

Developing ELICA:

An interactive website for intensive listening

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Abstract—Technology recently has been inseparable from language teaching. Bringing a proper technology into a classroom can give different and beneficial effect for the students, especially in listening class. Having a listening class without any use of technology may cause a boredom for the students, considering most of the students nowadays are millennial students. They need a suitable “device” to attract their attention and to keep their focus during the listening class. Besides, the students of Tidar University need an extra interactive listening tasks to get them more actively in the listening class. For this reason, a new website-based technology for listening is needed. However, a little research on developing a website for listening has been conducted. Thus, this study aims at developing an interactive website for intensive listening. In this study, researchers applied design-based research to design interactive websites. Modified learning models are carried out in designing interactive websites. There are four main steps that must be fulfilled to produce this interactive website. The steps are identifying problems, setting learning goals, designing learning, and producing learning package models. Since this research is only focused on the very early stage, the result is limited on the process of the website development.

Keywords—listening; website; interactive; design-based research

I. INTRODUCTION

The rapid use of technology in education, especially in teaching English, certainly has a significant impact. In this 21st century, teaching and learning cannot be separated from the use of technology. Technology is claimed to be very helpful in the teaching and learning process. The use of technology can provide benefits for both teachers and students. The use of technology as a medium in teaching and learning can be used as a solution to the problems faced by teachers and by students.

The positive impact of using technology can also be used for students' success in listening learning. In listening learning, students are still often faced with some difficulties in terms of understanding. Harmer classifies four general categories of problems in listening learning, namely the characteristics of messages, message delivery, listeners, and the environment [1].

Over the years, many researchers have conducted research aimed at enhancing students' comprehension skills. Various media and technologies have been used to achieve this goal. The results of the latest research show that the effective use of

technology can create new opportunities for learning and improve students' achievement. Although various efforts and methods have been carried out to improve students' ability to listen, students still consider listening to be difficult to master. This was also experienced by students, especially students at Tidar University. Some possible causes are less effective use of media and technology in listening classes. One of them might be the incompatibility of media or technology used in listening learning, such as media or technology incompatibility with students' needs and learning goals. If the media or appropriate technology is met the needs and goals of student learning, this use can certainly be effective in helping students improve their listening skills.

In addition, the lack of opportunities obtained by students to improve listening skills is also an obstacle for them in their efforts to improve their listening skills. The limited time they have in listening classes does not allow them to be optimally engaging in listening class. It does not rule out the possibility that they may not practice their listening skills outside the classroom other than in the listening class. The frequency of whether or not students practice their listening skills will certainly affect how well their listening skills are. They need supporting tools that can help them practice listening whenever and wherever, so they can improve their listening skills.

In listening process, the process does not only act as a process of understanding, but also as a psychological process in learning languages. According to Cigerci and Gultekin listening is a complex psychological process of understanding language by listeners through the sense of hearing. This is an interactive process of language knowledge and psychological activity [2]. However, this process does not merely solve a message; but also involves a combination of deciphering the message with its reconstruction as a meaning. As stated by ROST that listening in the broadest sense [3]; As a process of accepting what the speaker actually says (receptive orientation); build and represent meaning (constructive orientation); negotiate meaning and respond to it (collaborative orientation); and creating meaning through involvement, imagination, and empathy (transformative orientation). Therefore, in conducting listening learning activities, it is more likely to be suggested to carry out interactive and interpretive activities that allow students to use prior knowledge and linguistic knowledge in understanding a message.

Based on these conditions and problems, this study seeks to use technology, especially the development of an interactive website as a solution to solve the problems faced by students in listening learning. The idea of designing website interactively arises because of the factors mentioned above, which are still difficult to find the right listening tools or sources that meet very specific requirements and can be used by students independently whenever and wherever. In designing this interactive website, students' needs are the basis of analysis in designing the website. Students' need analysis aims to determine the needs of students as accurately as possible to determine different academic goals or work [4]. Adjusting specific needs for students will benefit the process of designing interactive websites. The concept of student needs is one of the important criteria adopted in the process of designing interactive websites.

In designing this website, the concept of interactive is used. Interactive website is one type of website that can be used in the learning process, especially listening learning. Interactive websites can provide more diverse benefits because in an interactive website requires two-way communication, namely between the website itself and website users [5]. The involvement of website users greatly influences the success or failure of teaching using a website.

On the other hand, interactive learning is also chosen as the basis for designing the website because it can involve students actively in listening learning activities. With this interactive website, it is expected that students can continue to practice and study independently to improve their listening skills outside of listening classes, anytime and anywhere.

II. METHODOLOGY

A. Research Design

In designing this website, the design-based approach was carried out in this study. The main objective of design-based research is to develop products for their use in the classroom. Wang and Hannafin states that design-based research is not only for making or testing a theory but also for developing effective products that can be used in teaching and learning activities [6]. A design model proposed by Tian and Suppasetere is used in designing this website. There are six stages proposed, namely identifying the background, setting learning objectives, designing learning, producing learning packages, conducting learning, and evaluating [7].

Instead of having these six steps, this study only stops at the first four phases. Some adjustments were needed in designing this website, because this research only limit the website design process to the production process. The following figure is intended to describe the instruction design model used in designing the websites.

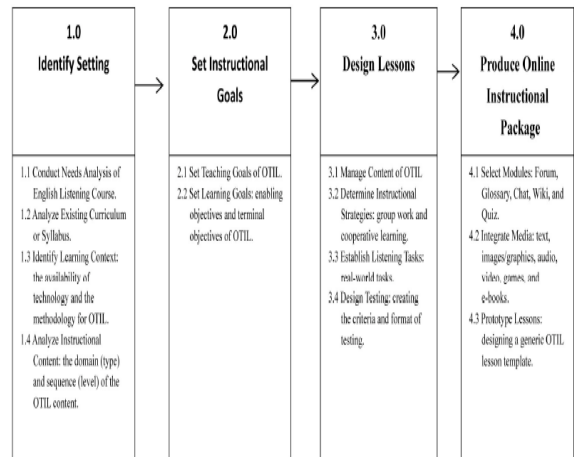


Fig. 1. The design model by Tian and Suppasetere [7].

B. Participants

In this study, participants consisted of 79 students of the English Language Education Study Program at Universitas Tidar. The students were from Intensive Listening Classes. There were also two lecturers of Intensive Listening added as the participants.

C. Instruments

The instrument is a tool for collecting data. In this study, several instruments are used to collect data such as students' needs analysis questionnaires, and interview sheets. Questionnaires for students' needs analysis is modified because there are no previous related studies that are suitable for the needs of developing interactive websites. Questionnaire for students' needs analysis is to find out students' learning needs and listening activities. The questionnaire itself is in the form of closed questionnaire. In addition, the interview sheet was also prepared to gather information about the existence of listening teaching materials used and also the learning syllabus in the learning process of listening.

D. Data Analysis

The procedures of analyzing the data as followed:

1) *Questionnaire analysis*: In analyzing the closed questionnaire, there are two stages that are carried out, namely for analyzing students' problem in Listening and students' strategy in Listening. The closed questionnaires have a four-point scale (4 = always, 3 = usually, 2 = sometimes, 1 = never). After preparing and arranging closed questionnaire data, the total score was calculated and then looked for the average value. The average value of each score was all recorded. In processing these values, the researchers used the following guidelines:

TABLE I. SCORE VALUES FOR QUESTIONNAIRE BUDININGARTI AS CITED [8]

0.00 – 1.99:	Not well at all
2.00 – 2.99:	Not so well
3.00 – 3.49:	Somewhat well
3.50 – 4.00:	Very well

After organizing closed questionnaire data, the percentage of each option from each number was calculated. The next step was to represent the results in a table and discuss them descriptively as suggested by Dornyei and Taguchi [9].

2) *Interview analysis*: Interviews were conducted by recording questions and answers given to the lecturers. This phase provides accurate conversation recordings. Because interviews were conducted in the form of open questions, it was necessary to develop a category system. The category is the syllabus, the method used by the teacher in the teaching process, the material and resources used by the lecturers, the stages of the teaching process, and also the purpose of the teaching process. Then, responses to these questions were then put into the category. In the final stage, the responses were summarized descriptively.

III. FINDINGS AND DISCUSSION

In designing interactive website, the model used in the learning design model proposed by Tian and Suppasetsera [7]. From all six stages proposed by Tian and Suppasetsera, this study only applies four stages, namely: identification, setting instructional goals, designing instructional learning, and the last stage is designing the product, in this case the product is an interactive website.

A. Identification

The first stage in designing interactive websites was the identification stage. In the identification phase this included: students' needs analysis, syllabus analysis, identification of learning contexts, and content analysis.

1) *Students' need analysis*: In the needs analysis phase, questionnaires and interviews were used in the data collection process. For the questionnaire, there were two types of questionnaires distributed to students, namely questionnaires regarding problems in Listening Comprehension and questionnaires regarding student strategies in Listening learning. For questionnaires regarding student confidence in problems in Listening Comprehension, there were six factors included in the questionnaire. These factors were process, input, listener, task or task, influence or impact, and context.

In interpreting the results of the questionnaire, several stages were carried out by the researcher in analyzing the results of the questionnaire. These stages were looking for the total number of questionnaire scores, looking for percentage intervals, looking for the index %, and the last was entering the interpretation results into categories.

From the results of the first questionnaire, namely a questionnaire regarding the problems faced by students in Listening Comprehension, of the 36 problems raised as many as 50% of the students stated correctly and the remaining 50% stated quite right. This shows that these problems always arise and become an obstacle for students in the Listening class. In general, the problems that often arise and are often faced by students when Listening are difficult in: predicting, associating, understanding main idea, staying focused, guessing meaning,

making general summary, interpreting long text, and dealing with anxiety.

Whereas from the results of the questionnaire regarding the strategies which are often used by students while listening, strategies are often used by students when listening, namely: making general description, linking new information, listening repeatedly, making notes, confirming the details of texts, and practicing independently.

The results of the questionnaire were then used as a reference in choosing the source of content for the website and for determining the types of exercises or assignments. Difficulties that were often faced by students as well as strategies that were often used by students when listening class were transformed into the form of activities or exercises for students during the listening activity.

2) *Syllabus analysis*: The next identification process was the analysis of the existing syllabus and was used in the Intensive Listening course. In this process, the syllabus of the Intensive Listening course was analyzed to meet one of the needs analyzes in designing a website. In the Intensive Listening syllabus, there are several parts that need to be addressed when designing a website. These sections included: competency standards, basic competencies, and study materials. These sections form the basis of the process of designing a website.

3) *Identification of learning contexts*: In identifying the learning context, there were two things which considered in designing interactive website. The analysis was focused on technical matters and instructional structures. In technical matters, designing an interactive website was of course technology-based. In the process of designing and developing this interactive website, it involved and required tools that can support the process from start to finish. The devices consisted of hardware and software. For the hardwares used in the process of designing and developing this interactive website, are: computer for development, computer for server, and smartphone.

On the other hand, the software's used in developing the website are: Internet Information Services (IIS) Manager and also MySQL Workbench for the database.

4) *Content analysis*: In this stage, the domain (type) and sequence (level) of the contents of the OTIL were analyzed. In developing this website, the focus of the skill certainly refers to listening. The researcher decided to name the website as ELICA (English Listening Interactive Cafe). Because the development stage of this website is still in its early stages, the menus developed were still very limited. In this process, there are 5 main menus, namely: Cafeteria, Coffee, Sweets, Philocoffee, and Gallery. In the Coffee menu, there are 3 submenus namely Easy Latte, Intermediate Cappuccino, and Advanced Espresso. In the Coffee menu these various listening sources are linked. Besides audio, there are also various videos that can be used as learning resources for students.

Through this Coffee menu, the students can engage interactively during listening learning because it provides a comment column, where students can respond and even upload questions and tasks related to learning.

B. Setting Instructional Goals

Based on the Intensive Listening syllabus that is and is being used, the instructional objectives were derived from the standards of competence and basic competency. From the competency standards and basic competencies, general objectives and specific objectives are formulated from this interactive website.

C. Designing Instructional Learning

In this stage, how to achieve instructional goals is described. In this stage, there were several processes done such as:

- Managing authentic resource content for instructions, found in books, online or in other media. This is needed to support instruction in listening to English.
- Determining instructional strategies for learning objectives. In this stage the researcher determined the right learning strategy to maximize learning effectiveness. Based on the nature of listening comprehension and the features of listening instruction, the development of this website focuses on interactive.
- Establishing listening tasks. The tasks in this website is designed for real-world tasks in accordance with the principles of the Task-based Approach.

D. Designing the Website

In this stage, there were several processes done to start designing the website such as: designing database, designing flowchart, designing interface, arranging code source, system trial, and implementing the program.

IV. CONCLUSION

In developing ELICA, the students' need analysis is the main consideration in the process of developing the website. The students' need analysis is the crucial part especially in deciding the materials linked to the website and also formulating tasks.

The phases done in this research only reached until the production of the product, which is ELICA. It is a very early phase in a design-based research. It means that the website still needs some further actions in order to improve the quality of the website.

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