DESIGNING *MACROTENSE* AS TEACHING MULTIMEDIA IN TALKING ABOUT DAILY ACTIVITY AND GENERAL TRUTH

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Abstract: This research aims to design flash application as teaching multimedia in learning talking about daily activity and general truth. The topic was taken based on the syllabus that was being used in the school. The method of this research is development research using ADDIE instructional design (Analyzing, Designing, Developing, Implementing, and Evaluating) as the phases in designing MacroTense. MacroTense is a flash application containing materials about the topic that is talking about daily activity and general truth. MacroTense provides four menus as the main features. The menus are main lesson, video lesson, quizzes, and extras. Each menu presents different types content regarding the topic with complete animation and narration. Assessment rubric of MacroTense results 30 points of range score 0-44 to indicate *MacroTense* as Satisfactory. Meanwhile the questionnaire results 87.5% that indicate *MacroTense* as very good/feasible to be used as teaching multimedia. Therefore, the researcher suggests the using of *MacroTense* is good to encourage the students' motivation in learning the topic.

Keyword: Flash Application, ADDIE Instructional Design.

Abstrak: Penelitian ini bertujuan untuk merancang aplikasi flash sebagai perangkat multimedia dalam topik pembelajaran *Talking about Daily Activity and General Truth*. Topik itu diambil berdasarkan silabus yang sedang digunakan di sekolah. Metode penelitian ini adalah penelitian pengembangan menggunakan ADDIE desain instruksional (Menganalisis, Merancang, Mengembankan, Menerapkan, dan Mengevaluasi) sebagai fase dalam merancang *MacroTense*. *MacroTense* adalah aplikasi flash yang berisi materi tentang topik *Talking about Daily Activity and General Truth*. *MacroTense* menyediakan empat menu sebagai fitur utama. Menu pelajaran utama, pelajaran video, kuis, dan ekstra. Setiap menu menyajikan berbagai jenis konten mengenai topik dengan animasi lengkap dan narasi. Rubrik penilaian *MacroTense* menghasilkan 30 poin dari rentang skor 0-44 untuk menunjukkan MacroTense sebagai Memuaskan. Sementara kuesioner menghasilkan 87,5% yang menunjukkan *MacroTense* sebagai sangat baik / layak untuk digunakan sebagai multimedia pembelajaran. Oleh karena itu, peneliti menyarankan penggunaan *MacroTense* baik untuk mendorong motivasi siswa dalam belajar topic tersebut.

Kata Kunci: Aplikasi Flash, ADDIE Desain Instruksional

Multimedia has importance role in enhancing learning advancement in classroom. Multimedia merges multiple levels of learning into an educational tool that allows for diversity in curricula presentation (Reddi and Mishra, 2003). Multimedia helps the teacher with the educational process, presets new possibilities and advancement of creative work and two way communication. The combination include text, graphics, animation, pictures, video, and sound within multimedia creates the process of learning become more goal oriented, more participatory flexible in time and space, unaffected by distances and tailored to individual learning styles, and increase collaboration between teacher and students as well as multimedia enables learning become fun and friendly, without fear of inadequacies or failure.

The involvement multimedia in learning grammar particularly learning the topic that is talking about daily activity and general truth makes its own advantages. The multimedia helps the learning of the topic tends to be more attractive, interactive and communicative. It alters the atmosphere in learning the topic to ease in comprehension and activate their prior knowledge into improvement in mastering the topic.

Based on the researcher's observation at a junior high school in Pontianak, Indonesia, grammar is one of the elements in English subject taught by the teacher. The grammar helps the students to understand the structure of a sentence particularly regarding the topic which is stated in their syllabus. The importance of learning the topic to fulfill the standard competency that is understanding the very simple meaning of transactional and interpersonal conversation to interact with the nearest environment. Apparently, the lack of material causes the learning process leading to boredom and monotony because the teacher only has limited source that is a textbook.

Considering the importance and the problem of learning the topic, the researcher has attempted to design a flash application called *MacroTense* in teaching the topic that is talking about daily activity and general truth to overcome the problem mentioned above. Flash-based application was chosen because it was easy to make and its features fulfill the requirements as multimedia. *MacroTense* is designed using a software flash maker namely Macromedia Flash 8. "Macromedia Flash is a powerful development tool that offers tremendous capabilities". (Perfetti and Spool, 2002:3). Macromedia flash is recently utilized as most developers to create complex animation or fast-loading movies. Moreover, Mike (2000) stated that macromedia flash has some excellence technological advantages, such as, Vector-based graphic, Database driven content, and Typography. The advantages explained shows that flash-based application is suitable as multimedia for teacher in teaching the topic. The development of the application of this multimedia impacts in teaching the topic in motivating students as well as facilitating their understanding of the topic.

METHOD

Using ADDIE Instructional Design (Analyzing, Designing, Developing, Implementing, and Evaluating), the research was conducted at a junior high school in Pontianak, Indonesia. The participants were the seventh grade students and the English teacher. In conducting this research, there are technique and tools of data collecting.

Techniques of Data Collecting

The researcher used interview and observation as preliminary study in creating the background of the research. Interview was used to gain the teacher's perception and opinion toward the teaching and learning process. Meanwhile, the observation was used to find out the condition of the students, the school, and the existing materials which was used by the teacher and the students.

Direct assessment was needed for the evaluation phase. The researcher needed direct assessment from the experts through directly experiencing the application and completing the assessment rubric.

Tools of Data Collecting

Tools of data collecting in this research were questionnaire, interview guidelines and assessment rubric. The researcher distributed questionnaire to students. The questionnaire was given in order to gain the information from the students about the *MacroTense* after they used it. The questionnaire then was analyzed by rating scale. The rating scale was adapted form Harry Walker's Instrument (Walker, 2013). The scale was scored by this formula as follows:

$$P = \frac{result\ score}{amount\ of\ point\ X\ amount\ of\ catagories = 4\ X14 = 56} \text{ X } 100$$

P = Percentage

Then the result will be measured by experts' recommendation guideline. Percentage of the result will be converted into interpretation based on the percentage range. The range are: (1) 0-25% to indicate as bad (revise). (2) 26-50% to indicate as poor (revise). (3) 49-75% to indicate as good. And (5) 76-100% to indicate as very good.

The researcher also interviewed some students and the English teacher using interview guideline. It was conducted in order to gain their perception about their experience directly after using *MacroTense*.

Meanwhile, the researcher prepared assessment rubric for the experts to evaluate the *MacroTense* designed by the researcher. The purpose of expert evaluation is to find out whether the sample application designed by the researcher already fulfilled the requirements and usable as Multimedia in teaching English.

The result of assessment rubric became consideration in revising *MacroTense*. The expert assessment would help researcher to figure out whether *MacroTense* is usable or not.

FINDINGS AND DISCUSSION
Findings
Analyzing phase
In the analysis phase was used by researcher to find out the basic background of the students and the teacher's needs. It is important to determine whether the product which was created is appropriate or not. In the analysis phase, the researcher interviewed the teacher of SMPN 12 Pontianak to gain the some information. The information contained analysis of the students and the teacher condition, analysis of the students and the teacher attitude toward ICT, and the analysis of syllabus which is used by the teacher.

First, the analysis of the students and the teacher condition. Researcher found in this analysis that the students in this school have a great enthusiasm in learning English, but it is not supported by the teacher who teaches them with the same material which makes the learning monotonous. The teacher realized that she lack of material which is able to improve students motivation, but she found it hard to find interesting material that could be used in teaching and learning process in the classroom. Second, the analysis of students and the teacher attitude toward ICT. Based on the data which has been found there are 95% of the students who are able to operate computer. Even only 39% of the students that have their own computer at home, the rest of them usually use the computer in other places like warnet, school, or at their friends' home. Third, the analysis of the syllabus. The school relied on School-Based Curriculum (KTSP) based on UU 20/2003 about National Education System. In the syllabus, the standard competence is stated namely to understand the very simple meaning of transactional and interpersonal conversation to interact with the nearest environment and the basic competence is to express meaning in simple short monologue by using a variety of oral language accurately, fluently, and grateful to interact in the context of everyday life in the form of narrative and report.

Designing Phase
In this phase the researcher starts to design the first draft of the material which is going to use in *MacroTense* based on the learning problem. Based on (Richard & Rodgers, 2001), design is level of method analysis in which we consider (a) what the objective of the method are; (b) how language content is selected and organized within the method, that is, the syllabus model the method incorporates; (c) the types of learning tasks and teaching activities the method advocates; (d) the role of the learners; (e) the role of the teachers; (f) the role of instructional material.

The objectives of the *MacroTense* divided into three aspects. They are to establish the students' prior knowledge in mastering the topic, to help the students understanding the topic in interesting and easy way based on real-life context, and to improve the students' motivation in learning the topic.

Based on the syllabus, the standard competence is stated as to understand the very simple meaning of transactional and interpersonal conversation to interact with the nearest environment. Meanwhile, the basic competence is to express meaning in simple short monologue by using a variety of oral language accurately,

fluently, and grateful to interact in the context of everyday life in the form of narrative and report.

The type of learning and teaching activities determine as computer-based learning or computer assisted language learning which is classified as informal and formal learning in this research. The researcher designed the flash application runs in the computer only. Computer-based is used to utilize its uniqueness of technological advancement and so the students can create new learning experiences.

The role of the learners are: (1) Learner uses a self-directed and discipline-based process to analyze, collect, and interpret the knowledge or information. (2) Learner uses the materials based on the instruction in every section. (3) Learner constructs their own understanding in order to do every available task.

The role of the teacher are: (1) Teacher acts as a facilitator and motivator in the learning. (2) Teacher distributes the material. (3) Teacher gives example and instruction in using the application. (4)The teacher answers or addresses a few major issues or concepts as an expert. (5)Teacher motivates and monitors the students in using the application.

Furthermore, the role of the instructional material are: (1) The application will be used as teaching multimedia for teacher and learning resources for learners. It is focused on understandable, relevant, and interesting exchanges of information rather than on the presentation of grammatical form. (2)The application will be the reference and resources both the teacher and the students in learning the topic which they can use to develop their competence through a variety of the features within the application. (3) A tool for learner to learn how to practice the topic in fun, and interesting way so they can be motivated in understanding the material, and improve their knowledge and information as self-directed learning.

Developing Phase

In this phase, the researcher developed *MacroTense* based on the materials as the content that had been gathered. The materials of *MacroTense* were suited based on the learning objectives in the syllabus and curriculum which will be fulfilling the students' characteristics and needs.

MacroTense was developed into four menus as the main features. The menus are Main Lesson, Video Lesson, Quizzes, and Extras. In Main Lesson provides the basic knowledge and explanation about the topic with animation and narration. Video Lesson provides animation video that explain a lot more about the topic which makes the lesson easy and interesting to understand. Meanwhile, Quizzes provides four types quizzes namely, multiple choice, fill in the blank, matching question, and true false question. Further, Extras provides additional feature namely, regular and irregular verbs collection, and short stories collection with audio. General picture of MacroTense can be seen as follows:

Picture 1. *MacroTense* **Main Interface**

The development of *MacroTense* started from layout as the interface of the application. The researcher needed to develop colorful, animated, attractive and interesting layout as consideration to attract the students as young learners. In developing the layout, the researcher needed to develop some elements which were used in the application such as background, menu icons, navigation icons, and contents in the application. These elements were developed using Adobe Photoshop CS5 Extended. The researcher used Adobe Photoshop CS5 Extended because this software is well-known as picture editor, and animation creator.

The researcher inserts the audios for narration, sound effects for the action buttons and animations and pictures which had been collected to support the content of the application. Audios for narration were developed from Ivona Text to Speech Online and those audio were edited using Audacity program which made them better to listen. Meanwhile, sound effects for action buttons and animations and pictures were collected from Google and Google Image.

Implementing Phase

According to Branch (2009:133) "The purpose of the Implement phase is to prepare the learning environment and engage the students". In this phase, the researcher tested the application to both the teacher and also the students in the school. The implementation of this application aim to find out the usability of the application itself in teaching and learning the topic. The implementation of the application was done in a classroom with 22 students and the teacher.

The researcher observed and distributed questionnaire while the students and the teacher were accessing and exploring the application. Based on the observation and the questionnaire, the researcher found that there were some problems regarding the application, as follow: (1) The teacher and the students found that some navigations button of the application is confusing. (2) There were no enough feedbacks they got at the quizzes section. (3) Some audios within the application were found unclear.

In the other hand, the researcher also found the positive effect of the implementation of the application based on the observation and questionnaire. The researcher observed that there were some feedbacks during accessing and exploring

from both the teacher and also the students toward the application. The feedback of the observation will be described as follow: (1) The teacher and the students were excited and motivated during the accessing and exploring the application. (2) The teacher and the students were able to operate well the application easily without doubt. (3) The teacher and the students understood well the instruction and followed it as necessary. (4) The teacher and the students found the application good in learning grammar particularly concerning the topic as the interesting way in classroom.

Based on these observation, it produced both negative and also positive side. The researcher considered those as revision which made the application developed into the better in order to fulfill the objective as targeted within the application.

Evaluating Phase

According to Branch (2009:152) "The purpose of the Evaluate phase is to assess the quality of the instructional products and processes, both before and after implementation". The researcher had administered evaluation session by gaining teacher's perspective through questionnaire and conducting expert validation. The questionnaire is provided by following these criteria: (1) Educational effectiveness (2) Entertainment value (3) User friendliness of technology and (4) Design features (Reddi and Mishra, 2003:57).

The teacher's perspective was conducted by distributing questionnaire. The questionnaire then was analyzed by rating scale. The rating scale was adapted form Harry Walker's Instrument (Walker, 2013). The scale was scored by this formula as follows:

$$P = \frac{result\ score}{amount\ of\ point\ X\ amount\ of\ catagories = 4\ X14 = 56}\ X\ 100$$

P = Percentage

Then the result will be measured by this table:

Table 1. Guideline for Expert's Recommendation

Percentage (%)	Interpretation
0 – 25	Bad (revise)
26 – 50	Poor (revise)
49 – 75	Good
76 – 100	Very good

The result of questionnaire can be seen below:

$$P = \frac{49}{amount\ of\ point\ X\ amount\ of\ catagories = 4\ X14 = 56}\ x\ 100$$

P= 87.5 %

Based on the result above, the researcher found that the assessment result of MacroTense were considered and categorized as Very Good with the score 87.5%. Meanwhile the expert validation is conducted by distributing assessment rubric to the experts. The assessment was adapted by following these criteria: (1) Educational effectiveness: Instructional Content, and Curriculum Connection. (2) Design Features: Graphics and Multimedia, and Lay-out. (3) Entertainment Values: Adaptability and Accessibility, Learner Engagement Interactivity, and Teacher and Learner Support Materials. (4) User Friendliness of Technology: Assessment, Age/Grade Level, and Flexibility. The result of this assessment then converted with score scale: 40-44 = Exemplary, 35-39 = Good, 30-34 = Satisfactory, Below 30 = Unacceptable for Classroom Use. (Ferdon and Poast, 2010). Based on the Assessment rubric of MacroTense results 30 points of range score 0-44 to indicate *MacroTense* as Satisfactory.

The results of evaluation above, the researcher found that MacroTense is suitable and usable to be used in classroom as teaching multimedia in learning the topic. Nonetheless, there were some suggestion and feedback as revision to improve the application in quality.

Discussion

The researcher used development research as the method in conducting the research. This method consist of five phases in process of the research. These phases are analysis phase, design phase, development phase, implementation phase, and evaluation phase.

Analysis phase was conducted in order to find the basic information before the researcher designed and developed the application. The basic information which were gained such as students' attitude in learning English in the classroom and also the teacher attitude in teaching English, the condition of the school, the attitude the students and the teacher toward ICT, and syllabus used by the teacher in conducting the lesson. These basic information will be used to decide suitable material used which supported the designing and the development of MacroTense, and certainly fulfill the teacher's and the students' need in mastering the topic of the lesson.

The design phase was conducted based on the analysis phase. In the design phase the researcher constructed the model of the application which will be used as teaching multimedia. In this model the teacher adapted to the result of the analysis phase so the researcher could be able to determine suitable and appropriate material. The main objectives of this application are to establish the students' prior knowledge in mastering the topic, to help the students understanding the topic in interesting and easy way based on real-life context, and to improve the students' motivation in learning the topic. The students act as a self-directed and discipline-based learner in order to analyze, collect, and interpret the knowledge within the MacroTense. Furthermore, this application is designed to adapt the teacher's role in the classroom. The teacher will act as facilitator, distributor, instructor, answerer, and motivator in conducting the lesson. Whereas, the instructional material itself acts as learning resources for learners which are focused on understandable, relevant, and interesting exchanges of information rather than on the presentation of grammatical form.

In development phase the researcher constructed materials which had been selected and gathered from many sources. According the teacher and the expert, the researcher has successfully designed and developed which fulfilled the principles of the material design itself. The principles of material design are: (1) Good materials design should be materials which could motivate the students in learning. Besides, the material should be relevant, interesting, and easy to understand. (2) Materials should help the teacher and the students to be directed in teaching and learning process and appropriate with the curriculum as well as the syllabus which is applied in the school. (3) Materials should pay attention to "the nature of language and learning". (4) Materials should be correct and appropriate in language use, so the materials itself will be a good example for the students in their learning.

The last thing to be discussed is evaluation. In this phase evaluation has important role to make sure and decide whether the product is valid to be used or not by the students as well as the teacher in the school. In evaluation MacroTense was assessed by taking a survey in questionnaires and expert validation in a rubric assessment. The questionnaire and rubric assessment were provided based on the criteria from the expert. The criteria of these assessment involved four basic issues namely (i) educational effectiveness (ii) entertainment value (iii) user friendliness of technology and (iv) design features (Reddi and Mishra, 2003).

CONCLUSION AND SUGGESTION
Conclusion
Referring to this research, the researcher arrived in conclusions and suggestions. The conclusions of this research are: (1) In SMPN 12 Pontianak, the main problems regarding the learning is the lack of materials such as media and multimedia, the lack of students' basic knowledge about the lesson, and the lack of learning time in the classroom. So, those problems can be overcome by using MacroTense. (2) MacroTense was designed as teaching multimedia in informal and formal learning. (3) The model of MacroTense is learning pack which consisted of 4 main menus namely Main Lesson, Video Lesson, Quizzes, and Extra. Each menu contained materials which supported the lesson that is talking about "Daily Activity and General Truth" as the main topic within the lesson. (4) The combination of the menus were expected to be able to fulfill the students and the teacher needs in learning the topic. Moreover, MacroTense was designed to enhance the students' motivation, and interest in learning the topic. (5) MacroTense with its features help the students to improve their basic knowledge about the topic and ease them to understand the topic into the better. (6) Using MacroTense creates students into independent, self-directed and discipline learners to analyze, collect, and interpret the knowledge or information of the lesson. (7) Using MacroTense helps the teacher to enrich his/her teaching materials regarding the topic as well as replace the text book in traditional teaching.

Suggestion
Based on the conclusion above, the writer like to provide some constructive suggestions as follow: (1) In designing the application, the researcher should be knowledgeable to operate flash software and other software to create more

interesting and attractive application. (2) The researcher should have making the scheme of the application in order to ease the concept of the game. (3) The researcher should provide more instruction as a guide to its user in every section of the application. (4) The researcher should develop the application into wide range such as web version. (5) The researcher should develop the application that is compatible in every available flash player.

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