

# Development of Movement Activities Based on Play Approach in Order to Develop Skills Children's Basic Movement

Rahma Dewi <sup>(1)</sup>

Sports Science  
State University of Medan  
Medan, Indonesia  
[rahmadewi368@gmail.com](mailto:rahmadewi368@gmail.com)

Nono Hardinoto <sup>(3)</sup>

Sports Coaching Education  
State University of Medan  
Medan, Indonesia

Amir Supriadi <sup>(2)</sup>

Sports Science  
State University of Medan  
Medan, Indonesia

Rima Gustira <sup>(4)</sup>

Sports Coaching Education  
State University of Medan  
Medan, Indonesia

**Abstract**—This study aims to produce a product design development of a valid, practical and effective in book form so that the activities of the motion that was developed to improve the ability of students in designing the motion activity with the approach of playing to do children with joy that motor skills are basically developed well in tune with the growth and student. Target desired development in this research is the students have the creativity to design an interesting movement activities are packaged in forms of game that will improve the quality of children's motor skills. Model design development activities play motion with the approach using a model Borg and Gall with the following steps: 1) Conduct a preliminary study (pre-survey), 2) planning, 3) draft product, 4) The initial phase of the trial, 5) a revision of the product, 6) Conducting field trials, 7) Perform revision of the product. The research data was collected through qualitative and quantitative descriptive of data. Qualitative data in the form of a written interview feedback, suggestions, and feedback from the validator experts, practitioners, observers and college student. Type quantitative data obtained from the assessment score given by the validator, practitioners, observers, and students through the validation and field trials. The data obtained are described in detail to determine the level of validity, practicality, and effectiveness of the activity draft motion motion activity based approach to play in order to develop the basic motor skills of children in the form of a book that will developed. Target outcomes to be achieved at this event as follows.

**Keywords:** *development, activities, skills, basic movement*

## I. INTRODUCTION

Subject growth and motor development is one of the subjects in the curriculum structure in the study program (Prodi) Education and Sports Coaching (PKO). The weight of this course of 2 credits, as for the purpose after learning of this course is that students are able to understand about the growth and motor development in teaching physical education. Lecture material presented starting with motor development

benefit for child cognitive development, stage of development and the basic motion stages child, appropriate forms of exercise to improve motor skills of children, and to evaluate various types of basic motor skills for children age levels.

This is in line with the opinions [1] which states in regular physical activity in childhood is very important for the development of physiological, psychological, cognitive, and social life. The understanding is very important for students about the ability of motion/motor child should be trained in developmental age[2]. This also impacts on the development of intelligence. With an adequate motor activity that will maximize physical development[3]. If the motor activity done regularly then the other skills will follow honed, such as thinking way, children will be healthier, more vibrant every day, and will also avoid stress.

Children need regular physical activity to be healthy growth and development with. Physical activity is important in the development of strong bones and muscles, so by doing physical activity can improve heart and lung fitness.

Furthermore, according to [4] suggest that regular physical activity has benefits for cognitive and social development of children. Physical activity is done by participating in a complex manner to develop social skills and developed when playing with peers[5].

Physical activity performed regularly will improve the fitness level of students. This is supported by [6] which states that physical activity done regularly will be beneficial to the physical fitness of students, namely reduction of the risk of degenerative diseases and the risk of obesity.

Based on expert opinion the above it can be concluded motion activity is a primary requirement in supporting growth and development in children. Physical activity makes children become fit and avoid the risk of degenerative diseases.

Playing containing motion activity is an integral part in the lives of children[7]. Playing is fun and exciting for children [8],

states play has the objective aimed to develop multiple intelligences of children. Childhood is a time to play so that the play approach is a method that appeal to children[8].

It can be concluded that the bet is something very important and needed by a child, because playing give effect to the development and growth of the child's physical and cognitive development at the same motor. Basic movement skills is a special set of skills involving different parts of the body such as the legs, body, head, arms and hands. These skills are the basic foundation for the more complex skills and special needs children throughout their lives to competently participate in various games, sports and recreational activities. Basic movement skills bring benefits to the child, it is in accordance with the opinion of Beth [9], which states the importance of fundamental movement skills of children who have a good basic motor skills to be able to participate confidently in a variety of activities. They will benefit in the short-term and long-term health, physical health and social abilities.

Basic motor skills can be developed through several strategies or methods, such as with the approach play. [10] express one strategy to develop basic movement skills (fundamental) is through the game, which can facilitate the ability of the child's motor skills because this is one of the gates of the world's children. Children play with the ultimate goal of learning to recognize and learn to move their bodies.

Research development or Research and Development (R & D) is often defined as a process or steps to develop a new product or improve existing products. The meaning of the product in this context is not always in the form of hardware (books, modules, teaching aids in classrooms and laboratories), but can also software (software) such as programs for data processing, learning in the classroom, library or laboratory, or models - model of education, instructional training, mentoring, evaluation, management and the other. This can be seen in the image below:

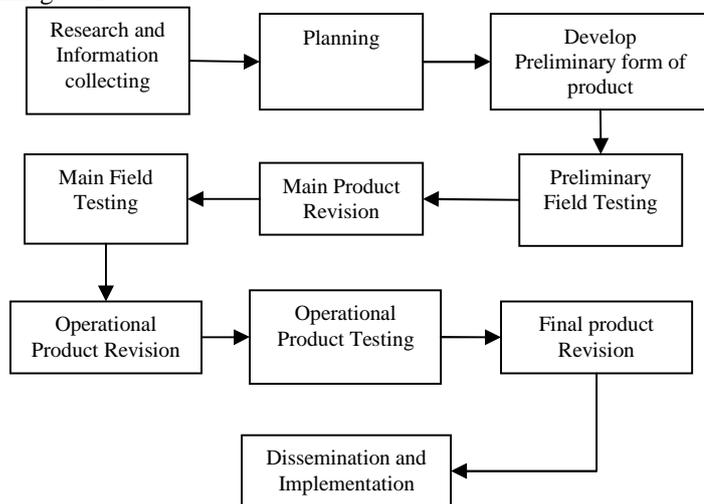


Fig. 1. Stages of Development According to Borg and Gall[11]

From the figure can be explained research and development as follows:

- A preliminary investigation (pre-survey) and the initial data collection, including literature, classroom observation, identification of problems, and summarizes the problems.
- Planning, planning is important in the statement of goals to be achieved product to be developed
- Develop type / shape of the initial products include: preparation of teaching materials, preparation of handbooks, and evaluation tools.
- To test the initial stage, i the evaluation of experts in instructional design, information technology, and multimedia.
- Revise its main products, based on input and suggestion advice from the initial field test results
- Conduct field trials, used to get evaluation of products. Questionnaires were made to get feedback from student is became the object of research trial.
- To revise the operational product, based enter and suggestions field test results and practitioners.
- Operational field test.
- Make improvements to the final product, based on field test conduct dissemination and implementation of the product, and distribute the product

## II. METHOD

This study will be conducted at the Faculty of Sport Sciences, State University of Medan Jl. Willem Alexander street V Medan Estate.

Development method used in this research is the development model Borg and Gall with 7 steps[11]. This is done because of time and cost and is supported by [12] which states that research and development can be stopped until the final draft is produced, without the test results. The results or the impact of the development of motor activity already exists in the experiment's small group and large group trial. As for the 7 steps are described as follows: 1) Conduct a preliminary study (pre-survey), 2) planning, 3) draft product, 4) the trial early stage, and 5) a revision of the product, 6) Conducting field trials, 7) Perform revision of the product.

The procedures in this study can be presented the following:

- Analysis of needs: The study of literature and observations.
- Planning motion activity: Design Games for girls.
- The initial product design: Child motion analysis, designing forms of the game according to the stages of child development.
- Product trials of phase 1: to test and evaluate a small group of experts
- Revision products.
- Phase II product testing: to test the effectiveness.
- Product: Book of motion activity based child playing approach.

The research data was collected through qualitative and quantitative descriptive of data. Qualitative data in the form of a written interview feedback, suggestions, and feedback from the validator experts, practitioners, observers and student type

quantitative data obtained from the assessment score given by the validator, practitioners, observers, and students through the validation and field trials.

**III. RESULTS AND DISCUSSION**

Research result, in detail the efforts and steps of developing textbooks course of growth and development of motion-based learning approach to play in order to develop children's basic motor skills can be expressed as follows:

**A. Needs analysis**

In this first phase the necessary information related to the course of growth and development of motion-based learning approach to play in order to develop the basic motor skills of children. Such information may include; collect data from stakeholders, experts studying the growth and development of motion, a lecturer in the growth and development of motion study is used for this.

**B. Plan**

Planning activities should also be considered terms: man, money, material, method. Man (man) related to who the speakers, including students, professors, experts and stakeholders, Money linked to funding or other sources of funds, where and how much. Materials related to the materials needed in the development of teaching materials, This material is not only material supplies, but also the content or materials teaching materials will be presented. Method related to the implementation of the activities to be carried out, such as input from experts growth and development of motion study, Then conducted seminars improvement of teaching materials course growth and development of motion study,

**C. Product development**

Product development emphasis on teaching materials product guide. In the next example, the development of products in the form of teaching materials course of growth and development of motion learning and teaching materials.

**D. Trial Subjects Small Group**

After the draft for the development of teaching materials to learn the course of growth and development of motion is completed, then the trials conducted premises models focus group discussions to revise the draft materials that have almost been completed.

**E. Revised First Product**

The results of the focus group discussion draft were analyzed for enhanced teaching materials, according to the input given by the experts. With the revision of these three indicators are expected product guide the growth and development of children who are prepared to learn the motion more easily digested by the students, so as to improve and add to his material for the students

**F. Trial Subjects Large Group**

Test and evaluate legibility, accuracy and contents. This test phase is the process to determine the effectiveness of teaching materials to learn the course of developed through a variety of reactions from various parties on the growth and development of teaching materials to learn the motion.

**G. Revised Second Product**

The results of the seminar involving 10 people from various fields of sports then draft instructional materials were analyzed for enhanced, according to the input given by experts in the seminar The revisions are expected product instructional materials end can already be used as a reference and is used to subject the growth and development of the study of motion.

The results of the research achievements of this development is the development of textbooks on the subject of growth and development of motion-based learning approach to play in order to develop the basic motor skills of children. Where the play is contextual approach means that its implementation is a learning approach that is comprehensive lecture or holistic.

Based on observations and experience that researchers are still a lot of student difficulties in the implementation process of growth and development of learning lectures motion. The reason is the lack of contextual-based instructional materials appropriate to the characteristics of growth and development of children. So this problem should be addressed urgently in order to competency as prospective researchers can be met. Teaching materials course of growth and development of motion study conducted by the preliminary study that is designing the course materials studied the growth and development of motion. For the design of instructional materials necessary course of growth and development of motion-based learning approach KDBK play through research at the Faculty of Sport Sciences Unimed.

The results of the validation and feedback on the importance of the development of textbooks subjects studied the growth and development of motion with the approach play figures showed 85% said it takes 10% is required and only 5% said not needed.

Based on the results of this survey can be believed that the development of teaching materials to learn the course of growth and development of motion with play approach is in accordance with the characteristics of the child. This can be seen in the diagram of expert validation results on the growth and development of teaching materials to learn the motion below.



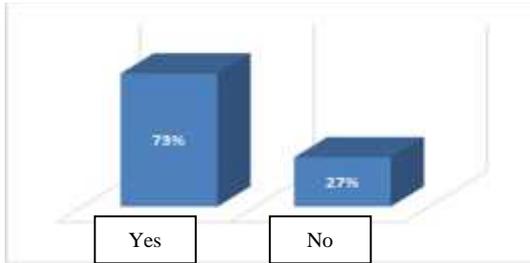
Fig. 2. Diagram Development Expert Validation Results Motion Activity-Based Approach Playing Instructional Materials Growth and Development Learning Motion

Data obtained in this research are presented in the form of a percentage. The question posed by 40-point declaration using two alternative answer "Yes" or "No" with a score of "O = 1" and "No = 0".

**TABLE I. STUDENTS PJKO DESIRE COMMUNITY DEVELOPMENT UNIVERSITY OF INDONESIA MEDAN (UPMI) IN INSTRUCTIONAL MATERIALS COURSE DESIGN AND DEVELOPMENT GROWTH LEARNING MOTION-BASED APPROACH TO PLAY**

No.	Yes		No	
	amount	percent%	amount	percent%
1	30	75	10	25
2	35	87.5	5	12.5
3	32	80	8	20
4	29	72.5	11	27.5
5	31	77.5	9	22.5
6	25	62.5	15	27.5
7	29	72.5	11	27.5
8	27	67.5	13	22.5
9	26	65	14	35
10	24	60	16	40
<b>Average</b>	<b>72%</b>		<b>28%</b>	

The results obtained by analysis of the average value implementation The design of the course teaching materials development growth motion study based approach to play can be seen based on the results of data acquisition a "Yes" with a percentage of 72% and a "No" with a percentage of 28%. In the form of a bar chart the data is described as follows:

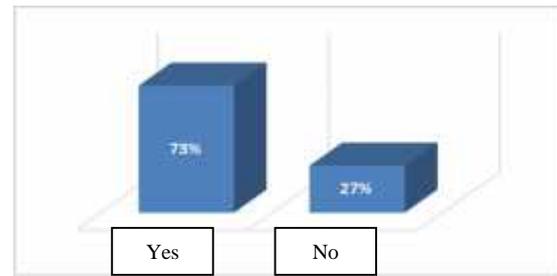


**Fig. 3. Diagram Desire Students UPMI Terrain Course Instructional Materials In the draft Growth and Development-Based Learning Approach Motion Play**

**TABLE II. STUDENTS DESIRE PJKO STOCK OF USE TERRAIN IN THE DRAFT SUBJECTS SUBJECT GROWTH AND DEVELOPMENT-BASED LEARNING APPROACH MOTION PLAY**

No.	Yes		No	
	amount	percent%	amount	percent%
1	35	87.5	5	22.5
2	28	70	12	30
3	27	67.5	13	22.5
4	25	62.5	15	27.5
5	30	75	10	25
6	33	82.5	7	17.5
7	34	85	6	15
8	28	70	12	30
9	27	67.5	13	22.5
10	25	62.5	15	27.5
<b>Average</b>	<b>73%</b>		<b>27%</b>	

The results obtained by analysis of the average value implementation The design of teaching materials course of growth and development of motion-based learning approach to playing on the student STOCK OF USE Terrain based data acquisition answers "yes" with a percentage of 73.00% and a "No" with a percentage of 27.00%. In the form of a bar chart the data is described as follows:



**Fig. 4. Diagram desire Student STOCK Bina Guna Terrain Course Instructional Materials In the draft Growth and Development-Based Learning Approach Motion Play**

Based on research data calculation in Medan UPMI shows that the answer is "yes" and 72.00% "No" 28.00% means that the student wishes in The design of teaching materials course of growth and development of motion-based learning approach to play very high.

Based on research data calculations on STOCK OF USE Terrain shows that the answer is "yes" and 73.00% "No" 27, 00% means that the student wishes very big wish to study the growth and development of motion study in The design of teaching materials course of growth and development of motion-based learning approach to play.

**IV. CONCLUSION**

The results of the research progress reports that have been implemented have reached 100% in accordance with the labor contract agreed upon.

Development of teaching materials course of growth and development of motion-based learning approach is expected to play assist in enhancing the understanding of the learning achievements of students according to a predetermined, Because these materials are very important to help the student learning process, because it is associated with the direct application of the problems associated with the growth and development of teaching and learning movement at the time either in the field or in the classroom.

**REFERENCES**

- [1] C. Boreham and C. Riddoch, "The physical activity, fitness and health of children," *J. Sports Sci.*, 2001, doi: 10.1080/026404101317108426.
- [2] G. Breslin, M. Murphy, D. McKee, B. Delaney, and M. Dempster, "The effect of teachers trained in a fundamental movement skills programme on children's self-perceptions and motor competence," *Eur. Phys. Educ. Rev.*, 2012, doi: 10.1177/1356336X11430657.
- [3] J. D. Goodway, H. Crowe, and P. Ward, "Effects of motor skill instruction on fundamental motor skill development," *Adapt. Phys. Act. Q.*, 2003, doi: 10.1123/apaq.20.3.298.
- [4] E. Marzetti *et al.*, "Physical activity and exercise as countermeasures to physical frailty and sarcopenia," *Aging Clin. Exp. Res.*, 2017, doi: 10.1007/s40520-016-0705-4.
- [5] R. Mitchell, "Is physical activity in natural environments better for mental health than physical activity in other environments?," *Soc. Sci. Med.*, 2013, doi: 10.1016/j.socscimed.2012.04.012.
- [6] H. Harahap, N. Sandjaja, and K. Nur Cahyo, "POLA AKTIVITAS FISIK ANAK USIA 6,0–12,9 TAHUN DI INDONESIA," *GIZI Indones.*, 2013, doi: 10.36457/gizindo.v36i2.138.
- [7] L. L. Moore *et al.*, "Does early physical activity predict body fat change throughout childhood?," *Prev. Med. (Baltim.)*, 2003, doi: 10.1016/S0091-7435(03)00048-3.
- [8] R. Ramadan and Y. Widyani, "Game development life cycle guidelines," in *2013 International Conference on Advanced Computer*

- Science and Information Systems, ICACIS 2013*, 2013, doi: 10.1109/ICACIS.2013.6761558.
- [9] J. P. Piek, B. Hands, and M. K. Licari, "Assessment of motor functioning in the preschool period," *Neuropsychology Review*. 2012, doi: 10.1007/s11065-012-9211-4.
- [10] M. Fadilah and R. Wibowo, "Kontribusi Keterampilan Gerak Fundamental Terhadap Keterampilan Bermain Small-Sided Handball Games," *J. Pendidik. Jasm. Dan Olahraga*, 2018, doi: 10.17509/jpjo.v3i1.7667.
- [11] N. Bennett, W. R. Borg, and M. D. Gall, "Educational Research: An Introduction," *Br. J. Educ. Stud.*, 1984, doi: 10.2307/3121583.
- [12] E. Ariastutik, T. A. Kusmayadi, and I. Sujadi, "Pengembangan Modul Matematika Berilustrasi Komik Pada Materi Skala dan Perbandingan Kelas VII SMP/MTs," *JMEE*, 2016.