CHAPTER V

DISCUSSION

Interactive media development theme energy saving at fourth grade in Islamic Global School Malang is based on the fact that there has been no interactive media to support the implementation of the curriculum of 2013, especially in thematic learning at fourth grade. Thus the results of this development to add interactive media and to help students to understand about the material with valid, practical, and effective. This interactive media can also achieve the education has been established in the curriculum. The researcher chooses interactive media as a learning tool students because interactive media fully serve the needs of student learning. In some ways the media learning can replace the function of teachers as a learning resource.[60]

The develop interactive media on theme energy saving at fourth grade students in Islamic Global School Malang that valid, practical, and effective. It will be proven when researcher do interaction with teacher and students.

A. Valid

Procedural models developed for this product are the adaptation model by Alessi and trollip. There are 10 stages (1) determine objectives and needs, (2) collect reference materials, (3) learn content, (4) brainstorming, (5) design learning, (6) create a flowchart, (7) create storyboards, (8) program material, (9) create support material, and (10) evaluation and revision.

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[60] Yudhi Munadi, *Media Pembelajaran Sebuah Pendekatan Baru* (Jakarta: Gaung Persada Press, 2012),hal 152

Interactive media development has been conducted repair gradually such as evaluations from material expert, design expert, linguist, teacher class, and test by student at fourth grade in Islamic Global School Malang as the target users of interactive media development. Aspects are used as a reference point to do the revision include completeness, appropriateness, the accuracy of content based on the curriculum 2013, effectiveness and conspicuousness. The results of the evaluation and revision is used as improvements to interactive media for testing in the field.

Validation results are converted on a percentage scale based on the level of valid and as a basis for decision making to revise interactive media and use the following assessment criteria as in Table 5.1.

Table 5.1
Level of Valid

Percent (%)	Valid	Description
80 – 100	Valid	No Revision
60 – 79	Valid	No Revision
40 – 59	Less Valid	Need revision
0 – 39	Very less Valid	Need revision total

Based on a conversion scale specified in the product assessment questionnaire, as follows:

a. Score 1 for very inappropriate, very less readable, very less accurate, very poorly organized, very ugly, very poor, very less substantial

b. Score 2 for less appropriate, less readable, less accurate, less regular, less excellent, less capable, and less substantial

c. Score 4 for appropriate, readable, accurate, regular, excellent, capable, and substantial

d. Score 5 for very appropriate, very readable, very accurate, very regular, very excellent, very capable, and very substantial

Based on the development process and results analysis 1) data consultation with material expert, design expert, linguist, 2) data consultation with teacher class in fourth grade islamic global school, 3) trial results data by individuals in question form, interviews, and documentation of interactive media theme energy saving at fourth grade islamic global school. Validation and revision is used to create a quality medium and customize the needs of students. Validation is also used to make interactive media is becoming a valid and viable medium.

Results of consultations with material expert, design expert, linguists, and teacher class 4 indicates that all components are validated is feasible. This is proved data consultation by material expert with the percentage of 81,25%, data consultation with design expert with the percentage of 98,00%, data consultation by linguist with the percentage of 100%, data consultation with teacher class with the percentage of 89,57%. This indicates that interactive media is ready to be used by students and teachers in learning.

Individual test results indicate that they are very happy with this interactive media because it looks interesting, nice, colorful, and easy to understand. This is proved by individual test phase I with the percentage of 91% and individual test phase II with the percentage of 98%.

Based on the results of validation, interactive media theme energy saving at fourth grade in Islamic global school Malang shows good or valid. In general the development of interactive media has complied with the eligibility and don't need revision. However, the suggestions and comments by the validator in open-ended questions, trying to be released so that interactive media the better. This reinforces the theory that a media development was declared effective and efficient if it has been proven in the field, not just theoretical.[61]

B. Practical

Interactive media theme energy saving is used as a reference for teachers and students in the process of learning the theme energy saving. Interactive media are packaged with a very attractive look and invite the students to understand the concept clearly. This is similar to the theory of Constructivism is that a process of creation of knowledge by students with active activities, active thinking, forming concepts and give meaning to something that is learned.[62]

Students feel more happy and excited in learning with this interactive media. Especially when this interactive media play on their own handphones. They look more enthusiastic. This reinforces the theory that learning media use in the process of teaching and learning can foster a desire, interest, motivation and stimulation of learning activities, and provide psychological influences to the students. It also strengthened the effective function of learning media that appropriate learning media can enhance the admission of students to a particular

[61] Arif, *op.cit.* hal 182
[62] Warsita, *op.cit,* hal 78

stimulus. If it is continuously conducted, students do the assessment and appreciation of values or norms that have been obtained.[63]

This is in accordance with the theory of Constructivism that learning strategies emphasize on the use of knowledge is meaningful. The study follows the students ability and emphasis on process. Learning activities in the context of real, not follow the textbook. It is reinforced by results of interview by developers with one of the subjects of field trials.

"The media are great. I like. It looks colorful."

"I feel very good when studying. If every day is like this, I am so passion when learning. I won't be sleepy"

So the interview subject validation are Satrio and Dea when developers ask about their opinion about the learning in the classroom using interactive media theme energy saving.

An early appearance of the interactive media opens with slide opening and then students are invited to pray before the study. This is getting students to always pray in any case. Interactive media is designed with the look colorful to make it different each material being studied. Each display is provided the menu to return to the home page, direction, evaluation, and exit buttons if they want it at any time. Students more easily understand the material because it is supported by a sound. This supports the theory in communication, psychology that when we pay attention to certain stimuli while disposing of other stimuli. Appropriate learning media are learning media that capable to attract and focus the attention of

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[63] Yudhi, *op.cit,* hal 44

the students. Learning media can improve the attention of students of the material.[64]

C. Effective

Learning materials in this product is the thematic learning themes energy saving. The goal is that students can be easier to understand the concept of a material. In addition, students can also apply materials to save energy, according the example given in the media and can take advantage of useless things. This reinforces the theory that the person who has learned to have a change in behavior within them. The behavior changes such as change in cognitive, psychomotor or affective.[65] The learning process occurs because there is interaction of individuals with their environment. The learning process can happen anytime and anywhere even though there is a teaching or not.[66]

The interactive media proved to be significantly effective to improve the understanding of the material on theme energy saving at fourth grade students in Islamic Global School Malang. Because t count 4,48 > t table 1,860 then H_a is accepted and H_0 is rejected. The conclusion is that there are very significant differences between the value of the final (post-test) with the initial value (pre-test). Furthermore, from the average is known X2 89.67 > X1 76, means that the value of the post-test better than the pre-test. So there are significant differences in cognitive understanding of students on media development have been developed. It means that interactive media development can add to the diversity of thematic

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[64] *Ibid,* hal 43
[65] Arief S. Sadiman, *Media Pembelajaran* (Jakarta: PT Raja Grafindo), hal 2
[66] *Ibid*.hal 1

media on curriculum 2013. This media can be used as a reference for teachers and students in the process of learning the theme energy saving. Media education as a learning resource that can deliver messages. Media can solve issues such as differences in learning styles, interests, intelligence, sense of power limitation, disability or geographical distance, time.[67]

This interactive media development has advantages and disadvantages. The advantages of this interactive media are 1) students more easily understand the material on the theme energy saving because the material presented as attractive as possible with animation, 2) the main purpose of this interactive medium is to help students and teacher in the learning process to enhance student's understanding of the themes energy saving, 3) this interactive media can be used by teachers to support the learning process. The teacher only guides and assist students in using this media, 4) interactive media is very applicable to the environment students. Students not only learn about the material on the three subjects, but students also can apply the material in everyday life. Because the developers give examples of problems around their environment. It supports cognitive function of learning media that the more object is seen, so the more thoughts and ideas that are owned or are getting rich and extensive nature of their cognitive, 5) this interactive media can be used in your computer using an LCD, besides students and teachers can also use this media to a Mobile device. So, whenever they want to learn, unlimited by time and place. As long as there is a

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[67] *Ibid,* hal 14

supervisor when studying this media, 6) the media could also be in Bluetooth on any Android phone.

Interactive media development also has some disadvantages. The disadvantage is 1) only one study on the theme energy saving subtheme energy utilization fourth learning, 2) this interactive media does not increase the value of students drastically because the goal of the developer is to do, understand the concept of material in the theme energy saving, 3) sound in interactive media sometimes do not match with a slide that is being opened, 4) interactive media can only be used on a computer or a mobile phone that has a specification.

The process of learning to develop activity and creativity of students through a variety of interactions and learning experience. Activity and creativity of students became important, as it affects the success of the learning in the classroom and as an effort of learning in everyday life. Implementation of interactive media theme energy saving needs patience and planning according to the needs of students. Because interactive media is a new product so students need guidance from teachers. However, when using interactive media in the process of learning, students seem very enthusiastic and very interested. Students think more organized and focused. This is because in the interactive media students are invited to think it's easy to difficult. It can help students to find his own without any compulsion from the teacher. This strengthens the theory in the book of Prof. Azhar that audio visual materials can provide many benefits as long as the teacher

plays an active role in the learning process. The relationship of teachers and students is the most important element in the system of modern education.[68]

Interactive media theme energy saving subtema 2 learning 4 has been declared valid, effective and efficient because it has gone through various phases. This development results reinforce earlier studies. Previous study is a thesis on teacher education of islamic elementary school UIN Malang, written by Choerul Anwar Badru Tamam entitled "Learning Media Development Math Multiplication Material Computer-assisted Integers to Fourth Grade SD/MI." [69] This research resulted in the media about learning mathematics has good quality and suitable for students. Based on the results of the field trials concluded that computer-assisted mathematics learning media have been already effective, efficient, and attractive to use basic multiplication memorization drills.

The second study is a thesis on teacher education of islamic elementary school UIN Malang, written by Aulia Rohmawati, entitled "Development of Multimedia Interactive Learning in order to Improve the Effectiveness of Learning Material on Natural History, Appearance, and Ethnic Diversity at Fourth Grade MI Miftahul Ulum Batu city".[70] This research resulted in interactive multimedia learning shows that this interactive multimedia development research proved to be able to improve the effectiveness of the study on standards of competence to understand the history, natural appearance and ethnic diversity.

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[68] Azhar. *op.cit* hal 23
[69] Choerul, op.cit,..

[70] Aulia, op.cit,..

A third study is a thesis on teacher education of islamic elementary school UIN Malang, written by Najib anshori, entitled "The Development of Integrated Learning Thematic Media Using Adobe Flash Cs4 for First Grade of Elementary School, Malang Islamic State 2".[71] Research results are thematic learning media integrative developed, including the qualification that it deserves thematic learning used in integrative curriculum 2013 at first class SD/MI.

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[71] Najib, op.cit,..