

SKRIPSI**A COMPARATIVE STUDY BETWEEN PROBLEM BASED LEARNING
AND DIRECT INSTRUCTION IN TEACHING ENGLISH GRAMMAR AT
PRIVATE ISLAMIC JUNIOR HIGH SCHOOL PERGURUAN ISLAM AL-
ULUM TERPADU MEDAN**

*Submitted to the Faculty of Tarbiyah and Teachers Training, State Islamic
University of North Sumatera Medan as a Partial Fulfillment of the Requirements
for Sarjana Pendidikan*

BY:**ERNI YUNITA****NIM. 34.13.1.082**

Advisor I

Advisor II

Dr. Didik Santoso, M.Pd
NIP. 19660616 199403 1 006

Drs. H. Achmad Ramadhan, MA
NIP. 19660115 199403 1 002



**DEPARTMENT OF ENGLISH EDUCATION
FACULTY OF TARBIYAH AND TEACHERS TRAINING
STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA
MEDAN**

2017

No : Istimewa Medan, 07 April 2017
Lamp : - Kepada Yth:
Hal : Skripsi Bapak Dekan Fakultas Tarbiya
Erni Yunita UIN-SU
di
Medan

Assalamualaikum Wr. Wb

Dengan Hormat,

Setelah membaca, meneliti, dan memberi saran-saran perbaikan seperlunya, terhadap skripsi mahasiswa

Nama : Erni Yunita

NIM : 34.13.1.082

Jurusan : Pendidikan Bahasa Inggris

Judul : “ A Comparative Study Between Problem Based Learning and Direct Instruction in Teaching English Grammar at Private Islamic Junior High School Perguruan Islam Al-Ulum Terpadu Medan”

Maka kami menilai bahwa skripsi ini dapat diterima untuk di munaqosyahkan dalam sidang munaqasyah Fakultas Ilmu Tarbiyah dan Keguruan UIN-SU Medan.

Demikian kami sampaikan, atas perhatian saudara kami ucapkan terima kasih.

Wassalamualaikum Wr.Wb

Advisor I

Advisor II

Dr. Didik Santoso, M.Pd

NIP. 19660616 199403 1 006

Drs. H. Achmad Ramadhan, MA

NIP. 19660115 199403 1 002

PERNYATAAN KEASLIAN SKRIPSI

Saya yang bertanda tangan di bawah ini:

Nama : Erni Yunita

NIM : 34.13.1.082

Jurusan : Pendidikan Bahasa Inggris

Judul : “ A Comparative Study Between Problem Based Learning and Direct Instruction in Teaching English Grammar at Private Islamic Junior High School Perguruan Islam Al-Ulum Terpadu Medan”

Menyatakan dengan sebenar-benarnya bahwa skripsi yang saya serahkan ini benar-benar merupakan hasil karya sendiri, kecuali kutipan-kutipan dari ringkasan yang semua telah saya jelaskan sumbernya.

Apabila di kemudian hari terbukti atau dapat di buktikan skripsi ini hasil ciplakan, maka gelar ijazah yang diberikan oleh universitas batal saya terima.

Medan, 07 April 2017

Yang Membuat Pernyataan

Erni Yunita

NIM. 34.13.1.082

ABSTRACT

ERNI YUNITA. A COMPARATIVE STUDY BETWEEN PROBLEM BASED LEARNING AND DIRECT INSTRUCTION IN TEACHING ENGLISH GRAMMAR AT PRIVATE ISLAMIC JUNIOR HIGH SCHOOL PERGURUAN ISLAM AL-ULUM TERPADU MEDAN.

Skripsi, Medan: Department of English Education Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera, Medan 2017.

Keyword: Problem Based Learning, Direct Instruction, English Grammar.

This study was conducted to find out the comparative between problem based learning and direct instruction in teaching English grammar. The aim of this study are: (1) To know the students' ability in learning English grammar that was taught by using problem based learning, (2) To know the students' ability in learning English grammar that was taught by using direct instruction, (3) To know there is any significant different of the student's ability in learning English grammar that were taught by using problem based learning and direct instruction. The population of this study was the eight grade of students at Perguruan Islam Al-ulum Terpadu Medan that consists of 72 students. The instrument of collecting data used test. The analyzing data used t test. At the end of this study, the researcher took conclusion as follows: After analyzing data, (1) the mean of the students score in learning English grammar that was taught by using problem based learning was 72,083. (2) The mean of students score in learning English grammar that was taught by using direct instruction was 60,208. (3) The comparative between problem based learning and direct instruction in teaching English grammar was 4,9 by degree of t_{table} 1,99. So the alternative hypothesis of this result was accepted and null was higher than t_{table} . It means that there was the comparative study between problem based learning and direct instruction in teaching English grammar on the students of Private Islamic Junior High School at Perguruan Islam Al-Ulum Terpadu Medan.

ACKNOWLEDGMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

First of all, I would thank to Allaah SWT, who has given blessing to me for finishing the skripsi entitled: “A Comparative Study Between Problem Based Learning and Direct Instruction in Teaching English Grammar on the Students of Private Islamic Junior High School at Perguruan Islam Al-Ulum Terpadu Medan”, furthermore, greats the darkness period into the brilliant period like now.

This skripsi was written to fulfill one for the requirements for S-1 program at Departement of English Education Faculty of Tarbiyah and Teachers Training the State Islamic University of North Sumatera Medan. In writing this skripsi, I found various difficulties. This skripsi would not e as it is now without any helps and supports from many parties. Additionally, the writer is grateful to the following for their supports and helps.

1. **Dr. Amirruddin Siahaan, M.Pd** as the dean of Faculty of Tarbiyah and Teacher Training State Islamic University of North Sumatera.
2. **Dr. Sholihatul Hamidah Daulay, S.Ag, M.Hum** the Head of English Educational Department
3. **Dr. DidikSantoso, M.Pd** as my first advisor who has given his charm ideas, suggestion, correction, beneficial opinion and encouragement in process of writing this *skripsi*. He also gives his warm support and advises me to be more patient on finishing this *skripsi*.
4. **H. Achmad Ramadhan, MA** as my second advisor who gives guidance, dedication, and support during writing this skripsi.
5. All lecturers in the English Department for teaching precious knowledge, sharing philosophy of life, and giving wonderful study experience.

6. The principal of Private Islamic Junior High School Perguruan Islam Al-Ulum Terpad Medan **Suhendrik, S.Pd**, English teacher **Sulastri, S.Pd** and all students of VIII class who helped the writer during the research.
7. My beloved parents **Azri** and **Nuraini** who always give me support, advice, motivation, help, goodness, care, and all things that I need to finish my study.
8. My beloved brother **Islah Huddin**, my beloved sisters **Riska Wahyuni, Rini Wahyuni, and Eva Yusmita** who have supported me in completing my study at Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera.
9. All of my family in PBI-3, thank you so much for your motivation, especially for my best friend **Nita Wida Sari Nasution, Azizah Izzaty, Lily Agustia, Helen HutriMaulida, NurAinunRitonga, Nurhidayah, Nurainun, Wanda Lestari, SyafriniRezekiHsb, Asrina Amaliyah Hbs, Nurul Amalia.**
10. My best sisters, **Nurhanida** and **Izzawati Humairo, S.Pd, M.Si** who always typing together, sharing the information, accompanied me and wait for me until we can finish our final task faster earlier.

At last, this *skripsi* is far from being perfect, but it is expected that this *skripsi* will be useful not only for the writer, but also the readers. For these reasons, constructive thoughts, full suggestions, and critics are welcome to make this *skripsi* better.

Finally, may Allah *SubhaanahuWaTa'ala* receives all their work and kindnesses. Aamiin.

Medan, 07April 2017

The Writer

Erni Yunita
NIM. 34.13.1.082

TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGE	ii
TABLE OF CONTENTS	v
LIST OF TABLES	ix
LIST OF FIGURE	x
LIST OF APPENDICES	xi
CHAPTER I INTRODUCTION.....	1
1.1. Background of the Problem	1
1.2. Identification of the Problem	4
1.3. Limitation of the Problem	5
1.4. Formulation of the Problem	5
1.5. Objective of the Study	6
1.6. Significance of the Study	6
CHAPTER II THEORETICAL REVIEW	7
2.1. Theoretical Framework	7
2.1.1. English Grammar	7
2.1.2. Problem Based Learning	10
2.1.2.1. Definition of Problem Based Learning	10
2.1.2.2. Principle of Problem Based Learning	11

2.1.2.3. Design of Problem Based Learning	12
2.1.2.4. Procedure of Problem Based Learning.....	14
2.1.2.5. Advantage of Problem Based Learning	15
2.2.1.6. Disadvantage of Problem Based Learning	15
2.1.3. Direct Instruction	15
2.1.3.1. Definition of Direct Instruction	15
2.1.3.2. Principle of Direct Instruction	17
2.1.3.3. Design of Direct Instruction.....	17
2.1.3.4. Procedure of Direct Instruction	19
2.1.3.5. Advantage of Direct Instruction	21
2.2.2.6. Disadvantage of Direct Instruction	22
2.1.4. Differences Between Problem Based Learning and Direct Instruction	22
2.2. Related Study	24
2.3. Conceptual Framework	26
2.4. Hypothesis	27
CHAPTER III METHODOLOGY OF RESEARCH	28
3.1. Time and Place of the Study	28
3.2. Population and Sample	28
3.2.1. Population	28
3.2.2. Sample	29

3.3. Research Method	30
3.4. Instrument of Collecting the Data	31
3.5. Technique of Analysingthe Data	31
CHAPTER IV RESEARCH FINDINGAND DISCUSSION	34
4.1. Research Finding	34
4.1.1. Description of Data	34
4.1.1.1. The Data of Students' Score in Learning English Grammar that was taught by Using Problem Based Learning	35
4.1.1.2. The Data of Students' Score in Learning English Grammar that was taught by Using Direct Instruction	36
4.1.2. Analysis Requirement Testing	38
4.1.2.1. Normality Testing	38
4.1.2.2. Homogeneity Testing	39
4.1.3. Hypothesis Testing	40
4.2. Discussion	41
CHAPTER V CONCLUSION AND SUGGESTION	42
5.1 Conclusion	42
5.2. suggestions	43

REFERENCES	44
APPENDICES	47

LIST OF TABLES

I. Differences Between Problem Based Learning and Direct Instruction	22
II. The Population of Research	29
III. The Sample of Research	30
IV. Research Method	31
V. Research Result Data	34
VI. The Frequency Distribution of the Students' Ability in Learning English Grammar that was taught by Using Problem Based Learning.....	35
VII. The Frequency Distribution of the Students' Ability in Learning English Grammar that was taught by Using Direct Instruction	37
VIII. The Normality Test on the Students' Ability in Learning English Grammar that was taught by Using Problem Based Learning	39
IX. The Normality Test on the Students' Ability in Learning English Grammar that was taught by Using Direct Instruction	39
X. T-test Result of Post Test	40

LIST OF FIGURES

I.	The Frequency Distribution Histogram of The Students’ Score in English Grammarthat was Taught by Using Problem Based Learning	36
II.	The Frequency Distribution Histogram of The Students’ Score in English Grammarthat was Taught by Using Problem Based Learning	38

LIST OF APPENDICES

I.	Assessment of English Grammar.....	47
II.	Lesson Plan for Experiment Class.....	49
III.	Lesson Plan for Control Class.....	89
IV.	Post Test Sheet.....	129
V.	Students’ Name of Experiment Class	136
VI.	Students’ Name of Control Class.....	138
VII.	Students’ Score at Experiment Class	140
VIII.	Students’ Score at Control Class	142
IX.	The Calculation of Mean Value and Standard Deviation	144
X.	The Calculation of Normality Testing.....	146
XI.	The Calculation of Homogeneity Testing.....	147
XII.	The Calculation of Hypothesis Testing	152
XIII.	The Critical Value Liliefors Test	156

XIV. Table Large Area	157
XV. Table of F Distribution	158
XVI. Table of T Distribution	160

CHAPTER I

INTRODUCTION

1.1. Background of the Problem

The objective of teaching English grammar is that the students are expected to be able to assimilate the correct patterns of language and the develop students insight into the structure of English language.¹ In the grammar, the students study the structure of languages, and learn how the language works.

Based on the reason above, It is important for the students to learn about grammar. Without grammar, it is hard for people to understand that they want to say or write because the grammar makes a string of words or utterances meaningful. There are many rules in grammar that cannot be ignored. They are articles, parts of speech, sentence pattern and tense. If people want to use foreign language, grammar is necessary in a way of learning the language more quickly and efficiently. If the people know grammatical rules and structures, they are be able to understand their own sentence. Grammar is essential language skill and it is important for learning foreign language.

However in reality, many students feel difficult to learn English grammar. Based on the information obtained from the English teacher at Perguruan Islam Al-ulum Terpadu Medan, it was found that many students still had difficulties in mastering English grammar. It can be proven from the fact that the students say

¹Jtmadhavan, "Teaching English Grammar", accessed on 2011/01/02. (<https://jtmadhavan.wordpress.com.pdf>).

like this: *You handsome*. The sentence should be like this *You are handsome*. This proves that the students don't know when the use of be is. He has learned *be* (*grammar*), but He is still confuse to use it.

There are many factors that can cause the low level of English grammar, namely internal and external factors. The internal factors that: Intelligence Quality (IQ), motivation, interest, learning style, attention, etc. The eksternal Factors that: family, teaching method, teacher, facility, discipline, type of task, etc.²

A teacher must have training relevant to their own instructional situations in three areas: identifying students' current learning strategies through surveys, interviews, or other means; helping the students individually discern which strategies are most relevant to their learning styles, tasks, and goals; and aiding students in developing orchestrated strategy use rather than a scattered approaches.

In teaching learning process, a teacher who will deliver the lessosn in front of the students should be able to choose the suitable teaching method, because teaching method has big influence in the result of teaching and learning process. An effective teaching and learning process will not be successful if the teacher is not able to apply an appropriate method in presenting the subject in the classroom.

In this case, Allah The Almighty says:

ادْعُ إِلَى سَبِيلِ رَبِّكَ بِالْحُكْمَةِ وَالْمَوْعِظَةِ الْحَسَنَةِ^ط وَجَادِلْهُمْ بِالَّتِي هِيَ أَحْسَنُ^ج إِنَّ

رَبِّكَ هُوَ أَعْلَمُ بِمَنْ ضَلَّ عَنْ سَبِيلِهِ^ط وَهُوَ أَعْلَمُ بِالْمُنْتَهِدِينَ

²Saptawulan Hening Nariswariatmojo, "Factors Which Affect Language Learning and Languge Learning Process", accessed on January 9, 2011. (<https://theauzty.wordpress.com>).

The meaning : intive to the way of your Lord with wisdom and good instruction, and argue with them in a way that is best. Indeed, your Lord is most knowing of who has strayed from his way, and He is most knowing of who is (rightly) guided. (An-Nahl:125).³

Teaching methods that exist in this verse is *hikmah* (to be wisely), *al-mau'idhotil hasanah* (good education) and *jaadilhum billati hiya ahsan* (good rebuttal). So, between the teacher and students can do the learning process in according with the expected.

There are different types of teaching methods which can be categorised into four broad types. These are: teacher-centred methods, learner-centred methods, content focused methods and interactive/participative methods.⁴

Problem based learning (PBL) include to learner-centred methods, because the problem based learning is a student-centered approach. In PBL, students try to solve questions without any prior knowledge, and they can find answer through exploration of several options provided by the question. And teacher-centred methods is called by direct instruction. The direct instruction is approach that is academically focused on the teacher clearly stating the goals for the lesson. The teacher monitors the students to understand and provide feedback to the students on their performance.

³Interpretation Of The Meaning Of The Noble Quran. Published by Dar-us-Salam Publications.

⁴Asman makokna and Michaela Ongwae, (1997), *A 14 Days Teaching Methodology Course Trainers' Handbooks*, Kenya: German Development Service. p. 190

In contrast to the direct instruction method, PBL fits best with process-oriented course outcomes such as collaboration, research, and problem solving. It can help the students acquire content or conceptual knowledge, or develop disciplinary habits such as writing or communication. After determining whether their course has learning outcomes that fit the problem based learning, they will develop formative and summative assessments to measure the student learning. Group contracts, self/peer-evaluation forms, learning reflections, writing samples, and rubrics are potential problem based learning assessments.⁵

Therefore, based on the description above, the researcher is interested to conduct a research entitled “A COMPARATIVE STUDY BETWEEN PROBLEM BASED LEARNING AND DIRECT INSTRUCTION IN TEACHING ENGLISH GRAMMAR ON THE STUDENTS OF JUNIOR HIGH SCHOOL AT PERGURUAN ISLAM AL-ULUM TERPADU MEDAN ”.

1.2. Identification of the Problem

There are many problems that can be identified related to English grammar:

(1) Does IQ influence the students' in learning English grammar? (2) Does motivation influence the students' in learning English grammar? (3) Does interest influence the students' in learning English grammar? (4) Does learning style influence the students' in learning English grammar? (5) Does attention influence the students' in learning English grammar? (6) Does family influence the

⁵[Vincent R. Genareo PhD and Renee Lyons](#), (2015), *Problem-Based Learning: Six Steps to Design, Implement, and Assess*, Center for Teaching Excellence Hampton University. Volume 10, number 4.

students' in learning English grammar? (7) Does type of task influence the students' in learning English grammar? (8) Does teacher influence the students' in learning English grammar? (9) Does facility influence the students' in learning English grammar? (10) Does discipline influence the students' in learning English grammar (11) Does teaching method influence the students' in learning English grammar, etc. Many problem that can be identified. Therefore, the researcher would like to limit it.

1.3. Limitation of the Problem

Based on identification of the above problem, the researcher would like to limit only on a comparative study between problem based learning and direct instruction in teaching English grammar.

1.4. Formulation of the Problem

Based on the background of the problem above, the researcher formulated the formulation of the problem: (1) How is the students' ability in learning English grammar by using problem based learning? (2) How is the students' ability in learning English grammar by using direct instruction? (3) Are there any significant difference between of the students' ability in learnig English grammar by using problem based learning and direct instruction?

1.5. Objective of the Study

The objectives of this study are: (1) To know the students' ability in learning English grammar by using problem based learning (2) To know the students' ability in learning English grammar by using direct instruction (3) To know there is any significant different of the students' ability in learning English grammar by using problem based learning and direct instruction.

1.6. Significance of the Study

The result of this research is expected to be useful theoretically and practically. Theoretically, this study is to enrich the theory of teaching English grammar. Practical Significance: this study will be useful for: (1) The students: to help the students to increase students' ability in English grammar by using problem based learning (2) English teachers: as a contribution and information for English teacher to use problem based learning in teaching English grammar (3) The principal: to encourage principal in order that the teachers use the problem based learning in teaching English grammar (4) The other researchers: as information and comparison for the other researcher who want to conduct the relevant researcher.

CHAPTER II

REVIEW OF LITERATURE

2.1. Theoretical Framework

Theoretical framework is presenting in order to give some clearer concept being applied in this study that is on using problem based learning and direct instruction in teaching English grammar. To support the ideas of this research, some theories and some information will be included to help the writer design this research.

2.1.1. English Grammar

English grammar is a set of rules and examples dealing with the syntax and word structures (morphology) of a language. ⁶

According to Ronald Carter and Michael McCarthy, Grammar is concerned with how sentences and utterances are formed. In a typical English sentence, we can see the two most basic principles of grammar, the arrangement of items (syntax) and the structure of items (morphology): I gave my sister a sweater for her birthday.

The meaning of this sentence is obviously created by words such as gave, sister, sweater and birthday. But there are other words (I, my, a, for, her) which

⁶Richard Nordquist, "Grammar Glossary of grammatical and Rhetorical Terms" accessed on January 13, 2016. (<https://grammar.about.com>).

contribute to the meaning, and, additionally, aspects of individual words and the way they are arranged which enable us to interpret what the sentence means.⁷

Samuel Kirkham, author of one of the best-selling grammar books in nineteenth-century America, defines grammar as "the art of speaking and writing the English language with propriety".⁸

Kirkham's word "propriety" suggests that grammar is a form of social decorum and therefore that grammar involves following rules. And so, as even cursory thought will show, language must. Without some agreement as to the rules, there could be no communication.

According to oxford dictionary, Grammar is the whole system and structure of a language or of languages in general, usually taken as consisting of syntax and morphology (including inflections) and sometimes also phonology and semantics.⁹

Base on three theories above, the defenition of grammar is a set of rules how sentneces and utterance are formed, and the whole system of a language in general, usually taken as consisting of syntax and morphology .

⁷Ronald Carter and Michael McCarthy, (2006), *Cambridge Grammar of English: A Comprehensive Guide*. Cambridge Univ. Press.

⁸Samuel Kirkham,(1829), "English Grammar in Familiar Lectures" accessed on January 13, 2016. (<http://www.polysyllabic.com>).

⁹Ayunda Ayu,"The Grammar Translation Method",accessed on April 19, 2013. (<http://seeayunda.blogspot.co.id>).

The linguistic perspective, seen in the concept of grammatical competence, was proposed by Chomsky in his writings in the 1950s and 1960s. At that time, knowing a language was equated with knowing the grammar of that language. Grammatical competence was the knowledge underlying our ability to produce and understand sentences in a language. We call upon our grammatical competence to express meanings in ways that are native-like in the target language. At times, we may be prevented from applying our grammatical competence, through fatigue, distractions, or other aspects of “performance”.

The theory of transformational grammar captured our ability to realize propositions in sentence structure through rules for the construction of words, phrases, and clauses; through the choice of grammatical categories, such as subject, predicate, and complement; and through grammatical processes, such as ellipsis, pronominalization, reordering, and transformation.¹⁰

There are several applications of grammatical study: (1) A recognition of grammatical structures is often essential for punctuation; (2) A study of one's native grammar is helpful when one studies the grammar of a foreign language; (3) A knowledge of grammar is a help in the interpretation of literary as well as nonliterary texts, since the interpretation of a passage sometimes depends crucially on grammatical analysis; (4) A study of the grammatical resources of

¹⁰Jack C. Richards, (1994), *The context of language teaching*, New York: Cambridge University. p. 144-145

English is useful in composition: in particular, it can help you to evaluate the choices available to you when you come to revise an earlier written draft.¹¹

2.1.2. Problem Based Learning

2.1.2.1. Definition of Problem Based Learning

Problem-based learning is a technique of learning where the students learn about the subjects through conceptual problem solving mechanisms. It is open ended in nature, and can be used by a wide number of students at the same time.¹²

According to Gulibert, problem-based learning is a process whereby a student learns by using a problem as a stimulus to discover what information is needed to understand and facilitate the resolution of the problem. The problem is encountered right at the beginning of the learning process”.¹³

According to Barrow, problem based learning is the learning that results from the process of working towards the understanding of a resolution of a problem. The problem is encountered first in the learning process.

According to Duch, PBL is an instructional method that challenges students to "learn to learn," working cooperatively in groups to seek solutions to real world problems. These problems are used to engage students' curiosity and

¹¹Sidney Greenbaum and Gerald Nelson, (2002), *An Introduction to English Grammar*, 2nd ed. Pearson.

¹²[Sravani](http://content.wisestep.com/problem-based-learning-pbl-advantages-disadvantages/), “Problem-Based Learning (PBL): Advantages and Disadvantages” accessed on July 03, 2016. (<http://content.wisestep.com/problem-based-learning-pbl-advantages-disadvantages/>).

¹³Gulibert, J. –J,(1987),*Educational Handbook for Health Personnel*. Geneva: WHO Offset Publication.

initiate learning the subject matter. PBL prepares students to think critically and analytically, and to find and use appropriate learning resources.¹⁴

Based on the some definition above, can concluded that problem based learning is a learning method which stimulate the students how to get information and solve the problem. The problem is encountered first in the learning process.

2.1.2.2. Principle of Problem Based Learning

The principles of problem based learning are student motivation and problem solving skills. Student motivation is a critical component of PBL. Carefully crafted problems that are linked to the students' personal interests, to their community, or to current real-world issues can improve student motivation to ask questions and learn. Encouraging this inquisitiveness can develop life-long problem-solving skills that are highly sought after in most industries. More complex problems require a methodical approach that includes identifying known information, identifying needed information, and developing a detailed research plan for the group. This process develops the skills needed to effectively work in a group and present verbal and written information.

In order to solve a specific problem, students need to use and apply what they know about the problem and about the solution. The problem-based learning environment establishes the relevance between the knowledge and its use. The interaction between the problem and use of knowledge fosters a deeper understanding of the content knowledge. Moreover, through social negotiation

¹⁴Sir Wilfrid Laurier School Board, (2001), *An Introduction to Problem-Based Learning*, Educational Services.p.3.

with the group members, students have opportunities to compare and evaluate their understanding of subject matters with others' understanding. All these facilitate students' learning and understanding of the content.

2.1.2.3. Design of Problem Based Learning

The design of problem based learning are learning objective, learning activities, roles of students, role of teacher, and arranging material.

In PBL, class activities are constructed around a problem or problems. The instructor no long lectures. Instead, when the instructor integrates PBL into the course, students are empowered to take a responsible role in their learning. The instructor is not the authoritative source of information and knowledge. Students have to take the initiatives to inquire and learn; and the instructor must guide, probe and support students' initiatives. What students learn during their self-directed learning must be applied back to the problem with reanalysis and resolution.

Problem-based learning begins with students, working in small groups, delving into, determining key issues, and then solving a “real-world” problem under the guidance of a facilitator. By focusing upon a realistic problem, students develop a varied and deeper perspective and knowledge of the subject area. This process is not a new one; indeed, it has its beginnings in the ancient apprenticeship model which is learning by doing.¹⁵

The student role is altered with problem based learning. Problem based learning contrasts considerably with the traditional teaching most students have

¹⁵Sir Wilfrid Laurier School Board. *Ibid.* p. 6

encountered. Students have difficulty with the concept and use of self-directed learning. Be aware that students may react to the idea of problem based learning with shock, denial, anger, resistance, acceptance and finally, confidence. Students also must take responsibility for their own learning. Problem based learning encourages students to identify their learning needs and determine the resources they will need to use to accomplish their learning. With the independent learning comes considerable collaboration with other students and faculty. Collaborative work among students facilitates their comprehension of the problem and the application to future situations. Collaboration is an essential skill for students to gain as they will most likely be working as members of teams in their respective workplaces.¹⁶

The teacher is the central force that shapes the behaviors of the individual child as well as those of children in group. Even though there are many other factors that influence pupils' behavior in the school setting, early experiments have shown that the way the teacher behaves with and toward children is a major determinant in shaping behavior. The qualified and competent teacher has mastered the knowledge and skills necessary for the performance of these rules.¹⁷

Rather than teaching relevant material and subsequently having students apply the knowledge to solve problems, the problem is presented first. Students generally must: (1) Examine and define the problem (2) Explore what they already know about underlying issues related to it (3) Determine what they need to learn and where they can acquire the information and tools necessary to solve

¹⁶An Introduction to Problem-Based Learning.pdf

¹⁷Jarolimek John, and Clifford D. Foster, (1976), *Teaching and Learning in the Elementary School*, New York: Macmillan Publishing, p. 37-38

the problem (4) Evaluate possible ways to solve the problem (5) Solve the problem (6) Report on their findings.¹⁸

2.1.2.4. Procedure of Problem Based Learning

The procedure of PBL according to Amir, there are seventh steps in PBL:

(1) Clarifying and agreeing on terms and concepts that are unclear: Make sure all of the students understood some concept on the problem (2) Formulating the problem: The students determine the problem will be solved (3) Analyzing the problem: The students look at the problem critically. In this step, the students can use their knowledge to analyze or learn the problem specifically. (4) Formulating hypothesis: The students formulate same solutions on their knowledge (5) Collecting data: It is step which the students look for and draw information that they need to solve the problem. The students have to collect and choose the relevant data about the topic. Those processes are not just imagination but based on experience (6) Evaluating the hypothesis: The students take or formulate a conclusion based on the sentences or the fail of the hypothesis (7) Formulating the recommendation of problem solving: The students draw the recommendation which can be done based on the formulation of the evaluating of the hypothesis result.¹⁹

¹⁸Cornell University, "Problem-Based Learning" accessed on 12/09/2016. (<https://www.cte.cornell.edu/teaching-ideas/engaging-students/problem-based-learning.html>).

¹⁹Amir, M.T, (2009), *Inovasi Pendidikan Melalui Problem Based Learning*, Jakarta: Prenadamedia Group, p.24.

2.1.2.5. Advantage of Problem Based Learning

The advantages of problem based learning are: (1) Teaching and learning using problem based learning will be a meaningful learning. (2) In a situation of problem based learning, learners/ students integrate knowledge and skills simultaneously and applying it in a relevant context. (3) Problem based learning enhances critical thinking ability, cultivate learners initiative educates motivation to work, to learn, and to develop interpersonal relationships in working groups.²⁰

2.1.2.6. Disadvantage of Problem Based Learning

The disadvantages of problem based learning are: (1) Potentially poorer performance on tests (2) Student unpreparedness (3) Teacher unpreparedness (4) Time-consuming assessment (5) Varying degrees of relevancy and applicability.²¹

2.1.3. Direct Instruction

2.1.3.1. Definition of Direct Intruction

The term direct instruction was firts introduced by Rosenshine, who used it to capture and refer to patterns of teacher behavior correlated with high levels of student academic achievement. Rosenshine’s initial definition of direct instruction

²⁰Maulidya, Aliffatul, (2014), *Using Problem Based Learningto Improve Writing Skills of the students of SMP Islam Sunan Gunung Jati, Ngunut*, State Islamic Institute Tulungagung, p. 24.

²¹[Marcus Guido](https://www.prodigygame.com/blog/advantages-disadvantages-problem-based-learning), “5 Advantages and Disadvantages of Problem-Based Learning [+Activity Design Steps]” accessed on [December 14, 2016](https://www.prodigygame.com/blog/advantages-disadvantages-problem-based-learning). (<https://www.prodigygame.com/blog/advantages-disadvantages-problem-based-learning>).

focused on teacher behavior and classroom organization, with a particular emphasis on the use of instructional time in classroom.²²

According to Derwianka, the direct instruction is a whole class expository teaching strategy. By this strategy a teacher delivers an academic content in a highly structure format. The classroom is as follows. First, the teacher delivers what an academic descriptive paragraph is. The purpose is to express the truth of the facts of an academic descriptive paragraph to the students. Then, the teacher directs the activities of the students related to the truth of the fact of a descriptive paragraph to the whole paragraph, and from guided writing to free writing. The students are trained to strengthen their knowledge and skill on the academic paragraph. At the last, the teacher administered a test to maintain a focus on the academic achievement of the student. Direct instruction is a teacher-centered strategy in which a teacher fosters the development of the students' understanding and skill that ultimately provide the students with the opportunity and motivation to direct and control their own learning.

According to Killen there are some important features of the direct teaching strategy when it use effectively. First, the learning outcomes are clear to the students. Second, time for various instructional activities is tightly controlled. Third, the teacher controls the sequencing of the lesson activities. Fourth, there is an emphasis on academic achievement. Fifth, the students performance is

²²Douglas Carnine, Jerry Silbert, and Edward J Kmeenui, (1990), *Direct Instruction Reading*, Columbus: Merrill Publishing Company, Second Edition, p. 25

carefully monitored. And sixth, feedback to the students is academically oriented.²³

Base on the some definition above, can concluded that Direct Instruction is an approaches to teaching that is teacher center, and the students receive the information and motivation directly from the teacher.

2.1.3.2. Principle of Direct Instruction

In addition, the basic techniques of direct instruction not only extend beyond lecturing, presenting, or demonstrating, but many are considered to be foundational to effective teaching. For example: (1) Establishing learning objectives for lessons, activities, and projects, and then making sure that students have understood the goals (2) Purposefully organizing and sequencing a series of lessons, projects, and assignments that move students toward stronger understanding and the achievement of specific academic goals (3) Reviewing instructions for an activity or modeling a process—such as a scientific experiment—so that students know what they are expected to do (4) Providing students with clear explanations, descriptions, and illustrations of the knowledge and skills being taught (5) Asking questions to make sure that students have understood what has been taught.²⁴

²³Sanggam Siahaan, (2008), *Issues in Linguistics*, Yogyakarta: Graha Ilmu, Firsth edition, P. 22-23

²⁴Edglossary, “Direct Instruction” accessed on December 20, 2013. (<http://edglossary.org/direct-instruction/>).

2.1.3.3. Design of Direct Instruction

The design of direct instruction are learning objective, devising strategies learning activities, roles of learners, role of teacher, and arranging material.

Direct instruction lesson objectives: (1) Describe and explain the features and purposes of direct instruction (2) Describe and be able to follow guidelines for the effective use different methods of direct instruction (such as presentations, questions, practice, drills, reviews guided practice, and homework).

Objectives of a program should be carefully evaluated according to their usefulness. Since teaching time is limited, skills should be listed in order of importance with essential skills being taught first.

Whenever possible, programs should teach students to rely on strategies rather than require them to memorize information. A strategy is thought using a limited set of examples, but can be applied to new examples.

Teachers must take the responsibility for fostering generalization: many students do not spontaneously apply a learned strategy in new situations. Because of the importance of generalization, the amount of practice and range of examples provided must be carefully controlled.²⁵

Learning activities in direct instruction are (1) Explicit teaching (2) Lesson overviews (3) Guest speakers (4) Instruction of strategic processes (5) Lecturing (6) Didactic questioning (7) Demonstrating and modelling prior to guided practice (8) Mini-lessons (9) Guides for reading, listening, and viewing.

²⁵Douglas Carnine, Jerry Silbert, and Edward J Kmeenui. *Ibid.* p. 11-12

The roles of learners in direct instruction is (1) Highly teacher-directed (2) Teacher ensures a degree of student involvement through didactic questioning.

Teachers need adequate training. University teacher preparation programs provide, if anything, a child-centered bias that works against the direct instruction system. Engelmann, the primary architect of the direct instruction model, estimates that it takes teachers about two years to master the direct instruction classroom approach. A common problem among direct instruction implementations is the lack of appropriate training before and during the use of direct instruction in the classroom.²⁶

In addition to adequated instructional time, organized instruction involves arranging the phycisal setting and the instructional materials. A teacher might save several minutes daily by indicating the page different groups are at with clips in the teacher's guide (a diffrent colored clip for each group) so that the appropriate lesson can be easly and quickly located.

Brophy and Evertson in studying classroms in which students made significant academic gains found "(1) each students knew what his assignment was, (2) if he needed help, he could get it from the teacher or from some designated person, (3) he was accountable for completing the assignment appropriately because he knew that his work would be checked". Exercise to be worked independetly were placed in folders and placed in the students' desk.

²⁶T Kim and Saul Axelrod,(2005), *Direct instruction:An aducators' guide and plea for action*Temple University: Volume Number 6, Issue Number 2

Additional independent work was available for students who finished the work in their folder early.²⁷

2.1.3.4. Procedure of Direct Instruction

The procedures of teaching direct instruction are (1) Introduction/review, (2) Development (3) Guided practice (4) Closure (5) Independent practice and (6) evaluation.

The first step in direct instruction is for the teacher to gain the pupils' attention. Sometimes this step is referred to a 'focusing event' and is meant to set the stage for learning to take place. At this stage, the pupils are 'informed' as to what the learning goal or outcome is for the lesson and why it is important or relevant. This step can either take the form of introducing new information or building upon what has been previously learned or covered as a review.

The second step in direct instruction is development. Once the goal is communicated to pupils, the teacher models the behavior (knowledge or skill) that pupils are ultimately expected to demonstrate. This step includes clear explanations of any information with as many examples as needed to assure pupils' understanding (depending on pupils' learning needs) of what is to be learned. During this step, the teacher also "checks for understanding" by asking key questions relative to what is to be learned or by eliciting questions from

²⁷Douglas Carnine, Jerry Silbert, and Edward J Kmeenui.*op.cit.*p.11

pupils. At this stage, teachers can also use 'prompts' (visual aids, multimedia presentations, etc.) to encourage pupils to process information successfully.

The third step is guided practice. Once the teacher is confident that enough appropriate examples and explanation of the material to be learned has been modeled with sufficient positive pupil response to the instruction, activities or tasks can be assigned for pupils to practice the expected learning with close teacher monitoring. It is at this stage that teachers can offer assistance to pupils who have not yet mastered the material and who may need more 'direct instruction' from the teacher (step 2 repeated).

The fourth step in direct instruction is closure. As a final step to this model, closure brings the whole lesson to a 'conclusion' and allows the teacher to recap what was covered in the lesson. It is meant to remind pupils about what the goal for instruction was and for preparing them to complete the independent practice activities that are then assigned by the teacher.

The fifth step is independent practice. Activities or tasks related to the defined learning outcomes are assigned in this step usually after pupils have demonstrated competency or proficiency in the 3rd step. Independent practice is meant to eliminate any prompts from the teacher and is meant to determine the degree of mastery that pupils have achieved. (homework can be classified as an independent practice because it is meant to provide the opportunity for pupils to practice without the assistance or help from the classroom teacher.)

The sixth step is evaluation. Evaluation tools are used to assess pupils' progress either as occur (worksheets, classroom assignments, etc.) or as a culminating event (tests, projects, etc.) to any given lesson. Evaluation of pupils' learning provides the necessary feedback to both the teacher and the pupil and can be used to determine whether expected learning outcomes have been met or have to be revisited in future lessons.²⁸

2.1.3.5. Advantage of Direct Instruction

The advantages of direct instruction are: (1) Learning objectives/ targets are clear and specific (2) Students are made aware of content's importance (3) Effective for teaching basic skills and facts (4) Helpful in knowledge construction (5) Commonly used and accepted method of teaching (6) Can also be used to introduce other teaching methods.

2.1.3.6. Disadvantage of Direct Instruction

The disadvantages of direct instruction are: (1) Doesn't explore the creativity of teachers and students (2) Needs good organization and communication skills from the teacher (3) Highly structured, thereby steps need

²⁸Worksheet Library, "Teaching Tip Article Direct Instruction".

to be followed correctly in order (4) Depends on knowledge and skills of teacher

(5) Fails to address development of higher-level thinking in students.²⁹

2.1.4. Differences Between Problem Based Learning and Direct Instruction

Table 1

Differences Between Problem Based Learning and Direct Instruction

Problem Based Learning	Direct Instruction
A. Procedure	
<p>1. Introduction</p> <p>a. Problem-based learning begins with the teachers give problem to the students</p> <p>b. The teacher divide the students into some group discussion</p> <p>2. Development</p> <p>a. the students clarified the problem which give by the teacher</p> <p>b. the students solve the problem independently related the study</p> <p>c. the students back to their</p>	<p>1. Introduction</p> <p>a. The teacher begins the lesson with a review of the previous day's work</p> <p>b. The teacher presents new content in small steps, providing explanations and examples</p> <p>2. Development</p> <p>a. The teacher provides an opportunity for guided practice on a small number of sample problems and then prompts and models when</p>

²⁹Richa, "Instructional Strategies: Find the Best Approaches to Encourage Independent Learning" accessed on APRIL 10, 2014. (<https://blog.udemy.com/instructional-strategies/pdf>)

<p>group again to give information, and solve the problem together.</p> <p>3. Evaluation</p> <p>a. Each group present the result of their discussion in front of class</p> <p>b. the teacher help the students to evaluation which related to the lesson.</p>	<p>necessary to attain 60-80% accuracy.</p> <p>b. The teacher provides feedback and correctives according to whether the answer was correct, quick and firm; correct but hesitant; incorrect due to carelessness; or incorrect due to the lack of knowledge</p> <p>c. The teacher provides an opprtunity for independent practice with seatwork and strives for automatic responses that are at least 95% correct</p> <p>3. Evaluation</p> <p>a. The teacher provides weekly nad monthly reviews and reteaches unlearned content</p>
B. Learning Method	
<p>1. Problem</p> <p>2. Goup discussion</p> <p>3. Drill</p>	<p>1. Lecture</p> <p>2. Full class interaction</p> <p>3. Question and answer</p>

4. Problem solving 5. Home work	4. Drill 5. Demostration 6. Homework
C. Defenition	
1. Problem based learning activities can use to the meet the diverse learning needs and styles of your students, effectively engaging a diverse classroom in the process. 2. Problem-based learning can help students develop skills they can transfer to real-world scenarios	1. Direct Instruction are best suited for the teaching of facts, rules, and action sequence. 2. The students gain “how” rather than “what” (procedural knowledge). Each step must be mastered.
D. Using Media	
1. Students centered media	1. Teacher centered media

2.2. Related Study

In this research, I found the other related study from as follow:

1. Haryanto, with the title: “ Improving the Grammar Mastery of the Seventh YearStudents of SMP 2 Nalumsari, Jepara in Academic Year2013/2014 by Using Inductive Approach”. The design of this research is quantitative experimental research by using test instrument. In this research, the writer gives the students a pre test, and then continue by implementing of teaching grammar by using inductive approach, and the

last stage given to them is post test. The result of this research indicates that using inductive approach in teaching grammar is effective to improve the grammar mastery of the students. It can be seen from the pre-test and post-test result. The pre-test result of the average (mean) is 69.8 , median is 68.7 , modus is 67.85 and standard deviation is 7.2 . So, the result of grammar mastery of the seventh grade students of SMP 2 Nalumsari in academic year 2013/2014 before being taught by using inductive approach is sufficient. Meanwhile, on the post-test result the average of mean is 76.05 , median is 75.8 , modus is 76.25 and standard deviation is 5.85 . It means that the result of grammar mastery of the seventh grade students of SMP 2 Nalumsari in academic year 2013/2014 after being taught by using inductive approach is good. The writer has a suggestion that english teacher would be better to use various methods to improve the grammar mastery. One of them is by using inductive approach.³⁰

2. Maulidya, with the title: “Using Problem Based Learning to Improve Writing Skills of the students of SMP Islam Sunan Gunung Jati,Ngunut”. Research method applied in this study is collaborative classroom action research. Meanwhile, the research instruments are observation sheet, list of students’ names, interview sheet, and test. The result of data analysis shows that the writing skills of the students

³⁰Hariyanto,Muhammad. (2014), *Improving the Grammar Mastery of the Seventh Year Students of SMP 2 Nalumsari, Jepara in Academic Year 2013/2014 by Using Inductive Approach*,Department Of English EducationFaculty Of Teacher Training And EducationUniversity Of Muria Kudus.

improves after being taught by Problem Based Learning Method. The students were more imaginative and feel free to express their idea into written text. The score of mean of the students before implementing of Problem Based Learning Method was 64,25. And the score of mean of the students after implementing Problem Based Learning Method was 77,55. It can be concluded that there was an improvement in writing skills of the students of SMP Islam Sunan Gunung Jati Ngunut. The result of interview shows that most of the students are quite interested in implementation of Problem Based Learning Method . Those mean that Problem Based Learning Method could solve the students problem in writing skills of the students of SMP Islam Sunan Gunung Jati Ngunut.³¹

2.3. Conceptual Framework

Problem-based learning is better in teaching English grammar, because with problem based learning, students working in small groups facilitated by tutors identify their own learning objectives from problem scenarios.

Problem based learning is characterised by certain ground rules. It is a combination of educational method and philosophy. Philosophically, problem based learning is centred on the student and on problem-first learning, whereas in subject based learning teachers transmit knowledge to students before using problems to illustrate it. Problem based learning aims to enable students to acquire

³¹Maulidya, Aliffatul. (2014) *Using Problem Based Learning to Improve Writing Skills of the students of SMP Islam Sunan Gunung Jati, Ngunut*. State Islamic Institute Tulungagung.

and structure knowledge in an efficient, accessible, and integrated way. The method involves learning in small groups, in a “tutorial” system.

In problem-based learning courses, students work with classmates to solve complex and authentic problems that help develop content knowledge as well as problem-solving, reasoning, communication, and self-assessment skills. These problems also help to maintain student interest in course material because students realize that they are learning the skills needed to be successful in the field. Almost any course can incorporate PBL, and most faculty and students consider the benefits to be substantial. This issue of *Speaking of Teaching* identifies the central features of PBL, provides some guidelines for planning a PBL course, and discusses the impact of PBL on student learning and motivation.

The main advantages of problem based learning is that it makes the whole learning experience interesting. Problem based learning is a challenging program because they need to understand the design of the organisation and how it works by the motivation of the whole team. The information provided is really apparent, the students feel a need to search for information when they solve and discuss problems. Hence students can feel genuinely interested in learning.³²

2.4. Hypothesis

Base on the explanation of the theoretical and framework of thought above, the hypothesis of this research is drawn as the following:

³²Sravani, “Problem Based Learning (PBL): Advantage and Disadvantages” accessed on July 3, 2016. (content.wisestep.com).

Ha: There is a significant different between Problem Based Learning and Direct Instruction in teaching English Grammar.

Ho: There is no significant different between Problem Based Learning and Direct instruction in teaching English Grammar.

CHAPTE III

METHODOLOGY OF RESEARCH

3.1. Time and Place of the Study

This study was conducted at Perguruan Islam Al-ulum Terpadu Medan. This research was focused in the students of Junior High School especially eight grade at 2016/2017 academic year. The researcher choose Perguruan Islam Al-ulum Terpadu Medan as the research location because: (1) the researcher found the problem in this school (2) the research has not conducted in this school (3) The school location was near from the researcher.

3.2. Population and Sample

3.2.1. Population

Population is a subjects which will be investigated in the study.³³ According to Sugiyono, population is general objects or subjects that have specific quality and characteristic decided by the researcherr to explorer and then take a conclusion.³⁴ The population of this study was the eighth grade students of Junior High School at Perguruan Islam Al-ulum Terpadu medan, there were four classes of the second year students in academic year 2016/2017.

Tabel 2

³³Syahrum and Salim, (2012), *Metodologi penelitian Kuantitatif*, Bandung: Ciptapustaka Media, p.113

³⁴Sugiono, (2010),*Metode penelitian kualitatif, kuantitatif, da R&D* Bandung: Alfabeta, p. 80

The Population of Research

No	Class	Population
1	VIII- A	36
2	VIII-B	36
3	VIII-C	36
4	VIII-D	36
Total		144 Students

So, the total of population are 144 students.

3.2.2. Sample

Sample is part of population which are become investigated of study.³⁵The sample of this research were two classess, they are: VIII-D and VIII-B, that consist from 72 students, whis is VIII- D class consist of 36 students and VIII-B consist of 36 students. In this research the researcher taken sample by using multistage cluster random sampling technique. For cluster random sampling has 3 steps: (1). Lottery technique, (2). Ordinal technique, (3). Randomly form number list random.³⁶

The sample randomly technique was taken by using letteray technique. Each class of second year's students was written in a piece of paper. Then they were placed in a box. The box was shaken and two piece of paper was taken by researcher. The classes in the two piece of paper would be the sample. The classes were VIII-D and VIII-B. These two

³⁵Syahrum and Salim.*Ibid*.p. 113-114.

³⁶Syahrum and Salim.*Op.cit*. P. 115

classes were divided into two groups. Class VIII-D was taught by using problem based learning and class VIII-B was taught by using direct instruction, so the total sample are 72 students.

Table 3

The Sample of Research

No	Class	Sample
1	VIII-D	36 Students
2	VIII-B	36 Students
Total		72 Students

So, the total sample are 72 students

3.3. Research Method

In this study, the researcher used experimental method. The collect the data, the sample divided into two classes. One of the class that was taught English grammar by using problem based learning and other one that was taught English grammar by using direct instruction.

Both of classes were given different treatment. After the treatments, both the class were given test about English grammar, and their scores were the main data of the study.

Finally the students' score of class VIII-D and class VIII-B were compared to see there is any significant different of the students ability in English grammar by using t-test formula.

Table 4

Research Method

Class	Treatment	Post Test
Experiment	Problem Based Learning	√
Control	Direct Instruction	√

3.4. Instrument of Collecting Data

To know the true fact of the research, the researcher used post test as the instrument of collecting data. The researcher used students as participants. When the researcher did test, the researcher was used written technique. Here the researcher just being an observer.

The test form was given by the researcher to the students and they must answer the question just by themselves without asking and dishonest with their classmates. So their answer must pure from their own ability. The steps to did this test are follows: (1) giving instruction that test is directly did on the paper (2) specifying the time for to the students to do the best (3) collecting the test from the students when the time was over (4) and the last making score the students answer.

3.5. Technique of Analyzing Data

To analysis the data, the researcher will use T-test formula. The reason for using this formula is that this study aims to determine whether there are significant differences between the two sample means or not. Prior to the data analysis by t test done first be tested for normality and homogeneity of data. F-test

is then performed to determine the significance test of the effect of one variable or a combination terhadap independent variable dependent variable. Then, a further test carried out by t-test. All submissions analyzes were performed on significance level 0,05.

According to Sri Wahyuna in her dictate, the procedure in T-tes are as in the following:

1. Mean of sample 1 (experimental group)

$$M1 = \frac{\Sigma X1}{n1}$$

2. Mean of sample 2 (control group)

$$M2 = \frac{\Sigma X2}{n2}$$

3. Standard deviation of sample 1 (experimental group)

$$SD_1 = \sqrt{\frac{\Sigma x_1^2}{n_1}}$$

4. Standard deviation of sample 2 (control group)

$$SD_2 = \sqrt{\frac{\Sigma x_2^2}{n_2}}$$

5. Standard error of the mean sample 1 (experimental group)

$$SE_{M1} = \frac{SD_1}{\sqrt{n_1-1}}$$

6. Standard error of the mean sample 2 (control group)

$$SE_{M2} = \frac{SD_2}{\sqrt{n_2-1}}$$

7. Standard error of the different between M_1 dan M_2

$$SE_{M1-M2} = \sqrt{SEM1^2 + SEM2^2}$$

8. T observation (t_0)

$$t_o = \frac{M_1 - M_2}{SEM_{1-2}}$$

notes :

t_o = T price observation

M_1 = Mean of sampe 1 (experimental group)

M_2 = Mean of sampe 2 (control group)

SD_1 = Standard error of the mean sample 1 (experimental group)

SD_2 = Standard error of the mean sample 2 (control group)

SE_{M_1} = Standard error of the mean sample 1 (experimental group)

SE_{M_2} = Standard error of the mean sample 2 (control group)

$SE_{M_1-M_2}$ = Standard error of the different between M_1 dan M_2 ³⁷

³⁷Sri Wahyuna, (2016), *Statistik Pendidikan*, Medan: University Islamic Studies, p. 82-83.

CHAPTER IV

RESEARCH FINDING AND DISCUSSION

4.1. Research Finding

4.1.1 Description of Data

To collect the data of this research, the researcher was observed to the eighth grade students of Private Islamic Junior High School at Perguruan Islam Al-Ulum Terpadu Medan. There were two classes namely VIII D and VIII B. For VIII D, the method that the researcher was used problem based learning and for VIII B, the researcher was used direct instruction. Then the researcher give the test to the students to get the data about difference between of the students' ability in learning English grammar by using problem based learning and direct instruction. After getting the data, the researcher analyzed each variable. (See appendic IX)..

Table 5

Research Result Data

Statistic Source	Learning Method	
	ProblemBased Learning	Direct Instruction
N	36	36
\bar{X}	72,083	60,208
S	10,598	9,881

4.1.1.1. The Data of the Students' Score in Learning English Grammar that was Taught by Using Problem Based Learning

In collecting the data of the students' score in learning English grammar by using problem based learning, the researcher gave a set of the test to the students' about multiple choice text form. The aim of this research was to know the student's ability in learning English grammar by using problem based learning. The result of this research was revealed in score form.

After analyzing the data through statistic description, the results show that the students are taught by problem based learning get the range is 50 to 97,5 the mean of post test is 72,083, the standard deviation of post test is 10,598, the lowest score of post test is 50, the highest score of post test is 97,5 (See appendic VII)..

Table 6

The Frequency Distribution of The Students' Score in Learning English Grammarthat was taught by Using Problem Based Learning

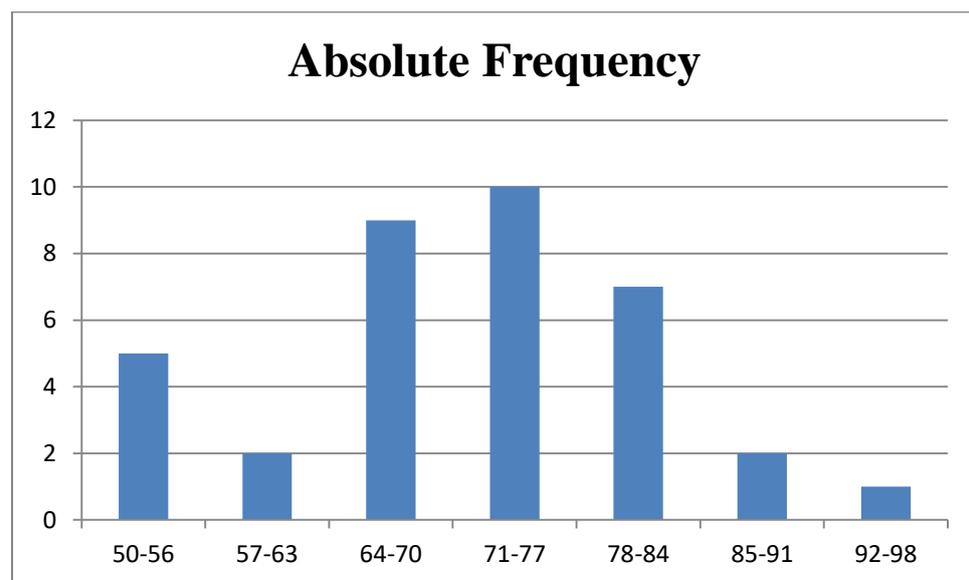
No	Score Range	Absolute Frequency
1	50-56	5
2	57-63	2
3	64-70	9
4	71-77	10
5	78-84	7
6	85-91	2
7	92-98	1
		36

Table 6 above shows that the lowest score of post test in learning English grammar that was taught by using problem based learning is 50, the highest score of post test in learning English grammar that was taught by using problem based learning is 97,5.

The next is histogram of distribution frequency students' score in learning English grammar, as follows:

Figure 1

The Frequency Distribution Histogram of the Students' Score English Grammar that was Taught by Using Problem Based Learning



4.1.1.2. The Data of the Students' Score in Learning English Grammar that was Taught by Using Direct Instruction

In collecting the data of the students' score in learning English grammar by using direct instruction, the researcher gave a set of the test to the students'

about multiple choice text form. The aim of this research was to know the student's ability in learning English grammar by using direct instruction. The result of this research was revealed in score form.

After analyzing the data through statistic description, the results show that the students are taught by direct instruction get the range is 42,5 to 80 the mean of post test is 60,28, the standard deviation of post test is 9,881, the lowest score of post test is 42,5, the highest score of post test is 80 (See appendic VIII)..

Table 7

The Frequency Distribution of The Students' Score in Learning English Grammar that was taught by Using Direct Instruction

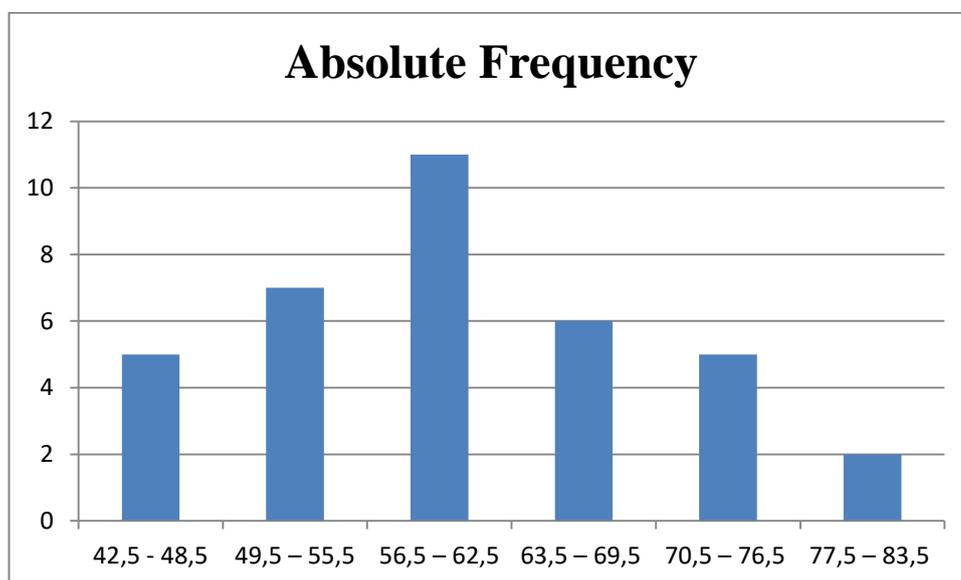
No	Score Range	Absolute Frequency
1	42,5 - 48,5	5
2	49,5 – 55,5	7
3	56,5 – 62,5	11
4	63,5 –69,5	6
5	70,5 – 76,5	5
6	77,5 – 83,5	2
		36

Table 7 above shows that the lowest score of post test in learning English grammar that was taught by using direct instruction is 42,5, the highest score of post test in learning English grammar that was taught by using direct instruction is 80.

The next is histogram of distribution frequency students' score in learning English grammar, as follows:

Figure 2

The Frequency Distribution Histogram of the Students' Score English Grammar that was taught by Using Direct Instruction



4.1.2. Analysis Requirement Testing

4.1.2.1. Normality Testing

Normality testing used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed (See appendic X).

Table 8
The Normality Testing

No	Data	N	α	$L_{observed}$	L_{table}	Conclusion
1	Post test of experiment class	36	0,05	0,016	0,148	Normal
2	Post test of control class	36	0,05	-0,005	0,148	Normal

Based on the table above, it can be concluded that all of the data distribution was normal, because $L_0 < L_t$.

4.1.2.2. Homogeneity Testing

Based on the normality test then the study of this research found out the homogeneity test. Homogeneity testing used F-test to know what the samples come from the population that homogenous or not (See appendic XI).

Table 9
Homogeneity Test of Post Test

No.	Data	Variant	$F_{observed}$	F_{table}	Conclusion
1.	Posttest of experiment class	112,321	1,15	2,30	Homogenous
2.	Posttest of control class	97,633			

So $F_{\text{observed}} < F_{\text{table}}$ atau ($1,15 < ,$) so it can be concluded that the variant is homogenous.

4.1.3. Hypothesis Testing

Hyphotesis test was done to answer which was proposed before and to decide whether the hyphotesis will be accepted or rejected, The result of hypothesis of this study can be shown from the table below (See appendic XII):

Table 10
T-test Result of Post Test

Data	T_{observed}	t_{table}	Conclusion
Experiment class	4,49	1,99	There is a differencebetwe en problem based learning and direct instruction in teachingEnglish grammar.
Control class			

4.2. Discussion

The result of the research showed that the mean result of the test which was given to the students, who was taught by using problem based learning was higher than the students test result that was taught by using direct instruction.

The fact above indicated that the application of problem based learning was proven more effective to increase the students' ability in learning English grammar at Private Islamic Junior High School Perguruan Islam Al-Ulum Terpadu Medan. It can be accepted because through problem based learning, the students can construct and find their own understanding. Besides, the teaching of assignment was aimed to create the students' participation in solving problem which is given by educator in teaching, therefore the role of educator in teaching was as a facilitator who guided the students to find and construct their own understanding.

The data processing above showed that there was a difference between problem based learning and direct instruction. It show from the average coefficient and result of hyphotesis test of both experiment and control class, the average coefficient of VIII D taught by using problem based learning with score 72,083 and the average coefficient of VIII B taught by using direct instruction with score 60,208, while the hyphotesis test that by using t_{test} the coefficient of $t_{observed} = 4,9$ so it can be concluded that the students' ability who were taught by using problem based learning better that direct instruction. This phenomenon show that teaching by using problem based learning was important supporting factor especially in teaching English grammar.

CHAPTER V

CONCLUSION AND SUGGESTIONS

5.1. Conclusion

Based on the result of the data analysis, the students' ability in learning English grammar that was taught by using problem based learning showed that from the result of data analysis, it was found that the highest score of the students' ability in learning English grammar taught by using problem based learning was 97,5, and the lowest score was 50. The mean of the student' score was 72,083 while the deviation standard was 10,598.

The students' ability in learning English grammar that was taught by using direct instruction showed that from the result of data analysis, it was found that the highest score of the students' ability in learning English grammar taught by using direct instruction was 80, nad the lowest score was 42,5. The mean of the student' score was 62,028 while the deviation standard was 9,881.

Based on the statical computation of t test, it was found that the coefficient of t_{obsevasi} was 4,9 whereas the soefficient of the t_{table} was 1,99. It showed that the hyphotesis which the researcher proposed before that there was difference of the students' ability in teaching English grammar when taught with problem baed learning and direct instruction. It means that the learning by using problem based

learning was more effective than direct instruction in increasing the students' ability in learning English grammar.

5.2. Suggestion

Based on the conclusion of the research some suggestion are addressed to the following individuals and institutions:

1. The English teacher are expected to give chance to his or her students to make learning English grammar based on their ability, the English teacher must always give motivation to his or her students on teaching learning process, and they apply problem based learning and direct instruction in teaching learning process in class, especially in teaching English grammar, because it is proved effective to increase the students' ability in learning English grammar.
2. Other researcher who want to do research about the same topic more deeply by adding the variable of research.

REFERENCES

- Alexandra Nozadze, *How to maket the assessment of grammar skills more efficient?* Journal of Education, ISSN 2298-0245.p.25-28
- Amir, M.T, (2009), *Inovasi Pendidikan Melalui Problem Based Learning*, Jakarta: Prenadamedia Group.
- Asman makokna and Michaela Ongwae, (1997), *A 14 Days Teaching Methodology Course Trainers' Handbooks*, Kenya: German Development Servise.
- Ayunda Ayu, "The Grammar Translation Method", accessed on April 19, 2013. (<http://seeayunda.blogspot.co.id>).
- Cornell University, "Problem-Based Learning" accessed on 12/09/2016. (<https://www.cte.cornell.edu/teaching-ideas/engaging-students/problem-based-learning.html>)
- Douglas Carnine, Jerry Silbert, and Edward J Kmeenui, (1990), *Direct Instruction Readding*, Columbus: Merrill Publishing Company, Second Edition.
- Edglossary, "Direct Instruction" accesses on December 20,2013. (<http://edglossary.org/direct-instruction/>).
- Gulibert, J. -J, (1987), *Educational Handbook for Health Personnel*. Geneva: WHO Offset Publication.
- Hariyanto,Muhammad. (2014), *Improving the Grammar Mastery of the Seventh Year Students of SMP 2 Nalumsari, Jepara in Academic Year 2013/2014 by Using Inductive Approach*,Department Of English EducationFaculty Of Teacher Training And EducationUniversity Of Muria Kudus.
- Interpretation Of The Meaning Of The Noble Quran. Published by Dar-us-Salam Publicatios.
- Jarolimek John, and Clifford D. Foster, (1976), *Teaching and Learning in the Elementary School*, New York: Macmillan Publishing.

Jack c. Richards , (1994), *The context of language teaching*, New york: Cambridge University.

Jtmadhavan, “Teaching English Grammar”, accessed on 2011/01/02. (<https://jtmadhavan.wordpress.com.pdf>)

Maulidya,Aliffatul. (2014) *Using Problem Based Learning to Improve Writing Skills of the students of SMP Islam Sunan Gunung Jati, Ngunut*. State Islamic Institute Tulungagung.

Marcus Guido, “5 Advantages and Disadvantages of Problem-Based Learning [+ Activity Design Steps]” accessed on December 14, 2016. (<https://www.prodigygame.com/blog/advantages-disadvantages-problem-based-learning/>)

Richa, “Instructional Strategies: Find the Best Approaches to Encourage Independent Learning” accessed on APRIL 10, 2014. (<https://blog.udemy.com/instructional-strategies/pdf>)

Richard Nordquist, “Grammar Glosasy of grammatical and Rhetorical Terms” accessed on January 13, 2016. (<https://grammar.about.com>).

Ronald Carter and Michael McCarthy, (2006), *Cambridge Grammar of English: A Comprehensive Guide*. Cambridge Univ. Press.

Samuel Kirkham, (1829), “English Grammar in Familiar Lectures” accessed on January 13, 2016. (<http://www.polysyllabic.com>).

Sanggam Siahaan, (2008), *Issues in Linguistics*, Yogyakarta: Graha Ilmu, Firsth edition.

Saptawulan Hening Nariswariatmojo, “Factors Which Affect Language Learning and Languge Learning Process”, (<https://theauzty.wordpress.com>).

Sidney Greenbaum and Gerald Nelson, (2002), *An Introduction to English Grammar*, 2nd ed. Pearson.

Sir Wilfrid Laurier School Board, (2001), *An Introduction to Problem-Based Learning*, Educational Services.

[Sravani](http://content.wisestep.com/problem-based-learning-pbl-advantages-disadvantages/), “Problem-Based Learning (PBL): Advantages and Disadvantages” accessed on July 03,2016. (<http://content.wisestep.com/problem-based-learning-pbl-advantages-disadvantages/>)

Sri Wahyuna, (2016), *Statistik Pendidikan*, Medan: University Islamic Studies.

Sugiono, (2010), *Metode penelitian kualitatif, kuantitatif, da R&D* Bandung: Alfabeta.

Syahrum and Salim, (2012), *Metodologi penelitian Kuantitatif*, Bandung: Ciptapustaka Media.

T Kim and Saul Axelrod,(2005), *Direct instruction:An aducators' guide and plea for action* Temple University: Volume Number 6, Issue Number 2

[Vincent R. Genareo PhD and Renee Lyons](#), (2015), *Problem-Based Learning: Six Steps to Design, Implement, and Assess*, Center for Teaching Excellence Hampton University. Volume 10, number 4.

APPENDIC I

ASSESMENT OF ENGLISH GRAMMAR

1. Tes

a. Conceptual Definition

English grammar is a set of rules how sentences and utterances are formed and the whole system of a language in general, usually taken as consisting of syntax and morphology.

b. Operational Definition

English grammar is total score obtained by the students after doing English grammar test concerning with rules how sentences and utterances are formed consist of *giving advice, simple present tense, simple future tense, if conditional, adjective, and adverb.*

c. Specification

Grammar test consist of *giving advice, simple present tense, simple future tense, if conditional, adjective, and adverb.*

Tabel 1
Assesment of English Grammar

No	Dimension	Indicator	Number of Item	Level of Difficult			Total
				Easy	Medium	Difficult	
1	Giving Advice	Positive	1,2,3,5,6,7,9	1,7	2,3,4,5,6,9	8	9
		Negative	4,8,				
2	Simple Present Tense	Positive	9,10,11,12	10,11,12	9,13,14,15	16	8
		Negative					
		Interrogative	15				
		Question word	13,14,16				
3	Present Future Tense	Positive	17,22,24	17,18,20	19,21,22,23	24	8
		Negative	19,20				
		Interrogative	21,23				
		Be going to	18				
4	If Conditiona l	Type 1	25,26,27,28,29,30,31,32,33	25,26	27,28,29,30,31,32	33	9
5	Adjective	Suffix	34,35	34,35,38	39		
		Noun to adjective	38				
		Verb to adjective	39				
6	Adverb	Adverb of place	36,37		37	36 40	
		Adverb of degree	40				
Total				40 questions			40

APPENDIC II

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 minutes
Skill	: Grammar
Theme	: Giving Advice
Meeting	: 1

I. Standard Competence

1. The understanding and showing the information through of giving advice with correctly English grammar

II. Basic Competence

- 1.1. To respond the information about giving advice with correctly English grammar

III. Indicator

1. Identifying the meaning of giving advice

2. Explaining the function of giving advice
3. Make examples of giving advice

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the meaning of giving advice
2. The students are able to explain the function of giving advice
3. The students are able to make axamples of giving advice

V. Materials

Giving Advice

Giving advice is any kind of suggestion regarding a possible course of action for another person. Any form of evaluation is also implicit advice. Giving advice is opinion about what could or should be done about a situation or problem, counsel. If you give someone advice, you tell them what you think they should do.

The greatest objection to giving advice is that people can solve their own problems. When they do so, they grow in self-esteem and confidence. Above all, they learn. Advice denies the autonomy of the other person and short-circuits the learning process. It represents an attempt to take a short-cut in the process of personal growth.

Giving advice in English might seem tricky at first. There are several ways to do it and each uses a slightly sentence structure.

1. Use a modal verb

There are two modal verbs we often use for giving advice: 'should' and 'ought to'. Both mean the same thing but work in slightly different ways. Let's look at some examples.

You should do more exercise.

You shouldn't drink so much beer.

As you can see above, after 'should' we use an infinitive without 'to'.

You ought to do more exercise.

You ought not to drink so much beer.

Unlike 'should', we always use 'to' in 'ought to' for giving advice.

2. Make it into a question

To make advice less direct, we can use a question to make the person we are advising consider about the advice we are giving them.

Why don't you do some more exercise?

How about doing some more exercise?

With the question 'Why don't you...?' we use an infinitive without 'to'.

When we use 'How about...?' to make a question, we use a gerund after it.

3. Put yourself in the person's position

If someone is asking for your advice, sometimes it's useful to imagine yourself being in that person's position. This is a good way to explain your advice, too.

If I were you, I would do more exercise.

Remember to use an infinitive after 'would' and not 'to'. To make this negative, put 'not' after 'would'.

4. Make a suggestion

A suggestion or recommendation is another good way of giving advice that isn't too direct. You can use the words 'suggest' or 'recommend' as in the example below.

I would suggest doing more exercise.

I would recommend doing more exercise.

Use 'verb+ing' after 'suggest' or 'recommend' to explain your advice to the listener. To make these negative, put 'not' before your 'verb+ing'.

5. Advise in a stronger way

Sometimes, you need to make your advice stronger to let the listener know that it's really important. We can use the expression 'you had better...' to do this.

You had better do more exercise before you start getting fat.

You had better not drink so much beer or you will get fat.

We use an infinitive after 'better' to explain our advice and add 'not' after 'better' to make the sentence negative.

So, now you know how to give advice in English. Next time one of your friends is having some trouble, give them some advice in English and try out your new skills.

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Tell or giving one problem in front of students - Based on the problem, the teacher giving a question - The students answer the question <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to presented their results. 	60 minutes

	<ul style="list-style-type: none"> - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade*

VIII. Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 minutes
Skill	: Grammar
Theme	: Giving Advice
Meeting	: 2

I. Standard Competence

1. The understanding and showing the information through of giving advice from short dialogue with the correct structure

II. Basic Competence

- 1.1. To respond the short dialogue about giving advice

III. Indicator

1. Giving a short dialogue about giving advice
2. Reading the dialogue about giving advice
3. Showing the sentence which include to giving advice based on the dialogue

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the short dialogue about giving advice
2. The students are able to reading the dialogue about giving advice
3. The students are able to use the advice sentence when dialogue

V. Materials

Giving Advice on Health Problems

If you are not ill and you are in a good condition, you are the healthy person. But if don't eat the proper food and do not have enough sleep you may lose your health. Sometimes we all have health problems.

Study this dialogue. Pay attention to the underlined sentence.

Udin : Good morning, Lisa. How are you?

Lisa : Not so good. I have a headache.

Udin : Really? That's too bad. You should get some medicine from puskesmas, and It's important to get enough sleep.

Lisa : Thanks.

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Tell or giving one problem in front of students (short dialogue about giving advice) - Based on the problem (dialogue), the teacher giving a question - The students answer the question <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with different problem - The students discussed and guided by the teacher 	60 minutes

	<p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to present their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher concludes the materials and gives motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Simple Present Tense
Meeting	: 3

I. Standard Competence

2. The understanding and showing the information through of simple present tense and its application in daily life.

II. Basic Competence

- 2.1. To analyze sentences about simple present tense, the function of simple present tense and the form of simple present tense.

III. Indicator

1. Identifying the meaning of simple present tense
2. Explaining the function of simple present tense
3. Explaining the form of simple present tense

4. Making the example of simple present tense

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of simple present tense
2. The students are able to explain the function of simple present tense
3. The students are able to explain the form of simple present tense
4. The students are able to make the example of simple present tense

V. Materials

Simple Present Tense

The simple present tense is the grammatical tense expressing actions taking place in the present or future. It is used to describe habits, unchanging situations, general truth and express future time after come conjunction: after, when, before, as soon as, until. In the third person singular the verb always ends in – s. Negative and question forms use do/does.

Form of simple present tense

Affirative	Negative	Interrogative
S + V1 + O	S+do/does+not+ V1+O	Do/does +S + V1+ O
I eat seafood	I don't eat seafood	Do I eat seafood?
He speaks English	He doesn't eat seafood	Does he eat seafood?

VI. Teaching Strategy

Problem Based Learning

VII. The procedures of teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Tell or present the problem to the students - The teacher tell about daily activity - Based on the problem, the teacher giving a question. - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people 	60 minutes

	<ul style="list-style-type: none"> - The teacher giving a problem to every group with difference problem - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to presented their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Simple Present Tense
Meeting	: 4

I. Standard Competence

2. The understanding and showing the information through of simple present tense and its application in general truth and questions words.

II. Basic Competence

- 2.2. To analyze sentences about simple present tense and its applications in general truth and question words.

III. Indicator

1. Explaining the application of simple present tense in general truth
2. Explaining the application of simple present tense in question words

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the application of simple present tense in general truth
2. The students are able to know the application of simple present tense in question words

V. Materials

Simple Present Tense – General Truth

The present simple is used to express facts that are always true or events that always happen. This use is often describe with the term general truth.

Example :

Water boils at 100 celcius

There are twelve months in a year

The sun rises every morning

Simple Present Tense - Questions Word

Wh question word	Auxiliary verb	Seubject	Verb	Others
Where	do	You	Go	to?
What	does	she	Watch	on TV?
When	does	mike	leave	school?
Who	do	you	like	much?
Why	does	the teaher	say	that?
How	do	we	reach	him?

These wh question words are at the beginning of the sentence. After them, we use auxiliary verb and subject. We don't use yes or no in the answer.

Example:

Question	Answer
Where does she live?	She live on New York
What do you read?	I read funny books
When do you meet your father?	I meet him at 9
Who dou you like?	I like my friend, Tom
Why does she cry?	She lose his toy car
How do you come to school?	I come to school by bus

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	Introduction Apperception <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	Main activities Exploration In the exploration activity, the teacher: <ul style="list-style-type: none"> - Tell or present the problem to the students 	60 minutes

	<p>The teacher say:</p> <p>The sun rises every morning How do you come to school?</p> <ul style="list-style-type: none"> - Based on the problem, the teacher giving a question. <p>What kinds of this sentence?</p> <ul style="list-style-type: none"> - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with difference problem - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to presented their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation 	10 minutes

	to the students - Pray	
--	---------------------------	--

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Present Future Tense
Meeting	: 5

I. Standard Competence

3. The understanding and showing the information through of present future

II. Basic Competence

- 3.1 To analyze sentences about present future tense.

III. Indicator

1. Identifying the meaning of present future tense
2. Explaining the function of present future tense
3. Explaining the form of present future tense
4. Making the example of present future tense

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of present future tense
2. The students are able to explain the function of present future tense
3. The students are able to explain the form of present future tense
4. The students are able to make the example of present future tense

V. Materials

Present Future Tense

Present future tense also called simple future tense is the grammatical tense used talking about something that will happen or exist. The simple future is usually expressed by placing the auxiliary will or shall in front of the base form to express of a verb (I will leave tonight).

It is used to express an action which has not occurred yet and will occur after saying or in future. Simple future has two different forms in English: will and be going to. Signal time: tomorrow, next, the day after tomorrow, before, after, when, as soon as.

Form of present future tense

Affirmative	Negative	Interrogative
S + shall/will+V1 + C	S+shall/will+not+ V1+C	shall/will +S + V1+ C
You will help him later.	You will not help him later.	Will you help him later?

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Present the problem to the students <p>The teacher write one sentence about present future tense in white board.</p> <ul style="list-style-type: none"> - Based on the problem, the teacher giving a question. - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small 	60 minutes

	<p>groups consist of 6 people</p> <ul style="list-style-type: none"> - The teacher giving a problem to every group with difference problem - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to present their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Present Future Tense
Meeting	: 6

I. Standard Competence

3. The understanding and showing the information through expressing future events

II. Basic Competence

- 3.2. To analyze sentences about expressing future events.

III. Indicator

1. Explaining the expression “be going to” in present future tense
2. Expressing future events using the correct tense
3. Responding conversation about future events.

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of “be going to” in present future tense
2. The students are able to express future events using the correct tense
3. The students are able to Respond conversation about future events.

V. Materials

Present Future Tense “be going to”

Simple future has two different forms in English: will and be going to (future progressive). The future progressive is used to describe ongoing in the future. The future progressive is used to refer to continuing action that will occur in the future. The expression “be going to” is used in talking about plan for the future that we have already thought about. Example: we are going to buy a new car next month.

The expression “be going to” is also used when we want to make a prediction based on evidence we can see now. Example: look at those black clouds. It’s going to rain soon.

Form of simple future tense “be going to”

Affirmative	Negative	Interrogative
S+ to be+going to+V1 + C	S+ to be+ not+going to+ V1+C	To be +S + going to+ V1+ C
The train is going to arrive the station	The train is not going to arrive the station	Is the train going to arrive the station?

Below the dialogue about expressing future events

Nanang and Tina are classmate. They study at SMP 10 Kenadari. During their break time, they are talking about their plans for the next holiday.

Nanang : What do you plan to do for your next holiday?

Tina : I am going to go to Makassar

Nanang : what are you going to do there?

Tina : I am going to visit Losari Beach, Kayangan Islan, Rotterdam Fortress and Pangeran Diponegoro Cemetary. By the way, how about you? Do you have any plan?

Nanang : I think I will just stay at home

Tina : why don't you join me, then?

Nanang : I'd love that.

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	Introduction Apperception <ul style="list-style-type: none"> - Greeting the students - Pray 	10 minutes

	<ul style="list-style-type: none"> - Checking the students in attendant list 	
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Present the problem to the students <p>The teacher read the dialogue from text book about expressing future events.</p> <ul style="list-style-type: none"> - Based on the problem, the teacher giving a question. - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with difference problem - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to presented their results. - Asks the student to give 	60 minutes

	<p>argumentation</p> <ul style="list-style-type: none"> - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI.Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: If Conditional
Meeting	: 7

I. Standard Competence

4. The understanding and showing the information through of if conditional

II. Basic Competence

- 4.1. Analyzing sentences about if conditional.

III. Indicator

1. Identifying the meaning of if conditional
2. Explaining the function of if conditional
3. Explaining the form of if conditional
4. Making the example of if conditional

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of if conditional
2. The students are able to explain the function of if conditional
3. The students are able to explain the form of if conditional
4. The students are able to make the example of if conditional

V. Materials

If Conditional

We use If sentences to show how one action or events depends on another. We can expressing our attitude by using modals: in this way we can show whether we are certain (it will happen), or whether we are only expressing a probability (it may happen, it could happen etc).

Conditional sentences (also known as conditional clause or if clauses) are made up of two halves. One half (the half with the word if in) is a condition, and the other half (the main clause) states the action to occur if the condition is fulfilled.

Form of if conditional

Form of if conditional	Example
If + present tense + future tense	If I study, I will pass the exam
Future tense + if + present tense	I will pass the exam f I study.

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Present the problem to the students <p>The teacher write one sentence about present if conditional in white board.</p> <ul style="list-style-type: none"> - Based on the problem, the teacher giving a question. <p>Who can answer this question? And explan.</p> <ul style="list-style-type: none"> - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with difference problem 	60 minutes

	<ul style="list-style-type: none"> - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to present their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher concludes the materials and gives motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Using Adjectives
Meeting	: 8

I. Standard Competence

5. The understanding and showing the information through of using adjectives

II. Basic Competence

- 5.1. Analyzing sentences about using adjectives.

III. Indicator

1. Identifying the meaning of adjectives
2. Identifying adjectives sentences
3. Identifying the use of adjectives correctly
4. Making the example of adjectives

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of adjectives
2. The students are able to correctly identify adjectives.
3. The students are able to use adjectives correctly their grammar
4. The students are able to make the example of adjectives

V. Materials

Adjectives

Adjective is a word that describes a noun or pronoun. Most of the common adjectives have no particular form or ending (there is nothing which makes them look like an adjective, for example right, wrong, big, small, wet, hot, cloudy, rainy, windy, etc).

Adjectives are words that describe or modify other words, making your writing and speaking much more specific, and a whole lot more interesting. Because adjectives are used to identify or quantify individual people or unique things, they are usually positioned before the noun or pronoun that they modify. Some sentences contain multiple adjectives.

Example short dialogue using adjectives

A: what is the weather like outside?

B: it is windy

A: can we go out?

B: we'd better stay at home and watch TV.

VI. Teaching Strategy

Problem Based Learning

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Present the problem to the students - Based on the problem, the teacher giving a question. - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with difference 	60 minutes

	<p>problem</p> <ul style="list-style-type: none"> - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to present their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher concludes the materials and gives motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR EXPERIMENT CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-D/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Adverb
Meeting	: 9

I. Standard Competence

6. The understanding and showing the information through of using adverb

II. Basic Competence

- 6.1. Analyzing sentences about using adverb.

III. Indicator

1. Identifying the meaning of adverb
2. Identifying adverb sentences
3. Identifying the use of adverb correctly
4. Making the example of adverb

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of adverb
2. The students are able to correctly identify adverb.
3. The students are able to use adverb correctly their grammar
4. The students are able to make the example of adverb

V. Materials

Adverb

An adverb can modify a verb, an adjectives, another adverb, a phrase, or a clause. An adverb indicates manner, time, place, or degree. An adverb is a part of speech used to describe a verb, adjective, clause, or another adverb.

An adverb is a word that is used to change or qualify the meaning of an adjective, a verb, a clause, another adverb, or any other type of word or phrase with the exception of determiners and adjectives that directly modify nouns. Adverb normally carry out these functions by answering questions such as:

When? She always arrives early

How? He drives carefully

Where? They go everywhere together

In what way? She eats slowly

To what extent? It is terribly hot.

VI. Teaching Strategy

Problem Based Learning

VII. The procedures of teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Present the problem to the students - Based on the problem, the teacher giving a question. - The students determine the problem will be solve. - The students look at the problem critically. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Devided the students into small groups consist of 6 people - The teacher giving a problem to every group with difference 	60 minutes

	<p>problem</p> <ul style="list-style-type: none"> - The students discussed and guided by the teacher <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Asks each group to present their results. - Asks the student to give argumentation - Collect students answer sheets 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher concludes the materials and gives motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

APPENDIC III

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 minutes
Skill	: Grammar
Theme	: Giving Advice
Meeting	: 1

I. Standard Competence

1. The understanding and showing the information through of giving advice with correctly English grammar

II. Basic Competence

- 1.2. To respond the information about giving advice with correctly English grammar

III. Indicator

1. Identifying the meaning of giving advice
2. Explaining the function of giving advice

3. Make examples of giving advice

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the meaning of giving advice
2. The students are able to explain the function of giving advice
3. The students are able to make axamples of giving advice

V. Materials

Giving Advice

Giving advice is any kind of suggestion regarding a possible course of action for another person. Any form of evaluation is also implicit advice. Giving advice is opinion about what could or should be done about a situation or problem, counsel. If you give someone advice, you tell them what you think they should do.

The greatest objection to giving advice is that people can solve their own problems. When they do so, they grow in self-esteem and confidence. Above all, they learn. Advice denies the autonomy of the other person and short-circuits the learning process. It represents an attempt to take a short-cut in the process of personal growth.

Giving advice in English might seem tricky at first. There are several ways to do it and each uses a slightly sentence structure.

1. Use a modal verb

There are two modal verbs we often use for giving advice: 'should' and 'ought to'. Both mean the same thing but work in slightly different ways. Let's look at some examples.

You should do more exercise.

You shouldn't drink so much beer.

As you can see above, after 'should' we use an infinitive without 'to'.

You ought to do more exercise.

You ought not to drink so much beer.

Unlike 'should', we always use 'to' in 'ought to' for giving advice.

2. Make it into a question

To make advice less direct, we can use a question to make the person we are advising consider about the advice we are giving them.

Why don't you do some more exercise?

How about doing some more exercise?

With the question 'Why don't you...?' we use an infinitive without 'to'.

When we use 'How about...?' to make a question, we use a gerund after it.

3. Put yourself in the person's position

If someone is asking for your advice, sometimes it's useful to imagine yourself being in that person's position. This is a good way to explain your advice, too.

If I were you, I would do more exercise.

Remember to use an infinitive after 'would' and not 'to'. To make this negative, put 'not' after 'would'.

4. Make a suggestion

A suggestion or recommendation is another good way of giving advice that isn't too direct. You can use the words 'suggest' or 'recommend' as in the example below.

I would suggest doing more exercise.

I would recommend doing more exercise.

Use 'verb+ing' after 'suggest' or 'recommend' to explain your advice to the listener. To make these negative, put 'not' before your 'verb+ing'.

5. Advise in a stronger way

Sometimes, you need to make your advice stronger to let the listener know that it's really important. We can use the expression 'you had better...' to do this.

You had better do more exercise before you start getting fat.

You had better not drink so much beer or you will get fat.

We use an infinitive after 'better' to explain our advice and add 'not' after 'better' to make the sentence negative.

So, now you know how to give advice in English. Next time one of your friends is having some trouble, give them some advice in English and try out your new skills.

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Tell what the topic today “Giving Advice” <p>The teacher ask to the students what is giving advice?</p> <ul style="list-style-type: none"> - The students try to answer the question - The teacher explain definition and function of giving advice - The teacher write example of giving advice and explain how to give advice <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - Ask the students to practice 	60 minutes

	<p>giving advice with their friend and guided by the teacher</p> <ul style="list-style-type: none"> - After that, the teacher give task to the students. - The students answer the questions. <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer session to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 minutes
Skill	: Grammar
Theme	: Giving Advice
Meeting	: 2

I. Standard Competence

1. The understanding and showing the information through of giving advice from short dialogue with the correct structure

II. Basic Competence

- 1.2.To respond the short dialogue about giving advice

III. Indicator

1. Giving a short dialogue about giving advice
2. Reading the dialogue about giving advice
3. Showing the sentence which include to giving advice based on the dialogue

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the short dialogue about giving advice
2. The students are able to reading the dialogue about giving advice
3. The students are able to use the advice sentence when dialogue

V. Materials

Giving Advice on Health Problems

If you are not ill and you are in a good condition, you are the healthy person. But if don't eat the proper food and do not have enough sleep you may lose your health. Sometimes we all have health problems.

Study this dialogue. Pay attention to the underlined sentence.

Udin : Good morning, Lisa. How are you?

Lisa : Not so good. I have a headache.

Udin : Really? That's too bad. You should get some medicine from puskesmas, and It's important to get enough sleep.

Lisa : Thanks.

VI. Teaching Strategy

Direct Instruction

VII. The procedures of teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Give example about giving advice by short dialogue. - Guide the students to analyze which sentence including advice (question and answer) - The teacher ask to the students to make short dialogue with seatmate - The teacher assess the students 	60 minutes

	<p>work.</p> <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer session to know students understanding - Give explanation more detail to the students 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Simple Present Tense
Meeting	: 3

I. Standard Competence

2. The understanding and showing the information through of simple present tense and its application in daily life.

II. Basic Competence

- 2.1.To analyze sentences about simple present tense, the function of simple present tense and the form of simple present tense.

III. Indicator

1. Identifying the meaning of simple present tense
2. Explaining the function of simple present tense
3. Explaining the form of simple present tense

4. Making the example of simple present tense

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of simple present tense
2. The students are able to explain the function of simple present tense
3. The students are able to explain the form of simple present tense
4. The students are able to make the example of simple present tense

V. Materials

Simple Present Tense

The simple present tense is the grammatical tense expressing actions taking place in the present or future. It is used to describe habits, unchanging situations, general truth and express future time after come conjunction: after, when, before, as soon as, until. In the third person singular the verb always ends in – s. Negative and question forms use do/does.

Form of simple present tense

Affirmative	Negative	Interrogative
S + V1 + O	S+do/does+not+ V1+O	Do/does +S + V1+ O
I eat seafood	I don't eat seafood	Do I eat seafood?
He speaks English	He doesn't eat seafood	Does he eat seafood?

VI. Teaching Strategy

Direct Instruction

VII. The procedures of teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the form, and characteristic of simple present tense - Give example simple present tense. - Guide the students to change the sentence into negative, interrogative. - The teacher make some 	60 minutes

	<p>questions and ask to the students to change the sentence into negative, interrogative and affirmative.</p> <ul style="list-style-type: none"> - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer session to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *English SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Simple Present Tense
Meeting	: 4

I. Standard Competence

2. The understanding and showing the information through of simple present tense and its application in general truth and questions words.

II. Basic Competence

- 2.2.To analyze sentences about simple present tense and its applications in general truth and question words.

III. Indicator

1. Explaining the application of simple present tense in general truth
2. Explaining the application of simple present tense in question words

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the application of simple present tense in general truth
2. The students are able to know the application of simple present tense in question words

V. Materials

Simple Present Tense – General Truth

The present simple is used to express facts that are always true or events that always happen. This use is often describe with the term general truth.

Example :

Water boils at 100 celcius

There are twelve months in a year

The sun rises every morning

Simple Present Tense - Questions Word

Wh question word	Auxiliary verb	Seubject	Verb	Others
Where	do	You	Go	to?
What	does	she	Watch	on TV?
When	does	mike	leave	school?
Who	do	you	like	much?
Why	does	the teaher	say	that?
How	do	we	reach	him?

These wh question words are at the beginning of the sentence. After them, we use auxiliary verb and subject. We don't use yes or no in the answer.

Example:

Question	Answer
Where does she live?	She live on New York
What do you read?	I read funny books
When do you meet your father?	I meet him at 9
Who dou you like?	I like my friend, Tom
Why does she cry?	She lose his toy car
How do you come to school?	I come to school by bus

VI. Teaching Strategy

Direct Instruction

VII. The procedures of teaching

No	Learning Activities	Time Allotment
1	Introduction Apperception <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	Main activities Exploration In the exploration activity, the teacher:	60 minutes

	<ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the another kinds of simple present tense, like general truth and question word. - Give example simple present tense. - Guide the students to analyze the sentences - The teacher make some questions and ask to the students to answer the questions - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer season to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to 	10 minutes

	conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray	
--	----------------------------------------------------------------------------------------------------------------	--

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Present Future Tense
Meeting	: 5

I. Standard Competence

3. The understanding and showing the information through of present future

II. Basic Competence

- 3.1. To analyze sentences about present future tense.

III. Indicator

1. Identifying the meaning of present future tense
2. Explaining the function of present future tense
3. Explaining the form of present future tense
4. Making the example of present future tense

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of present future tense
2. The students are able to explain the function of present future tense
3. The students are able to explain the form of present future tense
4. The students are able to make the example of present future tense

V. Materials

Present Future Tense

Present future tense also called simple future tense is the grammatical tense used talking about something that will happen or exist. The simple future is usually expressed by placing the auxiliary will or shall in front of the base form to express of a verb (I will leave tonight).

It is used to express an action which has not occurred yet and will occur after saying or in future. Simple future has two different forms in English: will and be going to. Signal time: tomorrow, next, the day after tomorrow, before, after, when, as soon as.

Form of present future tense

Affirmative	Negative	Interrogative
S + shall/will+V1 + C	S+shall/will+not+ V1+C	shall/will +S + V1+ C
You will help him later.	You will not help him later.	Will you help him later?

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important. <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the form, and characteristic of present future tense - Give example present future tense - Guide the students to change the sentence into negative, interrogative. 	60 minutes

	<ul style="list-style-type: none"> - The teacher make some questions and ask to the students to change the sentence into negative, interrivative and affirmative. - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer season to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Present Future Tense
Meeting	: 6

I. Standard Competence

3. The understanding and showing the information through expressing future events

II. Basic Competence

- 3.2. To analyze sentences about expressing future events.

III. Indicator

1. Explaining the expression "be going to" in present future tense
2. Expressing future events using the correct tense
3. Responding conversation about future events.

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of “be going to” in present future tense
2. The students are able to express future events using the correct tense
3. The students are able to Respond conversation about future events.

V. Materials

Present Future Tense “be going to”

Simple future has two different forms in English: will and be going to (future progressive). The future progressive is used to describe ongoing in the future. The future progressive is used to refer to continuing action that will occur in the future. The expression “be going to” is used in talking about plan for the future that we have already thought about. Example: we are going to buy a new car next month.

The expression “be going to” is also used when we want to make a prediction based on evidence we can see now. Example: look at those black clouds. It’s going to rain soon.

Form of simple future tense “be going to”

Affirmative	Negative	Interrogative
S+ to be+going to+V1 + C	S+ to be+ not+going to+ V1+C	To be +S + going to+ V1+ C
The train is going to arrive the station	The train is not going to arrive the station	Is the train going to arrive the station?

Below the dialogue about expressing future events

Nanang and Tina are classmate. They study at SMP 10 Kenadari. During their break time, they are talking about their plans for the next holiday.

Nanang : What do you plan to do for your next holiday?

Tina : I am going to go to Makassar

Nanang : what are you going to do there?

Tina : I am going to visit Losari Beach, Kayangan Islan, Rotterdam Fortress and Pangeran Diponegoro Cemetary. By the way, how about you? Do you have any plan?

Nanang : I think I will just stay at home

Tina : why don't you join me, then?

Nanang : I'd love that.

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	Introduction Apperception - Greeting the students	10 minutes

	<ul style="list-style-type: none"> - Pray - Checking the students in attendant list 	
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the another kinds of simple present tense, like “be going to” - Give example of be going to - Guide the students to analyze the sentences - The teacher make some questions and ask to the students to answer the qusetions - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer season to know students understanding 	60 minutes

	- Give explanation more detail to the students.	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: If Conditional
Meeting	: 7

I. Standard Competence

4. The understanding and showing the information through of if conditional

II. Basic Competence

- 4.1. Analyzing sentences about if conditional.

III. Indicator

1. Identifying the meaning of if conditional
2. Explaining the function of if conditional
3. Explaining the form of if conditional
4. Making the example of if conditional

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of if conditional
2. The students are able to explain the function of if conditional
3. The students are able to explain the form of if conditional
4. The students are able to make the example of if conditional

V. Materials

If Conditional

We use If sentences to show how one action or events depends on another. We can expressing our attitude by using modals: in this way we can show whether we are certain (it will happen), or whether we are only expressing a probability (it may happen, it could happen etc).

Conditional sentences (also known as conditional clause or if clauses) are made up of two halves. One half (the half with the word if in) is a condition, and the other half (the main clause) states the action to occur if the condition is fulfilled.

Form of if conditional

Form of if conditional	Example
If + present tense + future tense	If I study, I will pass the exam
Future tense + if + present tense	I will pass the exam f I study.

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the form, and characteristic of if conditiona - Give example of if conditiona. - Guide the students to how to make the if conditional sentence when word “if” in the begin or in the middle. - The teacher make some questions and ask to the 	60 minutes

	<p>students</p> <ul style="list-style-type: none"> - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation activity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer session to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Using Adjectives
Meeting	: 8

I. Standard Competence

5. The understanding and showing the information through of using adjectives

II. Basic Competence

- 5.1. Analyzing sentences about using adjectives.

III. Indicator

1. Identifying the meaning of adjectives
2. Identifying adjectives sentences
3. Identifying the use of adjectives correctly
4. Making the example of adjectives

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of adjectives
2. The students are able to correctly identify adjectives.
3. The students are able to use adjectives correctly their grammar
4. The students are able to make the example of adjectives

V. Materials

Adjectives

Adjective is a word that describes a noun or pronoun. Most of the common adjectives have no particular form or ending (there is nothing which makes them look like an adjective, for example right, wrong, big, small, wet, hot, cloudy, rainy, windy, etc).

Adjectives are words that describe or modify other words, making your writing and speaking much more specific, and a whole lot more interesting. Because adjectives are used to identify or quantify individual people or unique things, they are usually positioned before the noun or pronoun that they modify. Some sentences contain multiple adjectives.

Example short dialogue using adjectives

A: what is the weather like outside?

B: it is windy

A: can we go out?

B: we'd better stay at home and watch TV.

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the form, and characteristic of adjectives - Give example of adjectives - Guide the students to complete the sentences using adjectives. 	60 minutes

	<ul style="list-style-type: none"> - The teacher make some questions and ask to the students to to complete the sentences using adjectives. - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer season to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

LESSON PLAN FOR CONTROL CLASS

School's Name	: SMPS Perguruan Islam Al-ulum Terpadu Medan
Subject	: English
Class/Semester	: VIII-B/II
Time Allocation	: 2 x 40 Minutes
Skill	: Grammar
Theme	: Adverb
Meeting	: 9

I. Standard Competence

6. The understanding and showing the information through of using adverb

II. Basic Competence

- 6.1. Analyzing sentences about using adverb.

III. Indicator

1. Identifying the meaning of adverb
2. Identifying adverb sentences
3. Identifying the use of adverb correctly
4. Making the example of adverb

IV. Objectives

At the end of the learning process the students are able:

1. The students are able to know the definition of adverb
2. The students are able to correctly identify adverb.
3. The students are able to use adverb correctly their grammar
4. The students are able to make the example of adverb

V. Materials

Adverb

An adverb can modify a verb, an adjectives, another adverb, a phrase, or a clause. An adverb indicates manner, time, place, or degree. An adverb is a part of speech used to describe a verb, adjective, clause, or another adverb.

An adverb is a word that is used to change or qualify the meaning of an adjective, a verb, a clause, another adverb, or any other type of word or phrase with the exception of determiners and adjectives that directly modify nouns. Adverb normally carry out these functions by answering questions such as:

When? She always arrives early

How? He drives carefully

Where? They go everywhere together

In what way? She eats slowly

To what extent? It is terribly hot.

VI. Teaching Strategy

Direct Instruction

VII. The Procedures of Teaching

No	Learning Activities	Time Allotment
1	<p>Introduction</p> <p>Apperception</p> <ul style="list-style-type: none"> - Greeting the students - Pray - Checking the students in attendant list 	10 minutes
2	<p>Main activities</p> <p>Exploration</p> <p>In the exploration activity, the teacher:</p> <ul style="list-style-type: none"> - Give explanation about the topic today. - Inform to the students why this learning is important <p>Elaboration</p> <p>In the elaboration activity, the teacher:</p> <ul style="list-style-type: none"> - As a model, the teacher presents information step by step to the students - Tell what is the form, and characteristic of adverb - Give example of adverb - Guide the students to complete the sentences using adverb 	60 minutes

	<ul style="list-style-type: none"> - The teacher make some questions and ask to the students to to complete the sentences using adverb. - The teacher assess the students work. <p>Confirmation</p> <p>In the confirmation acivity, the teacher:</p> <ul style="list-style-type: none"> - Make a question and answer season to know students understanding - Give explanation more detail to the students. 	
3	<p>Closing activity</p> <p>In the closing activity, the teacher:</p> <ul style="list-style-type: none"> - Asks one of the students to conclude the materials - The teacher conclude the materials and giving motivation to the students - Pray 	10 minutes

XI. Source

Kasihani K.E. Suyanto and Sri Anreani,(2009), *Eglish SMP/MTs Grade VIII*.

Malang: Bailmu.

APPENDIC IV

TEST OF POST TEST

Grammar Test

Name :

Class :

Time : 60 Minutes

Choose either a, b, c, or d for the correct answer!

1. You should start ... for your future

a. safe	c. saved
b. save	d. saving

2. Andi : I have a bad headache.
 Budi : You'd better...

a. taking an aspirin	c. to take an aspirin
b. take an aspirin	d. took an aspirin

3. Mary failed in the test. She harder

a. had better study	c. study
b. need to study	d. studied

4. Amir: I am not good at English
 Budi:

a. I should practice English every day	b. Why don't you take an English course and practice every day?
c. You must sleep often	d. Do yo like english?

5. Udin : Good morning, Lisa. How are you
 Lisa : Good morning. Not so bad. I.... a headache.

a. has	c. was
b. had	d. have

6. Udin : I 've got flu
 Lisa : important to see a doctor
- a. It
 b. You
 c. It's
 d. Is it
7. You should ... to past test
- a. study hard
 b. studying hard
 c. studied
 d. studied hard
8. Andi : What's wrong?
 Rafly :I lost my car
 Andi : Why?
 Rafly : Because I forgot to bring the keys of the car
 Sita : Oh no...
- a. You shouldn't leave your keys in the car
 b. You should leave your keys in the car
 c. You didn't leave your keys in the car
 d. You don't leave your keys in the car.
9. Vira : Hi, mira. Why you look sad?
 Mira : Hi, vira. I am very miss with my parents
 Vira : I know your feeling.
 Mira : Oh, that's a good idea, vira. Thanks
- Vira : You are welcome.
 a. I suggest to you call them
 b. I suggest you to call them
 c. I suggested you to called them
 d. I will suggest you to calling them
10. Anni ... his teeth before breakfast every morning
- a. will clean
 b. is cleaning
 c. cleans
 d. clean
11. Lia sometimes... newspaper in the morning
- a. reading
 b. read
 c. reads
 d. ro read
12. Barbara usually ... dinner after work

- a. cook
b. cooks
- c. are cooking
d. is cooking
13. What... for breakfast?
- a. do you usually have
b. are you usually having
- c. have you usually
d. do usually have
14. Jane : What...?
Mary : I'm trying to fix my calculator
- a. you doing
b. you do
- c. do you do
d. are you doing
15. ... Leona .. to the hospital?
- a. Does, goes
b. Is, go
- c. Does, go
d. Do, go
16. Rini :Hi Eva! How are you? (wh question) sulit
Eva : I'm doing well. Thank you. What's up?
Rini : I'm curious about that new student in our class, what her name?
Eva : Well, aaahhh Nadia.
Rini :
Eva : well we have met before.
- a. How did you know her?
b. How do you know her?
- c. How have you know her?
d. How are you know her?
17. Rahmat ... all of his friends to the celebration next week
- a. will invite
b. invites
- c. invited
d. invitation
18. The students of SMP AI-ULUM ... to the beach next holiday
- a. are going
b. are going to go
- c. have gone
d. go
19. Yongki and yoga will not... in music compatiton at school next month

- a. participates
b. participate
- c. participation
d. participated
20. We go to school soon
- a. will not
b. do not
- c. does not
d. are not
21. Change this sentence to interrogative one
They will come to the party tonight
- a. They will not come to the party tonight?
b. They not will came to the party tonight?
c. Will they come to the party tonight?
d. Will they came to the party tonight?
22. Yongki : What is your plan for this weekend?
Yoga : I... my uncle
- a. will have visited
b. have visited
- c. visited
d. will visit
23. He live in Bandung next month
- a. will not
b. would not
- c. do not
d. does not
24. You are new student. Your teacher ask you to introduce yourself. How do you greet your friends?
- a. Hello guys! I will introduce myself
b. Hello guys! I am introducing myself
c. Hello guys! I will introduces myself
d. Hello guys! I will introduced myself
25. If you ... the dishes, I ... dinner tonight
- a. wash, will cook
b. will wash, cook
- c. will wash, cooks
d. wash, cook
26. If I come, I... you
- a. saw
b. would see
- c. will see
d. sees
27. If I... clean the garage, my father .. give me any money

- a. don't, won't
 b. am, will
 c. won't, doesn't
 d. am not, Isn't

28. If she works harder, She ... her paper in time

- a. will finish
 b. would finish
 c. has finish
 d. will be finished

29. If you ... my bike, I ... you with the Maths homework.

- a. repair, will help
 b. repirs, will help
 c. will repara, help
 d. help, will repair

30. If Peter (sit) on the sofa, his sister ... (sit) next to him.

- a. sit- sits
 b. sits- will sit
 c. sit – will sits
 d. will sit- sit

31. If it rains this afternoon, I... at home

- a. will stay
 b. would stay
 c. had stay
 d. am staying

32. What you do ... you miss the plane?

- a. will-if
 b. are-if
 c. if-will
 d. will –are

33. Janet : Which country do you want to live?

Dessy : ...

Janet : How many score that you have to achieve?

Dessy : 7.0. if I get that score, I will go to England.

Janet : Terrific!

- a. I will speak English if I go to England
 b. If I can speak English, I go to England
 c. I will go to England if I will can speak English
 d. If I can speak English, I will go to England.

34. The sky is dark. It is ... today

- a. cloudy
 b. sunny
 c. foggy
 d. windy

35. Santo always in driving motorcycle

- a. careless
- b. careful
- c. successful
- d. peaceful

36. Question : When do I want it?

Answer :...

- a. I want it now
- b. I wanted it now
- c. I wants it now
- d. I do want it now

37. The wheater was so good that we had class in the...

- a. full
- b. outside
- c. open
- d. out

38. Camel is a ... animal

- a. long
- b. weak
- c. small
- d. large

39. The dog barks...

- a. loud
- b. lounds
- c. loudly
- d. lounded

40. I am very ... at the moment. May I call you back in an hour?

- a. busy
- b. busily
- c. more busy
- d. busied

KEY ANSWER OF POST TEST

- | | |
|-------|-------|
| 1. A | 21. C |
| 2. C | 22. D |
| 3. B | 23. A |
| 4. B | 24. A |
| 5. D | 25. A |
| 6. C | 26. C |
| 7. A | 27. A |
| 8. A | 28. A |
| 9. B | 29. A |
| 10. C | 30. B |
| 11. C | 31. A |
| 12. B | 32. A |
| 13. A | 33. D |
| 14. D | 34. A |
| 15. C | 35. B |
| 16. B | 36. A |
| 17. A | 37. B |
| 18. B | 38. D |
| 19. B | 39. C |
| 20. A | 40. A |

APPENDIC V

THE STUDENTS' REAL NAME AND INITIAL OF EXPERIMENT CLASS (VIII D)

No	Real Name	Initial Name
1	Aditya Pratama	AP
2	Afif Mursyid	AM
3	Ahmad Abdullah Aziz	AAA
4	Akbar Hidayat	AH
5	Alisha Zahraini Siregar	AZS
6	Amanda Ulayyah Mahaputri	AUM
7	Amira Yasmine N. Az-zahra	AYNA
8	Arif Maulana	AM
9	Ghalyanza Naufal	GN
10	Luthfi Andika Sugiharto	LAS
11	M. Riski Agung Lubis	MRAL
12	Muhammad Farhan Adha	MFA
13	Muhammad Rayhan Andrian	MRA
14	Muhammad Rizky	MR
15	Muhammad Shandy Nugraha	MSN
16	Nabila Az-zahra	NA
17	Nabila Najwa	NN
18	Nadhira Nasywa Putri	NNP
19	Nazla Khairunnisa	NK
20	Nazwa Fahyudillah Harahap	NFH
21	Nhasya Rahmadina	NR
22	Niby Gladysah	NG

23	Nisriana Widad Putri Auriga	NWPA
24	Putri Artanti Parinduri	PAP
25	Rafli Rizlind	RR
26	Rifqy Nurhisyam	RN
27	Riyanda Aziz Febrian	RAF
28	Roziana Ramadhani Purti A	RRPA
29	Salsa Aulia	SU
30	Subhana Arfin Syadzy	SAS
31	Tarishah Dwi Nabila	TDN
32	Ulta Cia Sadema	UCD
33	Wahyu Hadi Purnomo	WHP
34	Wahyu Taufany	WT
35	Wanda Zaskia Paulina	WZP
36	Yasmin Bahara Simatupang	YBS

APPENDIX VI

THE STUDENTS' REAL NAME AND INITIAL OF CONTROL CLASS (VIII B)

No	Real Name	Initial Name
1	Adelia Eka Agustina	AEA
2	Ahmad Fauzi Aziz	AFA
3	Aprilia Malika Putri	AMP
4	Bagas Martondi Harahap	BMH
5	Bayu Risky Ananda	BRA
6	Dhafa Aulia Hutagalung	DAH
7	Diva Aryani	DA
8	Fazil Fatani	FF
9	Firnaya Putri Ammara	FPA
10	Haifa Pratami Putri	HPP
11	Khaila Rifa Azzahra	KRA
12	M. Taufik Ashadi	MTA
13	M. Wira Syahputra	MWS
14	Miftah Shabrillah	MS
15	Moch Dheandara Al Reyva	MDAR
16	Muhamad Fransnata Santoso	MFS
17	Muhammad Fadhil	MF
18	Muhammad Farhan Aizi Dalimunthe	MFAD
19	Muhammad Nabil Zhafran	MNZ
20	Muhammad Naufal	MN
21	Muhammad Naufal Ardhandy	MNA
22	Muhammad Shofi Nasution	MSN
23	Nadia Nurdiana	NN
24	Nadia Raudatul Hasanah	NRH

25	Nailah Salsabila	NS
26	Nurhaliza	NH
27	Patriot Rizky Ananda Siregar	PRAS
28	Rafi Fadhlurrahman	RF
29	Ragil Ananda	RA
30	Raihan Dary Berutu	RDB
31	Sastya Sahira Pohan	SSP
32	Shakila Syah	SS
33	Sherina Enjelianna	SE
34	Tara Salsabila Rambe	TSR
35	Ibnu Zarir	IZ
36	Dias Aditya Lubis	DAL

APPENDIX VII

THE STUDENTS' SCORE AT EXPERIMENT CLASS

No	Initial Name	Post test	
		Score (X)	X ²
1	AP	50	2500
2	AM	70	4900
3	AAA	75	5625
4	AH	70	4900
5	AZS	80	6400
6	AUM	65	4225
7	AYNA	97,5	9506,25
8	AM	55	3025
9	GN	70	4900
10	LAS	55	3025
11	MRAL	72,5	5265,25
12	MFA	70	4900
13	MRA	80	6400
14	MR	60	3600
15	MSN	65	4225
16	NA	77,5	6006,25
17	NN	77,5	6006,25
18	NNP	75	5625
19	NK	75	5625
20	NFH	80	6400
21	NR	75	5625
22	NG	87,5	7656,25
23	NWPA	80	6400

24	PAP	80	6400
25	RR	70	4900
26	RN	62,5	3906,25
27	RAF	77,5	6006,25
28	RRPA	80	6400
29	SU	72,5	5256,25
30	SAS	55	3025
31	TDN	87,5	7656,25
32	UCD	77,5	6006,25
33	WHP	70	4900
34	WT	70	4900
35	WZP	80	6400
36	YBS	50	2500
Total		2595	190987,5
Mean		72,083	

APPENDIX VIII

THE STUDENTS' SCORE AT CONTROL CLASS

No	Inital Name	Post Test	
		Score (X)	X ²
1	AEA	65	4225
2	AFA	55	3025
3	AMP	60	3600
4	BMH	55	3025
5	BRA	42,5	1806,25
6	DAH	55	3025
7	DA	42,5	1806,25
8	FF	60	3600
9	FPA	57,5	3306,25
10	HPP	42,5	1806,25
11	KRA	70	4900
12	MTA	70	4900
13	MWS	60	3600
14	MS	67,5	4556,25
15	MDAR	57,5	3306,25
16	MFS	60	3600
17	MF	50	2500
18	MFAD	55	3025
19	MNZ	45	2025
20	MN	52,5	2756,25
21	MNA	70	4900
22	MSN	52,5	2756,25
23	NN	67,5	4556,25

24	NRH	75	5625
25	NS	80	6400
26	NH	67,5	4556,25
27	PRAS	45	2025
28	RF	77,5	6006,25
29	RA	60	3600
30	RDB	62,5	3906,25
31	SSP	65	4225
32	SS	62,5	3906,25
33	SE	75	5625
34	TSR	62,5	3906,25
35	IZ	65	4225
36	DAL	57,5	3306,25
Total		2167,5	133918,75
Mean		60,208	

APPENDICIX

THE CALCULATION OF MEAN VALUE

AND STANDARD DEVIATION

A. Calculation of the Mean Value and Standard Deviation in Experiment Class

1. Calculation of Post Test Data

Tabulation of the values obtained:

$$\sum X_i = 2595 \qquad \sum X_i^2 = 190987,5 \qquad n = 36$$

So the mean is:

$$\bar{X} = \frac{\sum X}{n} = \frac{2595}{36} = 72,083$$

And standard deviation is:

$$S = \sqrt{\frac{n \sum X_i^2 - (\sum X_i)^2}{n(n-1)}} = \sqrt{\frac{36(190987,5) - (2595)^2}{36(36-1)}}$$

$$= \sqrt{\frac{6875550 - 6734025}{36(35)}}$$

$$= \sqrt{\frac{141525}{1260}}$$

$$= 10,589$$

$$S^2 = 112,321$$

B. Calculation of the Mean Value and Standard Deviation in Control Class

1. Calculation of Post Test Data

From tabulating the values obtained:

$$\sum X_i^2 = 2167,5 \quad \sum X_i = 133918,75 \quad n = 36$$

So the mean is:

$$\bar{X} = \frac{\sum X}{n} = \frac{2167,5}{36} = 60,208$$

And the standard deviation is:

$$\begin{aligned} S &= \sqrt{\frac{n \sum X_i^2 - (\sum X_i)^2}{n(n-1)}} = \sqrt{\frac{36(133918,75) - (2167,7)^2}{36(36-1)}} \\ &= \sqrt{\frac{4821075 - 4698056,25}{36(35)}} \\ &= \sqrt{\frac{123018,75}{1260}} \\ &= 9,881 \end{aligned}$$

$$S^2 = 97,633$$

APPENDIC X

THE CALCULATION OF NORMALITY TESTING

A. Normality Testing of Post Test in Experiment Class

1. Normality Testing of Post Test

Find Z score by using the formula:

$$Z_i = \frac{x_i - \bar{x}}{s}$$

$$\text{a. } Z_i = \frac{50 - 72,083}{10,598} = -2,084$$

$$\text{b. } Z_i = \frac{55 - 72,083}{10,598} = -1,612$$

$$\text{c. } Z_i = \frac{60 - 72,083}{10,598} = -1,140$$

$$\text{d. } Z_i = \frac{62,5 - 72,083}{10,598} = -0,904$$

$$\text{e. } Z_i = \frac{65 - 72,083}{10,598} = -0,668$$

$$\text{f. } Z_i = \frac{70 - 72,083}{10,598} = -0,197$$

$$\text{g. } Z_i = \frac{72,5 - 72,083}{10,598} = 0,039$$

$$\text{h. } Z_i = \frac{75 - 72,083}{10,598} = 0,027$$

$$\text{i. } Z_i = \frac{77,5 - 72,083}{10,598} = 0,511$$

$$\text{j. } Z_i = \frac{80 - 72,083}{10,598} = 0,747$$

$$\text{k. } Z_i = \frac{87,5 - 72,083}{10,598} = 1,455$$

$$l. \quad Z_i = \frac{97,5 - 72,083}{10,598} = 2,398$$

Find out $S(Z_i)$ we use the formula : $S(Z_i) = \frac{Fcum}{n}$

$$a. \quad S(Z_i) = \frac{2}{36} = 0,056$$

$$b. \quad S(Z_i) = \frac{5}{36} = 0,139$$

$$c. \quad S(Z_i) = \frac{6}{36} = 0,167$$

$$d. \quad S(Z_i) = \frac{7}{36} = 0,194$$

$$e. \quad S(Z_i) = \frac{9}{30} = 0,250$$

$$f. \quad S(Z_i) = \frac{16}{36} = 0,444$$

$$g. \quad S(Z_i) = \frac{18}{36} = 0,500$$

$$h. \quad S(Z_i) = \frac{22}{36} = 0,611$$

$$i. \quad S(Z_i) = \frac{26}{36} = 0,722$$

$$j. \quad S(Z_i) = \frac{33}{36} = 0,917$$

$$k. \quad S(Z_i) = \frac{35}{36} = 0,972$$

$$l. \quad S(Z_i) = \frac{36}{36} = 1,00$$

Normality Testing of Post Test at Experiment Class

No	Xi	Fi	Fcum	Zi	Fzi	Szi	Fzi-Szi
1	50	2	2	-2,084	0,019	0,056	-0,037
2	55	3	5	-1,612	0,053	0,139	-0,085
3	60	1	6	-1,140	0,127	0,167	-0,040
4	62,5	1	7	-0,904	0,183	0,194	-0,012
5	65	2	9	-0,668	0,252	0,250	0,002
6	70	7	16	-0,197	0,422	0,444	-0,022
7	72,5	2	18	0,039	0,516	0,500	0,016
8	75	4	22	0,275	0,608	0,611	-0,003
9	77,5	4	26	0,511	0,695	0,722	-0,027
10	80	7	33	0,747	0,772	0,917	-0,144
11	87,5	2	35	1,455	0,927	0,972	-0,045
12	97,5	1	36	2,398	0,992	1,000	-0,008

From the table above, it can be seen that the Liliefors Observation or $L_0 = 0,016$ with $n = 36$ and at real level $\alpha = 0,05$ from the list critical value of Liliefors table, $L_t = 0,148$. It can be concluded that the data distribution was normal, because $L_0 (0,016) < L_t (0,148)$.

B. Normality Testing of Control Class

1. Normality Testing of Post Test

Find Z score by using by using the formula:

$$Z_i = \frac{x_i - \bar{x}}{s}$$

a. $Z_i = \frac{42,5 - 60,208}{9,881} = -1,792$

b. $Z_i = \frac{45 - 60,208}{9,882} = -1,539$

c. $Z_i = \frac{50 - 60,208}{9,881} = -1,033$

d. $Z_i = \frac{52,5 - 60,208}{9,881} = -0,780$

e. $Z_i = \frac{55 - 60,208}{9,881} = -0,527$

f. $Z_i = \frac{57,5 - 60,208}{9,881} = -0,274$

g. $Z_i = \frac{60 - 60,208}{9,881} = -0,021$

h. $Z_i = \frac{62,5 - 60,208}{9,881} = 0,232$

i. $Z_i = \frac{65 - 60,208}{9,881} = 0,485$

j. $Z_i = \frac{67,5 - 60,208}{9,881} = 0,738$

k. $Z_i = \frac{70 - 60,208}{9,881} = 0,991$

l. $Z_i = \frac{75 - 60,208}{9,881} = 1,497$

m. $Z_i = \frac{77,5 - 60,208}{9,881} = 1,750$

n. $Z_i = \frac{80 - 60,208}{9,881} = 2,003$

Find out $S(Z_i)$ we use the formula : $S(Z_i) = \frac{F_{cum}}{n}$

a. $S(Z_i) = \frac{3}{36} = 0,083$

b. $S(Z_i) = \frac{5}{36} = 0,139$

c. $S(Z_i) = \frac{6}{36} = 0,167$

d. $S(Z_i) = \frac{8}{36} = 0,222$

e. $S(Z_i) = \frac{12}{36} = 0,333$

f. $S(Z_i) = \frac{15}{36} = 0,417$

g. $S(Z_i) = \frac{20}{36} = 0,556$

h. $S(Z_i) = \frac{23}{36} = 0,639$

i. $S(Z_i) = \frac{26}{36} = 0,722$

j. $S(Z_i) = \frac{29}{36} = 0,806$

k. $S(Z_i) = \frac{32}{36} = 0,889$

l. $S(Z_i) = \frac{34}{36} = 0,944$

m. $S(Z_i) = \frac{35}{36} = 0,972$

n. $S(Z_i) = \frac{36}{36} = 1,000$

Normality Testing of Post Test at Control Class

No	Xi	Fi	Fcum	Zi	Fzi	Szi	Fzi-Szi
1	42,5	3	3	-1,792	0,037	0,083	-0,047
2	45	2	5	-1,539	0,062	0,139	-0,077
3	50	1	6	-1,033	0,151	0,167	-0,016
4	52,5	2	8	-0,780	0,218	0,222	-0,005
5	55	4	12	-0,527	0,299	0,333	-0,034
6	57,5	3	15	-0,274	0,392	0,417	-0,025
7	60	5	20	-0,021	0,492	0,556	-0,064
8	62,5	3	23	0,232	0,592	0,639	-0,047
9	65	3	26	0,485	0,686	0,722	-0,036
10	67,5	3	29	0,738	0,770	0,806	-0,036
11	70	3	32	0,991	0,839	0,889	-0,050
12	75	2	34	1,497	0,933	0,944	-0,012
13	77,5	1	35	1,750	0,960	0,972	-0,012
14	80	1	36	2,003	0,977	1,000	-0,023

From the table above, it can be seen that the Liliefors Observation or $L_0 = -0,005$ with $n = 36$ and at real level $\alpha = 0, 05$ from the list critical value of Liliefors table, $L_t = 0,148$. It can be concluded that the data distribution was normal, because $L_0 (-0,005) < L_t (0,148)$.

APPENDIC XI

THE CALCULATION OF HOMOGENEITY TESTING

A. Homogeneity Testing of Post Test

$$F_h = \frac{S_1^2}{S_2^2}$$

Where : S_1^2 = the biggest variant

S_2^2 = the smallest variant

Based on the variants of both samples of post-test found that:

$$S_{eks}^2 = 112,321 \quad N = 36$$

$$S_{kont}^2 = 97,633 \quad N = 36$$

So:

$$F_h = \frac{S_{eks}^2}{S_{kont}^2}$$

$$F_h = \frac{112,321}{97,633} = 1,15$$

Then the coefficient of $F_{count} = 1,15$ is compared with F_{table} , where F_{table} is determined at real level $\alpha = 0,05$ and the same numerator $dk = N - 1 = 36 - 1 = 35$ that was exist dk numerator 35, the denominator $dk = n - 1 (36 - 1 = 35)$. Then F_{table} can be calculated $F_{0,05(35,35)} = 2,30$

So $F_{count} < F_t$ atau $(1,15 < 2,30)$ so it can be concluded that the variant is homogenous.

APPENDICXII

THE CALCULATION OF HYPOTHESIS TEST

A. T-test of Post Test

$$\text{Experiment class} : \bar{X}_1 = 72,083 \quad ; S_1^2 = 112,321 ; n_1 = 36$$

$$\text{Control class} : \bar{X}_2 = 60,208 \quad ; S_2^2 = 97,633 ; n_2 = 36$$

With:

$$S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

$$S^2 = \frac{(36 - 1)112,321 + (36 - 1)97,633}{36 + 36 - 2}$$

$$S^2 = \frac{(35)112,321 + (35)97,633}{70}$$

$$S^2 = \frac{3931,235 + 3417,515}{70}$$

$$S^2 = \frac{7348,39}{70}$$

$$S^2 = 104,977$$

$$S = \sqrt{104,977}$$

$$S = 10,245$$

So:

$$t_{\text{count}} = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t_{\text{count}} = \frac{72,083 - 60,208}{10,245 \sqrt{\frac{1}{36} + \frac{1}{36}}}$$

$$t_{\text{count}} = \frac{11,875}{2,376}$$

$$t_{\text{count}} = 4,49$$

From the computation above, it can be seen the coefficient of $t_{\text{count}} = 4,49$ with the level $\alpha = 0,05$, $dk = n_1 + n_2 - 2$ and chance $(1 - \frac{1}{2} \alpha)$. So, $t_{(1 - \frac{1}{2} \alpha) = t_{0,975}}$ and $dk = 36 + 36 - 2 = 70$, is between $dk = 60$ dan $dk = 120$ or $t_{(0,975)(70)}$. because $t_{(0,975)(70)}$ there is not in t distribution, so the writer used interpolation.

- $t_{(0,975)(60)} = 2,00$
- $t_{(0,975)(120)} = 1,98$

So :

$$t_{(0,975)(70)} = 2,00 + \frac{70 - 36}{120 - 60} (1,98 - 2,00)$$

$$t_{(0,975)(70)} = 2,00 + \frac{34}{60} (-0,02)$$

$$t_{(0,975)(70)} = 2,00 + 0,6(-0,02)$$

$$t_{(0,975)(70)} = 2,00 - 0,01$$

$$t_{(0,975)(70)} = 1,99$$

The hypothesis is:

H_a: There is a significant different between problem based learning and direct instruction in teaching English grammar.

H₀: There is no significant different between problem based learning and direct instruction in teaching English grammar.

Based on the computation above, it can be seen the coefficient of $t_{\text{count}} = 4,49$ with the level $\alpha = 0,05$, $dk = n_1 + n_2 - 2$ and chance $(1 - \frac{1}{2} \alpha)$. So, $t_{(1 - 1/2 \alpha)} = t_{0,975}$ and $dk = 36 + 36 - 2 = 70$, which the real level of $t_{\text{table}} = 1,99$. It was found that the value of $t_{\text{count}}(4,49)$ is higher than the value of $t_{\text{table}}(1,99)$. It can be seen as follows:

$$4,49 > 1,99$$

This result showed that null hypothesis was rejected, the hypothesis formulated as “There is a significant different between problem based learning and direct instruction in teaching English grammar”.

APPENDIC XIII

THE CRITICAL VALUE LILIEFORS TEST

Ukuran Sampel	Taraf Nyata (α)				
	0,01	0,05	0,10	0,15	0,20
n = 4	0,417	0,381	0,352	0,319	0,300
5	0,405	0,337	0,315	0,299	0,285
6	0,364	0,319	0,294	0,277	0,265
7	0,348	0,300	0,276	0,258	0,247
8	0,331	0,285	0,261	0,244	0,233
9	0,311	0,271	0,249	0,233	0,223
10	0,294	0,258	0,239	0,222	0,215
11	0,284	0,249	0,230	0,217	0,206
12	0,275	0,242	0,223	0,212	0,199
13	0,268	0,234	0,214	0,202	0,190
14	0,261	0,227	0,207	0,194	0,183
15	0,257	0,220	0,201	0,187	0,177
16	0,250	0,213	0,195	0,182	0,173
17	0,245	0,206	0,189	0,177	0,169
18	0,239	0,200	0,184	0,173	0,166
19	0,235	0,195	0,179	0,169	0,163
20	0,231	0,190	0,174	0,166	0,160
25	0,200	0,173	0,158	0,147	0,142
30	0,187	0,161	0,144	0,136	0,131
n > 30	$\frac{1,031}{\sqrt{n}}$	$\frac{0,886}{\sqrt{n}}$	$\frac{0,805}{\sqrt{n}}$	$\frac{0,768}{\sqrt{n}}$	$\frac{0,736}{\sqrt{n}}$

Source: Sudjana. *Metoda Statistika*. Bandung: Tarsito, 2002

APPENDICXIV

Tabel Wilayah Luas di Bawah Kurva Normal 0 ke z

z	0,00	0,01	0,02	0,03	0,04	0,05	0,06	0,07	0,08	0,09
-3,4	0,0003	0,0003	0,0003	0,0003	0,0003	0,0003	0,0003	0,0003	0,0003	0,0002
-3,3	0,0005	0,0005	0,0005	0,0004	0,0004	0,0004	0,0004	0,0004	0,0004	0,0003
-3,2	0,0007	0,0007	0,0006	0,0006	0,0006	0,0006	0,0006	0,0005	0,0005	0,0005
-3,1	0,0010	0,0009	0,0009	0,0009	0,0008	0,0008	0,0008	0,0008	0,0007	0,0007
-3,0	0,0013	0,0013	0,0013	0,0012	0,0012	0,0011	0,0011	0,0011	0,0010	0,0010
-2,9	0,0019	0,0018	0,0018	0,0017	0,0016	0,0016	0,0015	0,0015	0,0014	0,0014
-2,8	0,0026	0,0025	0,0024	0,0023	0,0023	0,0022	0,0021	0,0021	0,0020	0,0019
-2,7	0,0035	0,0034	0,0033	0,0032	0,0031	0,0030	0,0029	0,0028	0,0027	0,0026
-2,6	0,0047	0,0045	0,0044	0,0043	0,0041	0,0040	0,0039	0,0038	0,0037	0,0036
-2,5	0,0062	0,0060	0,0059	0,0057	0,0055	0,0054	0,0052	0,0051	0,0049	0,0048
-2,4	0,0082	0,0080	0,0078	0,0075	0,0073	0,0071	0,0069	0,0068	0,0066	0,0064
-2,3	0,0107	0,0104	0,0102	0,0099	0,0096	0,0094	0,0091	0,0089	0,0087	0,0084
-2,2	0,0139	0,0136	0,0132	0,0129	0,0125	0,0122	0,0119	0,0116	0,0113	0,0110
-2,1	0,0179	0,0174	0,0170	0,0166	0,0162	0,0158	0,0154	0,0150	0,0146	0,0143
-2,0	0,0228	0,0222	0,0217	0,0212	0,0207	0,0202	0,0197	0,0192	0,0188	0,0183
-1,9	0,0287	0,0281	0,0274	0,0268	0,0262	0,0256	0,0250	0,0244	0,0239	0,0233
-1,8	0,0359	0,0351	0,0344	0,0336	0,0329	0,0322	0,0314	0,0307	0,0301	0,0294
-1,7	0,0446	0,0436	0,0427	0,0418	0,0409	0,0401	0,0392	0,0384	0,0375	0,0367
-1,6	0,0548	0,0537	0,0526	0,0516	0,0505	0,0495	0,0485	0,0475	0,0465	0,0455
-1,5	0,0668	0,0655	0,0643	0,0630	0,0618	0,0606	0,0594	0,0582	0,0571	0,0559
-1,4	0,0808	0,0793	0,0778	0,0764	0,0749	0,0735	0,0720	0,0708	0,0694	0,0681
-1,3	0,0968	0,0951	0,0934	0,0918	0,0901	0,0885	0,0869	0,0853	0,0838	0,0823
-1,2	0,1151	0,1131	0,1112	0,1093	0,1075	0,1056	0,1038	0,1020	0,1003	0,0985
-1,1	0,1358	0,1335	0,1314	0,1292	0,1271	0,1251	0,1230	0,1210	0,1190	0,1170
-1,0	0,1587	0,1562	0,1539	0,1515	0,1492	0,1469	0,1446	0,1423	0,1401	0,1379
-0,9	0,1841	0,1814	0,1788	0,1762	0,1736	0,1711	0,1685	0,1660	0,1635	0,1611
-0,8	0,2119	0,2090	0,2061	0,2033	0,2004	0,1977	0,1949	0,1922	0,1894	0,1867
-0,7	0,2420	0,2388	0,2358	0,2327	0,2296	0,2264	0,2232	0,2200	0,2177	0,2151
-0,6	0,2742	0,2709	0,2676	0,2643	0,2611	0,2578	0,2544	0,2511	0,2482	0,2451
-0,5	0,3085	0,3050	0,3015	0,2981	0,2946	0,2912	0,2877	0,2843	0,2810	0,2776
-0,4	0,3446	0,3409	0,3372	0,3336	0,3300	0,3264	0,3228	0,3192	0,3156	0,3121
-0,3	0,3821	0,3783	0,3745	0,3707	0,3669	0,3632	0,3594	0,3557	0,3520	0,3483
-0,2	0,4207	0,4168	0,4129	0,4090	0,4052	0,4013	0,3974	0,3936	0,3897	0,3859
-0,1	0,4602	0,4562	0,4522	0,4483	0,4443	0,4404	0,4364	0,4325	0,4286	0,4246
-0,0	0,5000	0,4960	0,4920	0,4880	0,4840	0,4801	0,4761	0,4721	0,4681	0,4641
0,0	0,5000	0,5040	0,5080	0,5120	0,5160	0,5199	0,5239	0,5279	0,5319	0,5359
0,1	0,5398	0,5438	0,5478	0,5517	0,5557	0,5596	0,5636	0,5675	0,5714	0,5754
0,2	0,5793	0,5832	0,5871	0,5910	0,5948	0,5987	0,6026	0,6064	0,6103	0,6141
0,3	0,6179	0,6217	0,6255	0,6293	0,6331	0,6368	0,6406	0,6443	0,6480	0,6517
0,4	0,6554	0,6591	0,6628	0,6664	0,6700	0,6736	0,6772	0,6808	0,6844	0,6879
0,5	0,6915	0,6950	0,6985	0,7019	0,7054	0,7088	0,7123	0,7157	0,7190	0,7224
0,6	0,7258	0,7291	0,7324	0,7357	0,7389	0,7422	0,7454	0,7486	0,7518	0,7549
0,7	0,7580	0,7612	0,7642	0,7673	0,7704	0,7734	0,7764	0,7794	0,7823	0,7852
0,8	0,7881	0,7910	0,7939	0,7967	0,7996	0,8023	0,8051	0,8078	0,8106	0,8133
0,9	0,8159	0,8186	0,8212	0,8238	0,8264	0,8289	0,8315	0,8340	0,8365	0,8389
1,0	0,8413	0,8438	0,8461	0,8485	0,8508	0,8531	0,8554	0,8577	0,8599	0,8621
1,1	0,8642	0,8665	0,8686	0,8708	0,8729	0,8749	0,8770	0,8790	0,8810	0,8830
1,2	0,8849	0,8869	0,8888	0,8907	0,8925	0,8944	0,8962	0,8980	0,8997	0,9015
1,3	0,9032	0,9049	0,9066	0,9082	0,9099	0,9115	0,9131	0,9147	0,9162	0,9177
1,4	0,9192	0,9207	0,9222	0,9236	0,9251	0,9265	0,9279	0,9292	0,9306	0,9319
1,5	0,9332	0,9345	0,9357	0,9370	0,9382	0,9394	0,9406	0,9418	0,9429	0,9441
1,6	0,9452	0,9463	0,9474	0,9484	0,9495	0,9505	0,9515	0,9525	0,9535	0,9545
1,7	0,9554	0,9564	0,9573	0,9582	0,9591	0,9599	0,9608	0,9616	0,9625	0,9633
1,8	0,9641	0,9649	0,9656	0,9664	0,9671	0,9678	0,9686	0,9693	0,9699	0,9706
1,9	0,9713	0,9719	0,9726	0,9732	0,9738	0,9744	0,9750	0,9756	0,9761	0,9767
2,0	0,9772	0,9778	0,9783	0,9788	0,9793	0,9798	0,9803	0,9808	0,9812	0,9817
2,1	0,9821	0,9826	0,9830	0,9834	0,9838	0,9842	0,9846	0,9850	0,9854	0,9857
2,2	0,9861	0,9864	0,9868	0,9871	0,9875	0,9878	0,9881	0,9884	0,9887	0,9890
2,3	0,9893	0,9896	0,9898	0,9901	0,9904	0,9906	0,9909	0,9911	0,9913	0,9916
2,4	0,9918	0,9920	0,9922	0,9925	0,9927	0,9929	0,9931	0,9932	0,9934	0,9936
2,5	0,9938	0,9940	0,9941	0,9943	0,9945	0,9946	0,9948	0,9949	0,9951	0,9952
2,6	0,9953	0,9955	0,9956	0,9957	0,9959	0,9960	0,9961	0,9962	0,9963	0,9964
2,7	0,9965	0,9966	0,9967	0,9968	0,9969	0,9970	0,9971	0,9972	0,9973	0,9974
2,8	0,9974	0,9975	0,9976	0,9977	0,9977	0,9978	0,9979	0,9979	0,9980	0,9981
2,9	0,9981	0,9982	0,9982	0,9983	0,9984	0,9984	0,9985	0,9985	0,9986	0,9986
3,0	0,9987	0,9987	0,9987	0,9988	0,9988	0,9989	0,9989	0,9989	0,9990	0,9990
3,1	0,9990	0,9991	0,9991	0,9991	0,9992	0,9992	0,9992	0,9992	0,9993	0,9993
3,2	0,9993	0,9993	0,9994	0,9994	0,9994	0,9994	0,9994	0,9995	0,9995	0,9995
3,3	0,9995	0,9995	0,9995	0,9996	0,9996	0,9996	0,9996	0,9996	0,9996	0,9997
3,4	0,9997	0,9997	0,9997	0,9997	0,9997	0,9997	0,9997	0,9997	0,9997	0,9998

Source: Tavi Supriana & Riantri. *Statistik Nonparametrik*.

Medan: USU Press, 2013

APPENDICXV

TABLE OF F DISTRIBUTION

(Bilangan Dalam Badan Daftar Menyatakan:

Fp : Baris Atas untuk p = 0,05 dan Baris Bawah untuk p = 0,01)

v ₂ = dk penyebut	v ₁ = dk pembilang																								
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞	
1	161	200	216	225	230	234	237	239	241	242	243	244	245	246	248	249	250	251	252	253	253	254	254	254	
	4062	4999	5403	5625	5764	5859	5928	5981	6022	6056	6082	6106	6142	6169	6208	6234	6258	6286	6302	6323	6334	6352	6361	6366	
2	18,51	19,00	19,16	19,25	19,30	19,33	19,36	19,37	19,38	19,39	19,40	19,41	19,42	19,43	19,44	19,45	19,46	19,47	19,47	19,48	19,49	19,49	19,50	19,50	
	98,49	99,01	99,17	99,25	99,30	99,33	99,34	99,36	99,38	99,40	99,41	99,42	99,43	99,44	99,45	99,46	99,47	99,48	99,49	99,49	99,49	99,50	99,50	99,50	
3	10,13	9,55	9,28	9,12	9,01	8,94	8,88	8,84	8,81	8,78	8,76	8,74	8,71	8,69	8,66	8,64	8,62	8,60	8,58	8,57	8,56	8,54	8,54	8,52	
	34,12	30,81	29,46	28,71	28,24	27,91	27,67	27,49	27,34	27,23	27,13	27,05	26,92	26,83	26,69	26,60	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12	
4	7,17	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,93	5,91	5,87	5,84	5,80	5,77	5,74	5,71	5,70	5,68	5,66	5,65	5,64	5,63	
	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,54	14,45	14,37	14,24	14,15	14,02	13,93	13,83	13,74	13,69	13,61	13,57	13,52	13,48	13,46	
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,78	4,74	4,70	4,68	4,64	4,60	4,56	4,53	4,50	4,46	4,44	4,42	4,40	4,38	4,37	4,36	
	16,26	13,27	12,06	11,39	10,97	10,67	10,45	10,27	10,15	10,05	9,96	9,89	9,77	9,86	9,55	9,47	9,38	9,29	9,24	9,17	9,13	9,07	9,04	9,02	
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,03	4,00	3,96	3,92	3,87	3,84	3,81	3,77	3,75	3,72	3,71	3,69	3,68	3,67	
	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99	6,94	6,90	6,88	
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,63	3,60	3,57	3,52	3,49	3,44	3,41	3,38	3,34	3,32	3,29	3,28	3,25	3,24	3,23	
	12,25	9,55	8,45	7,86	7,46	7,19	7,00	6,84	6,71	6,62	6,54	6,47	6,35	6,27	6,15	6,07	5,98	5,90	5,85	5,78	5,75	5,70	5,67	5,65	
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,34	3,31	3,28	3,23	3,20	3,15	3,12	3,08	3,05	3,03	3,00	2,98	2,96	2,94	2,93	
	11,26	8,65	7,59	7,01	6,63	6,37	6,19	6,03	5,91	5,82	5,74	5,67	5,56	5,48	5,36	5,28	5,20	5,11	5,06	5,00	4,96	4,91	4,88	4,86	
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,13	3,10	3,07	3,02	2,98	2,93	2,90	2,86	2,82	2,80	2,77	2,76	2,73	2,72	2,71	
	10,56	8,02	6,99	6,42	6,06	5,80	5,62	5,47	5,35	5,26	5,18	5,11	5,00	4,92	4,80	4,73	4,64	4,56	4,51	4,45	4,41	4,36	4,33	4,31	
10	4,96	4,80	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,97	2,94	2,91	2,86	2,82	2,77	2,74	2,70	2,67	2,64	2,61	2,59	2,56	2,55	2,54	
	10,04	7,56	6,55	5,99	5,64	5,39	5,21	5,06	4,95	4,85	4,78	4,71	4,60	4,52	4,41	4,33	4,25	4,17	4,12	4,05	4,01	3,96	3,93	3,91	
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,86	2,82	2,79	2,74	2,70	2,65	2,61	2,57	2,53	2,50	2,47	2,45	2,42	2,41	2,40	
	9,65	7,20	6,22	5,67	5,32	5,07	4,88	4,74	4,63	4,54	4,46	4,40	4,29	4,21	4,10	4,02	3,94	3,86	3,80	3,74	3,70	3,66	3,62	3,60	
12	4,75	3,88	3,49	3,26	3,11	3,00	2,92	2,85	2,80	2,76	2,72	2,69	2,64	2,60	2,54	2,50	2,46	2,42	2,40	2,36	2,35	2,32	2,31	2,30	
	9,38	6,93	5,95	5,41	5,06	4,82	4,65	4,50	4,39	4,30	4,22	4,16	4,05	3,98	3,86	3,78	3,70	3,61	3,56	3,49	3,46	3,41	3,38	3,36	
13	4,67	3,80	3,41	3,18	3,02	2,92	2,84	2,77	2,72	2,68	2,63	2,60	2,55	2,51	2,46	2,42	2,38	2,34	2,32	2,28	2,26	2,24	2,22	2,21	
	9,07	6,70	5,74	5,20	4,86	4,62	4,44	4,30	4,19	4,10	4,02	3,96	3,85	3,78	3,67	3,60	3,51	3,42	3,37	3,30	3,27	3,21	3,18	3,16	
14	4,60	3,74	3,34	3,11	2,96	2,85	2,77	2,70	2,65	2,60	2,56	2,53	2,48	2,44	2,39	2,35	2,31	2,27	2,24	2,21	2,19	2,16	2,14	2,13	
	8,86	6,51	5,56	5,03	4,69	4,46	4,28	4,14	4,03	3,94	3,86	3,80	3,70	3,62	3,51	3,43	3,34	3,26	3,21	3,14	3,11	3,06	3,02	3,00	
15	4,54	3,68	3,29	3,06	2,90	2,79	2,70	2,64	2,59	2,55	2,51	2,48	2,43	2,39	2,33	2,29	2,25	2,21	2,18	2,15	2,12	2,10	2,06	2,07	
	8,68	6,36	5,42	4,89	4,56	4,32	4,14	4,00	3,89	3,80	3,73	3,67	3,56	3,48	3,36	3,29	3,20	3,12	3,07	3,00	2,97	2,92	2,89	2,87	
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,45	2,42	2,37	2,33	2,28	2,24	2,20	2,16	2,13	2,09	2,07	2,04	2,02	2,01	
	8,53	6,23	5,29	4,77	4,44	4,20	4,03	3,89	3,78	3,69	3,61	3,55	3,45	3,37	3,25	3,18	3,10	3,01	2,96	2,89	2,86	2,80	2,77	2,75	
17	4,45	3,59	3,20	2,96	2,81	2,70	2,62	2,55	2,50	2,45	2,41	2,38	2,33	2,29	2,23	2,19	2,15	2,11	2,08	2,04	2,02	1,99	1,97	1,96	
	8,40	6,11	5,18	4,67	4,34	4,10	3,93	3,79	3,68	3,59	3,52	3,45	3,35	3,27	3,16	3,08	3,00	2,92	2,86	2,79	2,76	2,70	2,67	2,65	
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,37	2,34	2,29	2,25	2,19	2,15	2,11	2,07	2,04	2,00	1,98	1,96	1,93	1,92	
	8,28	6,01	5,09	4,58	4,25	4,01	3,85	3,71	3,60	3,51	3,44	3,37	3,27	3,19	3,07	3,00	2,91	2,88	2,78	2,71	2,68	2,62	2,59	2,57	
19	4,38	3,52	3,13	2,90	2,74	2,63	2,55	2,48	2,43	2,38	2,34	2,31	2,26	2,21	2,15	2,11	2,07	2,02	2,00	1,96	1,94	1,91	1,90	1,88	
	8,18	5,93	5,01	4,50	4,17	3,94	3,77	3,63	3,52	3,43	3,36	3,30	3,19	3,12	3,00	2,92	2,84	2,76	2,70	2,63	2,60	2,54	2,51	2,49	
20	4,35	3,49	3,10	2,87	2,71	2,60	2,52	2,45	2,40	2,35	2,31	2,26	2,23	2,18	2,12	2,08	2,04	1,99	1,96	1,92	1,90	1,87	1,85	1,84	
	8,10	5,85	4,94	4,48	4,10	3,87	3,71	3,56	3,45	3,37	3,30	3,23	3,13	3,05	2,94	2,86	2,77	2,69	2,63	2,56	2,53	2,47	2,44	2,42	
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,28	2,25	2,20	2,15	2,09	2,05	2,00	1,96	1,93	1,89	1,87	1,84	1,82	1,81	
	8,02	5,78	4,87	4,37	4,04	3,81	3,65	3,51	3,40	3,31	3,24	3,17	3,07	2,99	2,88	2,80	2,72	2,63	2,58	2,51	2,47	2,42	2,38	2,36	
22	4,30	3,44	3,05	2,82	2,66	2,55	2,47	2,40	2,35	2,30	2,26	2,23	2,18	2,13	2,07	2,03	1,98	1,93	1,91	1,87	1,84	1,81	1,78	1,77	
	7,94	5,72	4,82	4,31	3,99	3,76	3,59	3,45	3,35	3,26	3,18	3,12	3,02	2,94	2,83	2,75	2,67	2,58	2,53	2,46	2,42	2,37	2,33	2,31	
23	4,28	3,42	3,03	2,80	2,64	2,53	2,45	2,38	2,32	2,28	2,24	2,20	2,14	2,10	2,04	2,00	1,96	1,91	1,88	1,84	1,82	1,79	1,77	1,76	
	7,88	5,66	4,76	4,26	3,94	3,71	3,54	3,41	3,30	3,21	3,14	3,07	2,97	2,89	2,78	2,70	2,62	2,53	2,48	2,41	2,37	2,32	2,28	2,26	
24	4,26	3,40	3,01	2,78	2,62	2,51	2,43	2,36	2,30	2,26	2,22	2,18	2,13	2,09	2,02	1,98	1,94	1,89	1,86	1,82	1,80	1,76	1,74	1,73	
	7,82	5,61	4,72	4,22	3,90	3,67	3,50	3,36	3,25	3,17	3,09	3,03	2,93	2,85	2,74	2,66	2,58	2,49	2,44	2,36	2,33	2,27	2,23	2,21	
25	4,24	3,38	2,99	2,76	2,60	2,49	2,41	2,34	2,28	2,24	2,20	2,16	2,11	2,06	2,00	1,96	1,92	1,87	1,84	1,80	1,77	1,74	1,72	1,71	
	7,77	5,57	4,68	4,18	3,86	3,63	3,46	3,32	3,21	3,13	3,05	2,99	2,89	2,81	2,70	2,62	2,54	2,45	2,40	2,32	2,29	2,23	2,19	2,17	

26	4,22	3,37	2,89	2,74	2,59	2,47	2,39	2,32	2,27	2,22	2,18	2,15	2,10	2,05	1,99	1,95	1,90	1,85	1,82	1,78	1,76	1,72	1,70	1,69
	7,72	5,53	4,64	4,14	3,82	3,59	3,42	3,29	3,17	3,09	3,02	2,96	2,86	2,77	2,66	2,58	2,50	2,41	2,36	2,28	2,25	2,19	2,15	2,13
27	4,21	3,35	2,96	2,73	2,57	2,46	2,37	2,30	2,25	2,20	2,16	2,13	2,08	2,03	1,97	1,93	1,88	1,84	1,80	1,76	1,74	1,71	1,68	1,67
	7,68	5,49	4,60	4,11	3,79	3,56	3,39	3,26	3,14	3,06	2,98	2,93	2,83	2,74	2,63	2,55	2,47	2,38	2,33	2,25	2,21	2,16	2,12	2,10
28	4,20	3,34	2,95	2,71	2,56	2,44	2,36	2,29	2,24	2,19	2,15	2,12	2,06	2,02	1,96	1,91	1,87	1,81	1,78	1,75	1,72	1,69	1,67	1,65
	7,64	5,45	4,57	4,07	3,76	3,53	3,36	3,23	3,11	3,03	2,95	2,90	2,80	2,71	2,60	2,52	2,44	2,35	2,30	2,22	2,18	2,13	2,09	2,06
29	4,18	3,33	2,93	2,70	2,54	2,43	2,35	2,28	2,22	2,18	2,14	2,10	2,05	2,00	1,94	1,90	1,85	1,80	1,77	1,73	1,71	1,68	1,65	1,64
	7,60	5,52	4,54	4,04	3,73	3,50	3,33	3,20	3,08	3,00	2,92	2,87	2,77	2,68	2,57	2,49	2,41	2,32	2,27	2,19	2,15	2,10	2,06	2,03
30	4,17	3,32	2,92	2,69	2,53	2,42	2,34	2,27	2,21	2,16	2,12	2,09	2,04	1,99	1,93	1,89	1,84	1,79	1,76	1,72	1,69	1,66	1,64	1,62
	7,56	5,39	4,51	4,02	3,70	3,47	3,30	3,17	3,06	2,98	2,90	2,84	2,74	2,65	2,55	2,47	2,38	2,29	2,24	2,16	2,13	2,07	2,03	2,01
32	4,15	3,30	2,90	2,67	2,51	2,40	2,32	2,25	2,19	2,14	2,10	2,07	2,02	1,97	1,91	1,86	1,82	1,76	1,74	1,69	1,67	1,64	1,61	1,59
	7,50	5,34	4,46	3,97	3,66	3,42	3,25	3,12	3,01	2,94	2,86	2,80	2,70	2,62	2,51	2,42	2,34	2,25	2,20	2,12	2,08	2,02	1,98	1,96
34	4,13	3,28	2,88	2,65	2,49	2,38	2,30	2,23	2,17	2,12	2,08	2,05	2,00	1,95	1,89	1,84	1,80	1,74	1,71	1,67	1,64	1,61	1,59	1,57
	7,44	5,29	4,42	3,93	3,61	3,38	3,21	3,08	2,97	2,89	2,82	2,76	2,66	2,58	2,47	2,38	2,30	2,21	2,15	2,08	2,04	1,98	1,94	1,91
36	4,11	3,26	2,86	2,63	2,48	2,36	2,28	2,21	2,15	2,10	2,06	2,03	1,99	1,93	1,87	1,82	1,78	1,72	1,69	1,65	1,62	1,59	1,56	1,55
	7,39	5,25	4,38	3,89	3,58	3,35	3,18	3,04	2,94	2,86	2,78	2,72	2,62	2,54	2,43	2,35	2,26	2,17	2,12	2,04	2,00	1,94	1,90	1,87
38	4,10	3,25	2,85	2,62	2,46	2,35	2,26	2,19	2,14	2,09	2,05	2,02	1,96	1,92	1,85	1,80	1,76	1,71	1,67	1,63	1,60	1,57	1,54	1,53
	7,35	5,21	4,34	3,86	3,54	3,32	3,15	3,02	2,91	2,82	2,75	2,69	2,59	2,51	2,40	2,32	2,22	2,14	2,08	2,00	1,97	1,90	1,86	1,84
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,12	2,07	2,04	2,00	1,95	1,90	1,84	1,79	1,74	1,69	1,66	1,61	1,59	1,55	1,53	1,51
	7,31	5,18	4,31	3,83	3,51	3,29	3,12	2,99	2,88	2,80	2,73	2,66	2,56	2,49	2,37	2,29	2,20	2,11	2,05	1,97	1,94	1,88	1,84	1,81
42	4,07	3,22	2,83	2,59	2,44	2,32	2,24	2,17	2,11	2,06	2,02	1,99	1,94	1,89	1,82	1,78	1,73	1,68	1,64	1,60	1,57	1,54	1,51	1,49
	7,27	5,15	4,29	3,80	3,49	3,26	3,10	2,96	2,86	2,77	2,70	2,64	2,54	2,46	2,35	2,26	2,17	2,08	2,02	1,94	1,91	1,85	1,80	1,78
44	4,06	3,21	2,82	2,58	2,43	2,31	2,23	2,16	2,10	2,05	2,01	1,98	1,92	1,88	1,81	1,76	1,72	1,66	1,63	1,58	1,56	1,52	1,50	1,48
	7,24	5,12	4,26	3,78	3,46	3,24	3,07	2,94	2,84	2,75	2,68	2,62	2,52	2,44	2,32	2,24	2,17	2,06	2,00	1,92	1,88	1,82	1,78	1,75
46	4,05	3,20	2,81	2,57	2,42	2,30	2,22	2,14	2,09	2,04	2,00	1,97	1,91	1,87	1,80	1,75	1,71	1,65	1,62	1,57	1,54	1,51	1,48	1,46
	7,21	5,10	4,24	3,76	3,44	3,22	3,05	2,92	2,82	2,73	2,66	2,60	2,50	2,42	2,32	2,22	2,17	2,04	1,98	1,90	1,86	1,80	1,76	1,72
48	4,04	3,19	2,80	2,56	2,41	2,30	2,21	2,14	2,08	2,03	1,99	1,96	1,90	1,86	1,79	1,74	1,71	1,64	1,61	1,56	1,53	1,50	1,47	1,45
	7,19	5,08	4,22	3,74	3,42	3,20	3,04	2,90	2,80	2,71	2,64	2,58	2,48	2,40	2,28	2,20	2,10	2,02	1,96	1,88	1,84	1,78	1,73	1,70
50	4,03	3,18	2,79	2,56	2,40	2,29	2,20	2,13	2,07	2,02	1,98	1,95	1,90	1,85	1,78	1,74	1,69	1,63	1,60	1,55	1,52	1,48	1,46	1,44
	7,17	5,06	4,20	3,72	3,44	3,18	3,02	2,88	2,78	2,70	2,62	2,56	2,46	2,39	2,26	2,18	2,10	2,00	1,94	1,86	1,82	1,76	1,71	1,68
55	4,02	3,17	2,78	2,54	2,38	2,27	2,18	2,11	2,05	2,00	1,97	1,93	1,88	1,83	1,76	1,72	1,67	1,61	1,58	1,52	1,50	1,46	1,43	1,41
	7,12	5,01	4,16	3,65	3,37	3,15	2,98	2,85	2,75	2,66	2,59	2,53	2,43	2,35	2,23	2,15	2,00	1,96	1,90	1,82	1,78	1,71	1,66	1,64
60	4,00	3,15	2,76	2,52	2,37	2,25	2,17	2,10	2,04	1,99	1,95	1,92	1,86	1,81	1,75	1,70	1,65	1,59	1,56	1,50	1,48	1,44	1,41	1,39
	7,08	4,98	4,13	3,65	3,34	3,12	2,95	2,82	2,72	2,63	2,56	2,50	2,40	2,32	2,20	2,12	2,03	1,93	1,87	1,79	1,74	1,68	1,63	1,60
65	3,99	3,14	2,75	2,51	2,36	2,21	2,15	2,08	2,02	1,98	1,94	1,90	1,85	1,80	1,73	1,68	1,63	1,57	1,54	1,49	1,46	1,42	1,39	1,37
	7,01	4,95	4,10	3,62	3,31	3,09	2,93	2,79	2,70	2,61	2,54	2,47	2,37	2,30	2,18	2,09	2,00	1,90	1,84	1,76	1,71	1,64	1,60	1,56
70	3,98	3,13	2,74	2,50	2,35	2,22	2,14	2,07	2,01	1,97	1,93	1,89	1,84	1,79	1,72	1,67	1,62	1,56	1,53	1,47	1,45	1,40	1,37	1,35
	7,01	4,92	4,08	3,60	3,29	3,07	2,91	2,77	2,67	2,59	2,51	2,45	2,35	2,28	2,15	2,07	1,98	1,88	1,82	1,74	1,69	1,63	1,56	1,53
80	3,96	3,11	2,72	2,48	2,33	2,21	2,12	2,05	1,99	1,95	1,91	1,88	1,82	1,77	1,70	1,65	1,60	1,54	1,51	1,45	1,42	1,38	1,35	1,32
	6,96	4,88	4,01	3,58	3,25	3,04	2,87	2,74	2,64	2,55	2,48	2,44	2,32	2,24	2,11	2,03	1,94	1,84	1,78	1,70	1,65	1,57	1,52	1,49
100	3,94	3,09	2,70	2,46	2,30	2,19	2,10	2,03	1,97	1,92	1,88	1,85	1,79	1,75	1,68	1,63	1,57	1,51	1,48	1,42	1,39	1,34	1,30	1,28
	6,90	4,82	3,98	3,51	3,20	2,99	2,82	2,69	2,59	2,51	2,43	2,36	2,26	2,19	2,06	1,98	1,89	1,79	1,73	1,64	1,59	1,51	1,46	1,43
125	3,92	3,07	2,68	2,44	2,29	2,17	2,08	2,01	1,95	1,90	1,86	1,83	1,77	1,72	1,65	1,60	1,55	1,49	1,45	1,39	1,36	1,31	1,27	1,25
	6,84	4,78	3,94	3,47	3,17	2,95	2,79	2,65	2,56	2,47	2,40	2,33	2,23	2,15	2,03	1,94	1,85	1,75	1,68	1,59	1,54	1,46	1,40	1,37
150	3,91	3,06	2,67	2,43	2,27	2,16	2,07	2,00	1,94	1,89	1,85	1,82	1,76	1,71	1,64	1,59	1,54	1,47	1,44	1,37	1,34	1,29	1,25	1,22
	6,81	4,75	3,91	3,44	3,13	2,92	2,76	2,62	2,53	2,44	2,37	2,30	2,20	2,12	2,00	1,91	1,82	1,72	1,66	1,56	1,51	1,43	1,37	1,33
200	3,89	3,01	2,65	2,41	2,26	2,14	2,05	1,98	1,92	1,87	1,83	1,80	1,74	1,69	1,62	1,57	1,52	1,45	1,42	1,35	1,32	1,26	1,22	1,19
	6,76	4,71	3,88	3,41	3,11	2,90	2,73	2,60	2,50	2,41	2,34	2,28	2,17	2,09	1,97	1,88	1,79	1,69	1,62	1,53	1,48	1,39	1,33	1,28
400	3,86	3,02	2,62	2,39	2,23	2,12	2,03	1,96	1,90	1,85	1,81	1,78	1,72	1,67	1,60	1,54	1,49	1,42	1,38	1,32	1,28	1,22	1,16	1,13
	6,70	4,66	3,83	3,36	3,06	2,85	2,69	2,55	2,46	2,37	2,29	2,23	2,12	2,04	1,92	1,84	1,74	1,64	1,57	1,47	1,42	1,32	1,24	1,19
1000	3,85	3,00	2,61	2,38	2,22	2,10	2,02	1,95	1,89	1,81	1,80	1,76	1,70	1,65	1,58	1,53	1,47	1,41	1,36	1,30	1,26	1,19	1,13	1,08
	6,68	4,62	3,80	3,34	3,04	2,82	2,66	2,53	2,43	2,34	2,26	2,20	2,09	2,01	1,89	1,81	1,71	1,61	1,54	1,44	1,38	1,28	1,19	1,11
∞	3,84	2,99	2,60	2,37	2,21	2,09	2,01	1,94	1,88	1,83	1,79	1,75	1,69	1,64	1,57	1,52	1,46	1,40	1,35	1,28	1,24	1,17	1,11	1,00
	6,64	4,60	3,78	3,32	3,02	2,80	2,64	2,51	2,41	2,32	2,24	2,18	2,07	1,99	1,87	1,79	1,69	1,59	1,52	1,41	1,36	1,25	1,12	1,00

Source: Sudjana. *Metoda Statistika*. Bandung: Tarsito, 2002

APPENDIC XVI

TABLE OF T DISTRIBUTION

$v = dk$

(Bilangan Dalam Badan Daftar Menyatakan tp)

v	$t_{0,995}$	$t_{0,99}$	$t_{0,975}$	$t_{0,95}$	$t_{0,90}$	$t_{0,80}$	$t_{0,75}$	$t_{0,70}$	$t_{0,60}$	$t_{0,55}$
1	63,66	31,82	12,71	6,31	3,08	1,376	1,000	0,727	0,325	0,158
2	9,92	6,96	4,30	2,92	1,89	1,061	0,816	0,617	0,289	0,142
3	5,84	4,54	3,18	2,35	1,64	0,978	0,765	0,584	0,277	0,137
4	4,60	3,75	2,78	2,13	1,53	0,941	0,741	0,569	0,271	0,134
5	4,03	3,36	2,75	2,02	1,48	0,920	0,727	0,559	0,267	0,132
6	3,71	3,14	2,45	1,94	1,44	0,906	0,718	0,553	0,265	0,131
7	3,50	3,00	2,36	1,90	1,42	0,896	0,711	0,549	0,263	0,130
8	3,36	2,90	2,31	1,86	1,40	0,889	0,706	0,546	0,262	0,130
9	3,25	2,82	2,26	1,83	1,38	0,883	0,703	0,543	0,261	0,129
10	3,17	2,76	2,23	1,81	1,37	0,879	0,700	0,542	0,260	0,129
11	3,11	2,72	2,20	1,80	1,36	0,876	0,697	0,540	0,260	0,129
12	3,06	2,68	2,18	1,78	1,36	0,873	0,695	0,539	0,259	0,128
13	3,01	2,65	2,16	1,77	1,35	0,870	0,694	0,538	0,259	0,128
14	2,98	2,62	2,14	1,76	1,34	0,868	0,692	0,537	0,258	0,128
15	2,95	2,60	2,13	1,75	1,34	0,866	0,691	0,536	0,258	0,128
16	2,92	2,58	2,12	1,75	1,34	0,865	0,690	0,535	0,258	0,128
17	2,90	2,57	2,11	1,74	1,33	0,863	0,689	0,534	0,257	0,128
18	2,88	2,55	2,10	1,73	1,33	0,862	0,688	0,534	0,257	0,127
19	2,86	2,54	2,09	1,73	1,33	0,861	0,688	0,533	0,257	0,127
20	2,84	2,53	2,09	1,72	1,32	0,860	0,687	0,533	0,257	0,127
21	2,83	2,52	2,08	1,72	1,32	0,859	0,686	0,532	0,257	0,127
22	2,82	2,51	2,07	1,72	1,32	0,858	0,686	0,532	0,256	0,127
23	2,81	2,50	2,07	1,71	1,32	0,858	0,685	0,532	0,256	0,127
24	2,80	2,49	2,06	1,71	1,32	0,857	0,685	0,531	0,256	0,127
25	2,79	2,48	2,06	1,71	1,32	0,856	0,684	0,531	0,256	0,127
26	2,78	2,48	2,06	1,71	1,32	0,856	0,684	0,531	0,256	0,127
27	2,77	2,47	2,05	1,70	1,31	0,855	0,684	0,531	0,256	0,127
28	2,76	2,47	2,05	1,70	1,31	0,855	0,683	0,530	0,256	0,127
29	2,76	2,46	2,04	1,70	1,31	0,854	0,683	0,530	0,256	0,127
30	2,75	2,46	2,04	1,70	1,31	0,854	0,683	0,530	0,256	0,127
40	2,70	2,42	2,02	1,68	1,30	0,851	0,681	0,529	0,255	0,126
60	2,66	2,39	2,00	1,67	1,30	0,848	0,679	0,527	0,254	0,126
120	2,62	2,36	1,98	1,66	1,29	0,845	0,677	0,526	0,254	0,126
∞	2,58	2,33	1,96	1,645	1,28	0,842	0,674	0,524	0,253	0,126

Source: Sudjana. *Metoda Statistika*. Bandung: Tarsito, 2002

