English Language Teaching Prima

Journal

Table of Contents

1

THE EFFECT OF QUANTUM TEACHING MODEL ON STUDENTS' ABILITY IN MASTERING CONDITIONAL SENTENCES AT THE THIRD SEMESTER STUDENTS OF ENGLISH DEPARTMENT FACULTY OF TEACHERS TRAINING AND EDUCATION OF HKBP NOMMENSEN UNIVERSITY MEDAN

YESSY OCTAVIANNA, M.Pd
UNIVERSITAS HKBP NOMMENSEN

ABSTRACT

This study uses quantitative that was conducted by using experimental design which is to find the effect of Quantum Teaching Model. The population of this study is the third semester students of FKIP UNIV.HKBP Nommensen Medan which consists of 3 classes. Random Sampling technique is taken to get representative sample and the students in group A and B as the sample of this study where in group A, the writer only chosen 19 students and group B only chosen 21 students. Finally the result of the study shows the result of the calculation of t-test is that t-observed value 3.913 with the degree of freedom (df) = 39 is higher than the value of t-table (2.042) at the level of significance 0, 05. Students' achievement taught by using Quantum teaching model was higher than students' achievement taught without using Quantum teaching model in which the mean score obtained from both of the experimental group (81.05) and the control group (66.14). The researcher gets the conclusion that Quantum teaching model is one of the ways that can be used to improve the students' ability in mastering conditional sentences in teaching and learning process, besides that also motivates and encourages them to deliver their ideas. In conclusion, those findings imply that the alternative hypothesis (Ha): Quantum Teaching Model effects on the students' ability in mastering Conditional Sentence is accepted. This research report is suggested for the English teacher to apply various media learning in the class and also for the students in English Department to improve their English grammar well.

INTRODUCTION

1.1 The Background of the Study

Language is one of tools in communication that human need to communicate each other in their daily life. Language is very important because it means of communication that human being to share their feeling, thought, opinion, suggestion, and used to express what they feel to each other.

The government of Indonesia decided that English is a second language in education. The government's decision make that the students ought to learn English, furthermore the others take private to improve their English language. The national education department has made competence standard in curriculum 2004, states that the students in Indonesia have to have capability in

understanding and giving information, idea, and improving knowledge, technology, and culture by using English.

According to Harmer (2001:12) stated that grammar of language is the description of the ways in which words can change the forms and can be combined into sentences in that language. If grammar rules are too carelessly violated, communication may suffer, although creating a good grammar rule is extremely difficult). Conditional sentence is a require sentence. Conditional sentences are a big obstacle to overcome for teachers and students of English as a second or foreign language (ESL/EFL). A Conditional Sentence contains two clauses, namely Main Clause/ Result clause (independent clause) and Sub – ordinate Clause (dependent clause, beginning with if). There are three types of conditional sentence, the first is type I open conditional (real present/ future condition), the second is type II present condition (Present unreal condition), and the last type III past condition (Past unreal condition). However, it is not easy to study conditional sentence for some students of Indonesia, because conditional sentences consists of two clauses and they are more complex syntactically than many other structures.

In this modern world, there are many professions that can be done. One of them is teaching. Teaching can be considered as a simple one. Like any other professions, that gives satisfactions, happiness and challenging. However, it does not happen to some teachers. Teaching students are not easy and make stress for some teachers. Some of them less in manage the class, less in creative idea and in lesson media. It shows that teachers have some difficulties in doing their profession. In another side, the education system, especially the teaching learning process can be one of the causes.

Based on the writer's experience when she did her Teaching in the class, she found that it was difficult to make students understand English grammar in reading texts well. They were confused how to differ the three types of Conditional Sentences in the texts and what is the meaning of that sentences. Consider to the situation, the researcher chooses an approach that is based on the use model of teaching as the core unit of planning and instruction in teaching grammar.

By the development of education, Quantum teaching model was presented by Bobby De Porter (The author of the best seller books Quantum Learning and Business), Mark Reardon and Sarah Singer-Nourieto help the teachers in doing their profession. De Porter, et.al(2004:3) stated that, "Quantum Teaching shows the teachers to be the better ones". It gives new ways that ease the teacher' teaching learning process through the combination of art and guided achievement whatever subject is taught. The model given to students should be clear and authentic to the life reality and have some information transfer so the students connect it to their real life. It is expected that by applying this model, students can interact in English that is not only as an academic subject but also as a real means of interaction. Therefore, the researcher interesting to know whether Quantum Teaching Models effects on the Students' Ability in Mastering Conditional Sentences.

1.2 The Problem of the Study

As related to the background of the study, the problem of the study is formulated as following:

"Does Quantum Teaching Model give any significantly effect on the students' ability in mastering Conditional Sentences?"

1.3 The Objective of the Study

The objective of the study is to find out and to ascertain whether the use of Quantum Teaching Model effect on the Students' Ability in Mastering Conditional Sentences.

1.4 The Scope of the Study

There are three types of conditional sentences, namely, real conditional which refers to the situation in the future, present unreal condition which refers to the situations in the present and past unreal conditional which refers to the situations in the past. In this study was focused on Quantum Teaching framework that by applying teaching learning process, namely: Enrol Experiences, Label, Demonstrate, Review and Celebrate.

1.5 The Significances of the Study

The finding of this study is expected to be useful for:

1. English teachers, to apply Quantum Teaching Model in their teaching learning process and expected to give contributions to help and develop their creativity and quality of teaching and learning.
2. The students, expected to be useful to increase their ability in using Conditional sentence and to motivate them in studying English, especially in conditional sentences.

REVIEW OF LITERATURE

2.1 Theoretical Framework

In conducting research, the terms and theories are needed to clarify in order to have clear concept of the implementation in this field and to explain some concepts or terms applied in the research concerned. The terms may function to give a limited concept that is specially meant in particular context. Therefore, the researcher and the reader may have same perception of them.

2.1.1 Classification of Sentences

According to Hurtik (1981:41) states, that there are four types of sentences based on the kinds and contents, namely:

1. The Simple Sentence: consists solely of one main clause. It is subject, verb, or complement may be compound, of course: but the simple sentence cannot be divided into two separate clauses, either main or subordinate.
2. The Compound Sentence: has two more main clauses but not subordinate clause, can be divided into two more simple sentence.
3. The Complex Sentence: consists of one main clause and one or more subordinate clause.

4. The Compound-Complex Sentence: has two or more main clause and like the complex sentence, it has one or more subordinate clause, occurs frequently both in conversation and writing.

2.1.2 Conditional Sentences

A conditional sentence describes the condition that is necessary for a particular result to occur, it consist of two clauses, namely: a dependent clause usually begins with "if" (or another conjunction performing the same general function) which expresses a condition and the independent clause as a main clause which expresses the result.

For Examples:
If the students study hard, they will pass the final examination
        Condition   Result
The example above shows that the result will be fulfilled if the condition happens.

2.1.2.1 Conditional Type I (Future Possible Condition)

It tells us that something will take place, if a certain condition is fulfilled. Conditional sentence type I is usually used when the speaker expresses an action or situation that usually occurs, or will occur if the circumstances in the main clause are met.

According to Thomson and Martinet (1985:197) stated that each kind of conditional sentences contains a different pair of tenses which certain variations are possible. According to Murthy (2003:177) states that, "this kind of conditional sentences expresses a future possible condition which refers to an action that may or may not take place in the future." The present tense of the verb is used in the if-clause and the future tense is used in the main clause as these following examples shown:
"If he comes, I will give him the message"
The sentence means that he does not come.

The general pattern of conditional type I as follows:

Table 2.2 The Pattern for Conditional Type I

If + subject + simple present tense + $\begin{Bmatrix} will \\ can \\ may \\ must \end{Bmatrix}$ + verb in simple form

The examples are:
"If you come early, we shall begin the work".
The sentence means that you do not come early.

2.1.2.2 Conditional Type II (Present – Unreal Condition)

Conditional sentence type ii is tell what we expect may not take place. Conditional sentences type II refers to situation in the present. The past tense of the verb is used in the if-clause, and the modals would, should and could are used in the main or answer clause.

Table 2.3 ThePattern for Conditional Type II

If + subject + simple past tense + $\begin{Bmatrix} would \\ could \\ might \end{Bmatrix}$ + verb in simple form

Example:
1. If I found her address, I would send her an invitation.
   The sentences mean that I do not find her address.

2.1.2.3 Conditional Type III (Past – Unreal Condition)

Conditional sentence is that something did not take place because a particular condition was not fulfilled. Conditional sentence type III indicates past time and treats an unreal and fulfilled situation. The past perfect tense is used in the if-clause, and could have, would have, or should have is used in the main or answer clause.

Table 2.4 ThePattern for Conditional Type III

If + subject + past perfect + ..., + $\begin{Bmatrix} would \\ could \\ might \end{Bmatrix}$ + have + verb in past participle

The examples are:
"If he had known that you were there, i would not have come yesterday."

The means that I did not know that you were here so I came yesterday.

RESEARCH METHOD
2.1 Research Design

The design of this research is quantitative that was conducted by using experimental design which is to find the effect of Quantum Teaching Model. According to Arikunto (2010:161-162) states that variable is an object of the research. In experiment research, there are two variables that called independent or affect variable and dependent variable.

In this research design, there are two groups of students, namely experimental group and control group. Both of groups are given pre-test and post-test. The experimental group teach by using Quantum Teaching Model while the control group is teaching by using conventional model teaching. The design is

apply in order to investigate the effect of Quantum Teaching on the students' Ability in Mastering Conditional Sentences.

2.2 Location of the Research

This research was conducted at Universitas HKBP Nommensen Medan. This campus is located at Jln. Sutomo No.4 Medan.

2.3 Population and Sample

2.3.1 Population

Arikunto (2010:173) stated that a population is all members of well-defined class of people or object. According to Best and Khan (2002:13), a population is any group of individuals that have one or more characteristics in common that are of interest to the researcher. In this study, population was the third semester students of English Department faculty of teacher training and education of HKBP Nommensen University Medan 2014/2015 which consist of three classes but the researcher only chosen two classes, there are group A and B.

2.3.2 Sample

Sample is a portion of population. According to Arikunto (2010:174) states that, "sample is a part or representative of population which is observed". In selecting the sample, the researcher used Random Sampling Technique as the sampling technique. According to Arikunto (2010:180) says that there are three techniques of random sampling namely: Lottery (Speculative), Ordinal (Same Level) and using Random Number Table. But, in this study the researcher used Lottery (Speculative) Sampling that using a shorts of paper that has written number of subject, after that the researcher roll the paper and then it is given to students.

In this study, the samples had taken two classes of all students of third semester students of English Department faculty of teacher training and education of HKBP Nommensen University Medan.They are group A and B, where the group A consist of 19 students and group B consists of 21 students. In this study, the writer did not choose all the students in the class, the writer chosen the sample randomly. One group is the experimental and the other is the control group.

3.4 The Instrument for Collecting Data

The researcher used test as an instrument concern with conditional sentences, which given the same test in pre-test and post-test to both of groups. The researcher used objective test in form multiple choices that the number of test consist of 20 items. The students were instructed to answer the questions about conditional sentences.

3.5 Procedure for Collecting Data

In order to get the data in this study, three procedures were taken by the researcher, namely: pre-test, the pre-test was given to both of groups (experimental group and control group) before the treatment. The pre-test was used to know the mean scores of the two groups before receiving treatment. The students were asked to answer the objective tests which are multiple choices. Then the students' answer was calculated to get the score both of groups, treatment (teaching presentation), and post-test, after giving the treatment, the researcher was given test to control and experimental group then the researcher was collected their scores in order to get the mean score between experimental and control group. Moreover, it purposes to know whether Quantum Teaching Model has a significant effect on the students' ability in mastering conditional sentences or not.

DATA AND DATA ANALYSIS
1.1 The Data

This research was conducted by using experimental group. There were two randomized groups used namely experimental group and the control group. The experimental group was taught by using Quantum Teaching while the control group was taught without using Quantum Teaching. The population of this research was the third semester students of English Department faculty of teacher training and education of HKBP Nommensen Medan. By using random samples, the samples were taken two classes namely group A for experimental group and group B for control group.

After applying the pre-test and the post-test to the experimental and control group, the researcher gained the students' score from the data which had been collected. The highest and the lowest pre-test scores in experimental group are 80 and 40, while in post-test are 100 and 65.

Whereas the highest and the lowest scores in control groups are 80 and 40, while in the post-test are 90 and 45.

1.2 Data Analysis

The data analysis of pre-test and post-test in both group, experimental and control are computed by applying t-test formula to prove hypothesis in this study. The following are scores of the pre-test and the post-test of experimental and control group:

Table 4.1 The Scores of the Pre-test and Post-test Experimental Group.

No	Students' name	Pre-test (x_1)	Post-test (X_2)	x_2-x_1 (d)	dx $(d - mx)$	dx^2
1	Hotdina sari Uli S	60	80	20	2.9	8.41
2	Diana Singian	80	100	20	2.9	8.41
3	RufinaRomauli P	75	90	15	-2.1	4.41
4	AnecEvalina H	60	80	20	2.9	8.41
5	Ronny Imawan S	75	90	15	-2.1	4.41
6	Crystalina S Sihite	60	85	25	7.9	62.41
7	LasriaSinaga	55	80	25	7.9	62.41
8	Rotua M Sianipar	65	85	20	2.9	8.41

9	RasniAdelina S	75	85	10	-7.1	50.41
10	Naomi D S Simamora	80	95	15	-2.1	4.41
11	HelminariaGirsang	60	85	25	7.9	62.41
12	Alfonso Sihombing	60	70	10	-7.1	50.41
13	YuliAnandaTarigan	60	70	10	-7.1	50.41
14	Anita Daeli	60	85	25	7.9	62.41
15	MardianaMarpaung	50	70	20	2.9	8.41
16	Riris	40	65	25	7.9	62.41
17	Dina Manurung	60	70	10	-7.1	50.41
18	YessyGustiSinaga	80	90	10	-7.1	50.41
19	EvanlaSitepu	60	65	5	-12.1	146.41
Total		1220	1540	325		765.79
Mean		63.94	81.05			

$$Mx = \frac{\Sigma d}{N}$$

Where:

Mx   = The mean of the experimental group
Σd =The standard deviation of experimental group
N   =The total number of samples

$$Mx = \frac{325}{19} = 17.1$$

The table shows that the total score in experimental group of pre-test (1220) and the mean score was (63.94), the total score in experimental group of post-test was (1540) and the mean score was (81.05), and the gap between the means of the score of pre-test and post-test was17.1. The range data of this data indicated that there was significant progress during teaching and learning using Quantum Teaching Model.

Table 4.2 Total Score of Pre-test and Post-test of Control Group

No	Students' Name	Pre-test (y_1)	Post-test (y_2)	y_2-y_1 (d)	Dy (d- my)	dy^2
1	Melda Lestari	60	70	10	3.6	12.96
2	SaulinaHandayani	60	60	0	-6.4	40.96
3	YuniNovalita	75	80	5	-1.4	1.96
4	Nelly	60	65	5	-1.4	1.96
5	Andina Gladys P	70	75	5	-1.4	1.96
6	Suriani P	55	60	5	-1.4	1.96
7	PosmaSiregar	70	75	5	-1.4	1.96
8	Dina Istani P	65	70	5	-1.4	1.96
9	HennyMarbun	50	50	0	-6.4	40.96

22

10	TiurmaSiboro	55	60	5	-1.4	1.96
11	Ryo Christian S	80	90	10	3.6	12.96
12	ErpinaSiburian	60	65	5	-1.4	1.96
13	JolisahSihombing	60	60	0	-6.4	40.96
14	SprianusSimarmata	50	60	10	3.6	12.96
15	RiceanEfendi P	65	70	5	-1.4	1.96
16	Melisa Sitanggang	80	85	5	-1.4	1.96
17	BinaMayhoney B	80	80	0	-6.4	40.96
18	SuryaniTambunan	40	45	5	-1.4	1.96
19	Benny Dian Sihotang	60	60	0	-6.4	40.96
20	TinerSihite	50	50	0	-6.4	40.96
21	AyuAndira S		50	50	43.6	1900.96
22	MitraMarlina	65	70	5	-1.4	1.96
Total		1315	1455	140		2209.12
Mean		62.62	66.14			

$$My = \frac{\sum^d}{N}$$

Where:

My = The mean of control group
$\sum^d$ = The standard deviation of control group
N = The total number of samples

$$My = \frac{140}{22} = 6.4$$

The table shows that in control group, the total score in the pre-test was (1315) and the mean score was (62.62) while the total score in post-test was (1455) and the mean score was (66.14). Thegap between the means score of pre-test and post-test was 3.52. The range of this data indicated that there was not improve significantly.

The result of the test is calculated by using t-test formula:

$$t = \frac{Mx - My}{\sqrt{\left(\frac{dx^2 + dy^2}{Nx - Ny - 2}\right)\left(\frac{1}{Nx} - \frac{1}{Ny}\right)}}$$

Where:

Mx = the mean of experimental group
My = the mean of control group
Dx^2 = the standard deviation of experimental group
Dy^2 = the standard deviation of control group
Nx = the total number of samples of experimental group
Ny = the total number of samples of control group

$$t = \frac{17.1 - 6.4}{\sqrt{\left(\frac{765.79 - 2209.12}{19 - 22 - 2}\right)\left(\frac{1}{19} - \frac{1}{22}\right)}}$$

$$t = \frac{10.7}{\sqrt{\left(\frac{2974.9}{39}\right)(0.098)}}$$

$$t = \frac{10.7}{\sqrt{(75.2794)(0.098)}}$$

$$t = \frac{10.7}{\sqrt{7.4753817}}$$

$$t = \frac{10.7}{2.734} = 3.913$$

Where:

Mx   : 17.1
Dx2 :765.79
My   : 6.4
Dy2 :2209.12
Nx   : 19
Ny   : 22
Ntable = 41
Df   = N-2
       = 39   (t-table at the level of significance 0.05 is (2.042)

From the criteria of the hypothesis, Ha is accepted if $t_{observed} > t_{table}$. From the calculation above, it is found the $t_{observed}$ higher than t_{table} or can be seen as follows:

$t_{observed} > t_{table}(p = 0, 01: df = 39)$

$\qquad$ 3.913>2.042(p = 0, 01: df= 39)

Thus, the alternative hypothesis (Ha) is accepted at the level of significance 0.01 for two tailed test and degree of freedom (df) = Nx + Ny – 2 – 39. It means that "There is a significant effect of using Quantum Teaching Model on the students' ability in mastering conditional sentences."

4.2.2 The Reliability of the Test

To obtain the reliability of the test, the researcher used Formula of RK-21,

$$r = \left(\frac{k}{k-1}\right)\left(1 - \frac{M(k-M)}{kVt}\right)$$

Where:

r   = The reliability of test
k   = Sum of question or test
M   = Mean of score
Vt   = Total variants

According to Arikunto (2002:160) states that V_t equal to S^2, because varians is squared of standard deviation of the test.

24

$$V_f = s^2$$

$$S = \frac{\sqrt{\sum(x)^2}}{N}$$

Where:

V_t = Total varians

S^2 = Squared of standard deviation of test

S = Deviation standard of test

$\sum(x)^2$ = Total Squared of standard deviation of test

N = Number of cases

By this calculation, the reliability of the test was 0.65. So based on the opinion of Aruan, the reliability of the test is high.

1.3 Testing Hypothesis

In this testing hypothesis, the formulas of t-test and distribution table of the critical values are applied. The formulas of t-test and distribution table of the critical values are used to see whether the hypothesis accepted. The calculation of t-test shows that t_{obs} is 3.913. The t_{table} in (df) 39 at the level significance 0.05 with the critical value is 2.042.

The result shows that t_{obs} is higher than t_{table}, it can be seen as follows:

$t_{observasi} > t_{table}$ (p =) with df (p=0.01; df = 39)

3.913 > 2.042 (p −0.05) with df (p=0.01; df − 39)

Therefore, the hypothesis of study is accepted.

1.4 Research Findings and Discussion

Based on the data analysis, the result of the research shows that mean score of the experimental group is higher than control group. The difference was tested by using t-test formula. After collecting and analyzing the data by using t test formula, the researcher found that the value of t-test (3.913) exceeds the value of t-table (2.042) with df −39 and the level of significance = 0.05, and the result of the reliability of the test is 0.65 which is in the high level. It indicates that the students' ability in mastering conditional sentences by using Quantum Teaching Model is higher than those taught without using Quantum Teaching Model.

CONCLUSION AND SUGGESTION
1.1 Conclusion

After applying Quantum Teaching Model in this research, it is known that based on data analysis, the result of the calculation of t-test is that t-observed value 3.913 with the degree of freedom (df) = 39 is higher than the value of t-table (2.042) at the level of significance 0,05. Students' achievement taught by using Quantum teaching model was higher than students' achievement taught without using Quantum teaching model in which the mean score obtained from both of the experimental group (81.05) and the control group (66.14). Based on the previous discussion, the researcher gets the conclusion that Quantum teaching model is one of the ways that can be used to improve the students' ability in mastering conditional sentences in teaching and learning process, besides that also motivates and encourages them to deliver their ideas. In conclusion, those findings imply

that the alternative hypothesis (Ha): Quantum Teaching Model affects on the students' ability in mastering Conditional Sentence is accepted.

REFERENCES

A'la, Miftahul. 2010. *Quantum Teaching.*Jogyakarta: Diva Press.

Arikunto, Suharsimi. 2002. *Prosedur Penelitian. Suatu Pendekatan Praktek.* 5th ed. Jakarta: Rineka Cipta.

_____ . 2010. *ProsedurPenelitian.Suatu Pendekatan Praktik. Edisi Revisi 2010.* Jakarta: RinekaCipta.

Brown, H. D. 2000. *Principle of Language Learning and Teaching.* New York: Longman.

De Porter, et.al. 1990. *Quantum Teaching.* Translated by Ari Nilandari. 2004. Bandung: Kaifa.

Essential English Course. 2002. *Essential English Grammar. DasarPenguasaan Tata BahasaInggris.* 3rd ed. Medan: Essential.

Harmer, Jeremy. 2001. *The Practice of English Language Teaching.* 3rded. Cambrige: Longman.

_____ . 1998. *How to Teach English.* New York: Longman.

Hurtik, Emil. 1981. *Sentence Structure Style.* New York: Harper & Row.

Istarani. 2012. *58 Model PembelajaranInovatif. Referensi Guru DalamMenentukan Model Pembelajaran.* Medan: Media Persada.

Murthy, Jayanthi. Daksina. 1998. *Contemporary English Grammar.* New Delhi: Book Place.

Oshima, Alice and Ann. Hogue. 1997. *Introduction to Academic Writing.* 2nded: Longman.

Pardede, M. T. 2008. The Effect of Quantum Teaching Model on Students Ability in Mastery in Conditional Sentence.*Thesis.* Medan: UNIMED.

Putra, Ridho. 2012. The Effect of Appliying Quantum Teaching Model On Student's Mastery in Conditional Sentence.*Thesis.* Medan: UNIMED.

Sudijono, Anas. 2011. *PengantarEvaluasiPendidikan.* Jakarta: Rajawali Pers.

Thomson, A. J. and A. V. Martinet. 1986. *A Practical English Grammar.* 4thed: Oxford University.