Design Concept E-Learning Using Absorb-Do-Connect Type Method For Junior Homeschooling Education

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ABSTRACT

Homeschooling is an alternative school that is given to people who need education but can not attend formal schools in general due to certain reasons. This type of education is an alternative for people who want to get the education but have obstacles from various aspects such as time, social with the community, an age which is not suitable with the school age range in general and physical condition which is not possible to attend public school. However, the owner from a few homeschooling in Jakarta, many implement learning with classroom methods such as schools in general and have not utilized information technology to the maximum in accordance with the purpose of homeschooling itself. E-learning is the use of appropriate information technology in the concept of teaching and learning for junior homeschooling. In this teaching, the most important thing is that the design of the material presented must be in accordance with the curriculum given to public schools. Therefore the design for e-learning is made using absorb-type, do-type, and Connect-type activities. With this design then all forms of classroom learning such as tutorials, questions and answers, experiments on the laboratory, and even forms of study tours in public schools can be presented in the form of this electronic media.

Keywords: *homeschooling, e-learning, absorb-type, do-type, connect-type.*

I. INTRODUCTION

In this era, education has become a basic need for people around the world. A nation to improve the country's progress is by increasing the intelligence of its people. Education provided can be done in various ways and methods. Education can be formal education through primary school to college, or informal education through training, courses, seminars, and homeschooling.

Homeschooling is an alternative school that is given to people who need education but can not attend formal schools in general due to certain reasons. Homeschooling education is becoming popular nowadays, it is also revealed by Umar (Umar, 2009). Homeschooling education has not been approved by the government, especially in Indonesia until now, all is still a discourse to the level of education ministries. The formation of Homeschooling essentially required the authority of the government, this is also mentioned in Bosetti's research in Canada (Bosetti & Pelt, 2017). But this does not close the opportunity for the provision of education to the community can be given in a way in the classroom, out of class, study to the industry/company. This type of education is an alternative for people who want to get the education but have obstacles from various aspects such as; time, social with the community, an age which is not suitable with the school age range in general and physical condition which is not possible to attend public school. These conditions make homeschooling institution widespread, especially in Jakarta.

However, the owner from a few homeschooling in Jakarta, many implement learning with classroom methods such as schools in general and have not utilized information technology to the maximum in accordance with the purpose of homeschooling itself. The website which belongs to each institution only contains activity information that is offered by them.

The institution above only informs information about the institution, the information that is related to childhood development, books for children and registration for

homeschooling. In addition to this web, there is actually a meeting via internet called homeschooling webinar that contains sessions through internet meetings containing seminars related to how to start homeschooling. That institution did not provide teaching and learning sessions through the internet provided. Homeschooling scholarship suffers, however, from a number of limitations. First and foremost, the literature is almost entirely qualitative in nature. While many of these qualitative studies are ambitious and imaginative, taken as a whole, homeschooling research has an anecdotal quality it has yet to transcend (Kunzman & Gaither, 2013).

In recent decades, the rapid development of engineering and technology has led to the emergence of entirely new classes of electronic devices. Their capabilities are continuously growing, and their prices fell sharply. As a consequence, they are widespread and they have been gradually included in the learning process (Stoyanova & Yovkov, 2016). E-Learning contains a very broad understanding, so many experts who describe the definition of e-Learning from various points of view (Ratnasari, 2012). The current online learning-based model of the meaning of online is the interactivity between teachers and students even though not in one place, therefore with the facility of the video conference in e-learning will help the learning process done because teachers will be directly involved with students with using video conferencing (Sandiwarno, n.d.). This learning method provides elements and contents of a personalized teaching-learning activity regarding various experiences, knowledge level, learning history, learning style, preferences, level of cognition, and motivation of the person (Kim et al., 2015). The learning method will improve one way or another from static to active. With e-learning, the learner and teacher can be in different places and interact at different times (Lin, Chen, & Nien, 2014).

Based on the data sample of the homeschooling institution, it can be concluded that there is still a lot of homeschooling education that is not pure in the form of homeschooling, and not yet utilizing information technology media as a tool in teaching and learning process of homeschooling. In providing learning basically requires a large investment, this is also expressed by Jehtro (Oludare Jethro, Moradeke Grace, & Kolawole Thomas, 2012),

Crucial to academic success, homeschooling has become a growing education phenomenon across the globe. It appears that, in the teaching and learning of homeschooling, the academic inputs and outcomes are 'tangible' for parents in tailoring their children's needs in learning (Khairul Azhar Jamaludin, 2015). Based on the purpose of homeschooling, the need for alternative

education is based on problems and obstacles perceived by the community, lack of facilities of homeschooling institution itself and the lack of utilization of information technology. So this research raised the making of learning as a medium of teaching and learning process at homeschooling. Making this learning will go through long stages of needs analysis that will be presented in learning, making the design with activities, design with a test, design with games and simulations design with social learning, design with mobile learning, making the application. This research proposes the initial phase of this long series of research that is designing activities on learning.

II. Research Method

Research needs to make restrictions on the problem to be studied, to be able to distinguish the initial stage of research with the next stage. The scope of the research in this early stage of research is only in the design process related to activities in E-learning in homeschooling education. This research is done by using literature research methods where the source obtained on the website of the institution of homeschooling and some articles. This study uses empirical studies not focusing on the direction of one institution but also seen from several institutions.
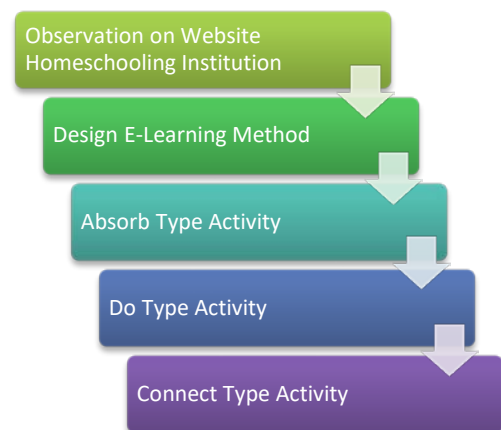

Figure 1. Research Stages

III. RESULT AND DISCUSSION OF THE RESEARCH

A. Result Analysis

Based on the condition of Homeschooling, the reasons for the children who choose this alternative education and the advantages and disadvantages of the form of

Homeschooling education, it can be concluded some needs as a supporter of the non-formal learning process.

- Provide science with the same content that students receive in school in general.
- Following the school curriculum in accordance with the provisions of the education department at each school level so that graduates can be equal with the school in general.
- Students with a variety of reasons for choosing a non-formal education require learning time that is not tied to time, space and place.
- Facilitate the provision of flexible teaching and learning process in terms of time, space and place to be accepted by students.
- Create interactive media to keep the communication needs of science between students and teachers alike.
- Provide an easy-to-access library of students as needed.
- Provide a medium that facilitates the absorption of science provided even in the form of exact science.
- Providing good and fun intermediary media to help students not feel bored and ignore learning.

To fill all these needs then, the proper homeschooling teaching process can be provided by using electronic media facilities. The utilize of this electronic media can use the computer and internet so that all needs and facilities can be provided well and right. Therefore homeschooling learning is proposed by using e-learning media that can support and be relied upon in the implementation in accordance with the needs of teaching and learning process for homeschooling.

B. Design Absorb-Type Activities

In this design emphasized the provision of information and actions of learners in extending and understanding the knowledge provided from the information. Providing information and learning actions on absorb-type activities can be said in a conventional form but we present it with online learning media.

➢ *Presentation*
Create information by using the slideshow to be seen and heard by learners. Here we can also give demonstration, podcast or other explanation. For example, for the implementation of this design, we take the science lesson for junior high school or grade 7 for school level. The type of presentation used is using slideshows. This online class will present the presentation in a slideshow by connecting the slide with the web pages through the provided learning temple.

➢ *Reading*
Providing science with reading material to learners online, this can be given by creating a word module that is uploaded into e-learning system so that learners can download the document.

➢ *Stories by a teacher*
Provide information to learners by sharing a story told by teachers or experts or other authorities. Stories presented must be relevant to the subject of learning, for this can use the video media in the direct view by the learners through e-learning system it.

➢ Story Activity Flow by Teacher Works
The video presented contains a teacher who tells his experience or knowledge related to the science being taught, then the learner is asked to create his own story and then load it in the media provided. The final touch is given the conclusion of the activity.

➢ *Fields Trips*
Provide information related to science in the field by means of virtual learners visiting museums, historical sites, and other places to examine many samples related to the science being studied.

On this virtual journey, the learners will be invited through the journey according to the lesson given, in this case, example science lesson then the trip given as an example is to the geological museum. In each tour, the termination is done and told according to the location condition shown.

In the absorb-type activities of these activities it can be concluded with the activity chosen in each step yielding several targets, can be shown in the following table.

Absorb activities		Objective Type					
		Create	Decision	Do	Know	Trust	Sense
Presentation	Slideshow	□	□	□	■	■	■
	Story by Teacher	□	□		■	■	■
Reading	Document	□	■	■		□	□
	From Internet	■	□	□	□	□	□
Field Trip	Online Museum	■	□		□		

Table 1. Absorb activities that complement e-learning objectives

Description: ■ is the strongest recommendation.

C. Design Do-Type Activities

In the example of the case taken science lesson for grade 7 junior high school, and based on absorbing activities that have been selected then there are some do activities that must be done to help implement it.

- **Practice activities**

  To implement these practice activities, the learners are prepared to acquire the skills, knowledge, and information provided by the e-learning program. Teaching the learners to thoroughly adapt to the knowledge given and to understand the specifics, as well as to study the situation concretely.

  For science lesson of providing knowledge, information and skills can be done by presenting it in the form of drill and practice activities. At this stage of the study, the design of the sample is exemplified by the selection of the method used. Detail of manufacture will be done at the next research stage.

- **Discovery activities**

  In this section has been designed how learners can understand the knowledge, and information provided related to science subjects to explore the lesson. In addition to be able to find the relationship between principal and trend, can also grow the focus of attention of learners on the subject and motivation of learners to do exposure.

For this seventh-grade science level science lesson, the case study is used. In this case, the study using instructor guidance and virtual field trips. At this stage of the study, the design of the sample is exemplified by the selection of the method used. Detail of manufacture will be done at the next research stage.

- **Games and simulations**

  In this section has been designed how learners can understand the knowledge, and information provided related to science subjects to explore the lesson. In addition, to be able to find the relationship between principal and trend, can also up the focus of attention of learners on the subject and motivation of learners to do exposure.

  For science lessons at the seventh-grade junior, this level then used is a case study. In this case, the study using instructor guidance and virtual field trips. At this stage of the study, the design of the sample is exemplified by the selection of the method used. Detail of manufacture will be done at the next research stage.

Each activity in the Do-Type activities is the selection of methods to be used in the design of this e-learning, but for details of this, the use will be clarified at the next stage of research as an advanced stage of this research.

Do activities		Objective Type					
		Create	Decision	Do	Know	Trust	Sense
Practice	Drill and practice			■			
Discovery	Case Study	□	□		■	■	□
Games and Simulations	Quiz Show	■			■		
	Word Puzzle				■	□	□
	Task Simulation		■	■			
	Branching Simulation		■	□	□	■	□

Table 2. Do activities that complement e-learning objectives

D.   Design Connect-Type Activities

Various connect activities that can be applied to the classroom and online learning with examples of learning cases for science subjects junior high school grade 7:

- **Ponder activities**
  In this sample, the ponder activities used are rhetorical questions and cite-example activities. First for rhetorical questions, where the system provides questions that will provoke learners to think deeper into science subjects. Example ;
  "Find the embarrassed daughter plant. Prove whether the embarrassed plant closes it when touched? "
  Then use the cite-example activities in which the learner is asked to identify the concept of the material by giving the picture and the real-world industry.

- **Questioning activities**
  In this case, study where the learners are children around 12-13 years old, the form of questioning activities provided is in the form of chat rooms provided with several options such as chat directly with the teacher (system) and discussion forums provided for each other ask questions and answer with other students.

- **Stories by learners**
  In this case, the learners will enter the story into the system related to the science encountered every day. Learners can share this story with all their friends in a virtual classroom. Stories inserted can be in the form of writing, pictures or video this is given the right of creation to learners.

Connect activities		Objective Type					
		Create	Decision	Do	Know	Trust	Sense
Ponder	Rhetorical Question		□			□	□
	Cite-example	□			□	■	
Questioning	Questioning		□	□	■	□	
Stories by Learner	Stories by Learners					■	■

Table 3. Connect activities that complement e-learning objectives

Result of Design Absorb-Do-Connect Activities

To view the entire set of design made in the absorb-type activities stage that describes the method of delivering the materials, do-type activities that provide methods of implementing the materials already provided and Connect-type activities that apply the method for the learners to better understand the given material. All of these things in we see in the following picture.

Figure 2. Absorb-Do-Connect Activities Design Presented

IV.   CONCLUSION

Based on the results of existing analysis it can be concluded that in making e-learning many techniques that we can use even with the use of information technology, the learning process can be maximized. In learning for homeschooling is the very appropriate use of information technology media in meeting its objectives such as the use of e-learning. Attention should be given is to discuss the contents of learning materials that will be given must be in accordance with the material given to the school in general or in accordance with the provisions of the school education curriculum of the Ministry of National Education.

Materials given in any form such as classes, laboratories, libraries, and field studies can be done with virtual media so that it can still fulfill all learning materials. To create a proper content design can use:

- Absorb-Type Activities: To facilitate the example of making this design than the selected science subjects for class 7. In this activity, the giving of materials is given by using the method of presentation, the story of the teacher and study tour *(field trip)*.
- Do-Type Activities: In this activity adjusted to the given subjects so that given for practical material given using drill and practice, then made a discovery to understand the material by using case study, and

then provide games and simulation using quiz show, word puzzle, task simulation and branching simulation.

- Connect-Type Activities: In this stage of activities try to provoke ways of thinking of the learners. For this activity used in ponder activities method is using rhetorical question and cite-example, then using the questioning method and method of the story by a learner.

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