# THE DEVELOPMENT
# OF MOODLE BASED ENGLISH READING MATERIAL
## (A case at Multimedia Department Student to Year Tenth of *Telekomunikasi Tunas Harapan* Vocational High School Semarang)

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## ABSTRACT

This study was a research and development (R&D), which aimed at developing types of reading materials for the tenth year multimedia students of SMK Telekomunikasi Tunas Harapan, finding out the contents validity of the developed material; the quality of the developed material and, whether or not the developed material could improve the reading comprehension of the students. The result of this study shows that: The existing syllabus and material did not cover their needs since the syllabus and the material were designed to be used for all departments , based on the expert validation, it was confirmed that the developed material had a very high validity; from the result of the expert judgment based on the criteria of good ESP material and good e- learning material, the developed material was categorized into very good material; and the result of the field study shows that the developed material could improve the students' reading comprehension. The students' mean score for those tests, which reflect the students' reading comprehension, increased from 40.9 in pre-test, to 66.3 in post- test I, and 79.1 in post-test II. Based on the result of the questionnaire, the students had strongly positive attitude toward the developed material.

**Key Words**: moodle based reading, reading material

## INTRODUCTION

Reading is one of the most important thing other than listening, speaking and writing. Many second learners do not like to read because they feel it is a laborious and time-consuming process. The students do not favour the whole process to joining many words together and creating meaning. In order to end these laborious processes, reading program is introduced as a solution.

With the development of Computer Assisted Language Learning (CALL) and Internet as media for teaching and learning English, some of the above problems can be minimized. The government provides "PUSTEKKOM" to develop a learning resources website (http://e-dukasi.net) for any levels of students in 2003. With the recent development of software applied in the internet, interaction among students and between teacher and students can be facilitated. In this media, students have the opportunities to practice communication using the language learned both online and offline.

Considering the development of web-based teaching and learning, this study attempts to design reading material through Moodle based education web to improve reading comprehension for the vocational high school students especially for multimedia department students. This model uses a Learning Management System platform called 'Moodle' which has appropriate features to optimize the use of ICT in teaching and learning process. This study is also attempts to investigate how this moodle web contributes to teaching and learning process especially in teaching reading.

Four skills that should be mastered in language learning are listening, speaking, reading, and writing. Mentioning those four skills must be in order. According to Barr, Sadow and Blachowicz the definition of reading is an active process in which readers interact with text to reconstruct the message of the author.

Anderson et al. (2001) defines reading as a fluent process of readers combining information from a text and their own background knowledge to build meaning. The goal of reading is comprehension. This means that the meaning does not only depend on the reader or the text but depends on the interaction of both. In other words, during reading a reader processes, in his/her mind, new information from the text by integrating them with his background knowledge. Detailed process of reading is presented in the following designed.

From the explanation above, it can be concluded that reading is an active process that needs an effort to understand something. Readers are actively paying attention and working on understanding and interpreting what they have read.

Reading comprehension is the process of understanding and constructing meaning from a piece of text. It is most likely to occur when students' are reading what they want to read or at least what they want to see some good reasons to read. Reading comprehension ability is taught to be a set of generalized knowledge acquisition that permits people to acquire and exhibit information gained as a consequence of reading printed language.

From the definitions above, it can be concluded that reading comprehension is only a term referring to reading skill through the important thing is not on the pronouncing or load reading, but it is the understanding taken into consideration. Comprehension includes recognizing and understanding a main idea and related details. A good recognized that many ideas are implied and he must read between the lines to get the full meaning.

There are several differences between teaching English in vocational high schools and teaching English in senior high schools. Teaching English in vocational high schools should refer to the program of study of students who are being taught. The English teachers of vocational schools have to teach about the language of

English that is closely related to the students major of study, for example, the teachers both explain and give information about the English expressions of handling guess to the hotel accommodation students. In addition, the teachers also give the information about the special terms that are used by mechanics to the engineering students. The teachers of vocational high schools have to consider the specific needs of the learners. The considerations are as follows.

Curriculum that is recently applied in vocational high schools is KTSP. It is one of kinds of curriculum that provides the freedom for schools to create their own curriculum. KTS develops appropriately in the unit of education, school/area potential, school/area characteristic, social-culture of local society, and pupil characteristic. KTSP is the operational curriculum which is compiled, developed, and implemented by every unit of education which is ready and could develop.

Teaching English in vocational high schools also covers the four language skills, namely speaking, listening, reading and writing. There is teaching grammar in vocational high schools. In teaching speaking, there are various expressions in English language, like asking for and giving direction, thanking, and so forth. What should be more focused is the expressions that are used based on students' major. In teaching vocabulary, the teachers give information about the special terms that are often both used

based on students' major. In teaching reading and writing, there is difference between vocational high schools and senior high schools. There is no teaching genre of text, like narrative, descriptive, report, news item, etc. The teaching and learning English which is conducted in vocational high school holds for 180 minutes per week.

There are three main activities in teaching English at vocational high schools, namely opening activity, main activity and closing activity. The English teachers of vocational high schools often conduct the drilling activity in speaking class. The students are demanded to speak with their partners in front of class in doing conversation. In addition, the teachers also provide some media, like authentic materials and word game, to make students more interesting in joining the teaching and learning process.

## RESEARCH METHODS

This study was in the form of research and development (R&D) that followed the R&D design that is proposed by Gall and Borg (1983:775), which consists of six steps, namely need analysis, design, development, implementation, product revision and evaluation. The subjects of the study were the English teachers and the tenth year students of Multimedia department in SMK Telekomunikasi Tunas Harapan. The data of this study were collected through questionnaire, expert judgment sheet, observation sheet, scoring

rubrics and tests. The data from the questionnaire and observation were analyzed using interactive data analysis model by Miles and Hubberman (1987). The data from the expert judgment sheet were analyzed using inter-rater agreement model by Gregory (2000). While the data from the results of scoring rubrics were analyzed using ideal theoretic reference method by Nurkencana and Sunartana (as cited in Winasari, 2011).

## RESULTS AND DISCUSSION
## The Result of Need Analysis (Target Situation Analysis)

The need analysis in this study was conducted based on the theory of target situation analysis by Hutchinson and Waters (2004). According to Hutchinson and Waters, in doing target situation analysis, there are six types of information should be collected, they are: (1) the reason for studying English, (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 language. The results of the target situation analysis are presented below:

### The reason for studying English
Based on the result of the questionnaire and the interview that have been conducted it was found that the students of Multimedia Department of SMK Telekomunikasi Tunas Harapan should study English for some reasons. The first reason is for continuing their study to a higher level of education. It means that

they will need English for learning computer programs. The second reason is for their future job which requires them to develop their knowledge about computer programs and how to serve the customer.. In addition, they may also need to be able to speak English if they work in a company which is owned by a foreigner.

### The way in using the language
From the result of the questionnaire and the interview, it was found that the students will read text in English frequently, especially text about computer program manual. Therefore, all of them believed that reading skill is very important to be taught for the students.

### The Content Areas
For the content areas or the topic that the students will discuss in English, the result of the questionnaire and the interview show that the topic will be about video shooting and editing, photography, graphic design and website design.

### The Receiver
The students will use English with the native speakers of English and with foreign customers who are not the native speakers of English. It means that, the students have to prepare themselves not only communicating with the native speakers of English who are excellent in English, but they also have to anticipate the non native English speakers who may have low ability in English.

### The Setting and Context

Based on the result of the interview and the questionnaire, it was found that the communication in English between the students and foreigners will take place at their work place. In terms of its context, the students will use English for demonstrating or presenting their product or service, and meeting. This result indicates that the developed English reading material should be able to guide them in to communicate properly for those kinds of setting and context.

### The Frequency in Using the Target Language

The students will use English frequently in the future. This result confirms that English are needed by the students for their future job or their study to a higher level of education.

### The Content Validity of the Product

The validity of the product was determined based on the result of the expert judgment.

There were two experts were involve in evaluating the product. The experts were Prof. Dr. Dwi Rukmini, M.Pd. and Farida Fahmalatif, M.Pd. This validation was done in order to find out whether or not the developed product was relevant with the blue print that has been developed previously. The collected data from the experts were quantified and analyzed using the Inter-rater Agreement Model by Gregory (2000).

### The Quality of the Product

The quality of the product was measured through expert judgment method which involved two experts, namely content expert and media expert. The content experts were Prof. Dr. Dwi Rukmini, M.Pd. and Farida Fahmalatif, M.Pd. The content quality of the product was evaluated using a scoring rubric based on the criteria of good ESP material proposed by Widodo and Pusporini (2010). (see Table 1).

Table 1.

Aspects of Reading Materials

| No | Aspect | Score |
|----|--------|-------|
| 1 | Learning objective of the material is appropriate with the syllabus. | 5 |
| 2 | Learning objective of the material is mentioned clearly in each section of the material. | 4 |
| 3 | Learning tasks are able to activate the students' background knowledge which relates to the topic being discussed. | 4 |
| 4 | Teaching materials contain learning tasks which are in line with the material and the learning goal and objective. | 4 |
| 5 | Learning tasks allow students to explore their specialized needs and interests based on the result of the target situation analysis. | 4 |
| 6 | Learning tasks in the materials enable students to develop their reading skill for content competence. | 4 |

| 7 | Learning tasks integrate reading skill with other skills. | 5 |
|---|---|---|
| 8 | Learning tasks in the materials reflect real-life tasks that people do in daily interpersonal interactions. | 4 |
| 9 | Teaching materials make learners acquire skill(s) or sub-skill(s) through a set of learning tasks or activities. | 4 |
| 10 | Teaching materials inform what roles learners and teachers play in and out the classroom. | 4 |
| Total score | | 42 |

Notes:

| Interval | Category |
|---|---|
| 40 < x < 50 | Very good material |
| 33 < x < 40 | Good material |
| 27 < x < 33 | Average material |
| 20 < x < 27 | Below average |
| 10 < x < 20 | Poor material |

In terms of the quality of the e-learning system, the expert was Nur Ikhsan, MI. Kom. The quality of the e-learning system was evaluated using a scoring rubric based on criteria of good e-learning by Bitter and Legacy (2009). The result of the expert judgment shows that the developed product was categorized into very good e-learning (see Table 2).

Table 2.
Results of Expert Judgment

| No | Aspect | Score |
|---|---|---|
| 1. | 1a.Necessary technical documentation is included. | 5 |
| 2. | 1b. Objectives are clearly stated. | 5 |
| 3. | 1c. Material for enrichment and remedial activities are provided. | 4 |
| 4. | 2a. Information is presented in a developmentally appropriate and logical way. | 5 |
| 5. | 2b. Illustrations and examples are relevant. | 5 |
| 6. | 2c. There is appropriate variety in screen display. | 5 |
| 7. | 2d. Text is clear and printed in type suitable for target audiences. | 5 |
| 8. | 3a. Students are able to recall/use information presented following program use. | 4 |

| 9. | 3b. Program prepares students for future real-world experiences. | 5 |
|---|---|---|
| 10. | 3c. This is an appropriate use of instructional software. | 5 |
| 11. | 4a. Program matches interest level of indicated audience. | 5 |
| 12. | 4b. Reading level is appropriate for indicated audience. | 4 |
| 13. | 5a. User can navigate through program without difficulty. | 5 |
| 14. | 5b. Title sequence is brief and can be bypassed. | 4 |
| 15. | 5c. User can control pace and sequence. | 4 |
| 16. | 5d. User can exit from any screen. | 5 |
| Total Score | | 75 |

Notes:

| Interval | Category |
|---|---|
| 64 < x < 80 | Very good |
| 53 < x < 64 | Good material |
| 43 < x < 53 | Average material |
| 32 < x < 42 | Below average |
| 16 < x < 32 | Poor material |

### The Result of Field Test

A field test was conducted after the quality of the product had been evaluated by the expert. The aim of this field test was to find out whether or not the developed product can improve the students' reading comprehension. The field test was conducted in the form of classroom based action research that consisted of two cycles. The students' reading comprehension was measured using reading comprehension tests in the form of objective tests, namely pre-test, post test I, and post test II. The result of the tests shows that the students' reading comprehension improved from 40.9 (Poor) in pre-test, increased into 66.3 (Sufficient) in post test I, and it increased again to 79.1 (Good). Therefore, it can be said that the developed product can improve the students' reading comprehension.

### CONCLUSION

This was a research and development (R&D) study which aimed at developing (1) types of reading materials that are needed by the tenth year multimedia students, finding out (2) the validity of the developed product, (3) the ability of the developed product in improving the students' reading comprehension of the tenth year multimedia students in SMK Teleko-munikasi Tunas Harapan. This study was conducted based on the research and development design of Borg and Gall. This design involves six steps namely; need analysis, design and development, implementation, product revision and evaluation. From those five steps, the result of this study shows that the tenth

year multimedia students of SMK Telekomunikasi Tunas Harapan need specific English reading material that related to their future job or study. The existing syllabus and material did not cover their needs since the syllabus and the material were designed to be used for all departments that available in SMK Telekomunikasi Tunas Harapan, namely: Multimedia, Computer and Networking, and Motor Cycle. Thus, this study concerned with such development.

The study was able to confirm a number of essentials factors in the developed materials. Based on the validation process that was conducted during the development step through expert judgment method and analyzed by using agreement model it was confirmed that the developed material has a very high content validity. From the result of the expert judgments through questionnaires that were conducted to find out the quality of the developed product based on the criteria of good ESP material and good e-learning, the developed material was categorized into very good material and very good e-learning.

The result of field test shows that the developed material could improve the reading mastery of the tenth year multimedia students in SMK Telekomunikasi Tunas Harapan and the students had very positive attitude toward the developed product.

Based on the result of the study, Moodle-based educational web site was proven to be usable for teaching reading because all students had done all the activities available in the website. Moreover, the application of the website could improve the students' reading competency in terms of content, organization, vocabulary, language use, and mechanics and to increase their motivation in using e-learning as the alternative media for learning.

From the result of the study, it can be recommended that Moodle-based educational web site is used as an alternative media to improve students' speaking ability because by using the website teacher and students can still interact with each other outside the regular teaching hours; and other researchers can develop Moodle-website for teaching other lessons or subjects to students.

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