

## Development of the Game "Construction Fitness Signs" to Stimulate Basic Locomotor Movement Skills in Early Childhood

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### Abstract

Early childhood education is a learning process carried out by facilitating the growth and development of children holistically and emphasizing all aspects of children's development achievements. The purpose of this research is to produce a game "Construction Fitness Signs" that stimulates basic locomotor movement skills including 6 elements of physical fitness in early childhood equipped with guidebooks and learning videos for users. This type of research is Research and Development (RnD) using the synthesized Borg and Gall model. The instrument analysis technique was obtained from quantitative data from the validation results of experts, namely motor physicists, learning experts, and game experts. The results of the validation of the motor physicist showed the ideal of 98.07%. Learning expert scores with 96.87% criteria, and game experts having 94.73% criteria are declared safe, interesting, and easy games to apply to early childhood. The use test and the application test were carried out obtained from the results of the small group test recapitulation, the test of the use of guidebooks and learning videos, the large group test, the effectiveness test, and the attractiveness test. Qualitative data from observations and interviews with 3 principals. The researchers found that the implementation of the "Construction Fitness Signs" game had 3 eligibility criteria, namely effective, efficient, and attractive for stimulating basic locomotor movement skills in early childhood learning activities. The use test and the application test were carried out obtained from the results of the small group test recapitulation, the test of the use of guidebooks and learning videos, the large group test, the effectiveness test, and the attractiveness test. Qualitative data from observations and interviews with 3 principals.

### Keywords

games; locomotor; early childhood



## I. Introduction

Education for early childhood is the core in the search for children's potential that should not be missed. Through education or knowledge transfer at an early age, it can provide an important stimulus for achieving optimal development outcomes both physically and spiritually. This process has a positive impact, namely the readiness of children to face challenges in the future era. This is in line with statutory regulations number 17 of 2010 concerning the management and implementation of education, article 1 states that "early childhood education is a coaching effort from birth to the age of 6 years which is carried out through the transfer of knowledge and insight so that it helps the growth and development of children, either born or born. mind so that it gains maturity in the course of further education(Government Regulation, 2010).

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Debriefing in the learning process for young children has a unique story where children's attention is easily distracted, so the task of educators is required to be able to turn the learning process into an interesting and happy activity for children. Various kinds of aspects that must appear in learning include cognitive (skills in thinking), affective (skills in attitude), and psychomotor (skills in movement skills) (C. Ermayani Putriyanti and Sindi Agus Tina, 2020).

Movement activities become learning in the psychomotor aspect. From an early age children should move more to improve their physical fitness and health. Learning will not run smoothly when the child is not feeling well (sick). In addition to the function of children's fitness and health, moving also makes the child's body develop according to the growth at the child's age, and can learn various kinds of motor skills.

The world of children is often referred to as the world of play (Montesori Maria, 2019) this is why children prefer playing activities to activities that drain the mind (reasoning). The implementation of the early childhood learning process ideally with play activities. Through playing, children get experiences that support their learning process, so playing activities or activities are a mandatory requirement in providing insight into early childhood (Pramono et al., 2019). The characteristics of the right game for early childhood development should be "Appropriateness of Toys for Children" which means the game is adapted to the needs of children (Healey et al., 2019). Playing activities that are often carried out by children are moving all parts of their body. For example, moving the hands by holding, throwing, and squeezing; moving the legs through running and walking; move the body through rolling and spin; to wink and close your eyes. With whole body movement, playing is indirectly healthy for children because basically movement functions to strengthen joints and muscles (Kurniawan Heru et al., 2020).

Vygotsky stated that "Play is a means of encouraging stimulation and needs in children themselves". Playing as a form of learning activity wherever the place and situation must be played creatively and fun so that it can develop motor skills (Abdillah, 2019).

While the game provides a tool that is useful in playing activities, in the form of objects or items that can be used while playing (Khadijah & Armanila, 2017). So, playing creates fun and can help achieve child development easily. Some of the opinions above affect the provision of stimulation for children's physical-motor development, if from an early age the child has a strong physique, then the child will easily carry out various activities, especially in the learning process and will not feel disturbed by physical and health problems, especially during the covid-19 pandemic. Sihombing (2020) state that Covid-19 pandemic caused everyone to behave beyond normal limits as usual. The outbreak of this virus has an impact especially on the economy of a nation and Globally (Ningrum, 2020). The problems posed by the Covid-19 pandemic which have become a global problem have the potential to trigger a new social order or reconstruction (Bara, 2021). Increased ability or good physical motor coordination for children, should include agility, strength, body balance and dexterity which are stimulated through basic movement skills. Basic movement skills are divided into three parts, namely basic locomotor, non-locomotor, and manipulative movements (Hidayat, 2017). The two non-locomotor basic movement skills are physical activities that involve body movements in place positions such as avoidance movements, muscle stretching, twisting, and turning, leg swings, hanging, pulling, and finally pushing. The three basic manipulative movement skills are motor skills that are influenced by an object outside the body by the body or body part such as rolling objects, throwing, catching, kicking, herding, and hitting (Hanief, 2015). The basic locomotor skills in this study are highlighted because these basic movements are the subject of discussion that is applied in children's education. Movement or locomotor movement is the foundation of physical skills that need guidance, training, and

development so that children are able to implement them properly (Nugroho, 2012). Basic locomotor skills are defined as the ability to move or move a person from one place to another. Mastering basic locomotor movement skills (eg, locomotion (running, jumping, jumping), stability (swivel) is intended to develop “physical literacy”, which is broadly defined as building a child's capacity to engage in a physically active lifestyle. International Physical Literacy Association, (Lindsay et al., 2020) defines physical literacy as “the motivation and physical capabilities, knowledge, and interpretations that require lifelong physical activity.” Children must develop competence in performing basic motor skills as well as build skills for these abilities to have a positive effect. Influence on increasing physical activity, especially during this golden period.

Based on the problems that appear in the data collected through interviews and observations at various institutions, during the lecture process they found problems related to early childhood education issues in line with the state of the Covid-19 pandemic, several facts were found in the process of learning activities at home in the form of: (1) The current pandemic season has hampered the educational process in various schooling institutions because the government has imposed a policy that prohibits approaching crowds and activities outside the home, so it is recommended to carry out activities, such as worshipping, studying, and working at home. (Amalia & Sa'adah, 2020). The results of the pre-research show that the basic locomotor skill stimulation game for early childhood needs to be developed with a variety of fun game activities.

## II. Research Methods

This research uses a research and development model. R&D is a scientific review method in a planned and systematic manner with the aim or guidance to find a formulation, repair, develop, produce, and test the effectiveness of certain products, models, methods/strategies/methods, services, and procedures updated, superior, effective, efficient, interesting and memorable for researchers (Putra Nusa, 2015).

There are several models in developing a product development, but the researcher uses the Borg and Gall development model that has been synthesized with systematic contents. (Pramono, 2019). The steps of this research and development are as follows: (1) Research and Information Colleting (Needs Analysis), (2) Identification (Identifying the appropriate model), (3) Develop Preliminary from of Product (Initial Product Development), (4) Priminary Expert Testing (Testing by Experts), (5) Priliminary Small Scale Testing (Small-Scale Testing of Product Use), (6) Operational Field Testing (Trying for Wide Field Product Applications). Where the needs analysis was carried out in 3 principals of PAUD institutions in Bululawang District, namely Pembina 1 Bululawang State Kindergarten, Kenanga Kindergarten Lumbangsari Village, Bululawang District, one principal of Dharma Wanita Persatuan 1 Sub-district of Bakalan Sub-district Bululawang with informants Mrs. Masrifah, S. Pd, M. Pd, Mrs. Sri Winarti, S. Pd, and Mrs. Yuli Sumartini, S. Pd. The evaluation subjects consisted of one motor physicist, one game expert, and one early childhood education learning expert. The subject of the evaluation of the use of the product and the evaluation of its effectiveness were carried out by 12 Early Childhood Education teachers in Bululawang Sub-district. The subject of the attractiveness test by 20 parents at Dharma Wanita Persatuan 1 Kindergarten, Bakalan Village. Sources of data collection presented in this research are respondents through questionnaires or questionnaires, observations, interviews, and documentation. The instruments used by the researcher include interview sheets, observation sheets, questionnaires, and documentation (Kurnianingtyas & Nugroho, 2012). The following is the presentation of the data collection instrument in table 1.

**Table 1.** Assessed Aspects, Instruments, Observed Data, and Respondent

<b>Rated aspect</b>	<b>Instrument</b>	<b>Observed Data</b>	<b>Respondent</b>
<b>Effectiveness</b>	Questionnaire	Game validity	Game expert physicistmotor Learning expert
	Observation sheet	Children's activities in game	Teacher observer
<b>Efficiency</b>	Questionnaire	Instructional guidebooks and videos	Game expert
		Contextual	Learning expert
		Learning outcomes from play activities	Teacher observer
<b>attractiveness</b>	Questionnaire	Instructional guidebooks and videos	Game expert Parent

Source: (Fitriana, 2018)

The interview technique applied in this research and development in the form of a structured interview is an interview that is used to find out the exact information that will be obtained by using an interview guide instrument guide. According to opinion (Hasanah, 2017)"Structured interviews are interviews that extract information for sure through interview guidelines using recording aids, or pictures, or brochures and others". In the interview activities conducted at the PAUD Institute, the interview guide used asked questions about the main problems in kindergarten related to physical motor learning during the COVID-19 pandemic. While the interviewees were the principals of early childhood education schools. Information obtained from the sources of each institution is that the physical motoric development of children is constrained by time constraints and less space for children to observe when learning at home due to the COVID-19 pandemic.

Game research and development" Construction Fitness Sign" This study uses participant observation techniques by collecting data that is used to summarize research data through the views of informants who go directly to the field (Hasanah, 2017). The participant observation indicators used by the researcher were as follows: (1) walking in a straight line, crab walking, squatting walking, and hopscotch developed elements of balance physical fitness (2) running fast sprints developed elements of physical fitness speed, (3) jumping frogs and crawling developed elements of physical fitness strength, (4) rolling and rolling develop elements of physical fitness flexibility, (5) running back and forth or shuttle run develop elements of physical fitness agility, and (6) jumping and jumping develop elements of physical fitness explosive power or power(Education Department of Western Australia., 2013).

The questionnaire instrument in this study was carried out by spreading to the respondents, namely; game experts, learning experts, motor physicists, teachers, and parents of children (Taluke et al., 2019). Then the questionnaire sheet was analyzed according to the product feasibility conference that was developed to determine its effectiveness, efficiency, and attractiveness. Before the questionnaire sheet was used in research, the grid with various aspects and assessments had been determined as follows:

**Table 2.** Instrumental Grid of Effectiveness, Efficiency, and Attractiveness

Aspect	Rating Indicator
<b>Effectiveness</b>	<ol style="list-style-type: none"> <li>1. The game is suitable for the developmental stage of children aged 5-6 years.</li> <li>2. The game is in accordance with the learning objectives.</li> <li>3. Games according to the benefits of learning.</li> <li>4. The game is in accordance with the basic locomotor skill activities.</li> <li>5. Children can apply the basic locomotor movements of jumping, jumping, hopscotch, running, walking, rolling, and crawling</li> </ol>
<b>Efficiency</b>	<ol style="list-style-type: none"> <li>1. Durable and safe game for kids</li> <li>2. Games can be used as learning at home or at school (can be applied in everyday life)</li> </ol>
<b>attractiveness</b>	<ol style="list-style-type: none"> <li>1. Use of interesting game titles.</li> <li>2. The game attracts children's enthusiasm in learning basic locomotor movements.</li> <li>3. Interesting game in terms of color variations</li> <li>4. Interesting game in terms of shape variations</li> <li>5. The suitability of the selection of letter text on game products</li> <li>6. Conformity of image presentation with basic locomotor movement skills</li> <li>7. Interesting game guidebook to read</li> <li>8. Complete, coherent, and interesting learning videos</li> <li>9. Quality of manufacture <b>game</b></li> </ol>

Source: (Mukholifah et al., 2020)

The data analysis technique used in "Development of the Game "Construction Fitness Sign" to Stimulate Basic Locomotor Movement Skills in Early Childhood During the Covid-19 Pandemic" and the evaluation data of experts for product testing are qualitative and quantitative data percentages. (a) Qualitative data in the form of expert advice and input used to revise the product and the results of needs analysis interviews. (b) Quantitative data in the form of percentages obtained from the collection of questionnaire data on assessments of game experts, learning experts, physicists, as well as teachers and parents, observation sheets for researchers and teachers in the respondent's kindergarten. The technique used to analyze the data according to (Akbar Sa'dun, 2013) are as follows.

$$V = \frac{TSe}{TSh} \times 100 \%$$

Description:

V = Validation

TSe = Total empirical score (achieved score)

TSh = Maximum total score (expected result)

100% = Constant

**Table 3.** Eligibility Criteria

No.	Value Achievement Criteria	Level of Effectiveness, Efficiency, Attractiveness
<b>1.</b>	81.00 % - 100.00 %	Effective, efficient, and attractive
<b>2.</b>	61.00 % - 80.00 %	Quite effective, quite efficient, and quite interesting
<b>3.</b>	3. 41.01 % - 60.00 %	Less effective, less efficient, and less attractive
<b>4.</b>	. 21.00 % - 40.00 %	Ineffective, inefficient, and unattractive
<b>5.</b>	5. 00.00 % - 20.00 %	Very ineffective, very inefficient, and very unattractive



### III. Discussion

The results of pre-development research or preliminary research are carried out through structured interviews. The questioning was carried out at 3 PAUD institutions in the Bululawang sub-district, with 3 principals as informants listed in the description above. Based on the results of the needs analysis regarding the initial state of the application of games that support gross motor physical development, especially children's basic locomotor movement skills. The data obtained from the needs analysis include: (1) The teacher's efforts in developing children's gross motor skills through locomotor movements have been carried out but are still not optimal due to limited learning time at school, (2) It was found that there were no supporting factors in terms of good facilities and infrastructure from teachers and parents, resulting in a lack of children's learning motivation. In addition, the lack of learning assistance during the COVID-19 pandemic by parents due to work demands, (3) It was found that some children were less active in carrying out physical motoric learning at home, (4) Limited physical motor skills of children so that the elements of physical fitness; balance, strength, speed, explosive power, flexibility, and balance have not developed optimally. This fact means that children's physical motoric development through play activities is very necessary for the stimulation of basic locomotor movement skills in early childhood in PAUD institutions.

Game development to stimulate these basic locomotor skills based on research objectives at the development stage have been produced (1) game product "Construction Fitness Signs" which contains elements of 6 physical fitness elements of strength, speed, agility, flexibility, explosive power, and balance in early childhood. (2) knowing the application of the game with three criteria, namely effective, efficient, and interesting, (3) producing a product in the form of a guidebook and a video game learning game "Construction Fitness Signs".

The game design "Construction Fitness Signs" is a modified monopoly game that uses elements of body movement (locomotor motion) as the main element of fitness activities with the theme of construction. The initial activities of the game are carried out by preparing tools and materials and then introducing the game through learning videos. The core activities are warming up and introduction to learning by walking around the game board, after the child understands all the tasks on the game board slowly the child is trained in stages from easy to difficult (pedagogic) movements. The teacher or assistant at home explains the rules of the game. Next, the teacher or assistant gives an example of how to play, then the child plays the game "Construction Fitness Signs" in turn according to the agreed order of play. The next step is the child stands at the starting line. The next stage the player rolls the dice in the form of (1) a circle, (2) a triangle, (3) a square, (4) an octagon, (5) a rhombus, (6) a pentagon. Each game tile contains moves; (1) walk in a straight line, (2) squat walk, (3) crab walk, (4) fast sprint run, (5) shuttle run back and forth, (6) crawl, (7) roll rolling, (8) jump, (9) right foot and left foot hop, (10) vertical jump, and (11) frog jump. After throwing the first dice, the player will be asked to place an objective token, then roll the second dice, the player will carry out the commands contained in the tile, where each tile contains locomotor movements. When a player passes the objective token on the way to or after the roll of the dice both players are required to take the token. Execution of orders on a tile is a requirement to advance to the next tile. The winner of this game is the player who can collect 3 times the construction of symbols or signs during the game (objective tokens). As for individual players, the success rate is seen through a predetermined round and reaching the finish line. Closing Activities review the activities played, cooling down and praying. Every activity, tool, and game material are created according to the indicators of the stages of gross motor physical development of children aged 5-6 years by (Riza, 2018) As for individual players,

the success rate is seen through a predetermined round and reaching the finish line. Closing Activities review the activities played, cooling down and praying.

The presentation of data from the results of the researcher's development was obtained from testing of formative evaluation instruments in the form of questionnaires given to physical motor learning experts, game experts, learning experts, small group trials, trials of using guidebooks and learning videos, large group trials, and trials application of the product (effectiveness and attractiveness). The result of this research and development is a product in the form of a game "Construction Fitness Sign", manuals, and user-specific learning videos. The research process is carried out by following the steps based on the development described previously. From the results of the formative evaluation in the form of a questionnaire, quantitative and qualitative data were generated. Quantitative data in the form of scores presented in tables based on formative tests by experts and trials on children aged 5-6 years. Qualitative data in the form of comments and suggestions for improvement from experts, teachers, and parents are used to improve the game. The following is a recapitulation of the results of the expert's formative evaluation.

**Table 4.** Recapitulation of Expert Formative Evaluation Results

No	Expert	Total score	%
1.	Motor physicist	51	98.07
2.	Game expert	72	94.73
3.	Learning expert	31	96.87
	<b>Amount</b>	154	289.67
	<b>Average</b>	51.3	96.5

Based on the results of the recapitulation of formative evaluation data by motor physicists, game experts, and learning experts, they got a total score of 154 with an average of 51.3. The percentage of ideal recapitulation results is 96.5%. Judging from the eligibility criteria in table 3, the game can be declared very feasible and can be tested. There are findings from the total indicators that 6 of them got a score of 3 and 24 of them got a score of 4, data with a score of 3 states that the systematic presentation of guidebooks and learning videos is quite good but can be further clarified.

**Table 5.** Recapitulation of Use Trial Results

No	Criteria	Total score	Maximum Score	%
1.	Effectiveness	43.59	46	94.76
2.	Efficiency	14.75	16	92.18
3.	attractiveness	14.91	16	93.18
	<b>Amount</b>	73.25	78	280,12
	<b>Average</b>	24.41	26	93.37

Based on the use test obtained from the recapitulation of small group test data, test the use of manuals, and test the use of learning videos on 5 children aged 5-6 years with three assessment criteria, namely effectiveness, efficiency, and attractiveness. The percentage of overall results obtained a total score of 280.12% with an average of 93.37%. The data above when converted to the table of eligibility criteria can be stated that the game is effective, efficient, and interesting so that the game "Construction Fitness Sign" suitable to be used to stimulate basic locomotor movement skills in early childhood.

**Table 6.** Recapitulation of Implementation Trial Results

No	Criteria	Total score	Maximum Score	%
1.	Effectiveness	42.45	44	96.47
2.	Efficiency	49.25	52	94.71
3.	attractiveness	47.25	52	90.86
	<b>Amount</b>	138.95	148	282.04
	<b>Average</b>	46.31	49.33	94.00

Based on the application trial, it was obtained from the large group test recapitulation by 13 children aged 5-6 years, the application test of the effectiveness evaluation by 12 teachers, the application test of the attractiveness evaluation by 20 parents of early childhood, with three assessment criteria namely effectiveness, efficiency, and attractiveness. The percentage of overall results obtained a total score of 282.04% with an average of 94.00%. The data can be converted to the table of eligibility criteria, it can be stated that the game is effective, efficient, and interesting so that the game "*Construction Fitness Sign*" suitable to be used to stimulate basic locomotor movement skills in early childhood.

Study of research (Broadhead Pat et al., 2017) Play is an intellectual activity that is meaningful and meaningful for children's growth, which is closely related to learning and self-regulation, and is critical for the development of general attitudes in learning. Play provides great opportunities for developing physical competence and enjoyment of the outdoors, understanding and understanding their world, interacting with others, expressing and controlling emotions, developing symbolic and problem-solving abilities, and practicing emergent skills (Play and the Learning Environment, 2014).

Early childhood in everyday life can not be separated from the game, because the game is a tool used in play activities. According to (Ardini Pupung Puspa & Lestarinigrum Anik, 2018) the game is a form of play activity which has rules and conditions that have been discussed together. In a game, of course, requires media, apart from being a tool that supports the game, it can also stimulate the growth and development of children. Alternatives for children's gross motor development can be honed using games that are effective, efficient, and interesting for the child's learning experience. It is educational game tools that support to stimulate the development of children (Muazomi, 2017). Game tools are all objects used to fulfill children's playing desires (Fadillah M, 2017).

Applied products obtained from research and development "*Construction Fitness Sign*" in this study in the form of a game "*Construction Fitness Sign*" to stimulate basic locomotor movement skills for early childhood with the output of guidebooks and learning videos to make it easier for teachers or children's learning companions in the process of implementing play. This game is designed from a modified monopoly game using safe and attractive media for children in the form of a board game (*benner*s) with a size of 4 meters x 3 meters accompanied by illustrations of basic locomotor movement skills, with various unique components, namely in the form of two special dice, 6-sided dice (the first dice contains 6 shapes). *sign*, while the second dice contains the 6 colors used in the game), pawns or pawns form constructions (*excavator*, *mobile crane*, *tandem roller compactor*, *dump truck*, *double dump truck*, *trailer truck*, *superpower truck*, *mixer truck*) and acrylic objective tokens are used to collect winning points. Images in the form of loads of construction equipment (stone, sand, cement, heavy equipment, soil, etc.).

Through the games used there are positive things to increase the stimulation of good child development. One of the focuses of achieving children's development that must be studied is gross motoric physical skills, especially locomotor basic movement skills which include elements of physical fitness, (1) balance is obtained from walking in a straight line, crab walking, squatting, and jumping (2) speed is obtained from running. *sprint*, (3) strength



is obtained from jumping and crawling, (4) flexibility is obtained from rolling over *rolling*, (5) agility is obtained from running back and forth or *shuttle run*, and (6) explosive power or *power* obtained from jumping and jumping.

Other benefits contained in the game "*Construction Fitness Sign*" is to train; (1) courage, (2) self-confidence, (3) children's independence, (4) reflecting on the body and spatial awareness (awareness of color, line, shape, and space), (5) understanding and curiosity about the game used, (6) exercise coordination, stimulation of sight and movement, (7) colorful games to stimulate their different abilities and levels, such as; imagining, releasing energy, controlling emotions and living, (8) to express yourself and relieve tension, (9) this game is designed to learn together with the group that has been created, (10) this game is an active game type that can be used indoors or outdoors so as to make the introduction of basic locomotor movements easier for children to understand. In line with thoughts (Age Badru and Eliyawati Cucu, 2010) argues that a good learning media product should be multipurpose, which means: that the media can function in stimulating the development of early childhood holistically (Rohmawati Afifatur, 2015). Based on the explanation above, the game "*Construction Fitness Sign*" This can be an effective, efficient, and interesting physical motor learning solution for early childhood.

The product use test found that on average from the notes and comments of the teachers it was found that: the manual was well packaged and attractive, but the writing of the game procedures was more clarified in the learning video, the voice filling is clear and intonation, then at each movement movement activity transitions can be added and further improved in the future. Another finding was the suggestion from the observer teacher, Warih Anjari S.Pd, that when playing activities were applied, the children who were waiting for their turn to play were given instructions to encourage their friends who were doing motion activities, so that the atmosphere was more exciting and more enthusiastic in playing. The overall average score of the product feasibility test results by experts was 93.37% with the criteria of being very effective, efficient, and attractive. It is evident that assessments from motor, game, and learning physicists can be used to stimulate basic locomotor movement skills in early childhood during a pandemic.

The level of interest in the game can be seen from the enthusiasm and curiosity of children, so that it has an impact on creating a feeling of wanting to repeat the game (Kholida & Sutama, 2020). The percentage data obtained with an ideal total score of 90.86% is very interesting. The attractiveness of the game is carried out with 13 attractiveness indicators which are assessed by parents with facts in the field, namely: the need for regular supervision and training for children to be able to do all the many movement activities.

## V. Conclusion

The game "*Construction Fitness Signs*" is appropriate to be used in the physical learning process of gross motor skills, especially the basic locomotor movement skills of children aged 5-6 years. Eligibility criteria for game products "*Construction Fitness Signs*" obtained through the validation results of experts, teachers, and parents. The validation obtained from motor physicists achieved very good quality with a percentage conversion of 98.07%. The score obtained from the learning expert validation is said to be very good with a percentage of 96.87%, and the game expert validation gets very good quality with an ideal of 94.73%. A small group trial of 5 children found that the game "*Construction Fitness Signs*" can develop basic locomotor movement skills with 6 elements of physical fitness. The results of the use test state that the implementation of the game is easy and feasible to continue in the product application test. The last stage is testing the application of the test results of a large group of 13 children aged 5-6 years, evaluating its effectiveness and attractiveness.

Recapitulation of effectiveness data with the ideal total average score 96.47%, the efficiency with an ideal total score of 94.71%, and the ideal score for product attractiveness is 90.86%. Until the game "Construction Fitness Signs" very feasible, effective, efficient, and attractive to be used in the learning process of children aged 5-6 years at home or school, this is in accordance with the percentage level of product feasibility from (Akbar Sa'dun, 2013).

The implementation of the Construction Fitness Signs game has the following advantages: (1) this game is oriented towards clear learning objectives, namely to stimulate gross motor skills in children aged 5-6 years, (2) the Construction Fitness Signs game is more interesting than the previous game with the use of tools. - modified game tools, (3) the Construction Fitness Signs game has 6 elements of physical fitness, namely strength, speed, agility, flexibility, explosive power, and balance where in previous studies there were still limited physical fitness element activities (4) this game was designed in accordance with developmental needs of children during the COVID-19 pandemic.

Gaming products can be redeveloped by taking into account the weaknesses to be used for reference or reference material for related appeals in the same or wider context and in relation to the game Construction Fitness Signs. The weaknesses of this development product are (1) the game is only limited to children aged 5-6 years, (2) the trials carried out are limited to 18 children, (3) the game developed focuses on aspects of children's gross motor physical development, for some other aspects of development are less stimulated. The results obtained from the analysis of the data obtained by the Construction Fitness Signs game researchers are classified as effective, efficient, and attractive eligibility criteria so that they can be used to stimulate locomotor movement skills.

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