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Developing Technology Integrated English Teaching Materials For Information System Students

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Abstrak

Tujuan penelitian ini untuk mengetahui kebutuhan siswa pada materi-materi pengajaran untuk mengembangkan materi bahasa inggris yang berintegrasi pada teknologi untuk mahasiswa sistem informasi; untuk mengembangkan materi berbasis teknologi untuk mahasiswa sistem informasi. Kami menemukan bahwa mata kuliah bahasa inggris di STMIK Ichsan Gorontalo masih umum, dan tidak adanya prkatek kemampuan seperti mendengarkan, membaca, menulis, dan berbicara; kemampuan mahasiswa di universitas tidak optimal dan cenderung menurun dari tahun ke tahun menurut data dari STMIK Ichsan Gorontalo. Ini disebabkan oleh materi yang masih umum di dalam kelas. Oleh karena itu, materi mengajar bertujuan untuk membantu dosen dalam pembelajaran bahasa inggris untuk mempraktekkan kemampuan mendengar, membaca, menulis, dan berbicara. Penelitian ini adalah sebuah penelitian dan pengembangan (R&D) yang dilakukan di STMIK Ichsan Gorontalo yang terdiri dari 30 mahasiswa sebagai peserta. Berdasarkan hasil pengembangan materi bahasa inggris setelah tes uji coba, diperoleh hasil yaitu mahasiswa sangat merespon dengan baik dalam menggunakan materi-materi yang sudah disediakan. Materi bahasa inggris yang dikembangkan sudah divakidasi, diuji, dan diperbaiki beberapa kali berdasarkan masukkan dan saran dari para validator. Hasil perbaikan setelah uji coba adalah hasil akhir dari materi bahasa inggris yang sudah disiapkan.

Keywords: *Teknologi berintegrasi, Bahan Ajar Bahasa Inggris, Penelitian dan Pengembangan (4D), Mahasiswa Sistem Informasi.*

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Abstract

The aims of research are to know the students' need of teaching materials for developing technology-integrated English Teaching materials for Information System students; to develop materials based on technology-integrated English Teaching materials for Information System students. We found that the materials of English subject in STMIK Ichsan Gorontalo is general, and it does not have any students' practice skills, there are listening, reading, writing, and speaking skills; Students' English ability in the University are not optimal and tend to decrease the quality of the students from year to year based on the data from STMIK Ichsan Gorontalo. This is caused by the English materials that generally in the class. Therefore, the teaching materials aims to help teachers in English learning for the practice of listening, reading, writing, and speaking skills. This research is a research and development (R&D) at STMIK Ichsan Gorontalo consist of 30 students as the participant. Based on the result of development English Teaching Materials after trial test, result was obtained that students strongly responded well to the use of instructional materials that had been prepared. English Teaching materials developed have been validated, tested and have been revised several times based on input or suggestion from the validators. The revised results after the trial are the final results of the English Materials prepared.
Keywords: *Technology-Integrated, English Teaching Materials, Research and Development (4D), Information System Students.*

INTRODUCTION

In the teaching, students can learn English through many sources. Nowadays, there are many text books, electronic materials such as videotapes, pictures, printed books and materials from internet that can help students to learn English easily.

It is believed that, there are various English materials to practice students' skills namely listening, speaking, reading, and writing skills. So, students become communicative in using English in written and spoken modes. The main purpose in learning English is that students can speak English communicatively. They should practice how to speak English well so that they can interact with other. Learning English for communication is an interesting thing for someone who has the ability to use English. All English teachers want all their students to have the ability for using it.

In education, learning by using Technology Integrated has the potential of improving the teaching and learning processes which can be effective for teaching and learning. In teaching English, it must be done by the teacher creatively for designing the materials for Information System Students.

However, based on the result of an interview with head of department (*Prodi*) Information System is a department (*Prodi*) of STMIK Ichsan Gorontalo on how to built and implement information technology with existing business will be able to achieve its goals by

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implementing IT in business effectively. Moreover, it also focusses on the technique of integrating information technology solutions with business process, and it is to learn important aspects of how information is created, processed, and distributed to all stakeholders within the institution.

On the other hand, English for Computer (*Bahasa Inggris Komputer*) is one of basic the subjects that should be in the program based on the curriculum in university. Therefore, English is called as English Specific Purpose (ESP) in the university because it is one of all parts of the subject in the curriculum that focuses on the specific major computerized in university. The subject's name in the university includes English for Computer (*Bahasa Inggris Komputer*) in *semester ganjil* and English for Computer 2 (*Bahasa Inggris Komputer* 2) in *semester genap*. Then, I take English for Computer 2 (*Bahasa Inggris Komputer* 2) in *semester genap* as the object of this research.

However, based on the result of an interview with the head of department (*prodi*), I found that the curriculum of English subject is not designed by department (*prodi*) but it is designed by team teaching English subject. Then, I was interviewed the teacher's *Bahasa Inggris Komputer 2* and it was found that the materials in *Bahasa Inggris Komputer 2* was generally about sentences, tenses, genre text, parts computer. So, the materials of English subject are so generic.

First, in 2013 students' result that score A is 16,6 % from 218 students. Second, in 2014 students' result that score A is 12,2 % from 238 students. Third, in 2015 students' result that score A is 8,3 % from 259 students. It means that the students' English ability in the university are not optimal and tend to decrease the quality of the students from year to year.

Furthermore, the researcher wants to do conduct research and integrated a technology to designing English materials for helping teachers in English learning for Information System students. The researcher thinks they have basic on knowledge on technology computer and they should have the English language materials in accordance with computer technology and it also they need it in other courses that is basic is using English.

In addition, the researcher found studies in the field of technology have suggested that the use of technology can enhance the teaching and learning process, especially in teaching English as a Foreign Language (Kessler, 2007; Machmud, 2017; Machmud 2011). In this research, the researcher can develop the material based on students' field by using one of technology in the learning process. The ICT tools are including computers, radio, television and technology including internet and smartphone.

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Therefore, this is my reason for choosing STMIK Ichsan Gorontalo as study site to determine the utilization of design English materials for a technology integrated for the university. Based on this problem, the researcher wants to carry out research with the tittle Developing a Technology Integrated English Materials for Information System Students at STMIK Ichsan Gorontalo.

Based on the above background, the researcher identifies some of the problems are the materials of English subject in STMIK Ichsan Gorontalo is general, and the teaching of English at STMIK Ichsan Gorontalo dominated by reading and writing.

Students' English ability in the university are not optimal and tend to decrease the quality of the students from year to year based on the data above. Therefore, the teaching of English material aims to help teachers in English learning for English material and my expectation for the teaching of English materials at STMIK Ichsan Gorontalo more varied and uses all-four skills in teaching of English materials.

In this study based on the background above, the researcher formulates the question research are How are students' need in a Technology Integrated English Materials for Information System students; How to develop a Technology Integrated English Materials for Information System students?

Furthermore, the objectives of this research are to know the students' need of teaching materials for developing a technology integrated English materials for Information System students; to develop materials based on a technology integrated English materials for Information System students.

In addition, this research focused on a Technology Integrated English Materials for Information System students. The develop of the learning material were facilitated teachers and students the learning based on the topic what students' need for teaching in the classroom.

(Tomlinson, 2001:66) said that materials include anything which can be used to facilitated the learning of a language. They can be linguistic, visual, auditory and they can be presented in print, through live performance or display, or on cassette, CD-ROM, DVD or the internet. Instead, as Tomlinson (2006) points out, every party involved in materials production and consumption should take their share of responsibility.

In addition, materials should be contextualized to topics and themes that provide meaningful, purposeful uses for the target language. Wherever possible, these should be chosen on the basic of their relevance and appropriateness for the intended learners, to ensure personal engagement and to provide motivation for dipping further into the materials.

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(Tomlinson, 2001:66) explain materials development is both a field of study and a practical undertaking. As a field, it studies the principles and procedures of the design, implementation and evaluation of language teaching materials. As an undertaking, it involves the production, evaluation and adaption of language teaching materials. As an undertaking, it involves the production, evaluation and adaptation of language teaching materials, by teachers for their own classroom and by materials development are interactive in use of classroom materials.

Furthermore, students' use of technology is another significant issue for designers and academic staff. In the introductory chapter of their edited work, Oblinger (2005) paint a picture of the different technology needs of university students according to their age or the generation.

According to Tomlinson (1998) "material development refers to anything which is done by writers, teachers or learners to provide sources of language input and to exploit those sources in ways which maximize the like hood of intake: in other words, the supplying of information about experience of the language in ways designed to promote language learning".

(Richard, 2001) explain teaching material is one of the keys to the teaching-learning process. It is the basic in the learning. The material could be in the form of printed materials, no printed materials, or both printed and non-printed materials. The printed materials could be books, workbooks, or readers. While the no printed materials are materials such as cassette, audio materials, video, computer-based materials.

According to ISMAN (2012) in Ahmadi, it is the practical use of knowledge particularly in a specific area and is a way of doing a task especially using technical process, methods, or knowledge. The usage of technology includes not only machines (computer hardware) and instruments, but also involves structured relations with other humans, machines, and the environments.

According to Sugiyono (2017) Research and Development is a process or method that used to validate and develop products. The function of Research and Development are to validate and develop products. There are several terms about Research and Development. Borg and Gall (1998) used Research and Development (R&D). Richey and Kelin (2009), using the name Design and Development Research. Thiagarajan (1974) uses the 4D Model which stands for Define, Design, Development and Dissemination. Dick and Carry (1996) use the terms ADDIE (Analysis, Design, Development, Implementation, and Evaluation) and development Research.

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Based on this problem, the researcher wants to carry out research with the tittle Developing Technology Integrated English Teaching Materials for Information System Students at STMIK Ichsan Gorontalo.

METHODOLOGY OF RESEARCH

Methods and models aim to produce in the form of English materials are design and then tested the validity of product trials to determine the extent where an increase learning motivation and learning outcomes of students after students learning using technology integrated on students.

This research is a research and development with one-class and number of participant 30-students from second grade of Information System students at STMIK Ichsan Gorontalo. The method that is used to develop technology integrated English Teaching materials in this study is based on Thiagarajan and Semmel, which is called 4D where it consists of Define is to define instructional requirements; Design is to design prototype instructional; Develop is to modify the prototype instructional; and Disseminate is to validation testing, final packing, and diffusion and adoption.

RESEARCH AND DISCUSSION

Based on research and development through needs analysis on developing technology integrated English Materials for Information System students, the obtained research finding on the three-stages. The finding of the research concluded based sources of the data from observation, interview and questionnaire of the students and lecture at each meeting.

The results of the development of English materials that have been carried out follow the development model introduced by Thiagarajan and Semmel called 4D which consists of four stages namely define, design, develop, and disseminate.

The product that has been produced in stage one Define is to produce curriculum analysis, character analysis of students through proof of analysis of students needs. In addition to the curriculum analysis discussed above, a study of the learning process and the learning outcomes of students were also seen from the results of the observation process in the teaching and learning process.

From the results of the study of the learning process at STMIK Ichsan Gorontalo, it seems that the learning process still tends to be dominated by one-way learning (teacher centered). The teacher gives an explanation of the method with the lecture method and occasionally questions and answers while the students as loyal listeners, record what the

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lecturer says or what the lecturer writes on the board and students also occasionally answer the lecture's questions and answers only those students who have the ability high while students who have middle to lower abilities they just sit still.

The learning process takes place with in-activity. In the learning process still uses material that is general in particular the English for computer 2. In the process of using teaching aids the teacher does not have and does not provide guidance on the use of teaching aids to students. This is done by reasoning among other things the teacher is pursuing curriculum targets by looking at insufficient time, so that the teacher delivers the material briefly and densely without regard to the conditions of students, who are bored, sleepy, lazy, have no learning motivation, not even a few who cannot understand the material presented.

Based on the analysis of the curriculum and the study of the learning process and learning outcomes of students, it can be concluded that the STMIK Ichsan Gorontalo identified problems including (1) the unavailability of English materials prepared by lectures (2) the use of teaching media is not maximized (3) low motivation to learn, resulting in low learning outcomes of students.

The product in the second stage of design by validating the Teaching Materials carried out by the validator, namely the English department lecturer related to technology and teaching materials, from the results of the Teaching Material validation found that there were still some shortcomings in the initial draft that had been compiled.

As for some notes, suggestions for comments or entries submitted by the validator either through the validation sheet or directly written directly on the teaching material. Based on the results of the analysis of the validation of teaching materials, it can be concluded that the prepared teaching materials can be tested by needing revisions to certain parts according to suggestions and comments and input validators.

Furthermore, the next stage was a trial carried out in two stages, namely limited trials and field trials. The result of the trials found that students generally responded positively to the use of instructional materials and from the trial questionnaire.

In the implementation of the tests not all units in the Teaching Materials were tested. Related to other units, adjustments are made based on input from students. Based on the results of the analysis of the implementation of field trials, it was found that the use of Teaching Materials in the class was very efficient; this can be seen from the comments of students in the learning process.

The response of students to the Teaching Materials used is good, it is shown that most students reveal that the Teaching Materials that have been applied are very helpful for them

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in understanding the material, students also respond well to the use of integrated media with the guidelines that have been contained.

Moreover, in Teaching Materials, this is very helpful for students in completing and understanding the use integrated media learning. Students also revealed that they were motivated to study the material using Teaching Materials, and for the appearance or illustration of students who thought that the appearance or illustration of the Teaching Materials arranged was very interesting. Students also revealed that they would be motivated to learn if at the next meetings they used Teaching Material.

This research has been carried out, even though it has been validated and tested but this research still has weaknesses and limitations. The weakness of this study is that the development of teaching materials is carried out by compiling instruments. The compiled instruments are used to test teaching materials while the teaching materials arranged are still in the trial phase so that the instruments compiled only apply to the test materials. For this reason, if there is an error in the teaching material, repairs will be made.

In addition, the process of making a book "a Technology Integrated", there are several steps that the researcher does, starting from identification, the purpose of making, determining references about technology, determining language and technology, determining and making the media to be used, starting to compile, check repairs, and finally the test in class.

Identification, at this stage the researcher made observations when the learning activities took place. The researcher found the teaching material still using general material.

The purpose, from the results of my identification, was to determine the purpose of making this book after seeing them still using general material. From the results of observations, the researcher found the goal was to develop material from the general to the particular topic the researcher developed material that was still general in nature to material that was specific to their department of information systems.

Reference, at this stage the researcher determines the reference material about technology. From several books and internet sources, the researcher found the contents of the material.

Language, at this stage the researcher matches the language that is easily understood by students that has to do with technology as they basically learned.

Media, from the results of the reference search and the design of my language determine the media that the researcher used based on each material. Such as recording and video from YouTube.

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Starting, after everything was designed the researcher started to compile the book according to what was designed. From units 1 to until 14 the contents of which contain the initial material about information about the unit, language in focus that discusses the language that deals with listening to material, task based on skills, namely giving tasks based on skills.

Revised, after all the researcher finished doing guidance about the book to the experts called expert validation, up to 3 times guidance and finally it was declared able to be tested. Tests, after repeated revisions to books for experts, the researcher conducted a trial in class to determine the response of students.

CONCLUSION

The development of English Materials that are well carried out through the stages of developing English Materials, one of the development models that is well applied to the development of English Materials is a 4D model development model consisting of 4 stages and each stage of producing a product: there are (1) Define, the activities carried out at these stages are curriculum analysis, characteristic analysis, and need analysis with the produced of products. (2) Design, the design produced a prototype syllabus and English Materials which are English Materials Draft-1 (3) Development, the develop at this stage validation of Draft-1 English Materials and testing of revised English Materials based on the results of validation (4) Disseminate as has done by researcher in research on the development of English Materials.

Based on the result of development English Materials after trial test, results were obtained that students strongly responded well to the use of instructional materials that had been prepared. English materials developed have been validated, tested and have been revised several times based on input or suggestions from the validators. The revised results after the trial are the final results of the English Materials prepared.

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