjoyable and pleasant. In implementing the learning process through games, there are key elements that must be considered, including objectives, interactions, obstacles, and rules. Learning that can organize knowledge in game scenarios can produce a learning process that is relevant and more meaningful. Thus, Game Based Learning can present the advantages of using games in learning and reduce boredom in the learning process. The learning process becomes organized, planned, and students are actively involved in learning. This method uses games to teach learning materials, skills, encourage involvement, motivation, and enjoyment. More specifically in the world of preschool education, game-based learning has the potential to optimize cognitive, social, and emotional development. Comprehensively, Game Based Learning has a significant effect on cognitive, social, emotional, motivational, and engagement development in the learning process, so this method can be a tool to encourage learning outcomes and positive development in children. In terms of early childhood cognitive development, game-based learning significantly improves development, such as problem solving, memory, and attention. Furthermore, the effect of game-based learning on social development shows a positive impact on children's social skills, including cooperation, communication, and empathy. Game-based learning for children's emotional development shows that it can support children in improving more effective emotional management skills and reducing negative emotions, such as anxiety and aggression. Increasing motivation and engagement in children or students is a major effect of Game Based Learning in the learning process. In addition, the success or effectiveness of game-based learning can depend on several aspects, such as the type of game, children's prior knowledge and skills, and learning objectives. Therefore, it is necessary to understand the effective integration of Game Based Learning methods in educational

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environments, especially early childhood education. This is in line with the opinion of (Setyaningsih, 2025), who researched the impact of game-based learning on preschoolers and elementary school students . The results show that game-based learning has a positive impact on preschoolers and elementary school students, including improving early literacy, comprehension, working memory, learning outcomes, attitudes, collaboration skills, motivation, self-efficacy, creativity, and creating a comfortable atmosphere that gives students a sense of satisfaction during the learning process.

Based on research conducted (Hafidh et al., 2025) regarding the influence of the Quizwhizzer-assisted Game-Based Learning model on mathematical problem solving based on self-efficacy, it was found that there was a significant influence on the application of the Game-Based Learning model in improving students' mathematical problem solving compared to conventional learning based on students' self-efficacy. This shows that the application of Game-Based Learning in the learning process has a positive impact on students' ability to follow the learning flow. Students are able to increase their self-efficacy, including performing problem solving well in learning materials. In line with this, (Ferdyansyah et al., 2020) in their research on students' self-efficacy in learning revealed that self-efficacy has a major influence on the learning process of students in school. Teachers play a role in delivering creative and innovative material, which has a significant impact on students' potential. If students' self-efficacy is high, they will be confident in their own abilities, persistent in their efforts, and not shy away from the learning process. Based on research (Zairozie, 2025) on the influence of gamification on the self-efficacy and learning motivation of 7th grade students at SMP NU Bantaran, a descriptive quantitative study revealed that the research explored the integration of Game Based Learning and its influence on students' self-efficacy and motivation in learning. The majority of students showed high levels of self-efficacy, but there was a substantial gap between self-efficacy and student learning motivation. This shows that strong confidence in academic abilities does not automatically translate into a deep internal desire to learn. This study observed that game-based learning was able to increase students' self-efficacy and, overall, emphasized the need to simultaneously increase students' learning motivation.

Research conducted (Nisa et al., 2024) shows the effectiveness of classical guidance using the digital-based Game Based Learning method in increasing students'

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self-efficacy, explaining that the self-efficacy of students increased substantially in each cycle conducted. In this study, two cycles were conducted, in which each cycle, from the pre-cycle to the second cycle, saw an increase in the students' self-efficacy level from 56% to 62% and finally to 67%, proving that the Game-Based Learning method is effective in fostering students' self-efficacy. Furthermore, the study (Mahayanti et al., 2024) revealed that digital Game-Based Learning introduces self-efficacy through four factors, namely mastery experience, vicarious experience, verbal persuasion, and emotional state. With interesting and challenging aspects, Game-Based Learning provides an approach that shows the potential to improve children's learning experiences. Teachers can consider using Game-Based Learning to facilitate students' self-efficacy because findings show that Game-Based Learning effectively provides four sources of self-efficacy for children. By combining fun and interesting activities in Game-Based Learning, it can help reduce students' anxiety and depression, thereby strengthening their self-efficacy. Thus, Game Based Learning can be an effective tool for teachers to foster self- efficacy, learning achievement, and provide a fun, challenging, and supportive learning environment. High student engagement is driven by the sense of trust that students build during the learning process.

Game-Based Learning, in its application, creates positive self-efficacy for students. Well-designed Game-Based Learning is able to engage students in meaningful learning activities. The interactive learning process will help students feel comfortable while learning and develop positive motivation and self-efficacy. In addition, statistically increases self-efficacy in participation in Game-Based Learning activities, which means that students in general become more confident in completing their tasks in the learning process. Thus, the majority of students have a positive view of the use of the Game-Based Learning model and can become a learning model as an alternative pedagogy to deliver learning content to students in a more enjoyable and meaningful way.

On the other hand, the need to increase self-efficacy in students can be formed through the Game Based Learning model or game-based learning, which can be carried out in the form of physical activities that have a positive effect on students, one of which is pencak silat. Pencak silat is classified as an art because it has harmonious and synchronized movements. Pencak silat also showcases the related arts of culture, weapons, and music. The various types of movements in pencak silat, which include

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techniques for attack and self-defense, have a unique appeal to artists, who use them as a reference in creating beautiful and interesting dances. Pencak silat has basic movements such as kicks, punches, blocks, parries, thrusts, and fighting patterns that can be used to enhance and create variations or innovations in dance. The costumes displayed in pencak silat also support new variations or innovations in fashion, where various types of costumes are used, ranging from local costumes to costumes adopted from current trends. Pencak silat also uses various types of weapons, where the use of weapons in pencak silat is part of education and teaching in pencak silat training. There are three types of weapons used in pencak silat, namely local weapons, special weapons from martial arts schools, and weapons from foreign martial arts systems.

Based on research (Priambodo et al., 2020), the effect of pencak silat training on the formation of students' self-concept and self-confidence shows differences in the characteristics of students participating in pencak silat extracurricular activities and those who do not. while based on the results of the instruments used, pencak silat students have a higher understanding of themselves and self-confidence compared to non-pencak silat students. This certainly has nothing to do with gender in relation to the development of students' self-concept and self-confidence. In line with this (Hayati et al., 2024), in their research on the implementation of character education through pencak silat extracurricular activities to foster student self-efficacy, it was shown that the implementation of these activities in schools was able to increase student self-efficacy. Self-efficacy should be formed through the example set by educators to achieve positive character and habits in the formation of student self- efficacy. Therefore, every educational institution, especially in the Cijambe District of Subang Regency, West Java Province, holds pencak silat extracurricular activities as a means of improving education and strengthening students' self-efficacy. This is demonstrated through students' confident attitude in expressing their opinions, positive social spirit, independence, and tolerance.

Pencak silat has become a part of education that can be held in schools and included in extracurricular activities or after-school activities such as private training. Science can also explain pencak silat as pencak silat pedagogy, endurance, and physical strength obtained through ancestral heritage, which is classified as tradition management. Pencak silat pedagogy is a very complex learning process and can be part of a lifelong

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journey for everyone who studies it. The learning process occurs because there is interaction between individuals, between individuals and groups, and even between individuals and their environment. This means that learning pencak silat has a significant influence on character building in each individual. Each individual will have strong discipline, honesty and honor, patience and perseverance, cooperation and solidarity. The practice of pencak silat teaches students the importance of discipline in order to achieve something. By following each training routine, students naturally learn to appreciate time and strengthen their independence. Learning with more thorough preparation and understanding each basic movement contained in pencak silat training will enable each individual to have good discipline to perform every movement in pencak silat training. Pencak silat strongly upholds the values of honesty and honor. Through each meeting held, as well as intense training, students will naturally learn to value honesty in their actions and respect their opponents and trainers or teachers (Halim & Indriarsa, 2013).

In addition, (Trisnanto et al., 2024) explains in his research on fostering self-confidence through pencak silat martial arts that pencak silat, as an Indonesian cultural heritage, not only trains physical skills but also teaches noble values that can shape a person's character. Pencak silat can foster self-confidence through regular, planned, and systematic training that optimizes physical and mental abilities and strengthens self-confidence. In addition, Zein & Nurulaeni (2024) in their research on the role of pencak silat in shaping the character of preschool children explain that apart from serving as a means of self-defense, pencak silat also functions as a medium for character building, such as aspects of discipline, responsibility, cooperation, and moral values or manners that are relevant to children's daily lives. The results of the study show that the role of pencak silat in character building has a positive impact on the character development of students. Pencak silat plays a significant role in shaping the character of students and encourages the application of ethical values that are reflected in behavior at school and in daily life. These values are in line with the development of a superior personality, how to manage emotions, respect others, and act with integrity in challenging situations. Thus, pencak silat not only improves physical health but also forms the foundation for the character development of students, such as discipline, self-confidence, and moral values.

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CONCLUSION

The results of research and development of a pencak silat game-based learning model for students at Aisyiyah Bustanul Athfal 9 Malang Kindergarten show that the game-based pencak silat book for kindergarten-aged children is highly valid and suitable for use as an innovation in building the character of early childhood, one of which is self-efficacy through physical activities and play activities integrated into pencak silat.

REFERENCE

Azizah, S., Sholih, S., & Ganiadi, M. Implementasi Program Muatan Lokal Pencak Silat dalam Penanaman Nilai Karakter pada Anak Usia 5-6 Tahun di PAUD AN-NUR Kecamatan Serang. Dedikasi PKM, 4(2), 255-264.

Banihashem, S. K., Dehghanzadeh, H., Clark, D., Noroozi, O., & Biemans, H. J. A. (2024). Learning analytics for online game-Based learning: a systematic literature review. Behaviour and Information Technology, 43(12), 2689–2716. https://doi.org/10.1080/0144929X.2023.2255301

Dolohmae, A. (2019). Penanaman Karakter Disiplin dalam Kegiatan Ekstrakurikuler Pencak Silat Tapak Suci di SD Muhammadiyah 1 Purwokerto Kecamatan Purwokerto Utara Kabupaten Banyumas. DIGITAL REPOSITORY: UIN Prof. KH. Saifuddin Zuhri Purwokerto. http://repository.iainpurwokerto.ac.id/6662/2/COVER_BABI_BABV_DAFTARPUSTAKA.pdf

Ferdyansyah, A., Eti Rohaeti, E., Masyita Suherman, M., & Studi Bimbingan dan Konseling, P. (2020). Gambaran Self Efficacy Siswa Terhadap Pembelajaran (Vol. 3, Issue 1).

Fernanda, A., & Muktiani, N. R. (2019). Keterlaksanaan Pembelajaran Beladiri Pencak Silat Dalam Pendidikan Jasmani Olahraga Dan Kesehatan Di SMA Negeri Se-Kota Yogyakarta. Pendidikan Jasmani Kesehatan Dan Rekreasi, 8, 6.

Gunanto, S. G. (2021). Game-Based Learning: Media Konstruktif Pembelajaran Mandiri Bagi Siswa (Vol. 17, Issue 1).

Hafidh, M. A., Faridah, L., & Aini, K. N. (2025). Pengaruh Model Game Based Learning berbantuan Quizwhizzer terhadap Pemecahan Masalah Matematis berdasarkan Self Efficacy. Postulat : Jurnal Inovasi Pendidikan Matematika, 6(1), 116–127. https://doi.org/10.30587/postulat.v6i1.10436

Halim, A.R & Indriarsa, N. (2013). Minat Siswa SMA Dr.Soetomo Surabaya Pada Kegiatan Ekstrakurikuler Futsal. Jurnal Pendidikan Olahraga Dan Kesehatan, 01(1), 165–175.

https://doi.org/10.20884/1.paju.2025.7.2.17913
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

https://core.ac.uk/download/pdf/196255896.pdf.

Hartt, M., Hosseini, H., & Mostafapour, M. (2020). Game On: Exploring the Effectiveness of Game-based Learning. Planning Practice and Research, 35(5), 589–604. https://doi.org/10.1080/02697459.2020.1778859

Hayati, D., Idin, D., Riyadhul, S., & Subang, J. (n.d.). Al-Munadzomah: Jurnal Manajemen Pendidikan Islam Penerapan Pendidikan Karakter Melalui Kegiatan Ekstrakurikuler Pencak Silat Untuk Meningkatkan Self-Efficacy Peserta Didik. http://jurnal.iuqibogor.ac.id

Islam, K. R., Komalasari, K., Masyitoh, I. S., Juwita, J., & Adnin, I. (2024). Pengaruh Model Pembelajaran Game Based Learning terhadap Motivasi Belajar Peserta Didik. Ideas: Jurnal Pendidikan, Sosial, Dan Budaya, 10(3), 619. https://doi.org/10.32884/ideas.v10i3.1640

Jääskä, E., Lehtinen, J., Kujala, J., & Kauppila, O. (2022). Game-based leaming and students' motivation in project management education. Project Leadership and Society, 3. https://doi.org/10.1016/j.plas.2022.100055

Mahayanti, N. W. S., Kusuma, I. putu I., Ashadi, A., & Rachman, D. (2024). The Impact of Digital Game-Based Learning on Children's Self-Efficacy and Reading Success. Voices of English Language Education Society, 8(1). https://doi.org/10.29408/veles.v8i1.25325

Mufarriq, M. U. (2021). Membentuk Karakter Pemuda Melalui Pencak Silat. Khazanah Pendidikan Islam, 3(1), 41–53. https://doi.org/10.15575/kp.v3i1.10193.

Mulyana. (2015). Pembentukan Karakter Melalui Pembinaan Olahraga. JurnalKepelatihan Olahraga, 3(2), 74–86.

Nisa, F., Ris Sumaryani, & Sigit Hariyadi. (2024). Efektivitas Bimbingan Klasikal Metode Game Based Learning Berbasis Digital dalam Meningkatkan Efikasi Diri Siswa. JKI (Jurnal Konseling Indonesia), 9(2), 69–76. https://doi.org/10.21067/jki.v9i2.10183

Oktavia, R. (n.d.). Game Based Learning (GBL) Meningkatkan Efektivitas Belajar Siswa.

Nuraida, N. (2016). Pengembangan nilai-nilai karakter melalui pendidikan pencak silat untuk anak usia dini (Studi Kasus Di Paguron Pencak Silat Galura Panglipur Bandung). Tunas Siliwangi: Jurnal Program Studi Pendidikan Guru PAUD STKIP Siliwangi Bandung, 2(1), 59-77.

Pratiwi, R. (2024). Peningkatan Kreativitas Belajar Peserta Didik Melalui Metode Game Based Learning. 1(7). https://ejournal.jurnalpengabdiansosial.com/index.php/jps

Riani, A., & Purwanto, A. (2017). Ekstrakurikuler Pencak Silat Membangun Pendidikan Karakter pada Siswa Sekolah Dasar. Jurnal Performa Olahraga, 2(1), 69–81.

Rizal, Y. K., Hidayat, S., & Suryana, Y. (2021). Model Pengembangan Karakter Percaya Diri Siswa Sekolah Dasar Melalui Program Ekstrakurikuler Pencak Silat Tapak Suci.

https://doi.org/10.20884/1.paju.2025.7.2.17913
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 8(1), 102-113.

Rizqi Amin Trisnanto, M., Yudhistira, D., Dan Kesehatan, K., & Negeri Surabaya, U. (2024). Prosiding Seminar Nasional 2024-Pendidikan Jasmani dan Kesehatan Mental Peserta Didik.

Ruswinarsih, S., Apriati, Y., & Malihah, E. (2023). Penguatan Karakter Melalui Seni Bela Diri Pencak Silat Kuntau Pada Masyarakat Kalimantan Selatan, Indonesia. PADARINGAN (Jurnal Pendidikan Sosiologi Antropologi), 5(01), 50-62

Setyaningsih, D. (2025). Analisis Dampak Pembelajaran Berbasis Game Pada Anak Usia Dini Dan Siswa Sekolah Dasar Analysing The Impact Of Game-Based Learning On Early Childhood And Primary School Students. 8(2). https://rgap.uho.ac.id/index.php/journalHal:220-227

Sugiyono. 2013. Metode Penelitian Kualitatif, Kuantitatif dan R&D. Bandung. Alfabeta

Sun, L., Kangas, M., Ruokamo, H., & Siklander, S. (2023). A systematic literature review of teacher scaffolding in game-based learning in primary education. In Educational Research Review (Vol. 40). Elsevier Ltd. https://doi.org/10.1016/j.edurev.2023.100546

Wahyuning, S. (n.d.). Pembelajaran Ipa Interaktif Dengan Game Based Learning. Jurnal Sains Edukatika Indonesia (JSEI), 4(2).

Zairozie, A. Z. (n.d.). Pengaruh Permainan Gimkit Terhadap Self-Efficacy Dan Motivasi Belajar Siswa Kelas 7 Di Smp Nu Bantaran: Studi Kuantitatif Deskriptif.

https://doi.org/10.20884/1.paju.2025.7.2.17913
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