



Development of Game-Based Karate Basic Technique Activities at Dojo Parulian 2 Medan

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Abstract

This study aims to develop game-based karate movement activities that can increase the effectiveness of training and active participation of Dojo Parulian 2 Medan members categorized as elementary schools aged 6 to 12 years. This research uses the Research and Development (R&D) research method developed by Sugiyono. With eight stages, namely potential and problems, collecting data, product design, design validation, design revision, product trial, product revision, trial use. This research was conducted at dojo Parulian 2 Medan with a small scale trial of 10 people and a large scale trial of 15 people. Based on the results of data analysis, it shows that the product quality assessment "Development of game-based karate movement activities in dojo parulian 2 medan" from the initial stage to the final stage is included in the "very feasible" criteria. The results of the analysis of the use trial to students stated "Very Feasible" with the results of a small scale trial with a score of 83.33% and a large scale trial with a score of 88.54%. From the results of the usage trial assessment, it can be concluded that the development of game-based karate motion activities at the Parulian 2 Medan dojo is categorized as "Very Feasible" and researchers can produce products for the implementation of game-based karate motion activity development.

Keywords: Basic Karate Techniques, Games, Dojo Parulian 2 Medan

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A. Introduction

Karate as a martial art originating from Japan, has become an integral part of sporting culture around the world. Dojo Parulian 2 Medan, as an established karate training center, has an important role in shaping the skills, character, and fitness of its members. While karate has proven benefits, such as improving physical health, independence, and mental focus, regular evaluations revealed the potential to improve the effectiveness of the training and gain more active participation from dojo members.

A game-based approach to karate movement activities is a concept that can introduce diversity and an element of fun into training. Referring to Csikszentmihalyi's (1990) *flow* theory, activities that provide a balanced challenge to individual skills can create a flow experience, where participants can be fully engaged in the activity. Therefore, the development of game-based karate movement activities could be an innovative solution to increase dojo members' engagement and satisfaction.

A review or observation of karate training activities at the Parulian 2 Medan dojo conducted by researchers shows that monotonous training causes boredom among karate participants. The coach provides basic kihon exercises such as punches, kicks, and parries only with the concept of training that has no variation or repetitive exercises so that with basic exercises that are carried out continuously karate students, especially ages

6 to 12 years old who are categorized as elementary schools, feel bored and less interested in training the basic kihon of karate. Therefore, researchers have the idea of developing karate movement activities through games. Karate movement activities that want to be developed through games are in basic kihon training for students categorized as elementary schools such as punches, kicks and parries. Research by Smith et al. (2018) highlighted that the addition of game elements in training can increase participant motivation and attendance at a significant level. Therefore, the development of game-based karate movement activities at Dojo Parulian 2 Medan has a strong foundation in supporting training effectiveness and participant engagement.

By introducing in-depth game elements, karate training can become more interesting and encourage more active participation. Therefore, it is necessary to conduct in-depth research to detail and develop this approach appropriately according to the needs and characteristics of the dojo. Through this research, it is hoped that a solution can be found that can improve the effectiveness of karate training for karate participants aged 6 to 12 years categorized as elementary school in Dojo Parulian 2 Medan and open the door for innovation in other karate dojos. Thus, the background of this problem becomes a strong foundation to formulate further research on the development of game-based karate

movement activities and their contribution to the development of a more dynamic and competitive karate community.

Play can be utilized as a means of educating children and supporting various aspects of their development. According to Musfiroh Tadkiroatun & Tatminingsih Sri (2015), play has important benefits, including developing self-awareness, where children can learn to make decisions through the routines they play. In addition, play also supports children's emotional development by teaching them how to organize and solve problems and express feelings. Socially, play allows children to interact, cooperate and understand differences with peers and adults. In terms of communication, play gives children the opportunity to talk, negotiate and learn language. Play also plays a role in children's cognitive development by introducing basic concepts involving knowledge, creativity and memory. Lastly, play supports the development of children's motor skills, both gross and fine motor. Thus, play is an effective tool to support children's holistic development.

B. Methods

This research uses the Research and Development (R&D) method according to Sugiyono (2017), with the aim of developing game products that can increase student movement activities. The product developed is in the form of games such as Balloon

Bounce on the Wall, Balloon Kick, Clapping Balloon Stalk, Combination of Karate Punch with Stance, and Passing Obstacles. These games are designed so that students can move actively, with a fun and not boring approach. The stages of this research include several steps, starting with potential and problems, namely observations made at Dojo Parulian 2 Medan to identify existing problems and potential. Furthermore, data collection was conducted through various sources, such as the internet, journals, and interviews with karate coaches, to design games that can improve students' movement skills. The next stage was product design, where regular exercises were modified into games that were more interesting and involved students. Finally, design validation was conducted by a karate material expert, Mr. Sabar Pandapotan Saragih, and a game expert, Mr. Drs. Suryadi Damanik, M.Kes, to ensure that the developed product is effective in achieving the objectives. Thus, this study aims to produce a game that is useful for increasing students' movement activities in karate training. After the product was validated by experts, the next stage was design improvement to overcome the weaknesses found through discussions with experts. After the improvements were made, a small-scale product trial was conducted, involving 10 elementary school students at Dojo Parulian 2 Medan, and a large-scale trial with 16 students. These trials aimed to evaluate the

effectiveness of the product before further implementation, taking into account the complexity of the model, desired variations, and the need for proper testing.

C. Results and Discussion

This research uses quantitative descriptive analysis with percentages to analyze quantitative data on the results of game trials, such as Balloon Bounce on the Wall, Balloon Kick, Blowing Balloon Agility, Combination of Karate Punches with Stance, and Passing Obstacles. The data collected was then evaluated by material experts and game experts. This research aims to develop game-based karate movement activities at Dojo Parulian 2 Medan, which are adjusted to the stages to be applied in the

field. The resulting game model was tested on two groups: a small group trial with 10 students on April 23, 2024 and a large group trial with 16 students on April 30, 2024.

The research procedure follows the stages proposed by Sugiyono, including potential and problems, data collection, product design, design validation, design revision, product trial, product revision, and trial use. After the product design was validated by the material expert, Mr. Sabar Pandapotan Saragih, and the game expert, Dr. Suryadi Damanik, M.Kes., an evaluation was conducted to improve and refine the game. The validation results showed an average percentage of 86%, which means that the design is valid for use in the trial stage after improvement.

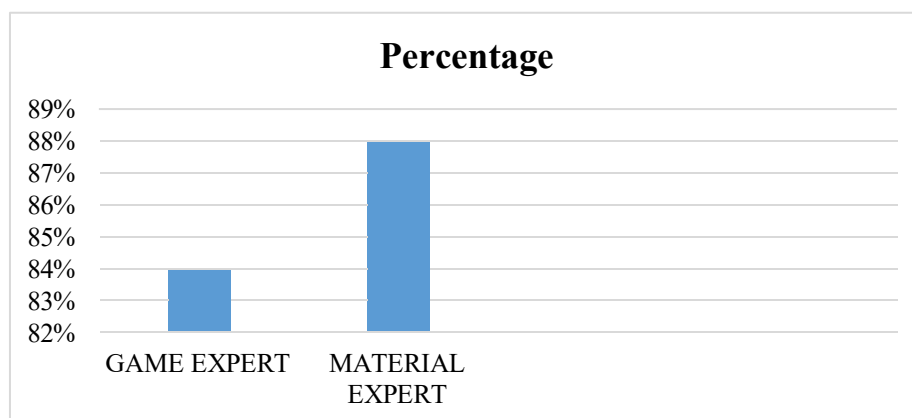


Figure 1. Percentage of Design Validation by Experts

At the product trial stage, a small group trial was conducted with 10 students at Dojo Parulian 2 Medan. After the game was tested, students were asked to fill out an assessment instrument to evaluate the game that had been developed. As a result, the average percentage value of the small group trial was 83.33%, which indicates that this activity is

very feasible with a value range of 76%-100%. Furthermore, validation by experts showed that the product obtained an average percentage value of 90%. With these results, the product is declared valid and feasible to use, because the validation value is in the range of 80%-100%.

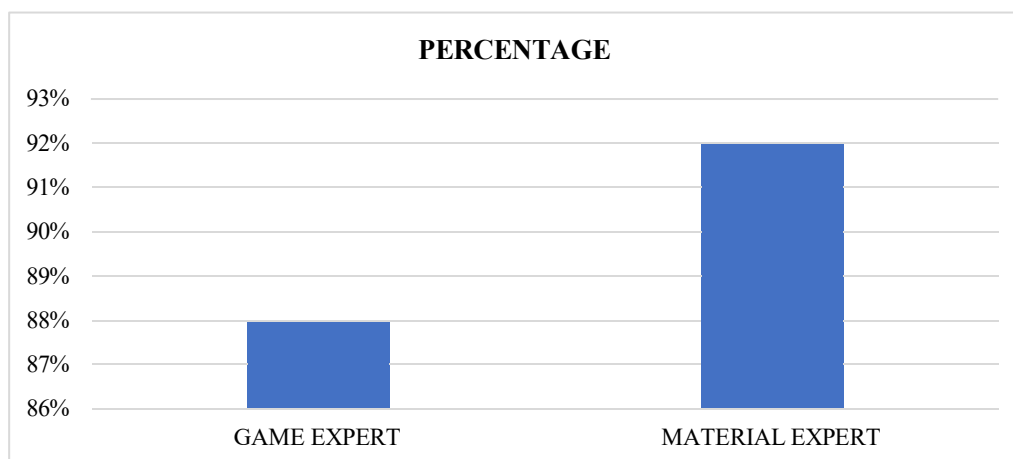


Image 2 Percentage of Small Group Trial Product Validation by Experts

At the usage trial stage, 16 students participated in a large group trial of the development of game-based karate movement activities at Dojo Parulian 2 Medan. After the trial, students were given an assessment instrument to evaluate the game that had been developed. As a result, the average percentage value of the large group trial was 88.54%, which indicates that this activity is very feasible, with a value range of 83%-100%. Based on the assessment criteria, the development of this game-based karate movement activity is declared very feasible to use.

After the small and large group trials, the strengths and weaknesses of the development of the Balloon Bounce on the Wall, Balloon Kick, Clap Balloon Parry, Karate Punch Combination with Stance, and Obstacle Passing games can be described.

For the Balloon Bounce on the Wall game, the advantages include developing karate moves such as Chudan Tsuki and Jodan Tsuki punches, as well as improving eye-hand coordination and fine motor skills. However,

the disadvantages are the risk of balloon bursting which can cause disappointment, as well as difficulty in controlling the speed and direction of the bounce. In the Balloon Kick game, the advantages are the development of karate movements such as Mawashi Geri, improved coordination between eyes and feet, and stimulating body movements. On the downside, the game requires a large open space to be played safely.

In the Flapping Balloon Parry game, the advantages include developing various types of karate parries, as well as practicing reflex skills and hand coordination, which can be played individually or in groups. However, there is a risk of injury if the parry is not performed correctly, and the balloon can become a hazard if a player slips or falls. In the Combination of Karate Punches with Stance game, the advantages are that it teaches body control, development of karate movements such as Gyaku Tsuki and Zenkutsu-Dachi, and improves balance and muscle strength. The disadvantage is that it requires the supervision of an experienced

instructor to ensure correct technique. Finally, in the Obstacle Passing game, the advantages are that it trains motor skills, develops karate moves such as Gyaku Tsuki and Zenkutsu-Dachi, and stimulates creativity and courage. On the downside, this game requires a large space.

Discussion

This research produces a game development product that can be used to improve karate movement activities in elementary school students who practice at Dojo Parulian 2 Medan. This product is expected to be one of the sources of learning or training for elementary school students, given the lack of games in karate training. With a game-based approach, students can be more actively involved, and karate training can run more controlled.

Based on the results of data analysis, the quality of the product "Development of Game-Based Karate Movement Activities at Dojo Parulian 2 Medan" from the initial to the final stage is included in the "very feasible" criteria. In the early stages, validation was carried out by material experts and game experts. In stage I design validation, the material expert gave 110 points with a percentage of 88%, which means the design is valid for use. The material expert, Mr. Sabar Pandapotan Saragih, recommended adding a game time limit to maximize the time available. The game expert, Mr. Dr. Suryadi Damanik, M.Kes., gave 105 points with a percentage of 84%, with the suggestion

that the game has a clear goal and the tools used must be safe.

After revision, a small-scale trial was conducted, and the validation results showed improvement. The material expert gave 115 points with a percentage of 92%, stating that the material was appropriate and the large-scale trial could be carried out without revision. The game expert gave 110 points with a percentage of 88%, suggesting that the game be improved so that it is not boring. The assessment from students in the small and large group trials showed that this product was "Very Appropriate" for use.

Based on the assessment of material experts, game experts, and the results of the usage trial, the development of game-based karate movement activities is very feasible to be applied to increase motivation and karate movement activities in elementary school students practicing at Dojo Parulian 2 Medan. As stated by Damanik Suryadi (2015: 47), learning models with a play approach can stimulate the development of children's imagination, which in turn improves motor skills in accordance with child development.

D. Conclusion

This research developed game products to improve karate movement activities at Dojo Parulian 2 Medan, with a focus on games such as Balloon Bounce on the Wall, Balloon Kick, Blowing Balloon Stance, Combination of Karate Punches with Stance, and Passing Obstacles. The product was validated by material experts and game

experts, and tested on elementary school students. The validation results showed that the product was "very feasible" with assessment scores from material and game experts of 92% and 88% respectively. The small-scale trial scored 83.33%, and the large-scale 88.54%, which also showed that this product was very feasible to use.

In conclusion, this game product is effective for improving karate movement activities, with the suggestion that coaches adjust the difficulty level of the game to the skills of the participants and ensure safety. Further research is needed to evaluate the effectiveness of this product in the long term...

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