CHAPTER II
STUDY OF LITERATURE

A. The Previous of Study

Based on previous studies about interactive media, many research results showed that learning processes using interactive media are more effective than learning processes without media. So, researchers wanted to develop interactive media on the theme of energy saving at fourth grade in Islamic Global School Malang.

Related to this research, researchers tried to find the research that was done before. Previous studies found 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." ¹¹ This research resulted in the media about learning mathematics. The subject of this development is the test fourth grade MI Muhammadiyah Probolinggo. Evaluation and revision of the media learning, computer-assisted mathematics through four stages, namely (1) validation and response material expert, (2) validation and response design expert the learning media, (3) validation and response from teacher class MI Muhammadiyah Probolinggo, (4) validation and response of field trials, namely fourth grade MI Muhammadiyah Probolinggo 24 students. Based on data analysis, validation and response from experts that the media learning, computer-assisted math 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 development of the work of this thesis consists of two parts. The first part contains the analytical study of the development and the second part of the CD interactive media practice multiplication.

The second study found 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". This research resulted in an interactive multimedia learning. Data obtained from research 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. Multimedia has been developed in the form of educational games and digital modules proved to be valid and do not need revisions. So it deserves to be widely used in the field.

A third study found a thesis on teacher education of islamic elementary school UIN Malang, written by Muhimah Ngaziz, entitled "Development of Integrated Thematic Materials on Theme of Tourism at Second Grade in MI Ma'arif Sukun I Malang". The result of the development of learning materials on


the theme of integrative thematic tourism are (1) the existence of thematic integrative learning materials by connecting the subjects of Indonesian language, mathematics, natural science, social science, and aqeedah morals and have gone through the process of validation of the material expert, design expert and teacher class which reaches 80%, (2) Trial results the use of learning materials for six meetings is 89.8% of students whose value ≥76 and 10.2% of students whose value <76. While the results of interviews with students about integrative thematic materials on the theme of tourism is 93% of students like it.

The fourth study found a thesis on teacher education of islamic elementary school UIN Malang, written by Najib anshori, entitled "The Development of Integrative Learning Thematic Media Using Adobe Flash Cs4 for First Grade of Elementary School, Malang Islamic State 2".\textsuperscript{14} Research results based on the assessment of the validator material expert that 80%, 85% of design expert, teacher class at first grade thematic integrative amounted to 85%, a large group of 88%, a small group of 99.3%, and individual groups of 96% with overall points included in a qualifying good. While the results of learning as measured through the pretest and post test learning outcomes there is a growing reach 9%. Overall it can be concluded that thematic learning media integrative developed including the qualification that it deserves thematic learning used in integrative curriculum 2013 at first class SD/MI.

Based on previous studies that had already been discovered by researchers then it can be concluded that the research thesis written by Choerul Anwar, Aulia

\textsuperscript{14} Najib Anshori, “The Development of Thematic Integrative Learning Media Using Adobe Flash Cs4 For 1\textsuperscript{st} grade of State Islamic Elementary School Malang 2. Skripsi, Jurusan Pendidikan guru Madrasah Ibtidaiyah, Fakultas Ilmu Tarbiyah dan Keguruan, 2014.
Rohmawati, Muhimah Ngaziz, and Najib Anshori previous studies as a researcher is different with this research. It is at the focus of the material researched object, the location of research, as well as the resulting products of each study.

Researcher included a table of differences, similarities and the originality of research to make it easy in the Table 2.1 below:

<table>
<thead>
<tr>
<th>Research Titles</th>
<th>Similarities</th>
<th>Differences</th>
<th>Originality of Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mathematics media development, learning material computer assisted integer multiplication for students of Fourth Grade students (by Carol Anwar Badru Tamam: 2013)</td>
<td>Development of computer-assisted learning media</td>
<td>The resulting product is media of learning mathematics integer multiplication material</td>
<td>This research is a study of the development of interactive media on the theme energy saving sub theme 2 learning 4. The development model used the Alliance and Trolli. This interactive media development using the software I-spring.</td>
</tr>
<tr>
<td>2. Development of multimedia interactive learning for enhancing learning effectiveness in material history, natural features, and ethnic diversity for students of class IV A MI Miftahul Ulum Batu City (by Aulia Rohmawati: 2014)</td>
<td>Development of interactive multimedia</td>
<td>1. Learning the material history, natural features, and ethnic diversity 2. Location of the study in MI Miftahul Ulum Batu City</td>
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<td>3. Development of integrated thematic materials on the theme of tourism on class II MI Ma'Arif Sukun I Malang (by Muhimah Ngaziz: 2014)</td>
<td>The development of thematic integrated textbook</td>
<td>1. Use of Theme Tourism 2. Students in Grades 2 MI Ma'Arif sukun I Malang</td>
<td></td>
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<tr>
<td>4. The development of thematic integrative learning media using adobe flash CS4 for First Grade of State Islamic Elementary School Malang 2 (oleh M. Najib Anshori: 2014)</td>
<td>The development of integrated learning, thematic media</td>
<td>1. Media development using adobe flash CS4 2. For First Grade at MIN 2 Malang</td>
<td></td>
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</table>
B. Study of Theory

Study of the development of interactive media on theme energy saving on sub theme 2 learning 4 in the Islamic Global School includes a few things that need to be understood more deeply (1) media (2) learning theory (3) Thematic Learning Model.

1. Media
   a. Understanding The Media

The media comes from the Latin mediums which literally means 'the middle', 'intermediate' or 'introduction'. In Arabic, the media is an intermediary or an introductory message from the sender to the recipient. The term "media" is often associated with the word "technology" which is derived from the Latin word tekne (English art) and logos (a language of Indonesia "Science").\(^{15}\)

While according to Djamarah and Zain, the media is a tool that can serve as an intermediary to achieve learning objectives.\(^ {16}\) Media education is a bridge from the learning messages conveyed by the message source (teacher) to the recipient of the message (the students). So the messages can be absorbed properly in accordance with its purpose.\(^ {17}\)

\(^ {15}\) Azhar, op.cit., hlm 3

\(^ {16}\) Djamarah dan Azwar Zain., Strategi Belajar Mengajar (Jakarta: PT Rineka Cipta, 2010), hlm 120.

\(^ {17}\) Sri Anitah W, Strategi Pembelajaran di SD (Jakarta: Universitas Terbuka, 2009), hlm 6.11
education can stimulate the sense of sight, hearing, smelling, tasting and touching. For that an educator needs to have a nice learning medium.\textsuperscript{18}

As part of the learning system, the media have practical values are the ability to: 1) makes the concept of abstract into concrete; 2) bring difficult object into the learning environment; 3) displays the objects are too large; 4) displays the objects that cannot be observed directly; 5) students interact directly with the environment; 6) observing the movement too fast; 7) build learning motivation of students in the class; and 8) gives the message or information learned, minimizing time and space.\textsuperscript{19}

Variance opinions above, researcher concluded that the media is an intermediary device that is used to convey a message from the sender to the receiver. So it can stimulate the thoughts, feelings, concerns and interests as well as the attention of the students so that learning can occur. For the teacher needs to have a media to support learning materials can be absorb students optimally.

b. Types of Learning Media

Learning media in general can be grouped into 3 types\textsuperscript{20}, namely;

1) Visual Media

\textsuperscript{18} Daryanto, \textit{Media Pembelajaran} (Bandung: Alfabeta, 2010), hlm 162

\textsuperscript{19} Trianto, \textit{Mengembangkan Model Pembelajaran Tematik} (Jakarta : Prestasi Pustaka, 2010), hlm 202

\textsuperscript{20} Sri Anitah W, \textit{op.cit.}, hlm 6.130-6.30
Visual media is media that can only be seen by using the sense of sight. Visual media consists of visual projected and non visual projected.\textsuperscript{21} This media is used to express facts or ideas through the use of words, numbers and symbols. This visual media type such as graphs, charts, diagrams, posters, cartoons and comics.\textsuperscript{22}

2) Audio Media

Audio media is media that contain messages in audible (only audible) that can stimulate the thoughts, feelings, concerns, and the ability of students to learn the materials. This audio media type such audio cassette, CD audio and radio programs.\textsuperscript{23} The use of audio media in thematic learning in elementary school to train skills that relate to aspects of listening skills.\textsuperscript{24}

3) Audio Visual Media

Audio visual media is a combination of audio and visual. An example of the audio visual media including video and television programs about education, instructional, slide sounds, and CD interactive. By using audio visual media, the presentation of the contents thematic learning will be more complete.

\textsuperscript{21} Ibid hlm 6.30

\textsuperscript{22} Rusman, \textit{Model-Model Pembelajaran: Mengembangkan Profesionalisme Guru} (Jakarta: PT Raja Gravindo Persada, 2012), hlm 274-275

\textsuperscript{23} Sri Anitah W, \textit{Op. Cit.}, hlm 6.15

\textsuperscript{24} Rusman, \textit{op. Cit.}, hlm 275
c. CD Interactive Media

The CD interactive is a very interesting teaching media and most practical computer media. Computer media using CD interactive can receive a response from the students. They directly study and understand the material.\textsuperscript{25} This is similar to Prastowo said that the CD interactive is a CD that combines some of the learning media (audio, video, text, or graphic). It is interactive to control a command or the natural behavior of the learning.\textsuperscript{26}

Advantages of CD interactive by Prastowo as follows\textsuperscript{27}: 1) can deliver the information in text and graphics; 2) interactive learners; 3) can manage a report or response learners; 4) can control the hardware of other media; 5) can be connected with a video to watch over the activities of the learning learners.

Researcher can conclude that the CD interactive is an interesting learning media used in the learning process in the classroom. It serves the material in the form of audio, video, text, or graphics with computer. For students not only hear and see, but also give an active response. So it can improve student learning activities in the classroom.

Researcher can also conclude that learning media is a tool that is used by teachers to deliver the message of learning to the students to

\textsuperscript{25}Dina Indriana, \textit{Ragam Alat Bantu Media Pengajaran} (Jogjakarta: Diva Press, 2011), hlm 116

\textsuperscript{26}Andi Prastowo, \textit{Panduan Kreatif Membuat Bahan Ajar Inovatif} (Jogjakarta: diva Press, 2011), hlm 330

\textsuperscript{27}Ibid 332
optimize the learning process. Therefore, teacher needs to have a media to support learning materials can be understood students optimally.

d. The Importance of Use of Media in Islamic Perspective

The importance of use of media learning based on the Hadith:

وَحْهُ مَعَاشِرَ آلَ الْأَوْبِيَاءِ أُمِرْنَا أَنْ نُنْزِلَ النَّاسِ مَنَازِلَهُمْ وَنَكُلُّمُهُمْ عَلَىٰ فَنَحْنُ عَلَيْهِمْ (رواى أبي كربن الشخير)

“We as the prophets were commanded to put someone as a spokesman to them in accordance with their ability”

From the Hadith, teachers in explaining the material to students should really know the condition and ability of students. Teachers should not be concerned with material that is not related to the student. On other way, teachers should try to create a material that matches the student’s ability and packed with interesting.

There is a rationale to use media in learning on koran surah An-Nahl verse 44, namely:



“[We sent them] with clear proofs and written ordinances. And we revealed to you the message that you may make clear to the people what was sent down to them and that they might give thought.”

The application of media should pay attention to the development of the students. Without knowing and understanding the development of

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28 Sudiyono, *Ilmu Pendidikan Islam*, (Jakarta:PT Rienka Cipta, 2009), hal180
the students, the teacher will be difficult to achieve learning objectives. As the word of God Almighty in Surah An-Nahl verse 125, namely:

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آدع إلى سبيل يكتب بالحكمة والموعظة الحسنة وجدلهم يالتى هي أحسن
ركن هو أعلم بما ضل عن سبيله وهو أعلم بالمهتندين
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“Invite to the way of your Lord with wisdom and good instruction, and argue with them in a way that is best. Indeed, your Lord is most knowing of who has strayed from His way, and He is most knowing of who is [rightly] guided.”

2. Theory of Learning
   a. Theory of cognitive development Jean Piaget

   Cognitive theory assumes that learning is organizing and cognitive aspects of perception to get understanding. The principles of cognitive theory, learning is a change perception and understanding are not always visible as behavior. The cognitive activities are assimilated and accommodate a variety of information or knowledge of the environment to be a particular mental structure.

   According to Piaget, someone has a learning process that will follow the pattern of a particular stage of development and in accordance with its age. One cannot learn anything beyond cognitive ability. Each stage of the development of the cognitive structure of

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29 Bambang Warsita, Teknologi Pembelajaran, Landasan dan Aplikasinya (Jakarta: Rineka Cipta, 2008) hlm 69
content represents the typical stages in accordance with the differences in phases.  

The stages of cognitive development in Piaget as follows:

1) Sensorimotorik phase (0-2 years)

In this phase of cognitive knowledge is still limited on preception of her senses and motor activities. The behavior is still limited to simple motor response caused by stimulation of the activities. Children are using the skills and abilities that are carried from birth, such as viewing, grasping and hearing to study the environment.

2) Pre operational phase (2-7 years)

In this phase of thinking are more symbolic, egocentric and intuitive. So that it does not involve operational thinking. This phase is also called phase of intuition because it is affected by perception and egocentrism. It is very important in the way children think looks at things from the point of view of him. At this phase it seems language proficiency and mastery of the concept

30 Ibid
31 Rifa’i, Achmad dan Catharina Tri Anni, Psikologi Pendidikan (Semarang: Unnes Press, 2009), hlm 26-30
32 Ibid, hlm 27
33 Sapriati, Amalia, Pembelajaran IPA di SD (Jakarta: Universitas Terbuk, 2009.), hal 1.11
is thriving. At this phase cannot think conceptually but can be observed.³⁴

3) Concrete operational phase (7-12 years)

Concrete operational phase is base to think concrete can be seen, touched, felt from an object or event.³⁵ At this phase there are changes from a less logical thinking becomes more logical, the child is able to solve concrete problems.³⁶ Children are only able to deal with things that are real or with things they can imagine.³⁷

4) The formal operations phase (12-15 years)

In this phase children are capable to think abstract, idealistic and logical. Formal operational thought seems clearer to solving verbal problems. In this phase cognitive ability reaches top developments. The child is able to predict, think about a substance as well as hypotension, about the case of the structure of the language and dialogue.³⁸

So it can be concluded by Piaget’s theory of cognitive learning is the learning process to follows the pattern and phase of development according to age. One cannot learn anything beyond

³⁴ Lapono, Nabisi. 2008. Belajar dan Pembelajaran SD (Jakarta: Departemen Pendidikan Nasional, direktorat Jendral Pendidikan Tinggi) hal 1-20

³⁵ Sapriati, op.cit., hal 1.12

³⁶ Lapono, op.cit., hal 1-20

³⁷ Ibid hal 1.12

³⁸ Rifai, op.cit., hal 30
their cognitive abilities. So teachers need to pay attention to every phase of the development student learning.

b. Learning theory of constructivism

According to the learning theory of constructivism is process build knowledge for student by actively to think, build concept and gives meaning to something he had learned.59 According to Sardiman, learning is an active activity where the subjects learn to build own knowledge. Student studied to find own meaning from the things they are learning.40

Learning theory of constructivism assumed that learners have the ability to build new knowledge based on knowledge that has been mastered. The role of the teacher as a facilitator or only creator of the learning conditions that the learners actively seeking his own information, assimilate and adapt its own information and construct a new knowledge based on knowledge which belonged to each of them.41 Learning theory of constructivism proposed by two principles, namely 1) knowledge cannot be obtained passively but actively by the cognitive structure of students; 2) the cognition function is adaptive and help organizing through real experience owned children.42 According to constructivism, learning strategy emphasizes to use knowledge in the learning by meaningful, follow student’s thinking and emphasize on

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59 Bambang Warsita, op.cit, hal 78
40 Sardiman, Interaksi & Motivasi Belajar Mengajar (Jakarta: Raja Gravindo Persada, 2011), hlm 38
41 Lapono,op.cit, hal 1-26
42 ibid, hlm 1-28
processes, and learning activities in real context. It is not depend on textbook.  

Thus, according to constructivism learning theory, learning is an activity that allows the subject’s own construct knowledge. Students have been able to scientifically find themselves thinking of his knowledge of their learning process. The teacher in this case acts as a mediator and facilitator to assist in optimizing student learning.

c. Behaviorism learning theory

Basic concepts in this theory that learning is one of the types of individual behavior are done consciously. Learning is defined as the process of the establishment of the relationship between stimulus and response. Humans are strongly influenced by events in the environment that will provide learning experiences. The most important to apply this theory is teachers, instructional designer, instructional programs developers must understand the characteristics of the students and the environment. So that the success rate of students during the learning activities can be known. Learning theory is paying more attention to the observed behavior. Indicators of the success of this learning theory are

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43 Bambang Warsita, *op.cit.*, hlm 79

44 Lapono, *op.cit.*, hlm 1-15

45 Bambang Warsita, *op.cit.*, hlm 66-67
the students get excited about passionate, proactive in learning, and there is a change in mindset, behaviors, and attitudes of their own accord.46

So it can be concluded, according to the theory of behaviorism, learning is the type of behavior caused the result of stimulus and response. Therefore, the role of the teacher is very influential in providing stimulus through the meaning experience in learning. Teachers must be resourceful in creating conditions for learning. So that students get excited about and interested in following the process of learning.

3. Thematic Learning Model
   a. Learning model

   According to Joyce & Weil argues that the learning model is a plan or pattern that can be used to form a long-term plan curriculum, designing learning materials, guiding learning in class or another. The learning model can be made into a pattern of choice, meaning that teachers may choose appropriate learning model and efficient way to achieve the goal of education.47

   Arends said that the term teaching learning model refers to a particular approach to instruction that includes its goals, syntax, environment, and management system.48 The term learning model leads to a certain learning models include the purpose, syntax, environment,
and system management. In teaching a certain material should be chosen model of learning that best suit the goal achieved. Therefore, in choosing a model of learning should have considerations such as learning material, the level of cognitive development of students, and the facilities available. So that the learning objectives that have been set. ⁴⁹

The model is a learning plan or pattern designed in carrying out the learning process for some consideration (instructional material, cognitive developmental level of the students, and the means or facilities available). So the learning objectives can be achieved optimally.

b. Thematic learning model

1) Understanding learning thematic

Thematic learning model is one integrated learning model which is a system of learning that allows students, either individually or in groups, actively explores and find the concept and principles of academic holistically, meaningful and authentic. Thematic learning in practice refers to a theme developed by teachers with students. ⁵⁰

The same thing with Anita, learning is defined as a thematic learning activities designed around the main idea and involves several areas of subjects related to the theme. Thematic learning uses a central theme in the learning activities. All learning activity was centered on these themes. Thematic learning helps student see

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⁴⁹ Trianto, op. Cit., hlm 77

⁵⁰ Rusman, op.cit., hlm 254
relationships between ideas and concepts. So as to improve the understanding of the student what he had learned.\textsuperscript{51}

Thematic learning offers learning model which makes the learning activities are relevant and full of meaning to empower students with the knowledge and experience to help students understand and perceive the world in his life. Teachers should be able to form a learning experience in order to have an effect on students's experience of meaningfulness and makes the learning process more effective and interesting.\textsuperscript{52}

Researcher concluded that thematic learning is a learning model that combines some of the learning materials from a variety of standard competence and basic competence from one or multiple subjects.

2) Thematic learning foundation

Thematic learning has a position and a potential strategic success in the learning process in primary school. The thematic learning needed a solid foundation and strong.

The foundation of thematic learning in elementary school as follows\textsuperscript{53}

a) Philosophical foundation

\textsuperscript{51} Anitah, \textit{op.cit.}, hlm 3.10-3.12

\textsuperscript{52} Trianto, \textit{op.cit.}, hlm 83

\textsuperscript{53} Rusman, \textit{op.cit.}, hlm 255-257
Thematic learning influenced by three streams of philosophy was progressivism; constructivism; and humanism. The progressivism looked the learning process needs emphasized to build creativity, give some activities, natural atmosphere and observing the student experience. The constructivism think that experience of students as key learning. The humanism saw students in terms of uniqueness/distinctiveness, potential, and motivation.

b) Psychological foundation

Related to the student’s development psychology and psychology of learning. Piaget divided student thinking into the development phase as follows: phase sensorimotor (0-2 years), pre operational (2-7 years), operational concrete (7-11 years) and formal operational (7-15 years). Children ages of elementary school are on concrete operational stage. Students still think concretely with a situation that is close to daily life. So haven't been able to select out the concept from a variety of disciplines. Then to delivery of learning for students of low grade, the material must be relevant and should be presented together.

c) Juridical foundation

With regard to the regulatory policy supports the thematic learning in elementary school. In law No. 20 of 2003
on the national education system was declared that every student on every unit of education is entitled to educational services according to talent, interests and abilities. From the above it can be concluded that the thematic learning has three foundations are 1) the philosophical foundation; 2) psychological foundation; 3) juridical foundation. Teachers should pay attention to the third runway when planning, implementing and assessing the process and results in the implementation of thematic model.

3) Thematic learning characteristics

Thematic learning as a model of learning in elementary school has the following characteristics\textsuperscript{54}:

a) Student centered

Thematic learning centered on students. This is in accordance with the modern learning approach that puts more students as the subject of study. While more teachers serve as facilitators that provide excellence in students for learning activities.

b) Provide direct experience

Thematic learning gives direct experience to students. With this direct experience, students with a concrete as a basis to understand the things that are more abstract in nature.

\textsuperscript{54} Rusman, \textit{op.cit.}, hlm 258-259
c) Separation of subjects is not so clear.

    In the separator between thematic learning subjects became not so clear. Learning focus is directed on discussion of themes that are most closely related to student life.

d) Present the concept of the various subjects.

    Thematic learning presents concepts from a wide range of subjects in a learning process. Thus, students are able to understand these concepts as a whole. This is necessary to help students in solving the problems faced in everyday life.

e) Thematic learning is flexible.

    Teachers can connect learning materials from one subject to the other subjects. Connecting with student life and the environment of the school.

f) Learning outcomes in accordance with the interests and needs of the students.

    Students are given the opportunity to optimize the potential of assets in accordance with the interests and needs.

g) Using the principles of learning while playing and fun.

    Thematic learning adopts the principles of the PAKEM learning active learning, creative, effective and fun.\(^{55}\)

4) The Advantages thematic learning

\(^{55}\)Trianto, *op.cit.*, hlm 92
Thematic learning has several advantages. Thematic learning advantages for teachers among others are as follows:\textsuperscript{56}

a) Provided more time for learning

b) Relationships between subjects and topics can be taught logically and naturally

c) Teachers can help students expand learning opportunities to many different aspects of life

d) To develop a community facility

   While for students, including:

   a) Could be more focused on the learning process, rather than results of study

   b) Provides an integrated learning approach

   c) Provides student-centered curriculum that is associated with the interests, needs and intelligence; they make decisions on their own and responsible for the success of the study

   d) Stimulates independent inquiry and discovery within and outside of class

   e) Helps students build relationships between concepts and ideas.

Therefore, increasing appreciation and understanding. It can be concluded that thematic learning model is a model of learning which combines some of the material into a theme that is close to the student life strategic applied in primary schools.

\textsuperscript{56} Trianto, \textit{op.cit.}, hlm 89