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# PROCEEDINGS AISTEEL 2018

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# **Proceedings of The 3<sup>rd</sup> Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2018)**

*“Education, Learning, and Leadership Innovation”*

Emerald Garden Hotel, Medan City, North Sumatera, Indonesia  
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**Proceedings of the 3<sup>rd</sup> Annual International Seminar on Transformative Education  
and Educational Leadership (AISTEEL 2018)**

**Preface**

The 3<sup>rd</sup> Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2018) was held in Emerald Garden Hotel, Medan City-Indonesia on 3-4 October 2018. This seminar is organized by Postgraduate School, Universitas Negeri Medan and become a routine agenda at Postgraduate program of Unimed now.

The AISTEEL is realized this year with various presenters, lecturers, researchers and students from universities both in and out of Indonesia participating in, the seminar with theme “Education, Learning and Leadership Innovation.”

The plenary speakers coming from various provinces in Indonesia have been present topics covering multi disciplines. They have contributed many inspiring inputs on current trending educational research topics all over the world. The expectation is that all potential lecturers and students have shared their research findings for improving their teaching process and quality, and leadership.

The third AISTEEL presents a keynote speaker and 4 distinguished invited speakers from Australia, Singapore, Taiwan, and Malaysia. In addition, presenters come from various Government and Private Universities, Institutions, Academy, and Schools. Some of them are those who have sat and will sit in the oral defence examination.

There are 326 articles submitted to committee, some of which are presented orally in parallel sessions, and others are presented through posters. The articles have been reviewed by double blind reviewer and 198 of them were accepted for published by Atlantis Press indexed by International Indexation. Meanwhile 83 papers were published in online International Proceedings indexed by Google Scholar. The Committees of AISTEEL invest great efforts in reviewing the papers submitted to the conference and organizing the sessions to enable the participants to gain maximum benefit.

Grateful thanks to all of members of The 3<sup>rd</sup> Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2018) for their outstanding contributions. Thanks also given to Universitas Negeri Medan for published this volume.

The Editors

**Bornok Sinaga**  
**Rahmad Husein**  
**Juniastel Rajagukguk**

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# The Development of Interactive Learning Media of Athletic on Physical Education in SMP Negeri 15 Medan

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**Abstract**—This study aims to design and develop interactive multimedia-based learning media on athletic materials on the subjects of Physical Education that is suitable for use in learning. The development model that is used to developed learning media device in this research is Borg and Gall model which is used to produce a product. The product was an athletic learning media based on interactive learning media. This research was conducted at SMP Negeri 15 Medan. The data analysis technique is done by using quantitative descriptive analysis technique, that is by analyzing quantitative data. The research data was obtained from validation of media questionnaire by media material expert, media validation questionnaire by media expert, teacher perception questionnaire on interactive multimedia usage, and student perception questionnaire on interactive multimedia usage. Learning media in this research is shaped in adobe flash product. At the development stage, media and materials experts conduct small group trials aimed at testing media feasibility. Media validation questionnaires earned a percentage in very feasible categories. The teacher perception questionnaire and the students' perception questionnaire on the used of interactive multimedia gained a percentage in a very feasible category. It can be concluded that interactive learning media on athletic material was feasible and can be used on the subjects of Physical Education.

**Keywords**—*development; interactive learning media; physical Education; athletic*

## I. INTRODUCTION

Today, Information and Communication Technology (ICT) is experiencing rapid development. These developments have an unavoidable impact of course. The impact requires innovation and creativity in various ways, one of them in the world of education. Therefore it is not a difficult thing anymore to find the use of ICT in the world of education. The existence of ICT use policies requires teachers to be able to use the media in their learning, the existence of integrated learning with ICT becomes a necessity in the 2013 curriculum, the teacher must be able to use the media in learning.

Athletics is one of the Physical Education subjects that must be given to students ranging from elementary school to

high school level, in accordance with Minister of Education and Culture Decree No. 0413 / U / 87.

There are many obstacles and obstacles so that athletics are liked and liked by students or can even excel in one of the race numbers at the student level. One of the obstacles that is often encountered in the field, among others, is the lack of availability of facilities and equipment for adequate athletic activities.

Another problem is the ability of the teacher in presenting the athletic teaching and learning process which emphasizes more on mastering the technique and oriented to the results or achievement of students in each athletic number.

From the background above can be identified various problems found in the field as follows:

1. Limitations of teachers in demonstrating athletics to students due to physical limitations.
2. It takes media to make it easier for students to understand the material.
3. Methods Conventional learning conducted by teachers requires innovation / development.
4. It is necessary to balance the use of computer-based learning media for all subjects including Physical Education and Health.
5. The demands of modernization in the world of education that continue to strengthen make it necessary to have a breakthrough in the learning system
6. Encourage students to follow the development of information and communication technology, especially in the learning process.

The purpose of this learning media development research is as follows:

1. Produce athletic interactive multimedia in Health Sports Physical Education subjects that are suitable for use in learning.
2. Knowing the effectiveness of the use of interactive learning media for athletic material in Sports Physical Education subjects.

## II. THEORETICAL STUDY

### A. Learning

For a student learning is an obligation. Success or failure of a student in education depends on the learning process experienced by the student. Sardiman A.M. (2004: 20), that learning is a change in behavior or appearance with a series of activities.

From the description above it can be concluded that learning is a business process carried out by students to obtain a new behavior change as a whole, intentionally, consciously and these changes are relatively permanent and bring positive influence and benefits for students in interacting with their environment. While learning is a series of activities in which there are students who are learning and assisted by teachers who create environmental conditions that support the ongoing learning process.

Learning is the process of interacting students with educators and learning resources in a learning environment. Learning is assistance provided by educators so that knowledge and knowledge acquisition, mastery of skills and character can occur, as well as the formation of attitudes and beliefs in students

### B. Physical Education Learning

Physical education of sports and health as part of general education in schools that aims to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral actions, aspects of a healthy lifestyle and recognition. Sports physical education and health traditionally have goals that are in line with education in general. According to Charles Bucher quoted by SoenardiSoemosasmito (1988: 5), that physical education in sports and health is an integrated part of a comprehensive educational process; the fields and targets that are pursued are physical, mental emotional and social development for healthy citizens, through a medium of physical activity. From the above definition it can be concluded that physical education and sports subjects are an integral part of the overall education system that utilizes physical activity which aims to improve the individual's organic, perceptual, emotional, neuromuscular within the framework of national education.

### C. Physical Education Learning

Athletics comes from the Greek language, that is *athlon* or *atlum* which means match, race, struggle or struggle. While people who do are called *athletes* (*athletes*). Thus it can be stated, that athletics is a sport that is contested or competed which includes road numbers, running, jumping and throwing.

### D. Instructional Media

According to Heinich, (1993) media is a communication channel. Media comes from Latin and is the plural form of the word "medium" which literally means "intermediary" which is

the intermediary of the source of the message (a source) with the receiver of the message (a receiver). Heinich cited this media as films, television, diagrams, printed materials (printed materials), computers, and instructors

Based on theoretical studies, relevant research and the framework of his thinking, the hypothesis in this study is

1. Athletic material for Interactive Learning Media in Sports Physical Education subjects is suitable for use in Class VII SMP 15 Medan.
2. Interactive Learning Media Athletic material is effective to be used in athletic learning long jump numbers show higher student learning outcomes

## III. METHODOLOGY

### A. Development Model

The development model that will be used to develop learning media tools in this study is the Borg and Gall model. This development model version of Borg and Gall (1989: 784-785) includes ten activities, namely: (1) preliminary study, (2) research planning, (3) initial product development (4) initial (limited) field trials, (5) revision of limited field test results (6) wider field test (7) revision of field test results (8) due diligence. (9) revision of the results of the feasibility test. (10) dissemination and dissemination of final products

The reason for using this development media is when viewed from the procedure written that each stage in this media is very concerned about the needs and real situation in a systematic school. This development media is used to produce interactive multimedia products for ball game baskets that are suitable to be used in the learning process of physical health sports education.

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