

**AN EXPERIMENTAL STUDY ON THE EFFECTIVENESS
OF POWERPOINT PRESENTATION
IN TEACHING PREPOSITIONS**

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**UNIVERSITI UTARA MALAYSIA
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AN EXPERIMENTAL STUDY ON THE EFFECTIVENESS
OF POWERPOINT PRESENTATION
IN TEACHING PREPOSITIONS

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THIS MASTERS PROJECT SUBMITTED TO UUM COLLEGE OF ARTS AND SCIENCES,
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UNIVERSITI UTARA MALAYSIA

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DECLARATION

I hereby declare that the work in this assignment is my own except for quotations and summaries which have been duly acknowledged.

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AN EXPERIMENTAL STUDY ON THE EFFECTIVENESS OF POWERPOINT PRESENTATION IN TEACHING PREPOSITIONS

ABSTRACT

The purpose of this study was to assess the effects of PowerPoint presentation on students' learning outcomes in learning prepositions. The learning outcomes were divided in three different levels and were drawn from English Language Form Four Curriculum Specifications by Curriculum Development Centre, Ministry of Education, Malaysia, 2003. This study also wanted to investigate whether has any significant difference or not on students' learning outcomes when using this instructional tool. This study used pretest and posttest as instrument in data collection. For the purpose of this study, the researcher has modified this three learning outcomes as Level 1 (to identify the suitable prepositions); Level 2 (to differentiate the prepositions), and Level 3 (to apply the suitable prepositions). In this study, the experimental design was true experiment and used convenience sampling. The sample was selected based on random assignment. The sample in this study were 32 form four male students from secondary school. Group 1, the experimental group had an N of 16 and received the PowerPoint presentation in learning prepositions. Group 2, the control, had an N of 16 and received the traditional teaching presentation in learning prepositions. The results showed that PowerPoint presentation looked more effective compared to the traditional teaching method. The students' learning outcomes of the experimental group was improved compared to the control group. This findings were approved in the data analysis through T-Test. The T-Test's results proved that all the null hypotheses were rejected in this study.

SATU KAJIAN EKPERIMENTAL TERHADAP KEBERKESANAN PERSEMBAHAN POWERPOINT DI DALAM PENGAJARAN ‘KATA SENDI’

ABSTRAK

Kajian ini bertujuan menilai kesan-kesan persembahan PowerPoint terhadap hasil pembelajaran pelajar dalam pembelajaran ‘kata sendi’ (*prepositions*) Bahasa Inggeris. Hasil pembelajaran telah dibahagikan kepada tiga jenis tahap dan ianya diadaptasikan daripada Huraian Sukatan Pelajaran Bahasa Inggeris Tingkatan Empat, yang dihasilkan oleh Pusat Perkembangan Kurikulum, Kementerian Pelajaran Malaysia, 2003. Kajian ini juga bertujuan untuk menyiasat adakah terdapat perbezaan signifikan terhadap hasil pembelajaran pelajar apabila menggunakan persembahan PowerPoint di dalam pembelajaran kata sendi. Ujian pra dan ujian pasca digunakan sebagai instrument pengumpulan data. Bagi tujuan kajian ini, penyelidik telah mengubahsuai hasil pembelajaran tersebut sebagai Tahap 1 (mengenalpasti ‘kata sendi’ yang sesuai), Tahap 2 (dapat membezakan ‘kata sendi’) dan Tahap 3 (mengaplikan ‘kata sendi’ yang sesuai). Kajian ini yang berbentuk eksperimen sebenar dan menggunakan persampelan mudah. Sampel yang dipilih untuk kajian adalah berdasarkan rawak. Sampel ini terdiri daripada 32 orang pelajar lelaki daripada sebuah sekolah menengah. Kumpulan 1 iaitu kumpulan eksperimen berjumlah 16 orang dan menerima pengajaran ‘kata sendi’ dengan menggunakan persembahan PowerPoint. Manakala kumpulan 2 iaitu kumpulan kawalan yang terdiri daripada 16 orang pelajar menerima pembelajaran ‘kata sendi’ secara pengajaran tradisional. Hasil daripada kajian ini telah membuktikan persembahan PowerPoint lebih menampakkan keberkesanan berbanding persembahan pengajaran secara tradisional. Didapati hasil pembelajaran pelajar daripada kumpulan rawatan (eksperimen) lebih baik berbanding kumpulan kawalan. Ini semuanya dibuktikan di dalam analisa data melalui ujian T. Berdasarkan ujian T, kesemua hipotesis null telah ditolak di dalam kajian ini.

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Finally, a word of thanks to my wife and my beautiful daughters, you are the reasons which have enabled me to meet all the challenges and occasionally to turn what I perceive as impossible into a possible one.

DEDICATION

SPECIAL FOR

MY LOVE AND KIND WIFE

Nor Afiza Binti Ismail

(You are my inspiration, motivation and success)

TO

MY BEAUTIFUL DAUGHTERS

Nur Muyassarrah Helmi

Nur Naurah Syibrah Helmi

Nur Naurah Nasirah Helmi

(Our Future Excellence)

MY DEDICATED FATHER AND MOTHER

Kasim Bin Din

Harisom Binti Hussin

(Thank you for everything)

MY DEDICATED FATHER AND MOTHER IN LAW

Ismail Bin Ishak

Halijah Binti Othman

(Thank you for supporting us)

To my brother and sister in law, our colleagues and UUM lectures

Alhamdulillah

TABLE OF CONTENTS

DECLARATION	i
PERMISSION TO USE	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT (English Version)	v
ABSTRACT (BM Version)	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xii
LIST OF FIGURES	xiv
	PAGE
CHAPTER I INTRODUCTION	
1.1 Introduction	1
1.2 Background of the Study	5
1.3 Statement of the Problem	6
1.4 Objectives of the Study	8
1.5 Research Questions	9
1.6 Hypotheses of the Study	9
1.7 Research Framework	10
1.8 Significance of the Study	11

1.9	Limitation of the Study	11
1.10	Chapter Summary	12

CHAPTER II LITERATURE REVIEW

2.1	Introduction	13
2.2	Important Concepts of the Study	14
2.2.1	Presentation Software	14
2.2.2	Traditional Teaching	15
2.2.3	Learning Outcomes	16
2.3	Definition of Key Terms	17
2.3.1	Constructing Learning Outcomes (LO)	17
2.3.2	The Outcomes Approach to Learning	18
2.3.3	The Theory of Constructive Alignment	18
2.3.4	Constructivist Teaching Approach	20
2.3.5	Learning Theories	22
2.3.6	Learning Styles	25
2.3.7	Integrating Technology and Digital Media in the Classroom	25
2.3.8	Previous Studies About PowerPoint Presentation	26
2.4	Chapter Summary	29

CHAPTER III RESEARCH METHODOLOGY

3.1	Introduction	30
3.1	The Research's Procedures	30
3.2.1	The Researcher's Roles in the Study	32
3.3	Research Design	32
3.4	Sample of the Study	34
3.5	Research Instrument	35
3.5.1	Pretest and Posttest Questions	35
3.5.2	Reliability and Validity	37
3.6	Pilot Study	38
3.7	The Data Collection Procedures	41
3.8	The Data Analysis Method	44
3.9	Chapter Summary	46

CHAPTER IV DATA ANALYSIS AND FINDINGS

4.1	Introduction	47
4.2	Respondent's Profile	47
4.3	Hypotheses Testing	48
4.4	The effects of using PowerPoint presentation on students' learning outcomes (Level 1, Level 2, and Level 3 Learning Outcomes)	49
4.5	The effects of using traditional teaching presentation on students' learning outcomes (Level 1, Level 2, and Level 3 Learning Outcomes)	51
4.6	Finding on Ho1	53

4.7	To determine the learning outcomes derived from PowerPoint presentation in the experimental group (Level 1 and Level 2 Learning Outcomes)	54
4.8	To determine the learning outcomes derived from traditional teaching presentation in the control group (Level 1 and Level 2 Learning Outcomes)	56
4.9	Finding on Ho2	58
4.10	To investigate whether the significant difference or not by using PowerPoint presentation in learning prepositions (Level 2 and Level 3 Learning Outcomes)	59
4.11	Finding on Ho3	61
4.12	Chapter Summary	61

CHAPTER V DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1	Introduction	62
5.2	Summary of the Study	62
5.3	Findings and Discussions from The Study	64
5.3.1	Assessing the effects of PowerPoint presentation and traditional teaching presentation on students learning outcomes	64
5.3.2	Determining the learning outcomes derived from PowerPoint presentation and traditional teaching presentation	65
5.3.3	Investigating whether PowerPoint presentation has significant difference or not in learning prepositions	66
5.4	Implications from The Study	67
5.5	Recommendations for Future Study	68
5.6	Conclusion	69

REFERENCES	70
APPENDIX A: PRETEST QUESTIONS	75
APPENDIX B: POSTTEST QUESTIONS	78
APPENDIX C: ANSWERS FOR PRETEST AND POSTTEST	81
APPENDIX D: APPROVAL LETTER FROM BAHAGIAN PERANCANGAN DASAR PENDIDIKAN, KEMENTERIAN PELAJARAN MALAYSIA	84
APPENDIX E: APPROVAL LETTER FROM PERLIS STATE EDUCATION DEPARTMENT	85
APPENDIX F: STATISTICS OUTPUT	86

LIST OF TABLES

Table	Title	Page
Table 2.0	A Look at the School Environment	21
Table 3.0	Summary of Generalizability Study Results	40
Table 3.1	Reliability Result	40
Table 3.2	Procedure of the Two Phases	43
Table 3.3	Summary of the experimental study	45
Table 4.1	Distribution of respondents by PMR English results	48
Table 4.2 (a)	The T-Test of Paired Samples Statistics for the experimental group	49
Table 4.2 (b)	The Paired Samples T-Test of Pre and Post Test for the experimental group	50
Table 4.3 (a)	The T-Test of Paired Samples Statistics for the control group	51
Table 4.3 (b)	The Paired Samples T-Test of Pre and Post Test for the control group	52
Table 4.3 (c)	The T-Test of Group Statistics for the both groups	53
Table 4.4 (a)	The T-Test of Paired Samples Statistics for the experimental group	54
Table 4.4 (b)	The Paired Samples T-Test of Pre and Post Test for the experimental group	55
Table 4.5 (a)	T-Test of Paired Samples Statistics for the control group	56

Table 4.5 (b)	The Paired Samples T-Test of Pre and Post Test for the control group	57
Table 4.5 (c)	The T-Test of Group Statistics for both groups	58
Table 4.6 (a)	Paired Samples Statistics for the experimental group	59
Table 4.6 (b)	The Paired Samples T-Test of Pre and Post Test for the experimental group	60

LIST OF FIGURES

Figure	Title	Page
1.0	Research Framework of the Study	10
2.0	The Directed Instruction Model (Skinner, 1938)	16

CHAPTER I

INTRODUCTION

1.1 Introduction

English Language is considered as a very important subject in secondary schools in Malaysia. However, the standard of achievement among the students was not encouraging especially in most urban secondary schools. Results from Government Examinations such as Penilaian Menengah Rendah (PMR) and Sijil Pelajaran Malaysia (SPM) have shown that students in secondary schools performed poorly in English Language subject. Many efforts such as 'Extra English Classes', 'English Camp', 'English Week', and 'English Answering Technique' have taken by schools and Education Departments to improve students' performance and achievement in the subject.

Despite this efforts, the results were still not very encouraging. The former Minister of Education, Dato' Hishamuddin Tun Hussein (2005) stated that the level of achievement among the secondary schools students in English Language were still unsatisfactory. Many students were still facing problems in speaking and writing in English due to the lack interest and exposure to the language. Thus, the students who got below average in their PMR English Language subject, tended to repeat the same situation in SPM Examination. Therefore, multimedia technology such as PowerPoint presentation in grammar learning can be one of the approaches to enhance the

students' learning outcomes in the subject. Nowadays, multimedia has played a vital role in supporting the learning process.

Chuang and Chen (2009) suggested that the use of multimedia in education has significantly changed people's learning processes. Furthermore, results from a number of research studies indicates that appropriately designed multimedia instruction enhances students' learning performance in Science, Mathematics, and Literacy. Some previous research has explored the potential benefits of PowerPoint as an interactive learning tool (Nail, 2006).

Shelly, Cashman, Gunter, and Gunter (2006) defined that the definition of PowerPoint (Microsoft) is presentation graphic program that allow teachers and students to create multimedia presentations that can incorporate text, graphics, animation, audio, video, links, most importantly interactivity. Debevec, Shih, and Kashyap (2006) said this new technology also offer new learning strategies for students who do not perform well as well using traditional method. For example, if a student is weak in verbal and linguistic ability or is lacking in motivation, the instructor may use visual cues in PowerPoint to help students grasp and conceptualize information and generate interest in the subject matter. Besides that, with computer assisted instruction, instructors can provide different ways of learning besides traditional learning methods.

Nail (2006) added that PowerPoint is a common tool in many of today's classrooms. Jones (2004) has stated some good reasons to use PowerPoint in teaching and learning. One of the reasons is appropriate use of PowerPoint can enhance the

teaching and learning experience for both staff and students. Clark (2008) stated that PowerPoint used as a presentation tool in university lectures, is pedagogically effective only while it provides variety and stimulates interest in the learning environment. She added that stimulation can be increased if PowerPoint is used to bridge the direct and constructivist teaching models.

Blalock and Montgomery (2005) in their study had mentioned a few relevance theories on PowerPoint effects. One of the theories is Dual-Coding Theory. Dual Coding theory proposes that memory consists of two separate but interrelated codes for processing information systems - one verbal and the other visual. This theory predicts that learning improves when both systems are employed. Again, the proponents of this theory would predict better learning from multimedia presentations than traditional presentations. Trindade, Fiolhais, and Almeida (2002) proposed that students learn better from processes that are sensory, visual, inductive, and active, while lectures tend to be verbal, deductive, and passive.

The key element in the use of PowerPoint as a presentation tool and its potential to increase and maintain student interest and attention to the lecture when combined with active teaching and student involvement. From the above explanation stated by previous researchers, this study again will focus on the effects of PowerPoint Presentation on students' learning outcomes. This study also will further the previous studies about the use of multimedia technology in enhancing learning outcomes.

The Malaysian government has introduced various initiatives to facilitate greater integration of information and communication technology (ICT) to enhance the effectiveness of our educational field. This was outlined in the country's ICT Master Plan, which finalized in 2001. The long term vision of the plan, *Vision 2020*, calls for sustained, productivity-driven growth, possible only with a technologically literate, critically thinking workforce, prepared to participate in the global economy of the 21st century.

In order to support "Vision 2020", the education system has to be transformed. Transforming the educational system will entail changing the culture and practices of Malaysia's primary and secondary schools, moving away from memory-based learning to an education that stimulates thinking, creativity, caters to individual abilities and learning styles, and based on a more equitable access. Salbiah Ismail (2003) stated that since the early 1970's the Malaysian government has introduced various initiatives to facilitate the greater adoption of ICT to improve capabilities in every field including education.

In the Malaysian context, ICT refers to tools and enablers to make learning more interesting motivating, stimulating, and meaningful to the children (Salbiah Ismail, 2003). The development of ICT in Malaysia has contributed towards computer literacy among Malaysian students.

Chan Foong Mae (2001) also stated that the Ministry of Education (MOE) has formulated three main policies for ICT in education. The first policy is that of ICT for all students. The second policy emphasizes the role and function of ICT in education

as a teaching and learning tool, as part of a subject, and as a subject by itself. The third policy stresses using ICT to increase productivity, efficiency and effectiveness of the management system. Nowadays, computer literacy elements have been used intensively in many schools. Many types of educational software and ICT subjects were introduced and taught in secondary schools. Generally, the concept of ICT in education, as seen by the Ministry of Education, includes the systems that enable information gathering, management, manipulation, access, and communication in various forms. From the statement above, we can see how important the ICT applications in our educational system.

1.2 Background of the Study

Recently, many secondary school students in Perlis faced major difficulties in mastering English Language subject. A few factors such as different family background, cultures, education, and language proficiency influenced students achievement in English Language subject. Most of the students are reluctant to speak or communicate English outside the classroom. Nor Hashimah Jalaluddin, Norsinah Mat Awal, and Kesumawati Abu Bakar (2009) mentioned that lot of researches have been conducted on the performance of students in English Language subject.

Most of the studies tried to explore the reasons behind students' poor command of the English language by looking at factors such as attitude, perception and environment. Noreiny Maarof (2003) found that Malaysian students are embarrassed to use English. In her study, the fact that their environment did not promote the use of English fueled their hesitation to use the language. This problem

persists when the medium of communication among students continue to be their mother tongue and not English. All the factors above will affect the students' performance and achievement in the examinations totally.

1.3 Statement of the Problem

The grammar part seems to be dominant in order to be an excellent in English. The lack of grammatical foundation can directly affected the students' perceptions and learning outcomes in the subject. Students in secondary schools were faced a lot of problems with their English in terms of grammar and vocabulary.

The level of their English fluency and proficiency were low. Continuous observation revealed that this situation existed due to the lack of exposure to English in their daily life, as well as lack of interest in learning and using English.

Furthermore, the students do not have much interest in reading materials in English Language because they do not understand what is being read. Therefore, it is hoped that by integrating multimedia learning like PowerPoint presentation can improve and enhance student learning outcomes in English Language.

Nor Hashimah Jalaluddin et al. (2008) conducted a study on 315 students, found that the most obvious students' weaknesses were in the area of grammar, particularly in the aspects of morphology and syntax. They added some of the grammatical categories were affixes, adverbs, adjectives, plural forms, copula, subject-verb agreement.

Hazita Azman (2006) indicated that the students' weaknesses in English Language attributed to geographical location and ethnic. Khazriyati, Tan Kim Hua, and Marlyna (2006) observed the occurrence of mistakes in "subject-verb agreement" (SVA) and copula 'be'. The findings of the research showed that 46.83% were mistakes on subject-verb agreement.

A survey by the researcher in the participating school examination reports on the three consecutive years; 2006, 2007 and 2008, the percentages of passing in SPM English Language Paper among vocational students were 56.15 % (2006), 60.7 % (2007), and 53.2 % (2008). The results indicate a quite low achievement among vocational students. Besides that, based from average minimum grade analyses on SPM Examination result in 2007, the vocational school was on the 62 position from total vocational schools in Malaysia.

The students assumed that English Language subject looked difficult and burden for them. From the researcher observation, majority of the vocational students in the school were poor in grammar. Because of this factor, majority of them couldn't write and answer well in the SPM English Language Examination Paper. Therefore, if the students are lacking of English Language grammar, as a result this will affect their overall English Language examination grade. Furthermore, after completing their SPM examination, others factors such as an opportunity to further studies at a higher level and job opportunity after completing their diplomas need to be considered.

The researcher looked this matter as one of the students' weaknesses and that must be solved. Therefore, as one of English Language teachers in the participating

school, the researcher wants to assess the effects of PowerPoint presentation as an instructional learning tool in achieving students learning outcomes on learning grammar. In this study, the researcher focuses only on the prepositions item.

For the researcher, assessment and determination about prepositions is very important especially when it effect or influence the students learning outcomes in English Language subject. At present, majority of English Language teachers were using face-to-face teaching and paper-based learning. I am also hoping that this experimental study will be able to bring a few positive impacts for students and teachers in the school.

1.4 Objectives of the Study

The following are the main objectives of the study:

- 14.1** assess the effects of PowerPoint presentation and traditional teaching presentation on students' learning outcomes.
- 14.2** determine the learning outcomes derived from PowerPoint presentation and traditional teaching presentation.
- 14.3** investigate whether PowerPoint presentation has significantly difference or not in learning prepositions.

1.5 Research Questions

In this experimental study, the research questions to be answered in this study are as follows:

- 1.51 What are the effects of using PowerPoint presentation and traditional teaching presentation on students' learning outcomes?
- 1.52 How are the learning outcomes derived from the PowerPoint presentation and traditional teaching presentation?
- 1.53 Is the PowerPoint presentation has significantly difference or not in learning prepositions

1.6 Hypotheses of the Study

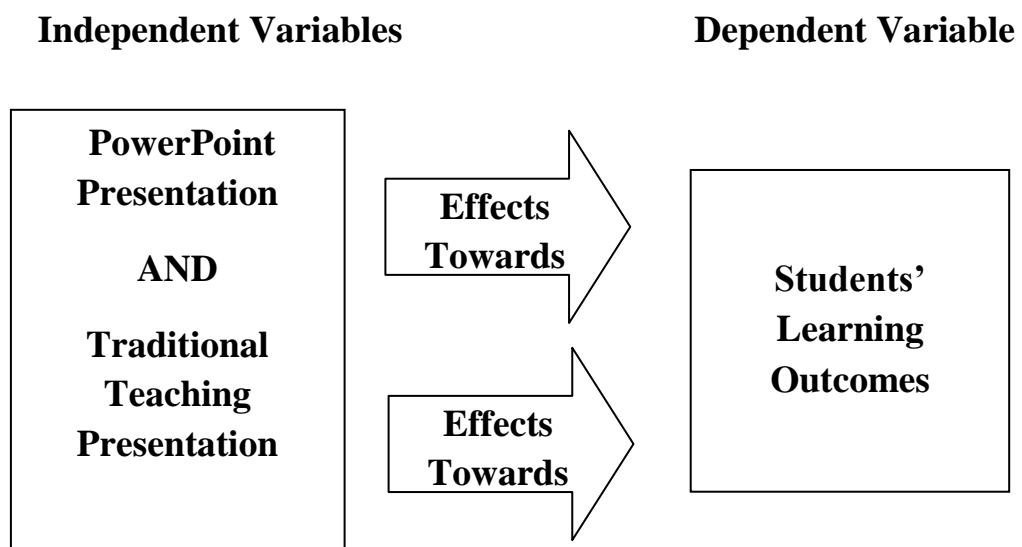
Below are the null hypotheses which will be examined in this study:

- Hypothesis Ho1** There are no effects when using PowerPoint presentation in the students' learning outcomes.
- Hypothesis Ho2** There are no learning outcomes derived from the PowerPoint presentation.
- Hypothesis Ho3** There is no significant difference by using PowerPoint presentation in learning prepositions.

1.7 Research Framework

This research is an experimental study. The purpose of this study is to assess the effects of PowerPoint presentation on students' learning outcomes in English prepositions learning in form four in one secondary school. The framework of the research is shown in figure 1.0

Figure 1.0 Research Framework of the Study



Based from the above framework, researcher used two types of variables in the study. The independent variables are PowerPoint presentation and traditional teaching presentation. The students' learning outcomes is the dependent variable. The researcher also wanted to investigate whether there is a significant difference between the treatment (experimental group) and observed outcomes (students' learning outcomes).

1.8 Significance of the Study

This study benefits the participating school, the subject teacher as well as the sample of the study. The participating school will benefit because the results will be a guideline for teachers to determine the difficulties encountered by the students in learning grammar. The teachers can find ways to overcome or solve the difficulties by improving their teaching methods. The subject teacher also will benefit since he is actively involved in the study. He will discover some of the problems faced by the students and continued to rectify the problems.

The sample can gain a lot of benefits because they will be exposed to use PowerPoint in learning and teach them to search the relevant materials from the web sites. It gives the student flexibility in constructing their English language learning.

It is also hoped that by integrating this kind of technology can enhance students learning outcomes in English Language subject. This is a possibility that the success of those few will be extended to other learning areas. Therefore, this will also help the school administration to overcome the problems of low English proficiency students in secondary schools.

1.9 Limitation of the Study

This study is limited in several factors. Firstly, the size of the sample is small. The research was conducted only in one Form 4 class in a secondary school. It is an experimental research and the data which were collected and analyzed to represent the

school's population only. The main source of data for the instrument was totally from the sample (experimental group and control group).

Therefore, the generalizability of the results was also limited by a small scale of the study. There might be extraneous variables that invariably affected the findings such as the cultural and educational background of the students, thus affecting the reliability of the findings. Other important factor was time constraint. It was impossible for researcher to carry out an extensive study in such a short period of time. The duration given was three months to complete the study.

The researcher assumed that two tests can only be conducted to the participants within the study duration. The subjects were not able to get enough exercises in the class. Sometimes, a few respondents from the sample were absent during the study. Due to the time constraint, the actual time was needed for each exercise had to be shortened and this might have effects on the students learning outcomes.

1.10 Chapter Summary

In this study, the researcher tried to obtain as much as possible data from the sample. Even though this experimental research looked difficult to implement but the results and findings will expose the school administration the way to enhance students learning in English Language and bring benefits to all students in the school. This study also supported the previous studies which recommended to further study in this area.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter discusses about literature matters and reviews relevance empirical research about the effects of presentation software in English teaching and learning on students learning outcomes. More specifically, the purpose of this literature review is to identify and clarify theories and research findings that are applicable to and closely related to the research questions in this study. In this chapter, the researcher firstly explains the three important concepts of the study such as the presentation software, traditional teaching method, and learning outcomes in order to provide a general understanding about the study to the readers. Then, the researcher provides a brief overview of the definition of key terms such as constructing learning outcomes (LO), outcomes approach to learning, learning styles, the theory of constructive alignment, learning theories, constructivist teaching approach, integrating technology and digital media in the classroom, and lastly about previous studies on PowerPoint presentation. The literature suggests that there is a need to integrate multimedia elements into teaching, as there are positive impacts on students.

2.2 Important Concepts of the Study

In this study, the researcher has stated three important concepts which have been used to clarify the actual meaning to the readers. These concepts also clarify on variables which are relevant to the study. The important concepts were presentation software, traditional teaching method, and learning outcomes.

2.2.1 Presentation Software

Presentation software is ubiquitous. Presentation software is a presentation graphics program that allows teachers and students to create multimedia presentations that can incorporate text, graphics, video, animation, audio, link and most importantly interactivity. PowerPoint and other presentation software provide a useful composing environment for students. With presentation software, students can use multiple sources of information as they build an understanding of the topics they are studying. For example, students can import sound clips, video clips, image files, and alphabetic text in creative ways that encourage active learning.

With presentation software, a computer, and a microphone, students can polish their oral presentations by recording their voices and setting the timer feature to automatically advance slides. When students use the audio capabilities of PowerPoint, they can rehearse, record multiple versions, and practice their speaking skills, as well. Once students have completed their presentations, there are several ways their work can be shared.

If the students have a class blog or access to a discussion forum, students can upload for viewing by others when they have time as homework.

2.2.2 Traditional Teaching Method

Traditional teaching is concerned with the teacher being the controller of the learning environment. Power and responsibility are held by the teacher and they play the role of instructor (in the form of lectures) and decision maker (in regards to curriculum content and specific outcomes). They regard students as having 'knowledge holes' that need to be filled with information. In short, the traditional teacher views that it is the teacher that causes learning to occur (Novak & Govin, 1998).

The traditional method or “teacher centered” are that teachers carry much of responsibilities for teaching in the classroom to make sure everything they thought were understood by the students. This method where there was efficient communication between teacher and students. There was also the typical way and a controllable class where the teacher would teach on the blackboard, explained, asks students to copy and made sure students paid attention and listen. The researcher found that the traditional teaching method looked dominant in the pre-technology education context because the teacher is the sender or the source of information. In terms of the delivery medium, the educator can deliver the message via the “chalk-and-talk” method and is one way flow of information.

This directed instruction model has its foundations embedded in the behavioral learning perspective proposed by Skinner (1938) and it is a popular technique, which has been used for decades as an instructional strategy in all institutions of learning as described as in figure 2.0.

Figure 2.0 The Directed Instruction Model (Skinner, 1938)



2.2.3 Learning Outcomes

A learning outcome is a statement of what the learner is expected to know, understand and/or be able to do at the end of a period of learning. A survey of literature on learning outcomes comes up with a number of similar definitions of the term:

- Learning outcomes are statement of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning (ECTS Users' Guide, 2005).
- A term outcomes is a statement of what the learner is expected to know, understand and be able to do at the end of a period of learning (Donnelly & Fitzmaurice, 2005).
- Learning outcome is a written statement of what the successful student/learner is expected to be able to do at the end of the module/course unit or qualification (Adam, 2004).

A learning outcome or leaning goal is a statement of what the learner is expected to know, understand and/or be able to do at the end of a period of learning. Suskie (2004) mentioned that students' learning outcomes are the knowledge, skills, abilities and attitudes students should take with them after completing a course, degree or other program study. She added that most students learning outcomes are "behavioral" goals that state outcomes a student should be able to demonstrate at the of a course or degree program. In the context of this study, the researcher agreed with the definition of students learning outcomes presented by Suskie (2004). Furthermore, the learning outcome is one of the important elements stated in English Language Curriculum Specifications for secondary schools.

2.3 Definition of Key Terms

2.3.1 Constructing Learning Outcomes (LO)

The Academic Programmes Quality and Resources Unit, University of Malta in 2009 has provided the guidelines for the writing of effective learning outcomes. An LO should ideally contain three parts that deal respectively with:

- i. *Behaviour*: an action verb to describe what participants will be able to do as a consequence of a learning activity.
- ii. *Condition*: an environment or situation in which the student will perform the behaviour or the tools/information they will be given when they demonstrate their learning.

iii. Criteria: describing the limits or range of an acceptable response, i.e. addressing the question of how well the learner has to perform for one to be able to say that the LO has been achieved?

For the purpose of this study, the researcher has matched the above constructs of learning outcomes with three different levels of learning outcomes which were studied in this research.

2.3.2 The Outcomes Approach to Learning

The outcomes model is predicted on a teaching and learning system that is aligned. Reduced to its simplest form an outcomes approach to learning has three interconnected components as described below:

- an explicit statement of learning intent. (intended learning outcomes) expressed in a form that permits their achievement to be demonstrated and measured.
- the process and resources to enable the outcomes to be achieved and demonstrated (curriculum, teaching, learning methods and materials, assessment and support and guidance methods);
- the criteria for assessing whether the intended outcomes have been achieved and for differentiating the performance of students

2.3.3 The Theory of Constructive Alignment

Underlying the outcomes approach to defining, designing, promoting and assessing students' learning is a useful theory of learning known as

Constructive Alignment by Biggs (1999). The theory connects the abstract idea of a learning outcome to the things teachers actually do to help students learn, and the things that students do to actually learn. The outcomes approach requires teachers to pose and answer the questions as stated below:

- what do I intend students to learn (what learning outcomes do I want them to achieve)?
- What teaching methods and curriculum design will I use to encourage students to behave in ways that are likely to achieve these outcomes?
- What assessment tasks and criteria will tell me that students have achieved the outcomes I intend?

How does it work?

Constructive alignment starts with the notion that learner construct his or her own learning through relevant learning activities (*where students' learning is concerned-what the student does is more important than what the teacher does*). The teacher's job is to create a learning environment that supports the learning activities appropriate to achieving the desired learning outcomes. The key is that all components in the teaching system – the curriculum and its intended learning outcomes, the teaching methods used, the resources to support learning, and the assessment tasks and criteria for evaluating learning are aligned to each other and facilitate the achievement of the intended learning outcomes.

2.3.4 Constructivist Teaching Approach

As to be reliable in Malaysian educational context, this type of teaching approach would be the focused by the research. According to Jong Suk Kim (2005), the constructivist teaching approach helps learners to internalize and transform new information.

Transformation of information occurs through the creation of new understanding that results from the emergence of new cognitive structures. Here, the researcher also mentioned a few principles of constructivist teaching which cited from Brooks and Brooks (1993). The following are the principles:

- i) Posing problems of emerging relevance to students;
- ii) Structuring learning around primary concepts: the quest for essence;
- iii) Seeking and valuing student's points of view;
- iv) Adapting the curriculum to address students' suppositions; and
- v) Assessing student learning in the context of teaching.

For researcher's opinion , this teaching approach looked approachable because it stressed on student centered in gaining knowledge or information. In Table 2.0, the researcher compared the constructivist classrooms with the traditional classrooms within the school environment.

Table 2.0

A Look at the School Environment

Traditional Classrooms	Constructivist Classroom
<i>Curriculum is presented part to whole, with emphasis on basic skills</i>	<i>Curriculum is presented whole to part with emphasis on big concepts</i>
<i>Strict adherence to fixed curriculum is highly valued</i>	<i>Pursuit of student questioning is highly valued</i>
<i>Students are viewed as “blank slates” onto which information is etched by the teacher</i>	<i>Students are viewed as thinkers with emerging theories about the world</i>
<i>Teachers generally behave in a didactic manner, disseminating information to students</i>	<i>Teachers generally behave in an emerging manner, mediating the environment for students</i>
<i>Teacher seeks the correct answer to validate student learning</i>	<i>Teachers seek the student’s point of view in order to understand student’s present conceptions for use in subsequent lessons</i>
<i>Assessment of student learning is viewed as separate from teaching and occurs almost through testing</i>	<i>Assessment of student learning is interwoven with teaching and occurs through teacher observations of students at work and through student exhibitions and portfolios</i>
<i>Students primarily work alone</i>	<i>Students primarily work in group</i>

Source: Cited from Brooks and Brooks, 1993, p. 17

2.3.5 Learning Theories

Behaviorist

A theory of learning and it believes that all behaviors are acquired as a result of conditioning. Conditioning occurs after a person interacts with his or her environment. The behaviorists believe that effective language behavior is the production of correct responses to stimuli. If the response is seems to be reinforced, automatically it will become habitual.

Tok Hoon Seng (2008) stated in his study that behaviorists view language learning as a mechanical process of forming the right habits and not a process that needs intellectual understanding. Roblyer (2003) stated that this theory concentrated immediately observable, thus, the behavioral changes in performance (tests) as indicator of learning.

Smaldino, Heinich, Molenda, and Russell (2005) defined that behaviorist refuse to speculate on what goes on in observable behaviors, as a result, they are more comfortable explaining relatively simple learning tasks and behaviorism has limited application in designing instruction for higher level skills, thus the behaviorist principles are applied today in computer-based instruction and in web-based courses.

From the above statements, the researcher emphasized that learners build personal understanding of their own knowledge and this constructive process can be facilitated by appropriate learning activities and

a good learning environment. What a person knows is not passively received, but actively assembled by the learner.

Dual Coding Theory (DCT)

Other theory seems related with this study is *Dual Coding Theory*. This theory is an established theory of general cognition that has been directly applied to literacy. Paivio's theory proposed that memory consists of two separate but interrelated codes for processing information-verbal and visual.

The interrelations and connections of the two systems allow for dual coding of information. Dual coding promotes knowledge comprehension and retention. Verbal system specializes in processing and storing linguistic information (words, sentences, etc.). Visual system specializes in processing and storing image or "picture-like" representations.

The theory suggested that we should provide a visual PowerPoint presentation to present facts to students that include visual pictures along with written text information. Next suggestion, when giving students instructions on how to use a particular software try to include snapshots from the program to help students learn how to use the software. Lastly, when developing assignments for students try to give them a visual picture as an example to for students.

Constructivist

This theory is based on a type of learning in which the learner forms, or construct, much of what he or she learns or comprehend. Smaldino et al. (2005) indicated that constructivism is a movement that extends beyond the beliefs of the cognitive, where it considers the engagement of students in the meaningful experiences as the essence of experiential learning, thus the constructivist emphasize that learners crate their own interpretations of the world of information.

According to the theory, constructivist goals focus on students' ability to solve real-life, practical problems, and its methods call for student to construct knowledge themselves rather than simply receiving it from knowledgeable teachers. Furthermore, the constructivist argued that students situate the learning experience with their own experience and that the goal of instruction is not to teach information but to create situations so that students can interpret information for their own understanding.

The development of PowerPoint presentation project can be implemented through the constructivist learning. This is because the students' advantage is to create the PowerPoint presentation project by working within their groups and they will use the variety of activities to accomplished the project overall objectives, thus in this way, collaborative learning experiences can be gained by the students.

2.3.6 Learning Styles

Every student is unique in how he/she learns. Educators strive to plan lessons that will reach all students with diverse learning needs (Ernst, 2008). Visual learners learn by seeing. They may think in pictures and learn best from visual displays including diagrams, videos, handouts, and note taking. Visual learning can be enhanced through the use of pictures, text, animations, and video displayed on the PowerPoint presentation.

Students today already come to school with knowledge and expertise of how to use different kinds of technology to accommodate their own learning styles. Donlevy (2005) stated students come armed with cell phones, laptops, iPod, personal digital assistants, computer games, and many more. He added because these students are already familiar with technology and are already capable of using it in order to learn, they adjust to learn it in school. Painter, Whiting, and Wolters (2005) argued that teachers should use technology to help educate students and supports their learning styles.

2.3.7 Integrating Technology and Digital Media in the Classroom

Why use technology? It is dominant in any workplace and it can be tremendous in helping educators in the classroom. The multimedia principle states that students perform better on retention and transfer tests when presented with both words and pictures (Mayer, 2005). According to

Shelly et al. (2006), stated that integration means process of bringing different parts together to combine into a whole.

Technology integration refers to combination of all technology parts, such as hardware and software, together with each subject-related area of curriculum to enhance learning.

Nowadays, educators play an important role in integrating technology into teaching and learning. Thus, the teachers need to understand technology integration more completely. The teacher's role is to choose or selecting the most appropriate instructional methodology for ensuring students' engagement, affective and cognitive. It is an important task to be considered by the teachers.

2.3.8 Previous Studies about PowerPoint presentation

For the purpose of this study, weaknesses or disadvantages of traditional method of teaching such as teachers often continuously talk for an hour without knowing students' responses and feedback. Besides that, traditional educational approaches have resulted in a mismatch between what is taught to the students and what the learning outcomes needs, thus provides an opportunity to PowerPoint presentation as one of the effective instructional tools to enhance the students' learning.

Fisher (2003) suggested that, using PowerPoint for English as a Second Language (ESL) teaching. Fisher added that PowerPoint is a type of

presentation software that allows users to show coloured text and images with simple animation and sound.

This powerful instructional tool has features that make it a potentially effective tool. Many educators had used the multimedia elements that embedded in PowerPoint slides to help them present information in multiple formats, such as text, images, sound clips, and video clips.

Look (2005) stated that a review of 219 studies on the use of technology in education consistently found that students in technology rich environments experienced positive effects on achievement in all subject areas. This study also stressed on previous studies about PowerPoint in order to get the relevant information and findings. This evidences can supports the researcher to obtain the results to facilitate the study. For the previous studies about PowerPoint, the researcher will look into the results, findings, conclusions and recommendations of the previous studies.

According to Blalock and Montgomery (2005), PowerPoint presentation had improved students' test scores in economics significantly. Other studied by Schrodtt and Witt (2006) showed that PowerPoint greatly increased the effectiveness of a class presentation. PowerPoint has bring a new dimension of teaching and learning because of its orality, visuality, and literacy (Craig & Amernic, 2006).

Johnson (2008) studied about perceptions and cognitive impact of using PowerPoint, initially over 15 articles on the topic were reviewed. Out of

those, five articles focused on students' perceptions as well as performance. Out of the five, three of them reported overwhelmingly that students perceive PowerPoint as tool that either makes content more interesting, helps them stay focused, increases their instructors credibility, or projects the instructor as more organized than those using traditional teaching tools such as an overhead projector and/ or the chalkboard.

Amare (2006) conducted a survey that resulted in 79% of the 84 participants indicating that they liked PowerPoint presentation better than the traditional lecture methods and 62% noted that they gained more knowledge from the PowerPoint presentation. Furthermore, PowerPoint is a user friendly software which allows the integration of visual and sounds. One study that did conclude that PowerPoint presentation use was effective based on posttest results was conducted by Blokzijl and Andeweg (2005). Also according to Wong and Cheung (2003), "We learn 83% through the sense of sight, 10% through the sense of hearing and the reminder through the sense of smell, touch, and taste." This means that visuals and audios are very important for learners. Language teachers should just capitalize on this fact and use it to the fullest advantage in helping learners learn more effectively.

De Wet C. F. (2006) stated the features of PowerPoint as an instructional tool such as flexibility, echancibility, independence, interactive nature and multimedia. Most students' reaction to the use of presentation software, commonly PowerPoint, in the classroom were positive (Levasseur & Sawyer, 2006).

Studies have shown that students believe teachers' use of presentation software improves their learning (Amare, 2006; Hastings & Attila, 2000). In this study, the researcher had mentioned some previous studies regarding the usage of PowerPoint presentation in classroom learning which seemed relevant with the study. Therefore, PowerPoint is one the educational software technologies which has been used in teaching and learning. It is also as an effective instructional tool to enhance students' engagement in learning environment.

2.4 Chapter Summary

The researcher found that this literature review part would support and contributed a lot of information for the study. The existing literature reviews about PowerPoint suggested that this presentation software needs to be explored in details for future educational requirements. This research is not reinventing the wheel but an extension of other studies done in this area. All the matters of references had guided the researcher to gain an important data about the study.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the method that was used to conduct the study. The purpose of this study was to investigate the effects of PowerPoint presentation on students' learning outcomes in learning prepositions. This chapter begins by detailing the research's procedures and researcher's roles in the study. Next, researcher mentions about research design of the study. In this study, the researcher has used descriptive method and inferential statistics to analyses the scores from the sample. Then, the researcher describes about sample of the study, instrument used, and pilot study of the this experiment. The primary source of this study was the pretest and posttest questions, administered by the researcher in order to obtain the required data. The researcher also discusses about validity and reliability of the tests. This chapter, then elaborates the procedures of the data collection as well as method of data analysis are explained.

3.2 The Research's Procedures

Here, are the procedures which followed by the researcher in conducting the research. The researcher needs obtain certain information which is suitable to be used in the research. These are procedures that have to be done in gaining information and the research data.

- i. First of all, researcher has to apply for an approval letter from the Bahagian Perancangan dan Penyelidikan Pendidikan, Ministry of Education for conducting the study.
- ii. Then, apply an approval letter from Perlis State Education Department for the study.
- iii. After that, request for the permission from the participating school principal.
- iv. Get cooperation from English Head Panel and all English teachers in the participating school.
- v. Conducted the research by implementing the experiment on a form four class within the three months of duration.
- vi. The researcher has to utilize one month of duration for conducting the pilot study, implementing the pretest and treatment to the sample.
- vii. Next, the researcher has to spend another one month of duration to complete the posttest and collected the important data.
- viii. Lastly, the researcher makes used the last one month of duration to analyze the collected data, interpret the results and complete the study.

3.2.1 The Researcher's Roles in the Study

- i. The researcher served as a facilitator.
- ii. Provided help and support the students learning process.
- iii. Responded to students needs during the period of the study.
- iv. Encourage the students to complete any tasks given within the study period.
- v. Ask the students to concentrate during the lessons as much as they can within this study.
- v. Researcher control any distractions within the study duration.

3.3 Research Design

Research design is a plan for collecting and utilizing data so that desired information can be obtained with sufficient precision or so that an hypothesis can be tested properly. Creswell (2008) stated that research designs are procedures for collecting, analyzing, and reporting research in quantitative and qualitative research. Creswell (2008) defined that experimental designs refers to procedures in quantitative research in which the investigator determines whether an activity or materials make a difference in results for participation.

This study used one of the various forms of descriptive research, an experimental approach. The method of quantitative method was chosen as a method of inquiry in this study. In the study also, the researcher has used two types of measurement to analyze the collected data.

The descriptive measurement was used to describe about mean and standard deviation of scores for experimental and control groups. The inferential statistics such as T-Test was used to test the null hypotheses of the study.

This study used quantitative method because the researcher assumed that this results can be formulated to predict and generalize from a sample to the general population of the participating school. In addition, the study intended to use numerical data to prove or disprove the hypothesis and address research questions. The experimentation design was preferred in this study because the experimentation method allowed directly the researcher to collect data from the sample without any distractions. The pretest and posttest questions looked as an effective tool to assess the students learning outcomes. In addition, the researcher also used SPSS (Statistical Package for Science Social) version 16.0 program to analyze the data and relevant variables in the study. There were three variables involved in this study which are PowerPoint presentation, oral teaching presentation, and students' learning outcomes.

3.4 Sample of the Study

For the purpose of this study, the researcher is not concentrated on the population but focused on the sample only. The participating school is one of the vocational schools in Perlis state. The subjects for this study were 32 male Form Four vocational students. They are registered in the Arau Vocational School at the end of January, 2010.

The students have just finished their Penilaian Menengah Rendah (PMR) Examination in 2009 and must possessed a certain minimum qualifications to enter the vocational school courses.

Most of the subjects or respondents got C and D in their PMR English Paper. In this study, the sample was divided into two groups. The first group which comprised 16 students called experimental (treatment) group and other group which comprised 16 students is called control group.

The researcher has recorded the sample's of their PMR English paper results and presented it in Table 4.1. In the table, it will determine the number of students, grades and percentages of the sample PMR English results. This input will be used as their take off values before the experiment started. The experimental will be conducted in one vocational school in Arau urban area.

3.5 Research Instrument

In order to equate the experimental and the group groups, the researcher made a pretest and was administered before the allocation of the respondents into the experimental (treatment) and the control groups.

3.5.1 Pretest and Posttest

In this study, the instrument which implemented was the pre-test and post-test. A pretest was given to the treatment and control groups (**Appendix A**). The pretest comprised 30 multiple questions which researcher drawn and adapted from *Kurikulum Bersepadu Sekolah Menengah (KBSM) English Language Form 4 Textbook (2002)* and *English Form 4 Exercise Book (2010)*. The purpose of the pretest is to measure the respondent's previous knowledge about prepositions.

A posttest was also given to the treatment and control groups (**Appendix B**). The posttest was used to measure the respondent's learning outcomes after using PowerPoint presentation and traditional teaching presentation in learning prepositions. The researcher used the same questions as the posttest questions. It also comprised 30 multiple questions and for this purpose researcher has made some changes by restructuring the question numbers. Both the pretest and posttest were almost parallel with same difficulty level. The pretest questions were given to the experimental and control groups before the treatment.

The pretest and posttest results are used to measure the significant differences of students' learning outcomes using PowerPoint presentation and traditional teaching presentation.

In this study, the pretest and posttest questions addressed three different levels of learning outcomes. The three different levels learning outcomes were derived from the *Curriculum Specifications of the English Language for Form 4* (Ministry of Education of Malaysia, 2003). This three different levels of learning outcomes are also based on three lower levels of cognitive domain which were *knowledge*, *comprehension*, and *application*.

The following were the three learning outcomes:

- i. Obtain information for different purposes by reading materials in print such as reports and articles and using other electronic media such as the internet.
- ii. Process information by skimming and scanning for specific information and ideas.
- iii. Presenting information to different audiences by summarizing information.

The questions in the pretest and posttest were based from the above learning outcomes. The researcher has adapted this learning outcomes as Level 1 (To identify the suitable prepositions); Level 2 (To differentiate the prepositions), and Level 3 (To apply the suitable prepositions).

3.5.2 Validity and Reliability of the Pretest and Posttest Questions

In this study, researcher also focused on reliability and validity of the Pretest and Posttest questions. The researcher wanted to ensure the validity and reliability of the instrument is accurate before it can be used to the sample. For researcher, the validity and reliability are very important to the study because both can fulfill and answering the research questions.

Validity ensures the research instrument what it is designed to measure (Trochim, 2005). Even though all the questions were taken and modified from *KBSM Form 4 English Language Textbook* and *English form 4 exercise book*, researcher has performed an item analysis by using *Classical Test Theory* for its validity during the pilot study.

By using this approach, the researcher can identify some abnormalities in the test items. The level of these abnormalities enabled the researcher to determine whether the test could be used for the sample or not.

During the pilot study, the researcher has found a few abnormalities in the difficulty and discrimination indexes. Therefore, some changes have been made to the items immediately by researcher. Besides that, in order to establish face validity and improve its quality, those questions were also evaluated by two experienced English teachers of the participating school.

The reliability of the instrument was established to determine whether the items measuring the same information yield similar results (Trochim,

2005). In order to ensure the reliability of the test (internal consistency of the items), the researcher has used Cronbach Alpha Statistics to reaffirm the test's reliability of the questions in the pilot study.

According to Bouzidi and Jaillet (2009), Cronbach Alpha refers to a statistical index that varies between 0 and 1 and enables the assessment of an assessment's instrument homogeneity (the internal consistency or coherence), make up of a series of items that should contribute to understanding the level of knowledge or skill on a given theme.

3.6 Pilot Study

A pilot study was small-scale approach that examined the methodology and feasibility of a research project prior to the commencement of the actual study (Simon, 2006). Pilot studies fulfill a range of important functions and can provide valuable insights for other researchers, and a crucial element of a good study design. Thabane et al. (2010) defined that in general the rationale for a pilot study can be grouped under several broad classifications, process, resources, management and scientific.

- *Process*: This assesses the feasibility of the steps that need to take place as part of the study.
- *Resources*: This deal with assessing time and budget problems that can occur during the main study.
- *Management*: This covers potential human and data optimization problems such as personnel and data management issues at participating centres.

- *Scientific*: This deals with the assessment of treatment safety, determination of dose levels and response, and estimation of treatment effect and its variance.

In this study, the researcher has conducted a pilot study on a group of four students which is not involved in the study. There were 31 students involved in pilot study. The main purpose of this pilot study is to try out the instruments and improve the instruments for the treatment lesson. In the pilot study, the researcher has analyzed the reliability by using Generalizability Theory (*GStudy*) and Cronbach Alpha to test the internal consistency of the items.

The output from Generalizability theory showed **0.72785** and Cronbach alpha reading for the items is **0.732**. The results from Generalizability theory and Cronbach alpha are shown in Table 3.0 and Table 3.1.

Table 3.0

Summary of Generalizability Study Result

V A R I A N C E S									
S A M P L E S I Z E S									
D STUDY	E	EXPECTED		LOWER	UPPER				
DESIGN INDEX=	\$P	I	UNIVERSE	OBSERVED	CASE	CASE	GEN.		
NO UNIV.=	INF.	INF.	SCORE	SCORE	DELTA	DELTA	MEAN	COEF.	
PHI									

001-001	31	1	0.01208	0.14753	0.13545	0.18977	0.05907	0.08185	0.05982
001-002	31	12	0.01208	0.02336	0.01129	0.01581	0.00528	0.51685	0.43297
001-003	31	15	0.01208	0.02111	0.00903	0.01265	0.00430	0.57214	0.48835
001-004	31	20	0.01208	0.01885	0.00677	0.00949	0.00332	0.64067	0.55998
001-005	31	30	0.01208	0.01659	0.00452	0.00633	0.00235	0.72785	0.65623

The result of Cronbach's Alpha statistics is shown in Table 3.1

Table 3.1

Reliability Statistics Result

Reliability Statistics	
Cronbach's Alpha	N of Items
.732	30

3.7 The Data Collection Procedures

In this study, the researcher has to spend two months to complete the treatment and collecting data from the sample. As one of the form teachers to the sample, the researcher did not face any difficulties in obtaining the data. The researcher has divided two phases of data collection over a duration of two months.

Phase One comprised four weeks of duration for implementing the pretest and treatment. Phase Two is also four weeks of duration to complete the posttest and collected data of the study.

Phase One : Implementing the Pretest, and Treatment to the Sample

The data was gathered by using the following methods:

i. Within the first two weeks of the phase one, after the pretest, the experimental group was exposed intensively to the PowerPoint presentation in learning prepositions. The researcher used PowerPoint presentation in the *Media Room* in conducting the prepositions lessons to this group.

iii. The prepositions lessons were drawn from a few suitable English grammar websites and from English language form 4 textbook.

iii. The experimental group was asked to study and learn details about prepositions. The students were also urged to complete any prepositions exercises download from the websites. Researcher has to spend a total of ten times of English lessons within two weeks to conduct the lessons for the experimental group.

iv. During the two weeks of learning, this group is prepared to undergo their posttest on the first week of the second phase of the study. At the same time, for the first two weeks, the control group has to spend their English periods in the school library by themselves.

v. Next, within the last two weeks of the phase one, the control group is exposed extensively to the prepositions lessons in the classroom by the researcher himself. This group was given the same prepositions topics as experimental group. Researcher also spent ten times of English lessons within fortnight to teach the control group. The control is provided with learning materials such prepositions handouts.

vi. The researcher conducted the prepositions lessons for the control by using same pedagogical approach that has been used for the experimental group except not incorporating multimedia element.

This control group is used oral presentation (traditional teaching) in learning prepositions. Within the last two weeks of phase one, the experimental group has to focus to their own learning and revision about prepositions in the school library.

Phase Two: Implementing the Posttest and Collecting the Data

i. After one week in the phase two of the study, the researcher conducted the posttest questions for the both groups. The posttest is administered in doubled periods and all the respondents have to complete the 30 multiple choice questions. Once, after the posttest completed by the students, researcher started to collect and analyze the scores

of both groups from the pretest and posttest. The procedures of the two phases is shown in the Table 3.2 below.

Table 3.2

Procedures of the Two Phases

Experimental Group (PPT) *	Control Group (TTP)**
<p>Pretest Undergo the pretest</p> <p>↓</p> <p>Phase 1 - Using internet to surf a few relevant websites regarding prepositions and conducted online assessment with the students</p> <p>↓</p> <p>Phase 2 - The students spent their English lesson in the library by themselves</p> <p>↓</p> <p>Posttest</p>	<p>Pretest Undergo the pretest</p> <p>↓</p> <p>Phase 1 - Spend English lesson periods in the classroom and library</p> <p>↓</p> <p>Phase 2 - Using textbook and handouts to teach about prepositions</p> <p>↓</p> <p>Posttest</p>

Indicators:

**PPT: PowerPoint Teaching Presentation*

***TTP: Traditional Teaching Presentation*

3.8 The Data Analysis Method

The researcher used SPSS (Statistical Package for Science Social) version 16.0. program to analyze the data and relevant variables in the study. The three variables involved in this study were PowerPoint Presentation, traditional teaching presentation and students' learning outcomes. Firstly of all, the data is coded and edited before being transferred to the computer for data analysis.

The scores obtained from the pretest and posttest of Ho1 and Ho2 in the experimental group were compared in terms of mean score and standard deviation in order to find out whether there is any significant difference before and after the implementation of PowerPoint presentation in learning prepositions. Besides that, the scores obtained from pretest and posttest of Ho1 and Ho2 from the control group were also compared in terms of mean score and standard deviation. The difference here is for the Ho3, it only be tested in the experimental group.

By using SPSS program, the T-Tests were conducted to the sample in order to assess the effects of PowerPoint presentation and traditional teaching, determine the learning outcomes from experimental and control groups, and lastly find out whether there is any significant difference before and after the implementation of PowerPoint presentation in the experimental group. By using SPSS, the researcher hoped the results can answered the research questions and tested the null hypotheses of the study. The researcher has estimated within one month, once the data has been collected and analyzed, then it will be interpreted for the results, and lastly completed the study. Table 3.3 below shows the summary of this experimental study.

Table 3.3

Summary of the experimental study

Objectives of the Study	Types of measurement use
<ul style="list-style-type: none"> • To assess the effect of PowerPoint presentation and traditional teaching presentation on students learning outcomes (Pretest and Posttest) • To test the Ho1 	Mean Standard Deviation T-Test
<ul style="list-style-type: none"> • To determine the learning outcomes derived from PowerPoint presentation and traditional teaching presentation in learning prepositions (Pretest and Posttest) • To test the Ho2 	Mean Standard Deviation T-Test
<ul style="list-style-type: none"> • To investigate whether PowerPoint presentation has significant difference or not in learning prepositions (Pretest and Posttest) • To test the Ho3 	Mean Standard Deviation T-Test

3.9 Chapter Summary

This study exposed the methods which conducted by the researcher for the study. This methodology has guided the researcher to start the experimental by following the research procedures until the relevant data was collected. Then, the data analysis was discussed. The next chapter covered the data analysis based on the research questions and hypotheses.

CHAPTER IV

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter illustrates the results based on research questions which were explained in Chapter One. The data collected from the quantitative method was analyzed and discussed in this chapter. Firstly, the researcher analyzes the collected data based on the objectives, research questions and hypotheses. Then, descriptions on findings are presented by using descriptive statistics. The researcher used inferential statistics to test all the hypotheses. Besides that, the psychometric properties of all the scales used using the 0.05 level of significance were tested. Lastly, the results are transformed into tables and clear explanations are given.

4.2 Respondent's Profile

In this study, the respondents were 32 male students. The students were selected based on random sampling and their PMR English Language grades. They were 16 respondents in each group. The distribution of respondents by PMR English results is summarized in the following table.

Table 4.1

Distribution of respondents by PMR English results

PMR English Results	Number of Students	Percentage (%)
A	1	3
B	2	6
C	14	44
D	13	41
E	2	6
Total	32	100

4.3 Hypotheses Testing

This section discusses the findings of the analysed data by using inferential statistical to test the three hypotheses of the study. For Ho1 and Ho2, both groups were tested in pretest and posttest by using the Paired Samples T-Test. The Paired Samples T-Test of pre and posttests for both groups were used to see the differences of mean scores and standard deviation between the two groups. But for Ho3, only the experimental group was tested using Paired Samples T-Test in this study. This is because researcher wanted to investigate the Ho3 statement which there is no significant difference in using PowerPoint presentation in learning prepositions.

4.4 The effects of using PowerPoint presentation on students' learning outcomes (Level 1, Level 2, and Level 3 Learning Outcomes)

The first research question sought to assess the effects of using PowerPoint presentation on students' learning outcomes. In order to show the effectiveness, the tables below show the effects on learning outcomes of the experimental group after being exposed to PowerPoint presentation.

The scores of the experimental (treatment) group after being exposed to PowerPoint presentation were analyzed using their pretest and posttest results.

Table 4.2 (a)

The T-Test of Paired Samples Statistics for the experimental group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	45.31	16	11.388	2.847
	POST	68.19	16	8.879	2.220

The Table 4.2 (a) clearly shows the difference of mean and standard deviation scores before and after the treatment in the experimental group. The mean score for pretest among the treated sample was 45.31 compared to the mean score of 68.19 in the posttest. The posttest showed an increase of 22.875 in the mean score among the respondents in the experimental group. The standard deviation was 11.38 before the treatment and 8.87 during the post.

Table 4.2 (b)

The Paired Samples T-Test of Pre and Post Test for the experimental group

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRE - POST	-22.875	7.915	1.979	-27.093	-18.657	-11.560*	15	.000

*Significant Level $P < 0.05$

Based on the data in Table 4.2 (b), the paired samples T-Test showed that the t value was -11.56, which was smaller than 0.05. The output of the paired samples T-Test indicated that there was significant difference in the score of the students' learning outcomes in the pretest and posttest in the experimental group. This result had proven that PowerPoint presentation has an effect for enhancing student's learning outcomes.

4.5 The effects of using traditional teaching presentation on students' learning outcomes (Level 1, Level 2, and Level 3 Learning Outcomes)

The first research question sought to assess the effects of using traditional teaching presentation on students' learning outcomes. In order to show the effectiveness, the following tables below show the effects on learning outcomes of the control group after being exposed to traditional teaching presentation. The scores of the control group after being exposed to traditional teaching presentation were analyzed using their pretest and posttest results.

Table 4.3 (a)

The T-Test of Paired Samples Statistics for the control group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	45.25	16	10.661	2.665
	POST	51.50	16	10.930	2.733

The above Table shows the mean and standard deviation scores of the control before and after being exposed to the traditional presentation. The mean score for pretest among the students was 45.25 compared to the mean score of 51.50 in the posttest. The posttest showed a difference of 6.250 in the mean score among the respondents in the control group.

Table 4.3 (b)

The Paired Samples T-Test of Pre and Post Test for the control group

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRE - POST	-6.250	5.544	1.386	-9.204	-3.296	-4.510*	15	.000

*Significant Level $P < 0.05$

By on the data above, the paired samples T-Test (2 tailed) showed that t value was -4.51. which was smaller than 0.05. The means showed that there was an increase among students in the control group but the increasing mean was small compared to the increasing mean in the experimental group.

Table 4.3 (c)

The T-Test of Group Statistics for the both groups

Group Statistics					
GROUP		N	Mean	Std. Deviation	Std. Error Mean
PRE	Treatment	16	45.31	11.388	2.847
	Control	16	46.07	10.505	2.712
POST	Treatment	16	68.19	8.879	2.220
	Control	16	52.73	10.096	2.607

As shown in the Table 4.3 (c) above, the (M=45.31, SD=11.38) scores for the experimental (treatment) group before using PowerPoint presentation compared the (M=68.19, SD=8.87) after the treatment. For the control group the (M=46.07, SD=10.50) score during the pretest and the M=52.73, SD=10.09 score after being exposed to traditional teaching mode. The differences in the mean and standard deviation, showed that students' learning outcomes are improving in the experimental group. This result automatically rejected the Ho1.

4.6 Finding on Ho1

This study showed that there were some improvements for the both groups. It can be said that, the students' learning outcomes of the experimental group were improved because the mean score of the group was higher compared to the control group. The effectiveness of using PowerPoint presentation was accepted in the experimental group. As a result, the first hypothesis was rejected and this finding has answered the first research question.

4.7 To determine the learning outcomes derived from PowerPoint presentation in the experimental group (Level 1 and Level 2 Learning Outcomes)

The second research question was to determine how are the learning outcomes derived from by using PowerPoint presentation. The students' scores in the experimental group were analyzed in the pre and posttest. This research question was used to answer the second hypothesis and determine the learning outcomes derived from the experimental group after being exposed to PowerPoint presentation.

Table 4.4 (a)

The T-Test of Paired Samples Statistics for the experimental group

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	48.44	16	12.874	3.218
	POST	71.56	16	9.259	2.315

The above table shows that the mean scores and standard deviation before and after the treatment in the experimental group. The mean score was slightly increased and the standard deviation was slightly decreased. The (M=71.56) in the posttest compared (M=48.44) before the treatment. The standard deviation (SD) was 12.87 during the pretest and it was 9.25 after the posttest. This prove that learning outcomes can be accomplished by using PowerPoint presentation in learning prepositions.

Table 4.4 (b)

The Paired Samples T-Test of Pre and Post Test for the experimental group

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRE - POST	-23.125	11.815	2.954	-29.421	-16.829	-7.829*	15	.000

*Significant Level $P < 0.05$

The above Table 4.4 (b) indicated that there was significant difference of the score in the experimental group. The difference in mean was ($M = -23.12$). This shows that, the learning outcomes are derived from PowerPoint presentation. The T-Test (2 tailed) displayed the significant value ($t(15) = -7.89$, $p < 0.05$) of the experimental group that used PowerPoint presentation in learning prepositions. Therefore, the second hypothesis was rejected.

4.8 To determine the learning outcomes derived from traditional teaching presentation in the control group (Level 1 and Level 2 Learning Outcomes)

The second research question also was to determine the learning outcomes by using traditional teaching presentation. The students' scores in the control group were analyzed in the pre and posttest. This research question was used to answer the second hypothesis and determine the learning outcomes from the control group after being exposed to traditional teaching presentation.

Table 4.5 (a)

The T-Test of Paired Samples Statistics for the control group

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	47.50	16	12.517	3.129
	POST	53.12	16	12.230	3.058

The above table shows the mean score and standard deviation before and after being exposed to the traditional teaching mode in the control group. The difference values in mean and standard deviation were (M=5.62, SD= 0.287). The mean score was increased in a small value and the standard deviation was decreased also in a small value. The findings showed that learning outcomes were derived in low performance in the control group.

Table 4.5 (b)

The Paired Samples T-Test of Pre and Post Test for the control group

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRE - POST	-5.625	4.787	1.197	-8.176	-3.074	-4.700*	15	.000

*Significant Level $P < 0.05$

Based on the data in Table 4.5 (b), the paired samples T-Test showed that t value was -4.70 which was smaller than 0.05. The output of the paired samples T-Test indicated that there was significant difference in the scores between the students' performance in the pre and posttest in the control group.

Table 4.5 (c)

The T-Test of Group Statistics for both groups

Group Statistics					
	GROUP	N	Mean	Std. Deviation	Std. Error Mean
PRE	Treatment	16	48.44	12.874	3.218
	Control	16	48.00	12.790	3.302
POST	Treatment	16	71.56	9.259	2.315
	Control	16	54.00	12.130	3.132

As shown in the above table, the (M=71.56, SD=9.25) scores for the experimental (treatment) group after using presentation software compared the (M=48.44) and (SD=12.87) before the treatment. The mean of this group is increased about 23.12. For the control group the (M=48.00, SD=12.79) score during the pretest and M=54.00, SD=12.13 after exposed to traditional teaching mode. The mean of the control increased only 6. The greater mean showed the performance is good. This output displayed that students' learning outcomes is better in the experimental (treatment) group.

4.9 Finding on Ho2

From the findings of the means, standard deviations, and T-Test of both groups, therefore, there were learning outcomes derived both from PowerPoint presentation and traditional teaching presentation. The learning outcomes showed significant difference in the experimental group. As the result, these findings rejected the second hypothesis and answered the second research question.

4.10 To investigate whether there is significant difference when using PowerPoint presentation in learning prepositions (Level 2 and Level 3 Learning Outcomes)

The last research question was to investigate whether there is significant difference when using PowerPoint presentation in learning prepositions. The students' scores in the experimental group were analyzed in the pretest and posttest. The third hypothesis was tested in the experimental group in order to prove that whether this hypothesis is accepted or not.

Table 4.6 (a)

The T-Test of Paired Samples Statistics for the experimental group

Paired Samples Statistics				
		Mean	N	Std. Deviation Std. Error Mean
Pair 1	PRE	42.19	16	17.318 4.329
	POST	64.69	16	12.037 3.009

From the table above, the (M= 64.69) score for the experimental group in the post test and the (M= 42.19) score in the pretest. After the treatment, the posttest showed an increase of 22.5 in the mean score among the students in the experimental group. On the other part, the standard deviation (SD) was decreased from 17.31 to 12.03. The higher decreasing in standard deviation means the performance gained better.

Table 4.6 (b)

The Paired Samples T-Test of Pre and Post Test for the experimental group

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRE - POST	-22.500	11.972	2.993	-28.880	-16.120	-7.517*	15	.000

*Significant Level $P < 0.05$

Using the data in the table above, it shows that the paired samples T-Test score of the experimental group. It shows significant difference by using PowerPoint presentation in learning prepositions in the experimental group. The t value was -7.517 which was smaller than 0.05. The significant difference (2 tailed) was $(t(15) = -7.517, p < 0.05)$. Even though the researcher is not comparing this output with the control group, the findings showed that the experimental group performed significantly better than the control group in the study. As a result, this means H_03 was rejected in this study.

4.11 Finding on Ho3

The findings from the means, standard deviations, and T-Test of the experimental group, showed more significant difference in learning prepositions when using PowerPoint presentation compared to the control group. In the other words, the students in the experimental group displayed better performance of scores compared to the control group. As the result, the researcher has rejected the third hypothesis and answered the last research question.

4.12 Chapter Summary

As a conclusion, both groups have significant difference in learning prepositions when using PowerPoint or traditional teaching presentation. The posttest results of the experimental group showed that the students had grasped a better understanding and performance than the control group after being exposed to the PowerPoint presentation.

CHAPTER V

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusion based on the objectives and research questions and hypotheses of the study. Next, it follows the implications to teachers and students and lastly recommendations or suggestions for further research.

5.2 Summary of the Study

This study was conducted as one of the efforts to add and develop more knowledge about teaching and learning especially in using instructional tools such presentation software. In this ICT era, elements of multimedia are important for teachers in enhancing their student's interest and engagement towards the learning process. Teacher as a facilitator and guidance to his or her students needed an instructional skills in planning and organizing classroom learning. Here, any presentation software can be an effective visual aid in matching and fulfill the desired learning outcomes. As we know, learning outcomes determine the students understanding in learning process. Learning outcomes focus on what the learner can demonstrate at the end of a learning activity.

The purpose of the study was to assess the effects, determine the learning outcomes and investigate the significance of PowerPoint presentation in learning prepositions. A total of 32 male students were involved in this study. They were

divided into 2 groups (experimental and control). PowerPoint presentation was exposed to the experimental group and traditional teaching presentation was provided to the control group.

The findings showed that PowerPoint presentation gain better performance compared to the control group. Most students in the experimental group displayed a positive attitude towards using presentation software to learn prepositions. All the null hypotheses were rejected in this study. In this study, the instruments were used to elicit and collect information in the form of test. The test was divided into three different levels of learning outcomes, Level 1 (identification of prepositions), Level 2 (differentiation of prepositions) and Level 3 (application of prepositions).

In this study, ICT was perceived as a motivator for students to participate in the learning process. Teacher implemented lesson plans that include methods and strategies for applying technology in order to maximize student learning. Teacher used technology to support learner-centered that addresses the diverse needs of students. The students showed their interests especially when the researcher showed slides of PowerPoint which contained visuals with prepositions. According to Painter, Whiting and Wolters (2005), argued that teachers should use technology to help educate students and supports their learning styles.

The results have been fed into *Statistical Package for the Social Sciences* (SPSS) version 16.0 to analyze the T-Test Paired Samples. The variables of the study were analyzed to measure the mean, standard deviation, and significant difference. The results indicated that PowerPoint presentation can improve test scores

significantly compared traditional teaching presentation. The respondents looked quite active during the experimental especially when using internet surfing the prepositions materials. Besides that, the experimental respondents were exposed to online quiz on prepositions. Studies have shown that students believe that teachers' use of presentation software improves their learning (Amare, 2006).

5.3 Findings and Discussions from the Study

This section presents all the findings which were analyzed in Chapter 4. These findings are based on the objectives and research questions of the study. The findings are as follow:

5.3.1 Assessing the effect of PowerPoint presentation and traditional teaching presentation on students learning outcomes

In the study, the researcher has assessed this two types of teaching which have effects on the respondents (experimental and control groups). By using the same topics, researcher measured the learning outcomes (Level 1, Level 2, and Level 3) for the both groups. Mean, standard deviation, and T-Test of scores were compared among the two groups. The (M= 68.19) score looked increase in the experimental group after the posttest compared (M=45.31) before the treatment. The difference of mean is about 22.88. The mean score for pretest among the students in the control group was 45.25 compared to the mean score of 51.50 in the posttest. The posttest showed the difference of 6.250 in the mean score among the respondents in the control group. For standard deviation (SD), experimental

group seen decreasing higher value compared to the control group. In Ho1, the pretest SD in the experimental group was 11.38 compared 8.87 after the treatment.

This study showed that there were some improvements for the both groups, but in general we can said that, the experimental group is performing much better in the learning outcomes because the mean score of the group is higher compared to the control group.

The other reason is the standard deviation in the experimental group is likely to decrease in higher value. Smaller in value of standard deviation, means more performance in score. The effectiveness looked more improvement in the experimental group. As a result, the first hypothesis was rejected and this finding has answered the first research question. In a study leveraging the theories of cognitive load and dual coding, Gellevij, Ven Der Meij, De Jong, and Pieters (2002) showed that multimodal instruction leads to better learning outcomes than unimodal instruction.

5.3.2 Determining the learning outcomes derived from PowerPoint presentation and traditional teaching presentation

Learning outcomes seem very important in determining level of our student's understanding to fulfill the objectives of the lesson. For the purpose of this, the research intends to see the learning outcomes from which types of teaching mode bring or derive better learning outcomes. The Ho2 was tested in this in study to know the findings. The researcher used the learning outcomes of (Level 1 and

Level 2) on both groups. As findings from the output (T-Test of group statistics of the experimental and control groups) which were analyzed in Chapter 4, the mean score in the experimental group was 48.44 compared to 48.00 of mean score in the control group during the pretest. After the posttest, the mean score of the experimental group was 71.56 compared 54.00 of the control group.

The experimental group looked higher increasing of mean score value compared to the control group. The mean score of the control group increased only 6. For the standard deviation (SD), the decreasing value was higher in the treatment group from 12.87 in the pretest to 9.259 after the posttest but the control group was slightly smaller decreasing in the SD value. This finding totally rejected the Ho2 and answered second research question.

5.3.3 Investigating whether PowerPoint presentation has significant difference or not in learning prepositions

For the last research question and third hypothesis, the researcher focused on experimental group only. Since the experimental group has undergone the treatment, so this group seemed suitable and reliable to be tested. This is because the main point here is to prove that the Ho3 is not true. In proving this, the researcher has applied it to the Level 2 and Level 3 learning outcomes.

First, let see the output of this finding from Chapter 4. Based on the SPSS output (paired samples test), it showed significant difference in using PowerPoint presentation in learning prepositions. The t value was -7.517 which was smaller

than the significant level (< 0.05). Based from the Ho1 and Ho2 findings, here the researcher concluded that experimental group had performed better than the control group. This also means Ho3 is totally rejected in this study. As the result, PowerPoint presentation of the experimental group has resulted better performance in this study.

5.4 Implications from the Study

The feedback from the respondents after the post in this study provided some suggestion on pedagogical changes that can be made. Respondents from the experimental (treatment) group provide positive comments such as they stated that they liked teachers using ICT in teaching. The following are some of the suggestions that teachers can take to improve the teaching and learning process.

Most important of all, teachers could start using presentation software in their English class. They can use it to teach or they can make it as part of students' learning activities. This study proves that students are interested in using presentation software such as PowerPoint presentation to learn English. Teachers should take into consideration on how the students like to learn. Instructional Technology nowadays plays an important role in enhancing student's knowledge and ability in learning.

Technology can support the learning environment and motivate their interest in learning prepositions. However, it does not mean that teachers must totally dependent on technology. In this study, PowerPoint presentation was used as one of the instructional tools which incorporated in the learning process and as a way to add

variety into classroom. PowerPoint has brought a new dimension of teaching and learning because of its orality, visuality, and literacy (Craig & Amernic, 2006).

At present, majority of Malaysian schools have been equipped with ICT equipments in classes as supplement of conventional teaching methods. The computer is not a substitute for the teacher but rather complements the teacher. In this study, it contributed more on positive findings in the learning process although the differences between these two types of teaching were small.

5.5 Recommendations for Future Research

The researcher has suggested that further study could be implemented in other schools in Perlis because it would bring feedback on how this kind of teaching facilitates the learning process. Technology integration at all levels of education seems to be a need in preparing our students with high level of knowledge and learning skills.

Besides that, more instrumentation could be used to collect data. Apart from using test, other data collection methods such as questionnaires, interviews, and classroom observations are also suitable. This can provides a wide range of relevance data to support the studies.

Based on the researcher's experiences, time constraint is one of the problems in this study. Researcher has to rush in order to complete the study within four months. In future studies, perhaps the duration could be extended to produce more data. During the study period, sometimes, the researcher has to wait for the absent respondents to complete the posttest.

Furthermore, a few of respondents were involved with sports activities in the state level. Other factor is the small size of the sample. Thus, the small sample size of the study could only represent the population in the school. Therefore, an additional study should be conducted to examine whether these results are positive in a large sample in all forms of students and schools. By doing this, the information is likely more reliable and accurate.

5.6 Conclusion

As a conclusion, this study has showed that PowerPoint presentation looks more effective compared to the traditional teaching method. The findings from this study had supported the previous studies. This finding confirms the findings of Blokzijl and Andeweg (2005). The researcher gained a lot of experiences and knowledge as a facilitator for both groups. in conducting the study. The most challenging part was to conduct the experimental research which included teaching to the respondents and analyze the (pretest and posttest) collected data. Furthermore, it is also possible for future researchers to explore the potential of PowerPoint and to experiment with other types of activities apart from presentations. This can add variety to the type of activities that can be done through the use of PowerPoint.

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Appendix A

Pretest Questions

Prepositions Topic

English Language Form Four

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. He has been here _____ eight o'clock. (for, since, at)
2. The jockey fell _____ his horse during the race. (off, on, into)
3. My brother is tall _____ his age. (of, for, in)
4. The contestants were required to throw the ball _____ the basket from a distance. (off, into, at)
5. The express bus was travelling _____ full speed when the driver lost control. (at, in, over)
6. Her job requires her to translate documents _____ Chinese. (into, for, of)
7. He jumped _____ joy when he was given the good news. (on, over, for)
8. According to the weather report, it may rain later _____ the evening. (of, to, in)
9. I expect to receive your resignation _____ 5.00 pm. today. (on, from, by)
10. Please make sure that all applications are submitted _____ the deadline. (towards, at, before)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The boys will visit their grandmother _____ the holidays
12. The guard waited _____ all the children had crossed the road safety.
13. It has been a long time _____ I saw my aunt.
14. She has lived in this house _____ many years.
15. Mrs. Wong has been waiting for her son _____ midnight.
6. You are not allowed to leave _____ the meeting is over.
17. Some of the girls were nervous _____ the presentation.
18. The carpenter was told to finish his work _____ two months.
19. The students rushed to buy their books _____ recess.
20. He is told to leave the rented bungalow _____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).

Instruction: *Fill in the blanks with suitable prepositions.*

21. My sister returned from Australia _____ a year.
22. I have just received a letter _____ my pen-pal.
23. A policemen must wear his uniform when he is _____ duty.
24. She has been sleeping _____ two in the afternoon.
25. They had to swim _____ the river to retrieve the hidden clue.
26. You were not _____ home when I visited yesterday.
27. A taxi is waiting _____ you _____ the gate.
28. Don't sit _____ the end of the table.
29. The class project has to be submitted _____ Friday.
30. He is going to Europe _____ August.

End of Question

Appendix B**Posttest Questions****Prepositions Topic****English Language Form Four**

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. According to the weather report, it may rain later ____ the evening. (of, to, in)
2. He has been here _____ eight o'clock. (for, since, at)
3. He jumped _____ joy when he was given the good news. (on, over, for)
4. The jockey fell _____ his horse during the race. (off, on, into)
5. I expect to receive your resignation _____ 5.00 pm. today. (on, from, by)
6. My brother is tall _____ his age. (of, for, in)
7. The express bus was travelling _____ full speed when the driver lost control. (at, in, over)
8. Her job requires her to translate documents _____ Chinese. (into, for, of)
9. Please make sure that all applications are submitted _____ the deadline. (towards, at, before)
10. The contestants were required to throw the ball _____ the basket from a distance. (off, into, at)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The guard waited _____ all the children had crossed the road safely.
12. Mrs. Wong has been waiting for her son _____ midnight.
13. Some of the girls were nervous _____ the presentation.
14. She has lived in this house _____ many years.
15. The carpenter was told to finish his work _____ two months.
16. You are not allowed to leave _____ the meeting is over.
17. The boys will visit their grandmother _____ the holidays.
18. The students rushed to buy their books _____ recess.
19. It has been a long time _____ I saw my aunt.
20. He is told to leave the rented bungalow _____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).**Instruction:** *Fill in the blanks with suitable prepositions.*

21. A taxi is waiting _____ you _____ the gate.
22. My sister returned from Australia _____ a year.
23. I have just received a letter _____ my pen-pal.
24. He is going to Europe _____ August.
25. Don't sit _____ the end of the table.
26. A policemen must wear his uniform when he is _____ duty.
27. She has been sleeping _____ two in the afternoon.
28. They had to swim _____ the river to retrieve the hidden clue.
29. You were not _____ home when I visited yesterday.
30. The class project has to be submitted _____ Friday.

End of Question

Appendix C

Answers

Prepositions Topic

English Language Form Four

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. According to the weather report, it may rain later ____in____ the evening. (of, to, in)
2. He has been here ____since____ eight o'clock. (for, since, at)
3. He jumped ____for____ joy when he was given the good news. (on, over, for)
4. The jockey fell ____off____ his horse during the race. (off, on, into)
5. I expect to receive your resignation __ by__ 5.00 pm. today. (on, from, by)
6. My brother is tall ____for____ his age. (of, for, in)
7. The express bus was travelling ____at____ full speed when the driver lost control. (at, in, over)
8. Her job requires her to translate documents ____into____ Chinese.(into, for, of)
9. Please make sure that all applications are submitted ____before____ the deadline. (towards, at, before)
10. The contestants were required to throw the ball ____into____ the basket from a distance. (off, into, at)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The guard waited ____until____ all the children had crossed the road safely.
12. Mrs. Wong has been waiting for her son ____since____ midnight.
13. Some of the girls were nervous ____during____ the presentation.
14. She has lived in this house ____for____ many years.
15. The carpenter was told to finish his work ____within____ two months.
16. You are not allowed to leave ____until____ the meeting is over.
17. The boys will visit their grandmother ____during____ the holidays.
18. The students rushed to buy their books ____during____ recess.
19. It has been a long time ____since____ I saw my aunt.
20. He is told to leave the rented bungalow ____within____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).

Instruction: *Fill in the blanks with suitable prepositions.*

21. A taxi is waiting ____for____ you ____at____ the gate.
22. My sister returned from Australia ____after____ a year.
23. I have just received a letter ____from____ my pen-pal.
24. He is going to Europe ____in____ August.
25. Don't sit ____at____ the end of the table.
26. A policemen must wear his uniform when he is ____on____ duty.
27. She has been sleeping ____since____ two in the afternoon.
28. They had to swim ____across____ the river to retrieve the hidden clue.
29. You were not ____at____ home when I visited yesterday.
30. The class project has to be submitted ____on____ Friday.

End of Question

Appendix F**GENOVA VERSION 3.1****D STUDY****#1 -- P X I -- I - RANDOM****SUMMARY OF D STUDY RESULTS FOR SET OF CONTROL CARDS NO. 001****V A R I A N C E S****SAMPLE SIZES**

D STUDY	-----			EXPECTED	LOWER	UPPER
DESIGN INDEX= \$P I				UNIVERSE	OBSERVED	CASE CASE
GEN.						
NO UNIV.= INF. INF.				SCORE	SCORE	DELTA DELTA MEAN
COEF. PHI	-----					
001-001	31	1		0.01208	0.14753	0.13545 0.18977 0.05907
0.08185	0.05982					
001-002	31	12		0.01208	0.02336	0.01129 0.01581 0.00528
0.51685	0.43297					
001-003	31	15		0.01208	0.02111	0.00903 0.01265 0.00430
0.57214	0.48835					
001-004	31	20		0.01208	0.01885	0.00677 0.00949 0.00332
0.64067	0.55998					
001-005	31	30		0.01208	0.01659	0.00452 0.00633 0.00235
0.72785	0.65623					
001-006	31	40		0.01208	0.01546	0.00339 0.00474 0.00186
0.78098	0.71793					
001-007	31	50		0.01208	0.01478	0.00271 0.00380 0.00156
0.81676	0.76086					
001-008	31	60		0.01208	0.01433	0.00226 0.00316 0.00137
0.84249	0.79244					
001-009	31	150		0.01208	0.01298	0.00090 0.00127 0.00078
0.93042	0.90517					
001-010	31	200		0.01208	0.01275	0.00068 0.00095 0.00068
0.94689	0.92715					


```

RELIABILITY
/VARIABLES=Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q1
9 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q28 Q29 Q30
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA
/STATISTICS=SCALE.

```

Table 3.1 Reliability Result

[DataSet1] H:\Documents and Settings\user\Desktop\Pilot Study.sav

Scale: ALL

Case Processing Summary

		N	%
Cases	Valid	31	88.6
	Excluded ^a	4	11.4
	Total	35	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.732	30

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.74	14.931	3.864	30

T-TEST PAIRS=PRE WITH POST (PAIRED)

/CRITERIA=CI(.9500)

/MISSING=ANALYSIS.

Table 4.2 (a) *The T-Test of Paired Samples Statistics for the experimental group*

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMi KAJIAN\ho1\data ho1
.sav

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PRE	45.31	16	11.388	2.847
POST	68.19	16	8.879	2.220

Table 4.2 (b) *The Paired Samples T-Test of Pre and Post Test for the experimental group*

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRE - POST	-22.875	7.915	1.979	-27.093	-18.657	-11.560	15	.000

```

T-TEST PAIRS=PRE WITH POST (PAIRED)
/CRITERIA=CI(.9500)

/MISSING=ANALYSIS.

```

Table 4.3 (a) *The T-Test of Paired Samples Statistics for the control group*

```

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMi KAJIAN\ho1\data ho1
.sav

```

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	45.25	16	10.661	2.665
	POST	51.50	16	10.930	2.733

Table 4.3 (b) *The Paired Samples T-Test of Pre and Post Test for the control group*

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRE - POST	-6.250	5.544	1.386	-9.204	-3.296	-4.510	15	.000

```

T-TEST GROUPS=GROUP(1 2)
/MISSING=ANALYSIS
/VARIABLES=PRE POST
/CRITERIA=CI(.9500).

```

Table 4.3 (c) *The T-Test of Group Statistics for the both groups*

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMi KAJIAN\ho1\data ho1
.sav

Group Statistics					
GROUP		N	Mean	Std. Deviation	Std. Error Mean
PRE	Treatment	16	45.31	11.388	2.847
	Control	15	46.07	10.505	2.712
POST	Treatment	16	68.19	8.879	2.220
	Control	15	52.73	10.096	2.607

```
T-TEST PAIRS=PRE WITH POST (PAIRED)
/CRITERIA=CI(.9500)
/MISSING=ANALYSIS.
```

Table 4.4 (a) *The T-Test of Paired Samples Statistics for the experimental group*

```
[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMIKAJIAN\ho2\data ho2.
sav
```

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	48.44	16	12.874	3.218
	POST	71.56	16	9.259	2.315

Table 4.4 (b) *The Paired Samples T-Test of Pre and Post Test for the experimental group*

Paired Samples Test									
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	PRE - POST	-23.125	11.815	2.954	-29.421	-16.829	-7.829	15	.000

```
T-TEST PAIRS=PRE WITH POST (PAIRED)
/CRITERIA=CI(.9500)
/MISSING=ANALYSIS.
```

Table 4.5 (a) *The T-Test of Paired Samples Statistics for the control group*

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMI KAJIAN\ho2\data ho2
.sav

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	47.50	16	12.517	3.129
	POST	53.12	16	12.230	3.058

Table 4.5 (b) *The Paired Samples T-Test of Pre and Post Test for the control group*

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PRE - POST	-5.625	4.787	1.197	-8.176	-3.074	-4.700	15	.000

```

T-TEST GROUPS=GROUP(1 2)
/MISSING=ANALYSIS
/VARIABLES=PRE POST
/CRITERIA=CI(.9500).

```

Table 4.5 (c) *The T-Test of Group Statistics for both groups*

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMi KAJIAN\ho2\data ho2
.sav

Group Statistics					
GROUP		N	Mean	Std. Deviation	Std. Error Mean
PRE	Treatment	16	48.44	12.874	3.218
	Control	15	48.00	12.790	3.302
POST	Treatment	16	71.56	9.259	2.315
	Control	15	54.00	12.130	3.132

```
T-TEST PAIRS=PRE WITH POST (PAIRED)
/CRITERIA=CI(.9500)
/MISSING=ANALYSIS.
```

Table 4.6 (a) *The T-Test of Paired Samples Statistics for the experimental group*

[DataSet1] C:\Documents and Settings\Helmi\Desktop\HELMI KAJIAN\ho3\data ho3
.sav

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	42.19	16	17.318	4.329
	POST	64.69	16	12.037	3.009

Table 4.6 (b) *The Paired Samples T-Test of Pre and Post Test for the experimental group*

Paired Samples Test									
		Paired Differences				t	df	Sig. (2-tailed)	
			Std.	Std. Error	95% Confidence Interval of the Difference				
					Mean				Deviation
Pair 1	PRE - POST	-22.500	11.972	2.993	-28.880	-16.120	-7.517	15	.000

(Appendix A)
Pretest Questions
Prepositions Topic
English Language Form Four

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. He has been here _____ eight o'clock. (for, since, at)
2. The jockey fell _____ his horse during the race. (off, on, into)
3. My brother is tall _____ his age. (of, for, in)
4. The contestants were required to throw the ball _____ the basket from a distance.
(off, into, at)
5. The express bus was travelling _____ full speed when the driver lost control.
(at, in, over)
6. Her job requires her to translate documents _____ Chinese. (into, for, of)
7. He jumped _____ joy when he was given the good news. (on, over, for)
8. According to the weather report, it may rain later _____ the evening. (of, to, in)
9. I expect to receive your resignation _____ 5.00 pm. today. (on, from, by)

10. Please make sure that all applications are submitted _____ the deadline.
(towards, at, before)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The boys will visit their grandmother _____ the holidays

12. The guard waited _____ all the children had crossed the road safely.

13. It has been a long time _____ I saw my aunt.

14. She has lived in this house _____ many years.

15. Mrs. Wong has been waiting for her son _____ midnight.

6. You are not allowed to leave _____ the meeting is over.

17. Some of the girls were nervous _____ the presentation.

18. The carpenter was told to finish his work _____ two months.

19. The students rushed to buy their books _____ recess.

20. He is told to leave the rented bungalow _____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).

Instruction: *Fill in the blanks with suitable prepositions.*

21. My sister returned from Australia _____ a year.
22. I have just received a letter _____ my pen-pal.
23. A policemen must wear his uniform when he is _____ duty.
24. She has been sleeping _____ two in the afternoon.
25. They had to swim _____ the river to retrieve the hidden clue.
26. You were not _____ home when I visited yesterday.
27. A taxi is waiting _____ you _____ the gate.
28. Don't sit _____ the end of the table.
29. The class project has to be submitted _____ Friday.
30. He is going to Europe _____ August.

End of Question

(Appendix B)

Posttest Questions

Prepositions Topic

English Language Form Four

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. According to the weather report, it may rain later ____ the evening. (of, to, in)
2. He has been here _____ eight o'clock. (for, since, at)
3. He jumped _____ joy when he was given the good news. (on, over, for)
4. The jockey fell _____ his horse during the race. (off, on, into)
5. I expect to receive your resignation _____ 5.00 pm. today. (on, from, by)
6. My brother is tall _____ his age. (of, for, in)
7. The express bus was travelling _____ full speed when the driver lost control.
(at, in, over)
8. Her job requires her to translate documents _____ Chinese. (into, for, of)
9. Please make sure that all applications are submitted _____ the deadline.
(towards, at, before)

10. The contestants were required to throw the ball _____ the basket from a distance. (off, into, at)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The guard waited _____ all the children had crossed the road safety.

12. Mrs. Wong has been waiting for her son _____ midnight.

13. Some of the girls were nervous _____ the presentation.

14. She has lived in this house _____ many years.

15. The carpenter was told to finish his work _____ two months.

16. You are not allowed to leave _____ the meeting is over.

17. The boys will visit their grandmother _____ the holidays.

18. The students rushed to buy their books _____ recess.

19. It has been a long time _____ I saw my aunt.

20. He is told to leave the rented bungalow _____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).

Instruction: *Fill in the blanks with suitable prepositions.*

21. A taxi is waiting _____ you _____ the gate.
22. My sister returned from Australia _____ a year.
23. I have just received a letter _____ my pen-pal.
24. He is going to Europe _____ August.
25. Don't sit _____ the end of the table.
26. A policemen must wear his uniform when he is _____ duty.
27. She has been sleeping _____ two in the afternoon.
28. They had to swim _____ the river to retrieve the hidden clue.
29. You were not _____ home when I visited yesterday.
30. The class project has to be submitted _____ Friday.

End of Question

(Appendix C)

Suggested Answers

Prepositions Topic

English Language Form Four

Name: _____

Form 4: _____

Level 1 Learning Outcomes (To identify the suitable prepositions)

Instruction: *Fill in the blanks with the correct prepositions in brackets.*

1. According to the weather report, it may rain later ____in____ the evening. (of, to, in)
2. He has been here ____since____ eight o'clock. (for, since, at)
3. He jumped ____for____ joy when he was given the good news. (on, over, for)
4. The jockey fell ____off____ his horse during the race. (off, on, into)
5. I expect to receive your resignation __ by__ 5.00 pm. today. (on, from, by)
6. My brother is tall __for____ his age. (of, for, in)
7. The express bus was travelling ____at____ full speed when the driver lost control.
(at, in, over)
8. Her job requires her to translate documents ____into____ Chinese. (into, for, of)
9. Please make sure that all applications are submitted ____before____ the deadline.
(towards, at, before)

10. The contestants were required to throw the ball ____into____ the basket from a distance. (off, into, at)

Level 2 Learning Outcomes (To differentiate the prepositions)

Instruction: *Complete the sentence below with these prepositions.*

until	since	during	within	for
--------------	--------------	---------------	---------------	------------

11. The guard waited ____until____ all the children had crossed the road safety.

12. Mrs. Wong has been waiting for her son __since____ midnight.

13. Some of the girls were nervous ____during____ the presentation.

14. She has lived in this house ____for____ many years.

15. The carpenter was told to finish his work ____within____ two months.

16. You are not allowed to leave __until____ the meeting is over.

17. The boys will visit their grandmother ____during____ the holidays.

18. The students rushed to buy their books ____during____ recess.

19. It has been a long time ____since____ I saw my aunt.

20. He is told to leave the rented bungalow ____within____ 24 hours.

Level 3 Learning Outcomes (To apply the suitable prepositions).

Instruction: *Fill in the blanks with suitable prepositions.*

21. A taxi is waiting ____for____ you ____at____ the gate.
22. My sister returned from Australia ____after____ a year.
23. I have just received a letter ____from____ my pen-pal.
24. He is going to Europe ____in____ August.
25. Don't sit ____at____ the end of the table.
26. A policemen must wear his uniform when he is ____on____ duty.
27. She has been sleeping ____since____ two in the afternoon.
28. They had to swim ____across____ the river to retrieve the hidden clue.
29. You were not ____at____ home when I visited yesterday.
30. The class project has to be submitted ____on____ Friday.

End of Question