DEVELOPING BLENDED LEARNING BASED READING MATERIALS FOR THE TENTH GRADE MULTIMEDIA STUDENTS OF SMK WIRA HARAPAN

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Abstract

This study was a research and development (R&D) study designed by Lee and Owens (2004) which involved: need analysis, design, development, implementation, and evaluation. The data were gathered through observation, questionnaires, interview, validation technique and test. The method of data collections were interactive data analysis and ideal theoretic reference. The result of this study showed that: (1) the students need specific reading material based on their future job; (2) the design of Blended Learning whose purpose was to make the teaching and learning process became student-centered activity and makes the students become self-assisted language learners; (3) the developed blended learning based on reading material had a very high validity; (4) the developed blended learning based on reading material could improve the students’ reading comprehension; and (5) In developing and implementing the blended learning based reading material, the technical problem was faced by the teacher.

Keywords: need analysis, blended learning, reading material, R&D

INTRODUCTION

English as an international language is used by people not only for communicating to other people who come from different countries but also for providing a source of knowledge. English plays a very important role in every aspects of life. In Indonesia, the English is taken as the first foreign language that is taught since primary school level, with great expectation that the students will be able to understand written and spoken English based on their stage.

Vocational high school is called SMK in Indonesia have different characteristics if we compare it with common senior high school, called SMA from some point of views. Obviously, common senior high schools focus on the students’ readiness to continue their study to university or higher level of education. Nevertheless, based on BSNP (2006), the curriculum in vocational school is arranged in order to train the students to be qualified enough to jump to the working field. In other words, vocational high school focuses on the students’ readiness to do a certain job expertise.

Based on BSNP (2006), English subject in vocational high schools has two purposes, they are: (1) mastering the basic knowledge and skill of English to support their expertise program; and (2) applying the mastery of the ability and skill in English to communicate both spoken and written on intermediate level. Both of those purposes under the nature of vocational school that prepare the students to be ready to work with qualified expertise.

To gain qualified expertise in English, the students should be motivated by teaching and learning process. Mayer
and Clark (2008) stated that students will have meaningful learning when they appropriately engage in all three important cognitive processes; namely: (1) pay attention to relevant words and images in the presented material (Selecting words and images); (2) organize the selected material in coherent verbal and pictorial representations (Organizing words and images); and (3) integrate incoming verbal and pictorial representations with each other and with existing knowledge (Integrating). Using appropriate materials based on their needs is determined as a basic need. In other words, appropriate design of materials that based on English for Specific Purpose (ESP) is absolutely needed.

To be able to develop new teaching materials, observation is needed to figure out the students’ need and what kind of materials will be appropriate for teaching them. Therefore, the researcher did an observation in one of the most favorite Vocational Schools in Badung Regency that was SMK Wira Harapan which has some programs expertise, namely: Food and Beverage, Hotel Accommodation, Tourism Guide, Multimedia, Software Maintenance, and Hardware Maintenance. However, based on the observation, it was found that the English materials which were used to teach those students with different programs were exactly the same and those materials still dealt with general English. It means that those students did not learn English based on their needs. In other words, those English materials did not support their English based on their expertise program.

Beside that, based on the observation, it was confirmed that the English teachers played his role as the controller of the class. In other words, he used teacher centered approach. In addition, even though the school has provided a language lab that provides computers and internet connection, during the teaching and learning process he only used whiteboard and textbooks as the teaching media and the source of the materials. That kind of conventional teaching through textbook was considered boring that increases the students’ boredom.

Based on those problems, the researcher had a great intention to develop a teaching material based on technology, since technology could attract the students’ attention easily. Nowadays, digital technology has continued to improve rapidly; moreover, there was an impressive arsenal of instructional technologies that can be used in teaching, ranging from educational games played on mobile devices to virtual reality environments to online learning with animated pedagogic agents and with video and animation to create learning process. This process would give wider opportunity for the students to experience more interestedly in experiencing meaningful learning.

Since the researcher developed a teaching materials (as a product), this kind of research was determined as Research and Development (R & D). According to Gall and Bord (2003), R & D was costly in terms of time and money. So this study did not involve the whole design of R & D Design. This study only was developing Blended Learning based reading material for the tenth grade multimedia students of SMK Wira Harapan.

In this study, reading materials were chosen to be developed since reading may provide opportunities for students to study the target language better. According to Harmer (2003) reading text may provide opportunities for students to study the target language, i.e. the vocabulary, grammar, punctuation, the way to construct sentences, paragraph, and text. To analyze the students’ need, the researcher develop the target situation analysis by Hutchinson and Waters (1987) which framework as follows: Why is the language needed?; How will the language be used?; What will the content areas be?; Who will the learner use the language with?; Where will the language be used?; When will the language be used? In addition, the graduates of multimedia are expected to be able to apply the technique in shooting video, editing digital photograph, editing video,
creating graphic design, creating visual communication design, designing website, and making 2D and 3D animation. It means that the daily activities and the targeted job of the students of multimedia deal with computer programs in which the instructions of the programs are in English. Thus, it is important to make them read English material which does not only deal with language aspects but it also deals with the students' needs so that they are able to work properly in the future.

In teaching English, especially reading, there are many methods of language teaching that may be selected. One of them is Blended Learning which uses computer technology in presenting lessons; stresses the essential role of activity and firsthand experience. Leibling and Prior (2005: 24) stated that Blended Learning involves multiple media – e.g. a combination of classroom teaching with independent e-learning. In addition, Watson concludes few of the many definitions of blended learning include:

a) The integration of face-to-face and online learning to help enhance the classroom experience and extend learning through the innovative use of information and communications technology. Blended strategies enhance student engagement and learning through online activities to the course curriculum, and improve effectiveness and efficiencies by reducing lecture time.

b) “A course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to-face meetings.” The Sloan Consortium defines blended courses as having between 30 percent and 79 percent of their content delivered online, with the remaining portion of the course content delivered by face-to-face instruction or other non web-based methods, such as paper textbooks.

c) The combination of multiple approaches to learning. Blended learning can be accomplished through the use of ‘blended’ virtual and physical resources.

Moreover, according to Colis dan Moonen (2001) “Blended learning is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning. In addition, Jordan, et al. also argue that ‘blended learning’ is used to describe a blend of a range of delivery media; face-to-face class-based methods (synchronous); distance-learning methods (both synchronous and asynchronous); self-directed learning. This idea is supported by Wilson and Smilanich who argue that blended learning represents a compromise, combining a face-to-face component with computer-based distance learning where teacher and learner interact dynamically.

In conclusion, blended learning is thus a flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact”. It shows that blended learning is a flexible approach that can be done not only in the classroom but also out of class. It gives wider opportunity for the students to explore the information related to the subject that they learn. Furthermore, the importance of embodiment and the need for face-to-face interaction still occurs.

Computers and their associated software present great opportunities for motivating students, encouraging independent learning, and for improving the quality of educational programs. The multimedia class was chosen because in this multimedia class, the using English is considered as a must because they have great computer practice; they deal with computer programs everyday that uses English as the instruction language. Based on those reasons, reading ability is crucial to be improved in this class. The tenth grade students were selected as the subjects of the study since it is the first grade in Vocational High School. It would be better to learn English based on the multimedia students’ need from the beginning.
Based on the above explanation, the researcher is interested in developing Blended Learning Based Reading Materials for the tenth grade multimedia students of SMK Wira Harapan.

METHODS

In line with the objective of the study, that was to develop Blended Learning Based Reading Materials as a tool on teaching reading in SMK Wira Harapan, the appropriate design for the study is Research and Development (R&D) which is proposed by Lee and Owens (2004). This research focused on the interaction between research and the production and evaluation of Blended Learning Based Reading Material (as a product) for teaching reading to the students of SMK Wira Harapan. This type of research is ‘formative’ (by collecting evaluative information about the product while it is being developed with the aim of using such information to modify and improve the development process).

Since the researcher adapted R&D design by Lee and Owens (2004), there were five cyclic steps that should be conducted in order to do the research systematically. The first step was analysis which is followed by design, development, implementation, and evaluation. To give clear understanding, brief explanations of those steps were presented below.

1. Analysis
   a. First of all is defining the present situation. In line with this, based on the preliminary researcher observation, it is found that most of the students of the Multimedia needed to be master in reading comprehension ability. Furthermore, the reading material for teaching reading used by the English teacher was still conventional which presented by using textbook. Moreover, this school didn’t provide their students with appropriate reading materials that influence their achievement on reading ability.
   b. The second step is defining the targeted job to figure out what kind of reading materials are need to support their expertise program. Since the subject of the study is the tenth grade multimedia students of a vocational school. This analysis is conducted by using questionnaire to the twelfth grade students of Multimedia class and interview guides to English teachers of SMK Wira Harapan.
   c. The third step is ranking the goal in order of importance. When the data has been gathered, needs to be analyzed in order of importance. Meaning, since the purpose of this study is to develop the reading material based on Blended Learning to improve the students reading comprehension ability, the target situation analysis was ranked based on the standard competency and basic competency that should be achieved by the students.
   d. The last one is identifying discrepancies. By having those three steps above completely, the researcher compare the result of the analysis with the existing syllabus and reading materials had given in purpose to find the discrepancies. Having the knowledge of this discrepancies, the researcher would be able to develop the reading materials which are under the content standard issued by the government.

2. Design
   After completing the first step, the researcher was on her ongoing stage to design a new product in the form of blue print which was based on the need analysis and an appropriate conceptual model of blended learning-based reading materials. The conceptual models are developed in the forms of six lesson plans. However, before the blue print are used to develop the reading materials, it is considered significant to be evaluated by experts. In this case there were two experts who evaluated them and proved...
whether they are appropriate to be used. Moreover, when both of them were approved, the step would be continued by developing the design or blue print into the draft of the materials.

3. Development

In this stage the tools development is made up. In this development stage, the researcher adapted the development steps of Lee and Owens (2004), which are organized properly.

First of all, the researcher prepared all of the development tools that were required and then this step is followed by making framework of kind of tools needed together with the functions of those tools.

Secondly, after the development tools and the standard have been created, and then the researcher started the development of product. This product is developed based on the blue print that had been prepared in previous stage. In this case, the researcher made a website which in reading text with the exercises based on the blue print.

At last, in this development stage, the experts proved whether the product has appropriate quality which was considered valid. In line with this, the content validity of the product should be validated.

4. Implementation

After completing all those steps above, the step arrived to the implementation. Classroom action research was conducted to implement blended learning based on reading material. In this stage the product was conducted in the tenth grade Multimedia class. The researcher applied the product as a tool for teaching reading and Blended Learning Strategy to teach the students. There were three basic competencies that included in this study. The researcher taught six times, did pre test at the first in every basic competency and post test at the end in every basic competency.

5. Evaluation

The evaluation was done after the implementation was conducted in aim to figure out whether the product was effective enough to improve the students reading ability. After finishing implementation stage, the scores from the post-test given as the data of this research were then calculated and analyzed. The data were analyzed through inferential statistical analysis. The mean score obtained by the subject in IR (Xo) was compared with its corresponding mean scores in the reflection or post-tests for Cycle I, Cycle II and Cycle III. To make it clear, the comparative corresponding means between IR (Initial Reflection) and Reflection scores were also presented in the form of block graph. The amount of the difference among the three means would show the increasing effectiveness of Cycle I, Cycle II and Cycle III. The other score was from the questionnaire. The scores showing the subjects' positive changing behaviors were computed in the form of percentages which refer to respective items on the questionnaires.

Since the methods of data collection were various, some different data analysis methods were used to analyze those data. Those data analysis methods were: (1) Interactive data analysis, to analyze the result of questionnaire and interview and (2) Ideal Theoretic Reference, to analyze the conceptual model of reading validated by two judges to know its content validity and to analyze the result of the questionnaires that were used to measure the students' attitude toward the developed Blended Learning based reading material.

FINDINGS AND DISCUSSION

A. The Result of Need Analysis (Target Situation Analysis), Syllabus Analysis and Existing Material Analysis

a. The Result of Need Analysis (Target Situation Analysis)

The two instruments based on target situation analysis (TSA) by Hutchinson and Water (2004) had six aspects, namely: (1) the reason for studying the language; (2) the way in using the language; (3) the content areas; (4) the receiver; (5) the setting and context; and (6) the frequency in using the target language. The results of the instruments are discussed below.
(1) The reason for studying English

The researcher concluded that there were 2 reasons for the students to study English. The first reason was to study and the second reason was to work in the targeted job. Those results indicated that developed reading material based on targeted job was needed to support the students’ need to study English.

(2) The Way in Using the Language

It was found that the students will read text in English frequently, especially text about computer program manual. Therefore, most of them answered that the multimedia students need to be master in reading ability because they would work with some tools which in English direction. They also argued listening, speaking, writing were also needed to be learned. According to the channel side, the teachers argued the students would possibly handle the foreign customer face to face and reply the customer in website or by email. In terms of formality, the teachers believe that the students would use English in formal situation.

(3) The Content Areas

The multimedia media students would discuss about the product and service which are related to video shooting and editing, photography, graphic design and website design. Since the multimedia students would work as editor or photographer, they should master everything related to those.

(4) The Receiver

From the result of the questionnaire and interview guide, it was found that some students believed that the customers would be both native speakers and local people. It depended on the area that the students would work. If in the tourism area, they would face many native customers. In terms of the customers’ background knowledge, all the students agreed that customers posed low, mid or high level of education background.

(5) The Setting and Context

Based on the result of questionnaire and interview, it was found that all of students stated that they would use English in the workplace. From the human context side, most of students stated that they would use English when they use camera to take pictures, edited photo and video, designed graphic and website. In addition, the students also argued that they used English for communicating with foreign customers.

(6) The Frequency in Using the Target Language

Based on the questionnaire which conducted to the 40 students, it was found that 2 students stated that they used English very frequent, 34 students claimed that the students would use English frequently. While the other 4 students believed that the students would use English fairly frequent. The results of the interviewed from the English teachers about the frequency in using the target language would explain here. It was found that the teachers believed that the students would use English for operating a computer program and
camera which used English as its instructions.

b. The Result of Syllabus Analysis

In this study, the syllabus was analyzed in order to make an appropriate material based on the need analysis. The information that was collected from this analysis was very important to determine whether or not the existing syllabus and the material have fulfilled the results of the target situation analysis and the standard process from the National Education Board.

Since SMK Wira Harapan is a vocational school, the English syllabus in this school was different to the syllabus in Senior High School. The focus of the syllabus in this study was focus on choosing the suitable basic competency which matched with reading skill as its indicators such as find main idea of the text, obtain specific idea from the text, understand the textual reference from the text and understand the word meaning based on the text. The result of this existing syllabus was taken as guidance in designing the developed syllabus and material.

The basic competency in reading should be achieved by the students as outlined in the curriculum and syllabus is to understand basic expressions in social interaction for daily communication, to understand simple memo, and to understand words, terms and simple sentences based on certain sentence pattern. The existing material was also made from the results of the students' need analysis. The product of this study was blended learning based reading materials. The materials were designed in 14 units in online and 6 units in offline. For those online units are: design studio, activity in handling costumer, handling complaint, things in photo studio, how to write a good memo, a memo from the owner of the photo studio, business etiquette in Europe, adobe photoshop, corel draw, business invitation letter, business invitation letter, sample of business invitation letter, responding business invitation letter, capability, and adobe photoshop vs corel draw. In general, every unit of the developed reading materials consisted of four elements, namely: reading text, introduction page, list of questions, and the questions. All of those units were provided with a quiz in the form of objective test.

For the offline, there were designed in 6 units. Those units are: greet and offer help to customers, the creator of Adobe Photoshop, gratitude to customers, memo, preference, and camera.

c. The Result of Existing Material Analysis

A syllabus is a guideline in conducting the instruction process and material. From the result of syllabus analysis, there were three basic competencies that should be achieved by the students. They were to understand basic expressions in social interaction for daily communication, to understand simple memo, and to understand words, terms and simple sentences based on certain sentence pattern.

B. The Design of Blended Learning Activity

Blended learning is a relatively new terms. There are various definitions of blended learning. According to Sharma & Barrett (2011), blended learning is the integration of face to face instruction and e-learning. Cheung & Hew (2011) give similar definition, in which they define blended learning as a combination of face to face instruction and online learning. While for Bath & Bourke (2010), blended learning is the use of Information and Communication Technology (ICT) to
enhance teaching and learning activities. In this study, the writer defines blended learning as the application of ICT to integrate face to face instruction and self-assisted learning.

Blended learning integrates various event-based activities, those activities can be face-to-face classrooms, live e-learning, and self-assisted learning (Singh, 2003). Very often blended learning is a mix of traditional instructor-led training, synchronous online conferencing or training, asynchronous self-assisted learning, and structured on-the-job training from an experienced worker or mentor. In this study, the writer developed reading materials that integrate online learning and face to face instruction (offline learning). The purpose of integrating online learning and face to face instruction in this study was to make the teaching and learning process became students centered activity and makes the students become self-assisted language learners.

In using the reading material, there were some steps followed by the English teacher. Those steps were:

a. Pre-Activity (Face to face learning)
   During this step, the English teacher did some activities to make the students ready to follow the instruction. Those activities were:
   1) Greeting the students
   2) Checking the attendance list
   3) Telling the students about what they are going to learn
   4) Explaining the objectives of the study

b. Whilst-Activity (Offline & online learning)
   This step can be divided into three major activities, namely: exploration, elaboration, and confirmation.
   1) Exploration (offline learning)
      During the exploration step, the English teacher starts showing the picture and asking the students to answer the questions orally based on the picture.
   2) Elaboration (offline and online learning)
      The English teacher still does offline activity by giving a printed text to the students, discuss the text and answer the questions based on the text. Then the English teacher starts doing the instruction through the online materials. The English teacher will ask the students to: open the website, log in to the site, and find material; read the text; and answer the quiz based on the text individually; and discuss the result of the students’ work.
   3) Confirmation (offline learning)
      When the students have discussed the result of the quiz the English teacher will give feedbacks about the material that they have discussed, give a chance for the students ask question(s) about the material that they have learnt and give homework.

c. Post-Activity (Face to face learning)
   After the students have done the aforementioned activities, the English teacher will review the important point from the text; ask the students to log out the website; tell the students about the material they are going to learn in the next meeting; and close the class by saying good bye.

Those were the steps that should be conducted by the English teacher during the implementation of blended learning based reading materials.

C. The Content Validity of Developing Blended Learning

Prior to the implementation of the developing blended learning, the conceptual model and post test should be validated by experts. The conceptual models were developed in the forms of six lesson plans. There were two experts involve in evaluating the conceptual model and post test. The experts were Prof. Dr. Dewa Komang Tantra, MSc and Prof. Dr.
Ni Nyoman Padmadewi, M.A. This validation was done in order to find the learning objectives and the learning materials fit or not with the standard and basic competencies as well as their respective indicators in reading; the learning activities provide efficient and appropriate learning experiences or not to achieve the standard and basic competencies as well as their respective indicators in reading; the evaluation technique provide measures for the learning process and outputs or not; and the post measure the indicators of reading or not. To collect the data from the experts were quantitative and analyzed using the Interrater Agreement Model by Gregory (2000). The results of experts’ judgment were 64.33 and 58.83. The coefficient became 61.58. It means that the content validity of the product was very high.

D. The Result of Field Test

A classroom action research by using the developed blended learning based on reading material was conducted to find out whether or not the developed blended learning based on reading materials could improve the students’ reading comprehension in reading test. This classroom action research was conducted in three cycles in which each cycle consisted of four interconnected sessions. Each session contained four systematical activities, namely: Planning (P), Action (A), Observation (O), and Reflection (R). It was compulsory to note that IR (Initial Reflection) was a term usually used in a classroom action research which refers to pre-test. The IR was administered to the tenth grade students of SMK Wira Harapan to each basic competency. The mean scores of the IR for each basic competency was compared to the corresponding mean scores of the post test administered at the end of each cycle for comparing of establishing the degree of the improvement in the reading skill of the subjects. The result of the study would be explained below. All of the students got poor score in pre test. Moreover, the mean score of pre test 1 was 44.5, pre test II was 46.4 and pre test III was 48.4 that could be categorized as poor. Therefore, the developed blended learning based on the reading materials was conducted to improve the students’ reading ability while evaluating the reading material based on the need analysis empirically. From the result of the post test I, it can be seen that the mean score of the students increased from 44.5 in the pre-test into 60.7 in the post test I. In other words, the students’ mean score was increased 16.2 in this post test I, the number of students who got good scores was 7 students, and got sufficient scores was 37. From the result of the post test II, it can be seen that the mean score of the students increased from 46.4 in the pre-test II into 81.7 in the post test II. In addition, it can be seen that the mean score of the students increased from 60.7 in the post-test I into 81.7 in the post test II. In other words, the students’ mean score was increased 21 in this post test II, the number of students who got very good scores was 21 students, got good scores was 23 students. From the result of the post test III, it can be seen that the mean score of the students increased from 81.7 in the post-test II into 85.2 in the post test III. After the implementation, the questionnaire was also conducted to know the students’ attitude toward the developed blended learning based on reading material. From that quantification, it can be seen from the 44 students there were 13 (29.5%) students had strongly positive attitude toward the developed blended learning based on reading material, 21 (47.7%) students had positive attitude and 10 (22.8%) had neutral attitude toward the developed blended learning based on reading material. The mean score of the result of the questionnaire that is 29.7 (positive) also shows that in general the students of tenth grade
multimedia students of SMK Wira Harapan had positive attitude toward the developed blended learning based on reading material.

E. The Problem in Developing and Implementing the Developed Blended Learning Materials

Based on the result of the observation during the development and implementation process, some problems were found. In developing the Blended Learning based reading material problem; the researcher had to develop the website twice. It was because of the model of exercise. One of the judges asked the researcher to make objectives test not only to answer by choosing A, B, C, D or E but also she should made various options to answer the objective test such as true false and filling the blanks. The researcher consulted it to the hosting providers and they could help it. The researcher revised the test and asked the hosting providers to revise the website. And then, from the Implementation the Blended Learning based Reading Material problem was the internet connection. It needed much time just to open the website during the teaching process.

CONCLUSION

From the research findings that have been discussed earlier, it can be concluded that:

a. The tenth grade multimedia students need specific English reading material based on their job in the future such as a photographer; video and photo editor; and graphic and website designer. The existing syllabus and material in their school did not cover the students’ need. Therefore, a new material based on the multimedia students was designed and blended learning was developed to support the process of teaching and learning strategy since the multimedia students should be master in using computer programs.

b. In this study, the researcher developed reading materials that integrate online learning and face to face instruction (offline learning). The purpose of integrating online learning and face to face instruction in this study was to make the teaching and learning process became students centered activity and makes the students become self-assisted language learners.

c. Based on the validation process that is the development of blended learning based reading material, it was confirmed that the development of blended learning has a very high content validity.

d. The implementation of develop blended learning based on reading material could improve the students’ reading competency. It can be seen from the increases of the mean score from the pre test I, pre test II, post test I, post test II and the last was post test III and also the students had positive attitude toward the developed product.

e. In developing and implementing the developed blended learning material, there was a technical problem faced by the teacher. Technical problem during the developing blended learning was developing the website twice and during the implementation of blended learning was the internet connection. It needed much time to open the website if the internet connection was bad.

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