

# English Learning Model With Application–Based on Mind Mapping Method

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**Abstract**—The purpose of this research is to develop an application-based English learning model based on mind mapping model that can foster student creativity with innovative learning. Feasibility test of the learning model by involving the sample on 70 students by measuring the learning outcomes through measuring the value of the evaluation result. 35 students learn English by using the application and 35 other students learn English without using the application. The results showed a significant difference between students who were learning by using applications and who did not use the application. 90% of students who use the application can answer the problem well otherwise that do not use the application only 50% who can answer the problem correctly.

**Keywords**—learning model, mapping model, english learning

## I. INTRODUCTION

In this technological era English becomes a very important language because it is the connecting language for everyone both at work and in social life. Therefore, the Teaching and learning English in Higher Education should be developed to improve the quality of graduates including in Manado State Polytechnic, especially electrical engineering majors. With good English skills then the opportunity to get the job wider open. For balance in learning in the digital era, where learning in any field is strongly influenced by the media internet, web, multimedia with various terms and symbols in English. There are several weaknesses encountered in the learning process such as the ability to speak in English and the use of appropriate terms to describe an object. In addition to lack of supporting facilities and infrastructure, learning methods are less interesting and monotonous. Based on observations, the behavior of students majoring in electrical engineering has a level of intelligence in terms of the use of computer equipment and other devices. Currently there are no students who do not have communication tools that can connect to the internet, so students tend to be easier to learn and understand the teaching materials by using an application-based multimedia device by utilizing the Internet network. This allows unrestricted learning of time and place. By using mobile devices students can easily access the material they want to learn. Cellular learning (M-learning) has become one of the components of technology implementation in education that is important for universities. M-learning is unlimited, allowing students to learn, collaborate, and share ideas between one another by using the internet [1].

In the process of teaching English in college, English grammar is not the core that must be emphasized in teaching English. Vocabulary mastery becomes an obligation for students to do richer and clearer self-expression. effective vocabulary teaching can improve students' competencies so that they will have a positive impact on effective learning. a new strategy is needed in the process of learning English in college [2].

## II. LITERATURE REVIEW

Preparing teaching materials as a way to improve lecturer performance in the process of language learning. Teaching materials can be in the form of linguistics, pictures, sounds or print media and newspapers, cassettes, CD-ROMs, DVDs or access via the internet [3]. Cooperative learning has a long history in its development. Waterhouse defines e-learning as learning that utilizes computer technology media by developing learning and teaching applications [4]. In addition, the European Commission defines e-learning as "the use of new multimedia technologies connected to the internet to improve the quality of learning by providing access to collaboration [5]. According to Rosenberg that e-learning enables efficient data storage [6], while Horton believes that e-learning provides new experiences in learning and obtaining information by utilizing computer technology Facts prove that e-learning is able to improve learning when presented in accordance with the needs and learning conditions of students [7]. Mind mapping method, popularized by Tony Buzan. Mind mapping is an effective diagram by arranging ideas outlined with words, visual images and phrases of color phrases [8]. Mind mapping explains in detail the central ideas and new ideas that are interrelated. Mind mapping strategies can be used to explore various learning materials in writing and can be used in types of writing such as: narrative, descriptive, recount, persuasive and argumentative [9]. Students can describe their ideas as mind maps through effective visual designs that allow students to clearly understand ideas, and ultimately be able to encourage students to classify ideas according to characteristics. Mind mapping can improve students' learning ability in terms of remembering and fostering interest in learning [10]. In this paper, the learning application refers to the e-Learning model used by institutions in an effort to improve the quality of teaching and learning processes to foster student independence in learning. The activity module used

allows students to interact with different learning resources to enrich knowledge

### III. METHODS

Several parameters to conduct the measurement in this study by involving various related elements. Application is made by referring to the learning model using mind mapping method. Mind Mapping is a technique that is able to encourage students to explore abilities, skills in presenting words, pictures, numbers, logic, rhythm, color, in fun ways. Students are assigned to develop ideas in explaining the core of the material in the class. Mind map using visual reminders, and this sensory in a pattern of related ideas, such as the road map which is used for learn organize and plan. Many of the benefits that students get by using mind mapping, mind mapping can optimize the work of the right brain and left brain because mind maps work very pleasant by using image media, colors and words that are easy to understand. Besides that mind mapping can provide economic value by saving notes because students can summarize the material; teaching is more effective because material is more structured and systematic; this system can easily adapt; Mind mapping can stimulate the creativity of students and teachers to be more creative in making attractive images or colors according to the material [11].

#### A. Participants

To get more precise data, the authors collected the final test results by selecting two classes, one class as the experimental class and the other as the comparison class. There are 70 students who take the exam with different methods. The experiment lasts for five months from January to June.

#### B. Procedure

The application of mind mapping in college English vocabulary teaching can effectively improve teaching efficiency. The improvement of teaching efficiency is embodied on enhancement of teachers' classroom efficiency [2]. Applications are created based on material to be taught in the classroom. The material is presented by utilizing internet connection. The two classes that become experimental classes get the same material, the same teacher with different learning models. The author has done pre-test and posttest to know the difference of student learning result.

### IV. RESULTS

Interface design must pay attention to the visual appearance so as to provide added value in achieving the expected goals [12]. Figure 1 below presents the application interface model developed based on the learning model.

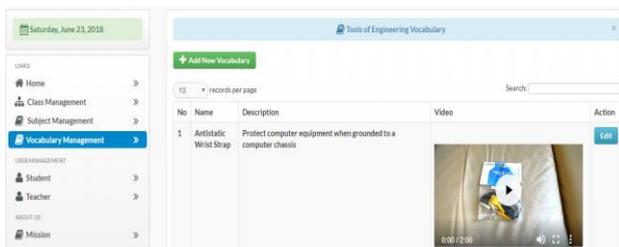


Fig. 1. Initial design of interface.

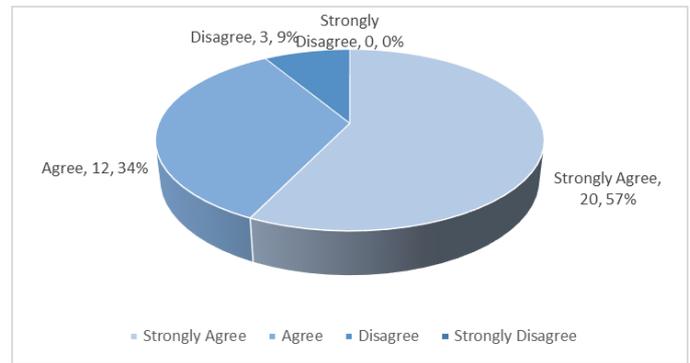


Fig. 2. Results of respondent test.

From the students' perceptions of the benefits of learning with the application-based mind mapping method, the responses presented in Figure 2 show that, the majority of students (91%) agree with the application of the learning model as it affects the audio visual which allows students to recall the material they have learned. Although there are some students who find it difficult to apply the learning model. According to Muhib, Anggani and Hartono, Barriers to Mind Mapping are a matter of time students who have to really focus on finding effective keywords so that in a student learning situation that is not conducive, sometimes students have difficulty creating a comprehensive mind map [13].

### V. CONCLUSION

Based on the results of the research and discussion above, it is generally produced that most students consider mind mapping techniques to be an effective strategy in helping students learn English and in previous research shows that mind mapping techniques can improve students' English writing skills. As a result, mind mapping techniques seem to be an effective tool for helping students in vocabulary mastery, writing and reading English as well as encouraging students to gain comprehensive or in-depth understanding of the material. In contrast, a small proportion of them claim that the applied learning model is a bit difficult but fun.

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