

# Experimental Research in English Language Teaching: A Peek from Undergraduate Students' Theses

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## Abstract

This study focused on the undergraduate students' theses submitted to the English Language Education study program in Universitas Cokroaminoto Palopo. A total of 53 theses between 2014-2018 were collected. The main purpose of this study is to capture the trends of experimental method used in students' undergraduate research. The selected sample is only the theses submitted by students who have been finished study in not later than four years. Skill and elements, the technique of sampling, types of treatments, level of the school, types of the experimental method, and research instruments were analyzed. The results revealed that vocabulary is the most researched language skills. In terms of research designs, random sampling, pre-experimental, and test instruments dominated. Quasi-experimental only a little bit used that was found in 2014 of three theses used and true-experimental was not found at all. As for types of treatment (independent variables), learning media is dominantly used.

**Keywords:** *thesis, undergraduate students, experimental research, English Language Education*

## Introduction

An experimental design is a traditional approach to conducting quantitative research (Creswell 2015). In short, researchers use experimental research to compare two or more groups on one or more measures. In these designs, one variable is manipulated to see if it affects the other variable. Experimental designs are used in this way to answer hypotheses. According to Creswell (2015), experimental research is a study to test an idea, practice, or procedure to determine whether to affect the outcome or dependent variable. Furthermore, the experiment was used when wanting to establish the possible causes and effects between the independent variables and the dependent variable.

As noted by Best (1981:55), the experimental methods find their greatest utility in the laboratory, it has been effectively applied within non-laboratory settings such as the classroom, where significant factors or variables can be controlled to some degree. Muslim, Gitama, Suprianto, Rahmadyanti, & Kusumawati (2018) highlighted that the experimental research method is the most productive because if the research is done well can answer the hypothesis that is primarily related to causality. Besides, experimental research is also one form of research that requires relatively more stringent conditions when compared with other types of research.

This experimental method is the most popular among students majoring in education. The reason why experimental research is suitable for education is that teaching methods are more appropriately set naturally and compared in unbiased conditions. Therefore, this study will

discuss the use of experimental methods among students, especially in the English Language Education study program at Universitas Cokroaminoto Palopo between 2014-2018 to know the extent of the application of experimental methods among students of English Language Education in completing the final undergraduate assignment in higher education.

## Method

The corpus in this research is 53 undergraduate theses written by the students of English Language Education. We randomly search for theses submitted between 2014 – 2018 that use the experimental research method. To further filter our search, we applied two main criteria: 1) the title of the thesis contains the name of treatment used; and 2) the thesis was completed by eighth-semester students only, which can be indicated by their student ID number. We finally came up with 11 theses submitted in 2014, 10 theses submitted in 2015, 10 theses submitted in 2016, 10 theses submitted in 2017, and 12 theses submitted in 2018.

We classified the theses into several groups, such as skill and elements, types of sampling method, types of treatment, level of the school, types of the experimental method, and instruments used. All data is processed in Microsoft Excel both in the form of tables and graphs.

## Results

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### Language Skills and Elements

The students-researchers are encouraged to provide breakthroughs in teaching/researching their students to improve their English language skills. Hence, the skills and materials are the main variables that were modified by students-researchers in their theses. The data shows that for the last five years (2014 – 2018), *vocabulary* is the most 'favourite' skill chosen by students-researchers (26%; n = 53). The least favorite is *preposition* followed by *pronunciation*, with 2% and 4% respectively. *Reading* and *writing* become the second most common skills raised by students, each represents 25% of the total theses collected.

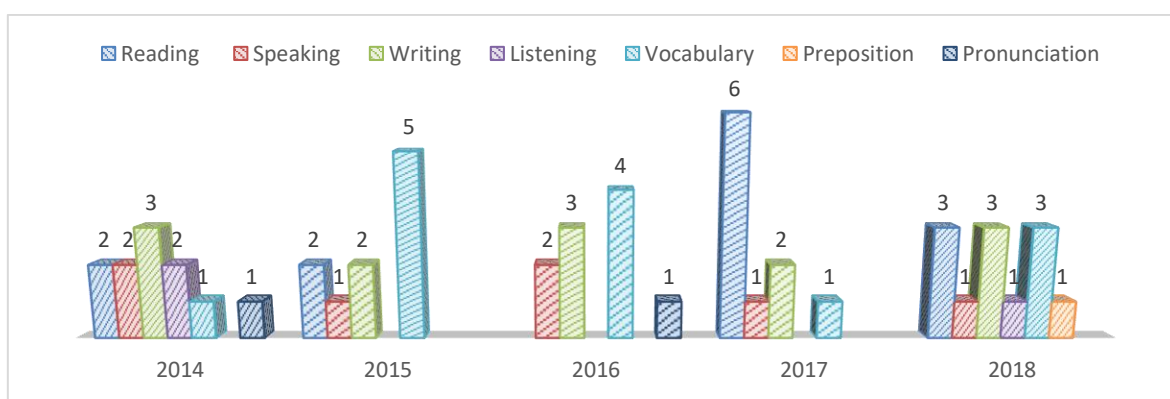
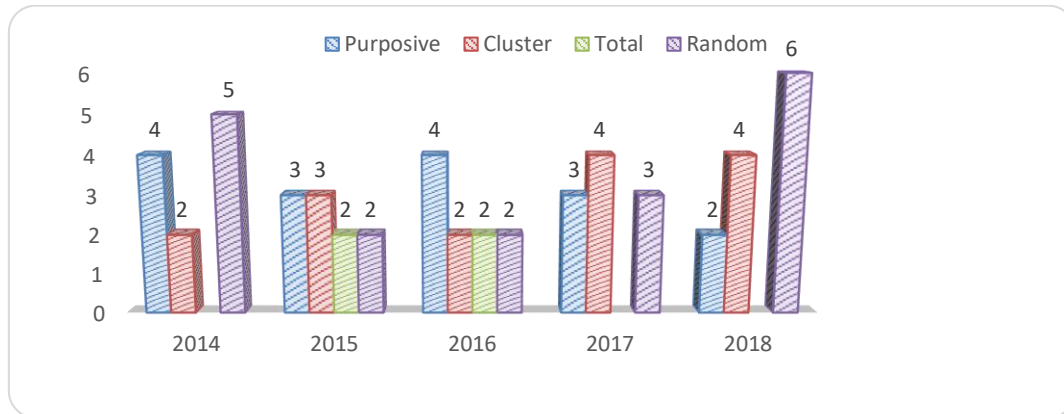


Figure 1. Skills and elements

## Sampling Method

There are only four types of samples that are generally used in students' theses. The results show that random sampling is the type of sampling most used in the thesis of 34%. In 2018, 6 theses used the sampling method. Then next by purposive sampling of 30% and cluster sampling of 28%. While the type of total sampling method used only two years, 2015-2016, it is not surprising that the total sampling in the lowest position, which is only 8%.

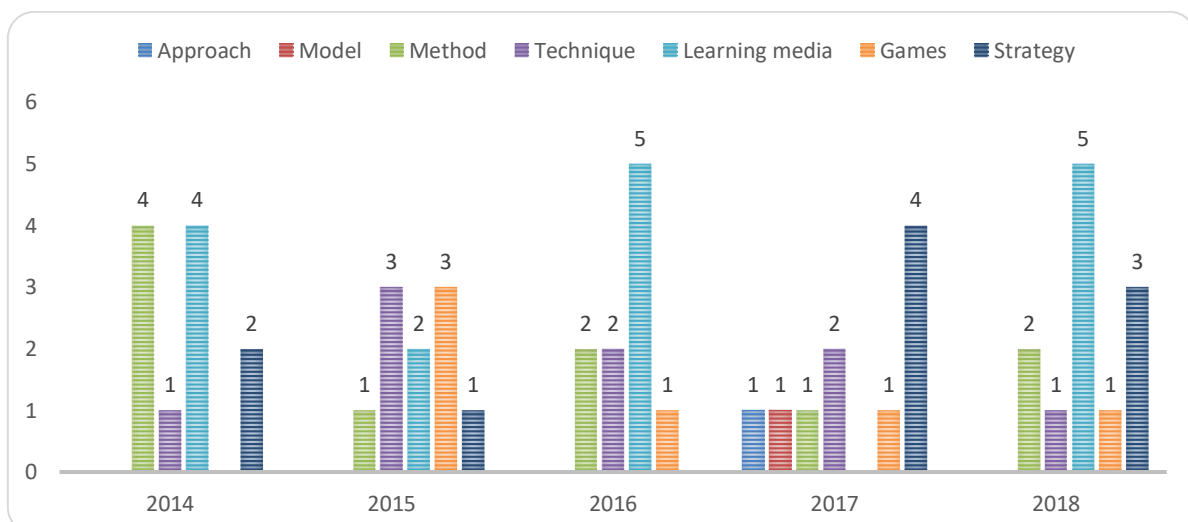


**Figure 2. Sampling Method**

## Treatment Used

Treatment is classified as approaches, models, methods, techniques, media, and strategies. Both learning media and strategies were mostly used by students in teaching the subject.

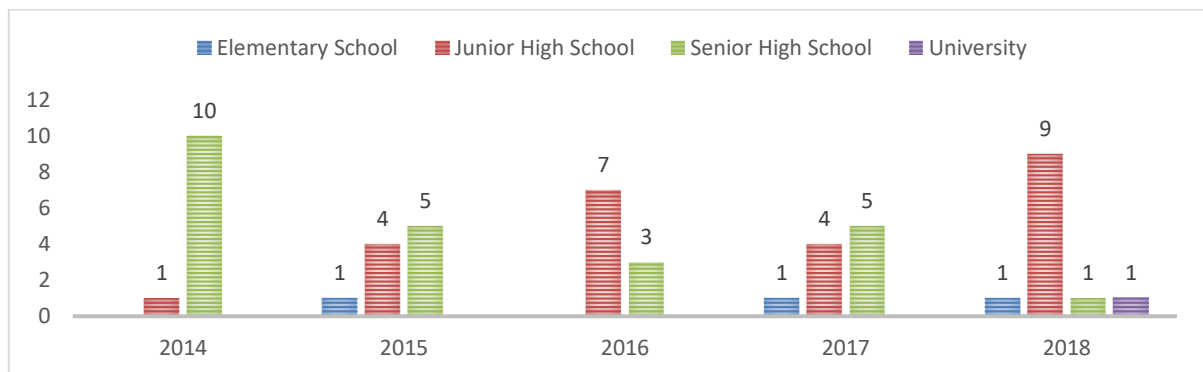
From seven types of treatment that using, approach and model only one year used of 2% in 2017 then followed by games of 11%. The use types of treatment games began in 2016. The next is strategy and method which has the same score of 19%. In 2016, there is No. used strategy. While learning media is the most used as the treatment of 30%. The most of learning media used are in 2016 and 2018 meanwhile in 2017 there is no use of learning media.



**Figure 3. Types of Treatment**

## Level of School

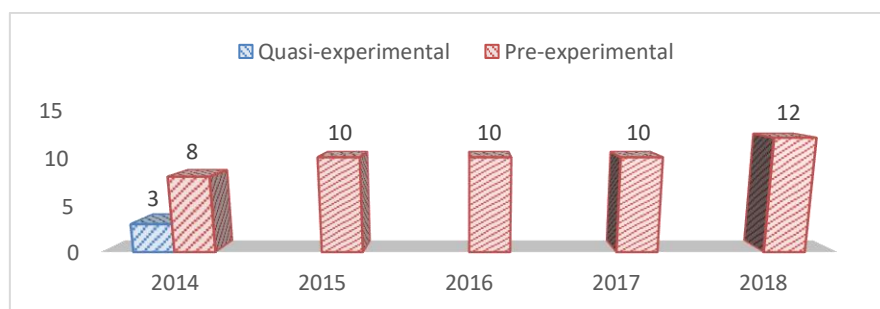
We also classified the location (i.e. level of school) of the conducted research and ended up with four categories: elementary school, middle school, high school, and college/university.



**Figure 4.** *Level of School*

## Types of Experimental

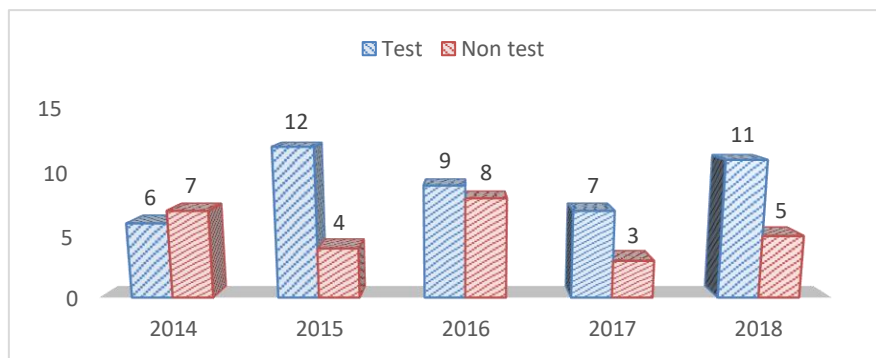
In the thesis analyzed, only two types of experimental research used in students' thesis. They are quasi-experimental and pre-experimental. In 2014, the use of quasi-experimental method tune of 6% beside pre-experimental method by 94%. The following Figure 5 shows the distribution of using the quasi-experimental method and pre-experimental method.



**Figure 5.** *Types of Experimental*

## Instruments

The test is the most popular instrument in this method by 68%, as normally the use of this method, in the beginning, requires the researchers to provide a test. The highest use of the instrument test in 2015 of 27% followed in 2018 by 24%. Compared to in 2014 was not lots of 13% followed in 2017 of 16% and 2016 20%. A while of non-test used only 32% because non-tests on this method as a supporting data. The highest only 30% in 2016 followed by 27% in 2014. The lowest use occurs in 2017 of 11% followed by 2015 of 15% and the last 2018 of 18%. Graph 6 showed distribution by using of instrument test and non-test.



**Figure 6.** Instruments

## Discussion

A total of 53 theses was detailed analysis written on English Language Education in Cokroaminoto Palopo University consist 2014-2018. The scope of the research is limited by using the treatment, instrument research, sampling method, the research subject as know as school. Based on the overall total 53 theses were analyzed consist 2014-2018 the result of each table showing vocabulary, random sampling, learning media, junior high school, pre-experimental, and test instruments dominated.

Based on findings, pre-experimental most widely used in five years compared to quasi-experimental was only used in 2014 as many as 3 theses. This is inversely proportional to the results of research conducted by Fauzi & Pardipta (2018) which shows the tendency of the use of experimental methods, namely quasi-experimental, to be followed by pre-experimental and finally true experimental. During the process of collecting data, it was not found that using true experimental for a period of five years.

Meanwhile, the test is a popular tool (62%) to use collect data. There are several types of tests used in theses that are analyzed such as essays, complete words, arranging words, fill in blanks, matching, letter arrangements, translate, question and answer, and multiple choices. In this case, every single thesis almost uses more than one instrument or at least two instruments. So from that other instruments used are also non-test such as questionnaire, documentation, interview, etc. The use of non-test instruments is only a little of 38%. This is based on the results examined by the test instrument is the most preferred by students to retrieve data on students at school. On the other hand, the questionnaire is an alternative data that is used. Research conducted by Goktas, et al. (2012), Fauzi & Pradipta (2018) presented the same results in this analysis that the most popular tests and questionnaires were used by research.

The results of the thesis that have been analyzed are only four subject studies, namely elementary school, junior high school, senior high school, and University. The focus of research at English Language Education students at Cokroaminoto Palopo University is more likely at the high school level especially junior high school. Because the knowledge of the pre-service teachers goes to the elementary school level. In addition, there are also research subjects from elementary school to the University level. At the University level, there is only one thesis. While the results of the analysis of the Biology Education Journal conducted by Fauzi & Pradipta (2018) also found the most popular used were senior high school students. On the other side, research by Goktas, et al. (2012) shows that researchers in Turkey mostly directed their research toward the tertiary (undergraduate). The reason is that it is easy to

reach sample populations and procedures for taking samples. As research by Ozmen et al. (2016) showed the same results as those conducted by Goktas, et al. (2012).

Four sampling techniques are popularly used, which are purposive, cluster, total and random sampling. Of the four techniques, the most frequently used random sampling (34%) over a period of 5 years. Meanwhile, the use of total sampling techniques is only available in 2015-2016 at 8%. On the other hand, in journal *Trends in Doctoral Research on Teaching English in Turkey* by Özmen, Cephe, Kınık (2016) shows that the sampling technique used is the most widely used. Meanwhile, in this study purposive was second in popular sampling techniques.

Treatment is a highlight in this study. Seven types of treatments found it like approaches, models, methods, techniques, learning media, games, and strategies. From the seven types of treatment, learning media is the most frequently liked by researchers within 5 years. Muhassanah & Imswatama (2016) presented contrasting results in this study which mentioned that learning models were most frequently used. Meanwhile, in this study, the learning model and approach were a less interesting treatment for students reflected by only used in one thesis.

## Conclusion

This study is content trending analysis research of thesis English Language Education study program in Universitas Cokroaminto Palopo. The result shows the trend is inconsistent. Because each year the usage changes. Sometimes in certain years the level of the trend of its use increase but in the following year, there is decrease even a stable one does not occur at all. In light of the above findings, the following notes are taken.

Therefore, it is recommended to use other types of experimental methods to increase knowledge. If a quota can be made in the use skill each year so that its use evenly distribute not only one skill that stands out. Moreover, in treatment, approaches and models are still rarely used so they need to be introduced and explored more frequently.

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