

A COMPARATIVE STUDY BETWEEN QUANTUM AND CONVENTIONAL LEARNING METHOD ON ENGLISH ARTICLES MASTERY OF EIGHTH GRADERS AT SMP SWASTA AL WASHLIYAH 1 MEDAN

Submitted to the Faculty of Tarbiyah and Teachers Training State Islamic University

of North Sumatra Medan as a Partial Fulfilment of the Requirements

for the Degree of Sarjana Pendidikan

A SKRIPSI

Ву

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DEPARTMENT OF ENGLISH EDUCATION

FACULTY OF TARBIYAH AND TEACHERS TRAINING

STATE ISLAMIC UNIVERSITY

NORTH SUMATRA

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2017



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SURAT PENGESAHAN

Skripsi ini yang berjudul: A COMPARATIVE STUDY BETWEEN QUANTUM AND CONVENTIONAL LEARNING METHOD ON ENGLISH ARTICLES MASTERY OF EIGHT GRADERS AT SMP SWASTA AL WASHLIYAH 1 MEDAN, disusun oleh : EKO SUSANTO yang telah dimunaqasyahkan dalam sidang munaqasyah Sarjana Strata Satu (S-1) Fakultas Ilmu Tarbiyah dan Keguruan UIN Sumatera Utara Medan pada tanggal:

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Assalamu'alaikum Wr.Wb.

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GRADERS AT SMP SWASTA AL WASHLIYAH 1 MEDAN

Dengan ini kami menilai skripsi tersebut dapat disetujui untuk diajukan dalam sidamg Munaqasyah Skripsi pada Fakultas Ilmu Tarbiyah dan Keguruan UIN Sumatera Utara.

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Menyatakan dengan sebenarnya bahwa skripsi yang saya serahkan ini benar-benar

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terima.

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Yang membuat pernyataan

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ABSTRACT

A COMPARATIVE STUDY BETWEEN QUANTUM AND CONVENTIONAL LEARNING METHOD ON ENGLISH ARTICLES MASTERY OF EIGHT GRADERS AT SMP SWASTA ALWASHLIYAH 1 MEDAN

EKO SUSANTO NIM. 34.13.1.084

Keyword: Quantum Learning, Conventional Learning, English Articles

This sresearch was intended to find out that whether the student mastery English articles by Quantum learning method is better than Conventional Learning method of Eighth graders at SMP Swasta Al Washliyah 1 Medan. The population and sample of this research were the class VIII 1 and VIII 2 of Private Junior High School Al Washliyah 1 Medan. They were 60 students. This research was an experiment. The population of this research was all students in class VIII of Private Junior High School Al Washliyah 1 Medan consisting of two classes was 60 students. The sample of this research was 30 students for the experiment class and 30 students for the control class. The instrument for collecting data was a test. The data was analyzed by using t-test formula. The result showed that the mean was 70,333 for experiment class and 53,367 for the control class. The variant of quantum learning method was 101,687 and the variant of conventional learning method was 91,203. The result of the analysis showed that $t_{observed} = 6,70$ was higher than $t_{table} = 1,99$ with the level of significance 0,05. This means that the alternative hypothesis (Ha) was accepted and null hyphothesis (Ho) was rejected. The students' mastery in English articles were taught by quantum learning method was better than taught by conventional learning method.

Advisor I

<u>Dr. Didik Santoso, M.Pd</u> NIP. 19660616 199403 1 006

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The writer wrote the *skripsi* on the title "A Comparative Study Between Quantum Learning and Conventional Learning on English Articles Mastery of Eight Graders at SMP Swasta Al Washliyah 1 Medan". This *skripsi*is written to fulfill one of the requirements to obtain the *Sarjana Pendidikan Degree* at the Department of English Education, Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera.

The writing this *skripsi* is actually a miracle for me since it was firstly regarded as a task would be very hard to do. However, it has now been denied since this *skripsi* has finally been written. Then, I would like to thank Allah *Subhaanahu Wa Ta'ala* for His Blessing given to me so that the writing of this *skripsi* has been finished without any meaningful problem. Additionally, the writer is grateful to the following for their supports and helps.

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Medan, October 13rd 2017

The Writer

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CHAPTER I

INTRODUCTION

A. The Background of the Study

There are many languages in the world. From the varieties of the languages, English the major language used as an international language. It is proven that many countries in the world determine to use it as the first or second language. For the developing countries, English is not only used for a communication in international contact but also for keeping abreast to the development of modern science, technology, international affair, politic, economy, education, etc.

Therefore, mastering English is very important, even in this global era. People will be able to face the over changing world easily if they master English well. In Indonesian schools, English is taught from junior high school level until the university. It is also occured in every English course, it offers English class for children. Its's hoped they can master English very well. So they will be easy to get a good job in their future.

Now days, many companies or even state institutions take the English for the first requirement in some positions. They need the applicants to master English actively. It means that the English is the first and main entrance requirement in applying for the worker.¹

Based on the brief description of the English position, we know that English is one of the important languages in the world. Include in Indonesian education, English is one of demanding subjects in every high school.

The Indonesian government through the Ministry of Education has always changed the curriculum, from (KBK: Kurikulum Berbasis Kompetensi)Curriculum Based Competence until (K13: Kurikulum 2013)13 Curriculum. They evaluate the education of Indonesia. It's hoped the education in Indonesia has good quality and will be better than before, Allah SWT also thought us in the Holy Quran that evaluating to human being is the important one process of education, He says:

لَهُ مُعَقَّباتُ مِّنُ بَيْنِ يَدَيْهِ وَمِنْ خَلْفِةِ يَحْفَظُونَهُ مِنْ أَمْرِ اللَّهِ لِلَّهِ اللَّهِ مَا يَانَفُسِهِمْ فَوَإِذَا أَرَادَ اللَّهَ لَا يُغَيِّرُ مَا بِقَوْمٍ حَتَّىٰ يُغَيِّرُوا مَا بِأَنفُسِهِمْ فَوَإِذَا أَرَادَ اللَّهُ بِقَوْمٍ سُوْءًا فَلَا مَرَدَّ لَهُ وَمَا لَهُم مِّن دُونِهِ مِن وَالٍ الله عَد: ١١)

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¹Glenn Fulcher. *Testing Second Langage Speaking.* (Britain: Pearson Education Ltd.,2010), p. 178.

"For each one are successive (angels) before and behind him who protect him by the decree of Allah. Indeed, Allah will not change the condition of a people until they change what is in themselves. And when Allah intends for a people ill, there is no repelling it. And there is not for them besides Him any patron."

(QS. Ar-Ra'd: Verse 11).²

From the verse above it will be driving force to the Ministry of Education in doing changing the best quality of education. It is related to English subject in writing skill ability especially in articles should be mastered by Indonesian students.

Grammar plays a crucial rolle in building one's language competence. Grammar, which can change meaning, can be seen as an important aspect in mastering a foreign language. However, grammar that is full of regulation and strict rulles apears to be a hard part in conquaring a foreign language.

Based on Indonesia curriculum, grammar is not tought spesifically in junior high school. On the other hand, grammar is very important to be learn because it is the basic in creating sentences to express ideas. There are a lot of aspects of grammar such as tense, part of speech, pasive voice, articles and the like.

The articles are by so far the most common and the most complex type of pre-adjective noun modifier. They also account for the great majority of

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²Departemen Agama RI. *Al-Qur'an & Tajwid* (Semarang:CV Penerbit *Diponegoro*, 2010), p. 250.

nonnative speaker errors in noun modification. There are two types of articles: the definite article *the* and the indefinite articles *a/an* and *some*.³

Articles are words that define a noun as specific or unspecific. Consider the examples: After the long day, the cup of tea tasted particularly good. By using the article the, we've shown that it was one specific day that was long and one specific cup of tea that tasted good. After a long day, a cup of tea tastes particularly good. By using the article a, we've created a general statement, implying that any cup of tea would taste good after any long day.

However, based on observed of researchers in SMP Swasta Al Washliyah 1 Medan at eight grade students of junior high school has a few problems experienced in grammar. Firstly, many errors of using articles of the sentences. Secondly, the students are rarely motivated by the teacher so that they are not confident to English language. Thirdly, they lack of the teacher's way in teaching the English language. Fourthly, the teachers rarely use the methods and systems used as the delivery of lessons and media used by teachers.

A method is one of the important elements in teaching English language. It determines to get success in teaching the good English language. There are some methods that can be used in teaching English such as Drilling Method, Suggestopedia, Direct Method, GroupMethod, Cooperative Integrated Reading, Quantum Learning, Conventional Learning and etc. However, the researcher just

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³Diane Freeman Larsen. *Principle in Language Teaching and English Articles*. (Oxford: Oxford University Press, 2000), p 103

uses two strategies; they are Quantum Learning and Conventional Learning strategies. Based on the explanation above the writer is interest in caring out the title:

"A Comparative Study between Quantum and Conventional Learning Method on English Articles Mastery of Eighth graders at SMP Swasta Al Washliyah 1 Medan"

B. The Identification of the Problem

Based on the background of the problem above, the writer identifies some problem dayling with the study, they are:

- 1. The teachers' method were not suitable to teach the students.
- 2. The students were lack motivated from the teacher.
- The teacher thought the students with his own way so the students feel bored.
- 4. The teachers doesn't master various teaching strategy.

C. The Limitation of the Problem

This study will clearly focus on comparative study between Quantum and Conventional Learning method on English Definite and Indefinite articles Mastery of Eighth graders at SMP Swasta Al Washliyah 1 Medan.

D. The Formulation of the Problem

Based on the background of the study mentioned above, the problem of the study is: "Is the student mastery English article by Quantum Learning method is better than Conventional Learning method of Eighth graders at SMP Swasta Al Washliyah 1 Medan?"

E. The Objective of Study

This study is intended to find out the student mastery English articles by Quantum Learning method is better than Conventional Learning method of Eighth graders at SMP Swasta Al Washliyah 1 Medan.

F. The Significances of the Study

The result of this study is hopefully can be usefull for:

- For the teacher, it is expected to improve their professionalism in teaching English especially in English Grammar. Besides, as a sugesstion for the teacher to attract students' interest in Learning English by using suitable method.
- 2. For the students, is expected to improve the students' ability and interest in learning English without under pressure of feeling and forced.
- For the institution, it is expected to provide input and to give contribution in improving learning process in order to improve quality of the students and the school.
- 4. For the next researcher, it is expected to help the next researcher who are interest in research related to this study.

CHAPTER II

THEORETICAL REVIEW

A. Theoretical Framework

To conduct a research, theories are needed to explain some concepts and terms in research concerned. The terms must be classified to avoid confusion. So, the researcher and the reader may have same perception of them.

A.1. English Articles

A.1.1. Definition

In English grammar, an article is a type of determiner that precedes and provides context to a noun, categorizing it and the article as either definite or indefinite. Articles are used as both a part of speech and written English and depending on the audiences' native tongue may present challenges to the listener or reader's comprehension of the definitness of the noun the article is modifying. There are three main articles in English grammar: "the", "a", and "and" though "some" can also be used certain contexts like "give me some food".

An article is a word that combines with a noun to indicate the type of reference being made by the noun. The three main articles in the English

⁴James Joyce. *A Portrait of the Artist as a Young Man*(New York: B. W. Huebsch, 1916) p. 125

language are an, a and the, which can be clssified as indefinite or definite.⁵ It is sometimes wondered which part of speech articles belong to. Since articles modify nouns, either alone or in combination with an adjective, they are sometimes classed as adjectives. However, some linguists place them in a different category, that determiners.

The chief stuctural function of atricles is determiners that precede nouns. However, they differ from other determiners in one important respect or they do not have a traditional power of serving alone as pronouns. The chief semantic function of articles is to mark nouns as *definite* or *indefinite*. The signals a *particular* person or thing that has been singled out from others-the student sitting next to you. A signals an *unspecified one* of others-a student sitting in the front row.

Based of the definition above, the writer concludes that English article is a type of determiner that precedes and provides context to a noun to indicate the type of reference being made by the noun and to mark nouns as definite or indefinite. There are two type of articles definite article *the* and indefinite article *a/an* and *some*.

5Rahma Fitriani *English Grammar* (Bandung: Cita Pustaka N

Hall, 1972), p. 125

⁵Rahma Fitriani. *English Grammar* (Bandung: Cita Pustaka Media Perintis, 2010), p. 40 ⁶Marcella Frank, *Modern English, A Practical Reference Guide* (New Jersey: Prentice-

A.1.2. Definite Articles

The definite article *the* is normally unstressed. It is pronounced $/\eth \partial /$ (rhymes with *duh*) before words beginning with a consonant sound. For example: (1) The $(/\eth \partial /)$ team (2) The $(/\eth \partial /)$ bridge.

The is pronounced /ðiy/ (rhymes with see) before words beginning with a vowel sound. For example: (1) The (/ðiy/) accident, (2) The (/ðiy/) example.

A.1.3. Indefinite Articles

English has two indefinite articles, a/an, which is used with singular nouns, and some, any which is used with plural nouns and with non-count nouns. The indefinite articles a/an and some, any are used in two situations: (a) When the speaker does not have a specific noun in mind (b) When the speaker does have a specific noun in mind, but knows that the listener does not know which noun it is Here are some examples of the first situation:

Do you have a minute?

In this example, the speaker does not have any exact minute in mind.

When you travel a lot by air, you have to expect some delayed flights.

In this example, the speaker is talking hypothetically. The speaker has no specific delays in mind. More often, however, the speaker has something or someone in mind, but knows that the listener does not share the speaker's knowledge. The use of the indefinite article indicates that the speaker does not

expect the listener to know which particular thing the speaker is thinking of. The examples:

I would like you come over this evening and meet α friend of mine.

The use of the indefinite article *a* signals the listener that the speaker knows that the friend of the speaker is a stranger to the listener. Here is a second example, this time with *some* used with a plural count noun:

I have some questions for you.

The use of *some* signals that the listener is not expected to know in advance what the questions are. Here is a third example, this time with *some* used with a singular, non-count noun:

I think that there will be *some* opposition to the new offer.

The use of *some* with the non-count noun *oppositions* signals that the speaker anticipates opposition. The exact nature of that opposition, however, is not shared knowledge between the speaker and hearer. The indefinite articles "a" has a second form "an" that is used before vowel sounds. For example: a banana and an apple. The rule governing the use of an pertains to vowel pronunciation, not vowel spelling.

If the before a consonant sound is given extra emphasis, it also is pronounced $/\eth iy/$ instead of the expected $/\eth \partial/$. For example, in the following sentence:

The New York Yankees are not just any baseball team; they are the (/ðiy/) baseball team.

In all of our discussion about the pronunciation of *the*, we assume (unless stated otherwise) that we are talking about the normal, unstressed pronunciation of *the*. The definite article is used with both singular and plural nouns.⁷

For example:

Singular noun	Plural noun
The cause	The causes
The design	The designs
The hill	The hills
The store	The stores

A.2. Quantum Learning Method

A.2.1. Definition

Quantum learning method is a trick, a guide, a strategy and an entire learning process that can sharpen understanding and memory, and make learning as a fun and rewarding process. Quantum is rooted in the efforts of Georgi Lozanov, a Bulgarian educator. He did experiments he called

⁷Diane Freeman Larsen. *Principle in Language Teaching and English Articles*.(Oxford: Oxford University Press.2000). page 103.

suggestology. The principle is that suggestions can and do affect the outcomes of the learning situation, and any details give positive or negative suggestions.

The main character behind Quantum is Bobbi De Porter. He is a pioneer, originator and principal developer of Quantum. Since 1982 De Porter matured and developed the idea of Quantum Learning method in SuperCamp. With the help of his friends, especially Eric Jansen, Greg Simmons, Mike Hernacki, Mark Reardon and Sarah Singer Nouric, De Porter programmed and planned to test Quantum Learning method ideas for teenagers at SuperCamp during the early 1980. De Porter explains that this method builds on the experience and research of 2,500 students and the synergy of the opinions of hundreds of teachers at Super Camp. These principles and methods of Quantum are formed in SuperCamp.

In the early stages of development, Quantum Learning mrthod is intended to help improve the success of the lives and careers of teenagers at home but over time people want De Porter to hold Quantum Learning programs for parents. This suggests that the philosophy and methodology of learning are general, not specifically intended for teaching in schools.⁸

Quantum Learning mrthod is an indication, the strategy and the whole process of learning that can sharpen the understanding and memory, as well as making learning as a process that is fun and rewarding.

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⁸De Porter, Bobbi. Mike Hernacki : *Quantum learning*. Kaifa : Bandung , 1999(https://kurniawanbudi04.wordpress.com/2013/05/29/model-pembelajaran-quantum-quantum-learning.pdf)

The process of this learning is a complex phenomenon. Everything means every word, thought, action, and association, and to what extent we change the environment, performance, and design learning, as far as it is also the learning takes place. Quantum learning method is learning a festive arrangement, with all its nuances. Quantum also includes all connection, interaction, and differences that maximize learning moments. Quantum learning method focuses on the dynamic relationship with in the classroom environment, interactions, establishing.

Quantum learning method is defined as an interaction that converts energy into light. In Quantum Learning method, the teacher wanted to compose (orchestrated) all students' abilities and natural talent to be a light that will benefit themselves and for others. Quantum is similar to a symphony. If you watch a symphony, there are many elements that factor into your music experience. We can divide these elements into two categories, namely context and content.

The context is the backdrop for your experience. "Context is familiarity orchestra space itself (the environment), the spirit of the conductor and the musicians (the atmosphere), the balance of instruments and musicians in the work of it so that all aim to learning success (ground), and interpretations of the maestro of the sheet music (draft)". These elements are combined and create a comprehensive music experience. In this context, there is any needed to

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⁹Ibid

compose: Empowers atmosphere, strong basis, support the environment, dynamic learning design.

The content varies with the context, but equally important. Think of sheet music itself as the content, the real notes on a page. One element content of each phase is how the music or played (presentation). The content also includes expert facilitation of the maestro of the orchestra, utilizing every player musical talent and potential of each instrument. In this content, it will be found the skills for the delivery of any curriculum, as well as strategies that students need to answer for what they learned: (a) Presentation of the prima, (b) Flexible facility and (c) Skills learning to learn and Life skills.

In Quantum Learning method there are two technique models: (1) Concepts Maps: Concept maps as effective learning techniques. The concept map here refers more to the financial ideas of the mind as a note in graphics as one of the effective learning techniques. Concept maps are ideas that are poured in the form of images or graphs. According to Nacy Murgilulier who quoted Rose and Nicholl before learning we visualize images with our minds and relate them to concepts. (2) Memory techniques: Memory technique is the technique of inserting information into the brain according to the way the brain works (brain-based technique). In this technique need to improve the effectiveness and efficiency of the brain in absorbing and storing information.

A.2.2. The Principle of Quantum Learning Method

"Main principle of Quantum Learning is bringing the world they are our word, our word and the world deliver them". ¹⁰ The purpose of this principle is to remind us of the importance of entering students as a first step. We have to enter the world of them because this will give us permission to lead, guide, and facilitate their journey towards awareness and broader knowledge. With a broader understanding and deeper mastery, students can take what they learned into their word.

In Quantum Learning has a principle of "bring the world they (students) to the word we (teacher) and deliver our world into their world," that is what we will teach the student should be able to be associated with an event, thought or feeling that the students gamed from life home, social, athletic, musical, artistic, recreational or academic.

There are five basic principle of Quantum Learning: (1) Know that everything is talking: In quantum learning everything from the learning environment to the teacher's body language, spatial layout to the teacher, from the papers distributed by the teacher to the design of learning, all send messages about learning, (2) Know that everything aims: Everything that happens in the process of converting energy into light has a purpose, (3) Realize that experience precedes naming: The best learning poses occur when learners have experienced information before they gain meaning for what they are learning, (4)

¹⁰ Bobby De Porter. *Quantum Teaching*.(Boston: Allyn and Bacon, 2000), p. 34

Acknowledge every effort undertaken in learning: Learning or learning is always a big risk, (5) Realize that something worth studying deserves to be celebrated: Everything learned is definitely worthy of its celebration.¹¹

A.2.3. The Procedures of Quantum Learning Method

There are eight procedure as follows:

- Make learning situation to be very pleasant situation for students.
 Teachers must be friendly, enthusiastic, warm and engaging.
- 2. Make the most of everything "talk" about the material we teach.
- 3. Make it so that all aims to learning are successful.
- 4. Give the initial experience (students construct their own knowledge), then the teacher gives the necessary direction.
- 5. Give recognition to any business that the student has made.
- 6. If a matter worthy of study, its success is also worth celebrating. That is, celebrate the success of every student.
- 7. Keep setting the atmosphere and environment conducive to learning.
- 8. Create joy and wonder (as we learned to ride a bike).

A.2.4. The Advantages and Disadvantages of Quantum Learning Method

There are eight advantages of Quantum learning as follows: (a) Quantum learning stem from cognitive psychology, rather than quantum physics and the term affliction, although the quantum concept is used, (b) Quantum learning

¹¹https://kurniawanbudi04.wordpress.com/2013/05/29/model-pembelajaran-quantum-quantum-learning/

focused on quality and meaningful interaction, not just the meaning of the transaction, (c) Quantum Learning accelerated learning so much emphasis on a high level of success, (d) Quantum Learning has a model that combines the learning context and content, (e) Quantum Learning focuses on the formation of academic skills, life skills, and physical or material accomplishments, (f) Quantum learning place values and beliefs as an important part of the learning process, (g) Quantum Learning prioritizes diversity and freedom, not uniformity and order, (h) Integrate the totality of quantum learning body and mind in the learning process.

Besides the advantages above, the method has disadvantages such as: (a) Requires real experience, (b) Long enough to motivate the learning, (c) Difficulty of identifying the skills students.

A.3. Conventional Learning Method

A.3.1. Definition

The conventional learning method or commonly referred to as the lecture method is commonly used by most school teachers today. Conventional methods generally consist of giving explanations or (lectures) to learners accompanied by the assignment or exercise (recitation). A teacher activity in this case is to provide explanations in front of the class and held question and answer and provide examples of problem solving. The use of lecture methods in a lesson should be done by giving time and space to learners to perform active-learning activities and creative, for example by providing flexibility to think, ask

questions, make a problem, and do conclude. Thus, the lecture method is not only limited to the explanations conveyed by the teacher. If this happens, then the learner will become a passive.¹²

According to Suparman, conventional learning method is a method of teaching in the form of explanations of teachers to learners and followed by question and answer about the contents of lessons that have not been clear. In line with that opinion, Surakhmad, what is meant by lecture as a teaching method is the light and verbal narration by the teacher to his class. During the lecture, teachers can use the tools, for example: drawing charts to make the explanation more clear.

Dryden and Vos stated that traditional or conventional learning method is a method that involves a certain intelligence that is focused on the application of linguistic intelligence and mathematical logic intelligence. Linguistic intelligence is the intelligence that thouches the ability to speak, read, and write, logical mathematical intelligence is the intelligence used in logic, mathematics, and natural sciences.

A.3.2. The Principle of Conventional Learning Method

The conventional learning method is the most important to listen carefully and record the essence of the teacher. Thus, the conventional learning method can be classified into traditional teaching methods, since it has been used as a means of oral communication between teachers and learners in the

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¹²Haidir dan Salim. *Strategi Pembelajaran*(Perdana Publishing: 2012), p. 103

learning process. Although this method requires more teacher activeness than learners, but the method of this lecture cannot be abandoned in teaching activities.

How to teach by lecture method can also be said as a lecture technique, is a teaching that is used to convey information or information or description of a subject matter orally. Thus, the lecture method can be understood as a way of presenting the lessons that teachers do with the narrative or verbal explanation directly to learners. Given the lecturing methods of many less advantageous terms, their use must be supported by tools and media or by other methods.

A.3.3. The Procedural of Conventional Learning Method

Conventional Learning have four procedures:

- 1. Presenting the stimulus
- 2. Observing and response models
- 3. providing drill in answering stimulus
- 4. Providing reinforcement to the appropriate response as early as possible.

A.3.4. The Advantages and Disadvantages of Conventional Learning Method

There are six advantages of this method they are: (a) Lectures are a cheap and easy method to do, (b) Lectures can present extensive subject matter, (c) Lectures can provide the subjects that need to be highlighted, (d) Through lectures, teachers can control the state of the class because the class is entirely

the responsibility of the teacher giving the lecture, (e) Class organizations using lectures can be simplified, (f) Lectures do not require a variety of classroom settings or require no complicated preparations.

In conventioanal learning method, verbal ability is emphasizes, it means that presentation of material gave explicity so that students are expected to master the material verbally. Through this way can be identified by real whether the students has matered the material or not. So mastery of the material measured by the ability to express clearly in the form of verbal words.

Beside of the advantages, this method have disadvantages such as: (a)

Giving less atention to the differences that exist within students including
learning styles, interest, talents, and background, (b) Focussing on the type of a
certain intelligence, while other intellegence possessed students are not touched
as emotional intelligence and spiritual intelligence.

A.3.5. Difference Between Quantum and Conventional Learning Method

Table I. Difference Between Quantum and Conventional Learning Method

Quantum Learning	Conventional Learning	
Learning Method		
Group discussion	1. Teaches	
2. Demonstration	2. Drill	
3. Assignment	3. Practice	
Role Definition		

- Teachers cultivate a positive

 attitude by creating a positive
 environment, social
 environment (learning
 community), learning tools, as
 well as clear goals and give
 meaning to the students,
 causing curiosity. "Bring their
 world into our world".
- The teacher must provide experience and benefits to the knowledge that students build.
- 3. Naming satisfies the brain's natural desire (makes students curious, full of questions about experience) to give identity, strengthen and define.
- Teachers give students
 opportunities to show that
 students know.
- Strengthen the nerveconnection and grow the sense

- Focusing on the learning process of teacher.
- Correction is done by the teacher.
- Teacher act as planner, a conveyor of information and as an evaluator.
- Students are placed as an object of study.
- Concept presented by the teacher.

of "I know that I know this".

6. Giving praise like singing together, class party, giving rewards in the form of a pat.

The Use of Media

- Tools and learning materials as the main source in the learning process.
- Using tools and media is needed as a main component to stimulate a variety of intellegence.
- Tools and materials is absolutely necessary in the learning process.

- Tools and learning materials serves as a tool in the learning process.
- Using tools and media is not needed for teachers to explain the learning materials.
- Tools and media is not absolutely necessary immersion learning process.

Procedures

- 1. Opening
 - a. Greeting and doing self introduction.
 - b. Make learning situation to
- 1. Opening
 - a. Greeting and doing self introduction
 - b. Telling the learning goal to

be very pleasent situation.

c. Telling the learning goal to the students.

2. Main Activities

- a. The teacher reminds the students about with the material being taught and provides problems related to daily life.
- b. The teacher gives
 explanations on teaching
 materials and divides the
 students into 2 large
 groups. After finishing the
 teacher gives a game like a
 relay matter with
 accompaniment of music or
 other fun things.
- The teacher gives the same
 two questions as the
 previous question and asks
 one of the students to work

the students.

2. Main Activities

- a. Presenting the stimulus.
- b. Observing and Response models.
- c. Providing drill in anwering stimullus.

3. Closing

- Reapiting and emphasizing main points.
- Encouraging question from students.
- Relating content to previous and subsequent topics.

in front (the student who has not answered the previous question).

d. The teacher concludes the results that the student earns. Teachers provide exercise questions to strengthen students' understanding of teaching materials.

3. Closing

- a. Teachers and students

 evaluate the learning that

 has been going on, then

 celebrate (for example with

 five-finger tos, both fellow

 students and students with

 teachers).
- b. The teacher assigns the
 assignment to the students
 as homework to be
 collected at the next

meeting and pray	

B. Related Studies

Puspika and Narius conducted a study entitled "Applying Quantum Technique in Teaching Grammar to Senior High School Students". This study was concluded that Quantum technique is a technique that can be used in teaching simple past tense. There are six stages in teaching simple past tense by using Quantum technique: enroll, experience, label, demonstrate, review, and celebrate. Besides, the teacher also follows the three stages of teaching in the classroom: pre-teaching activities, whilst-teaching activities (exploration, elaboration, and confirmation), and post-teaching activities. Teaching simple past tense in the classroom can be interesting if the teacher is creative in choosing the appropriate strategy which can be interesting if the teacher is creative in choosing simple past tense. Quantum technique is a right strategy to be used in teaching simple past tense to senior high school students.¹³

There are some similarities between the study mentioned above and the study that was conducted by the writer. It is undeniable that the previous studies focused on the use of the methods. In this study, Quantum Learning and Conventional Learning were applied to measure the students' English articles mastery.

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¹³DwinandaPuspika, Don Narius. *Applying Quantum Technique in Teaching Grammar to Senior High School Students : Vol. 2, No. 2* (Padang: State University of Padang, 2014), p. 53

Faradiba Sari Harahap conducted a research about The Effect of Quantum Learning on Standardized Test Scores versus schools that do not use Quantum Learning. His study was to determine the effectiveness of quantum learning on standardized test scores. Standardized tests are the kind of tests that are overseen and attained in a standard and a consistent manner. In a standardized test, the administration and the scoring of the questions have a constant approach; this portrays the design of standardized tests. Quantum learning is the learning process that relies on the use of teaching tactics that firmly plant the data into the memories of the students in class. The study group selected for this study was the high school teachers in the area. Data were collected through a twenty question survey focused on quantum learning and Chisquare analysis was conducted between the factors of teacher education and experience, the frequency of using quantum learning and the teacher's attitude and confidence toward quantum learning.

C. Conceptual Framework

Quantum learning method is better than conventional learning method because Quantum learning method is easier to present learning materials and Quantum learning method also more motivated in the class so the students can increase their spirit and ability. Quantum learning method is considered as an affective and enjoyable technique to teach English articles because it enables students to practice, express their idea, and discuss the meanings.

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Quantumn learning method is techniques that can be used on teaching

English Writing in grammar of division articles. Students can generate their ideas

and write them into good grammar. Then, they think more about other words in

sentence to describe the secret words. This process teaches students to be

accustomed to have a critical thinking.

D. Hypothesis

Based on the discussion above, the writer formulates the following

hypothesis: "Quantum Learning method is better than Conventional Learning

method in the teaching English articles of Eighth graders at SMP Swasta Al

Washliyah 1 Medan.

H_o: Conventional learning method is not better than Quantum.

H_a: Quantum Learning method is better than Conventional.

CHAPTER III

RESEARCH METHOD

A. The Location and Time of the Study

This research conducted at SMP Swasta Al Washilyah 1 Medan. This school consists of eight classes, they are: two classes for grade VII, three classes for grade VIII, and three classes for grade IX. The reasons of choosing this school were:

- The researcher found the problem that the students still had been low ability in grammar.
- The school was the location of teaching practice for the researcher.
 The research was done on February until March 2016.

B. The Population and Sample

B.1. Population

Population is the totally of all the elements that exist in an area of research.¹⁴ A population is a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the results of the research.¹⁵

The population of this study was the 2017/2018 at eight graders of SMP Swasta Al Washliyah 1 Medan. It consisted of 2 classes, they are VIII 1 consist of

¹⁴ Azuar Juliandi & Irfan, *Metodologi Penelitian Kuantitatif* (Medan: Cita pustaka Media, 2013) p. 50

¹⁵ James H McMillan & Sally Schumacher, *Research in Education A Conceptual Introduction* (New York: Logman, 2001) p. 169

30 students, VIII 2 consist of 30 students, so total of the population are 60 students.

Tabel II. Population of the Research

No	Class	Population
1	VIII 1	30
2	VIII 2	30
		60

B.2. Sample

A sample is a group in a research study on which information is obtained.¹⁶ The researcher used total cluster random sampling technique. Sample in this reasearch are 64 students in two classes, which is VIII 1 and VIII 2. Class VIII 1 as control class and class VIII 2 as experiment class.

Tabel III. Sample of Research

No	Class	Population
1	VIII 2	30
То	tal	30

¹⁶ Jack R Fraenkel, *How to Design and Evaluate Research in Education* (Singapore: McGRAW-HILL INC, 1993) p. 100

C. Research Method

The research was conducted by appliying comparative-experimental research. It means that there are treatments to improve English articles through several method or strategies. To obtain this data, the research conducted teaching English articles both to the experimental group and control group. Each group was taught with different methods; Quantum method was applied to the experimental group while Conventional method was used at the control group. Look at the following table for the further understandings:

Table IV. Class of Sample Groups

Class	Treatment	Post test
Experimental group	Quantum Learning	√
Control group	Conventional Learning	√

1. Treatment

In the language of experiment, a treatment is something done to a person that might have an effect. In order to finnd out the effectiveness of using quantum learning, the sample was treated by the researcher in different ways, quantum learning was used for experiment class and comvemtional learning for control class. The process of giving treatment to both classes was conducted in nine meetings. Therfore, there were ten meetings for each class including post test.

Post Test

After the treatment done, a post test was administered to both experiment and control class. The results of both classes were analyzed to find out if the effect of using quantum learning on the students' ability in English grammar is significant or not.

D. The Instrument for Collecting Data

In conducting this research, the instrument was used to collect the data namely multiple choice tests. Instrument for collecting data was designed in order to see the result of the study. The researcher gave 50 test items where each correct answer was given 2 scores and 0 for the wrong answer, so the maximum score would be 100. The score of the test was gained by applying the following formula:

Score of completion test =
$$\frac{score}{100} \times 100$$

1. Conceptual Definition

English article is a word that combines with a noun to indicate the type of reference being made by the noun. The three main articles in the English language are an, a and the, which can be clssified as indefinite or definite.

2. Operational Definition

English article is a word used to modify a noun, which is a person, place, object, or idea. Articles are used instead to point out or refer to a nouns.

However, English article is one of grammar ability should be mastered by the students.

3. Specification

English article ability test consist of two parts, definite article (the) and indefinite article (a, an, some). For more details can be seen in the following table:

Table V. Specification of English Article Test

No	Indicator	Sub Indicator	Number of Item	List Item
1	Definite	The	24	3, 16, 17, 19, 23, 24, 25, 27, 28, 31, 33, 34, 35, 36, 37, 39, 40, 41, 43, 45, 47, 48, 49, 50
2	Indefinite	А	14	1, 4, 8, 10, 13, 21, 22, 26, 29, 30, 32, 38, 44, 46
		An	7	2, 5, 6, 11, 15, 20, 42
		Some	5	7, 9, 12, 14, 18,

Easy : 30 % X 50 items = 15

Moderate : 60 % X 50 items = 30

Difficult : 10 % X 50 items = 5

Total = 50 items

E. The Validity and Reliability of the Test

E.1. The Validity of the Test

Validity is one of measurement that shown the degree of validity instrument. The valid instrument has high validity on the other hand the less valid instrument had low validity. An instrument could be said if it measure what needed it an. An instrument could be saidvalid if it could gasp data from variable being observed. The type of validity that wasused would content validity; the result was used to predict the students' in the future activity. The validity could be counted by using the product Moment Formula as shown in the follow formula¹⁷.

$$r_{xy} = \frac{|(N.(\sum XY)) - ((\sum XY)(\sum Y)|}{\sqrt{\{(N.\sum X^2) - (\sum X)^2\}\{(N.\sum Y^2) - (\sum Y)^2\}}}$$

In which:

R_{xv} = the correlation coefficient of one item against total items

N = the number of samples

 ΣX = sum of scores in each item

 $\sum Y$ = sum of total scores in all items

 $\sum X^2$ = sum of the squared scores in each item

¹⁷*Ibid*, page 170

 ΣY^2 = sum of the squared total scores in all items

Calculating the coefficient of $t_{observed}$ (t-test) by using the following formula:

$$t_{observed} = \frac{r\sqrt{N-2}}{\sqrt{1-r^2}}$$

In which:

 $T_{observed}$ = the correlation significance test

r = the correlation coefficient

N = the number of samples

The product of $t_{observed}$ would be later then consulted to the t_{able} coefficient with significance level (α) = 0.05 and degree of freedom (df) = N –2. And then comparing the coefficient of $t_{observed}$ and t_{able} if $t_{observed} > t_{able}$ thus the item would be valid.

E.2. The Reliability of the Test

The reliability of instrument is related to reliance or credibility level of instruments to be used as data collector. The steps for testing the reliability of instrument were following:

a. Calculating the differences variance score by using the following formula:

$$V_d = \frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N}$$

In which:

 V_d = the differenced variance score

 $\sum d^2$ = sum of squared differences

 $(\sum d)^2$ = the squared of differences' summing

N = the number of samples

b. Calculating the total variance score by using the following formula:

$$V_t = \frac{\sum t^2 - \frac{(\sum t)^2}{N}}{N}$$

In which:

 V_t = the differenced variance of correct answers

 $\sum t^2$ = sum of squared total correct answers

 $(\sum t)^2$ = the squared of total correct answers

N = the number of samples

c. Calculating the coefficient of reliability by using *Rulon* formula:

$$r_{11} = 1 - \frac{V_d}{V_t}$$

In which:

 r_{11} = the coefficient of reliability

 V_d = the differenced variance score

 V_t = the total variance of correct answers

The product of r_{11} would be later then consulted to the r_{table} coefficient with significance level (α) = 0.05 and degree of freedom (df) = N-2.

d. Comparing the coefficient or r_{11} and r_{table} If $r_{11} > r_{table}$ thus the item will be reliable.

F. The Technique of Data Analysis

The calculate the effect of the independent to the dependent variable, the writer used t-test formula as follows:

$$t = \frac{\bar{X}_a - \bar{X}_b}{\left[\sqrt{\frac{SD_a \vdots \vdots \vdots^2 + SD_b \vdots \vdots \vdots^2}{n_a + n_b - 2}}\right] \left[\frac{1}{n_a} + \frac{1}{n_b}\right]}$$

Where: \overline{X}_a = the mean of experimental group

 \overline{X}_b = the mean of control group

 SD_a = the standard deviation of experimental group's scores

 SD_b = the standard deviation of control group's scores

 n_a = the total number of samples in experimental group

 n_b = the total number of samples in control group.

G. Statistical Hypothesis

The hypothesis of this study can be formulated as follow:

Ha : $\mu A > \mu B$

HO: $\mu A = \mu B$

A = The students who are thought by Quantum Learning method

B = The students who are thought by Conventional Learning method

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

A. Research Findings

1. Description of Data

After administering the post test to the experiment class which was taught by using quantum learning method and the control class which was taught by using conventional learning method, the result of the English article mastery can be seen from the table below:

Table VI. Research Result Data

Statistic	Learning M	lethod
Source	Quantum	Conventional
N	30	30
X	70,333	53,367
S	10,084	9,550

a. The Students' Scores in English Articles Mastery of Experiment Class

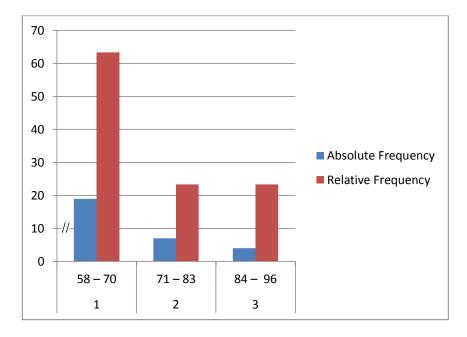
After analyzing the data through statistic description, the results showed that the students were taught by quantum learning method got the score range was 58 to 85, the mean of post test was 70,333, the standard deviation of post test was 10,084, the lowest score of post test was 58, the highest score of post test was 85. The distribution of the data can be shown in the distribution of frequency in the following table:

Table VII. The Frequency Distribution of the Students' Score in English

Articles Mastery of Experiment Class

No	Interval Class	Absolute Frequency	Relative Frequency
1	58 – 70	19	63,33
2	71 – 83	7	23,33
3	84 – 96	4	23,33
		30	100

The scores frequency distribution histogram of students' mastery in English articles were taught by using quantum learning can be shown in the following figure:



b. The Students' Scores in English Articles Mastery of Control Class

After analyzing the data through statistic description, the results showed that the students were taught by conventional learning method got the score range was 34 to 67, the mean of post test was 53,367, the standard deviation of post test

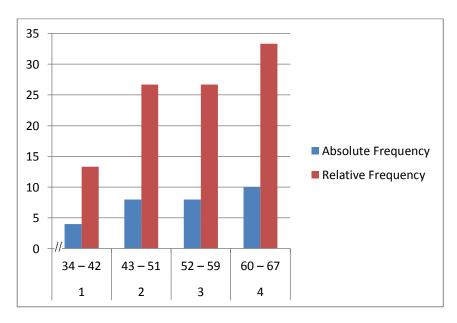
was 9,550, the lowest score of post test was 34, the highest score of post test was 67. The distribution of the data can be shown in the distribution of frequency in the following table:

Table VIII. The Frequency Distribution of the Students' Score in English

Articles Mastery of Control Class

No	Score Range	Absolute Frequency	Relative Frequency
1	34 – 42	4	13,33
2	43 – 51	8	26,67
3	52 – 59	8	26,67
4	60 – 67	10	33,33
		30	100

The scores frequency distribution histogram of students' mastery in English articles were taught by using conventional learning can be shown in the following figure:



2. Analysis Requirement Testing

a. Normality Testing

Normality testing is 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.

Table IX. Normality Testing

No	Data			N	α	$L_{observed} \\$	$\mathbf{L}_{ ext{table}}$	Conclusion
1	Post	test	of	30	0,05	0,147	0,161	Normal
	experim	nent clas	SS					
2	Post tes	st of co	ntrol	30	0,05	0,082	0,161	Normal
	class							

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

b. Homogeneity Testing

To test the homogeneity of the data, the researcher used F-test. This means that the data in categorized low.

Table X. Homogeneity Test of Post Test

Data	Variant	Fobserved	F _{table}	Conclusion
Post test of experiment class	101,687			
Post test of control class	91,203	1,11	1,85	Homogenous
	Post test of experiment class Post test of	Post test of 101,687 experiment class Post test of 91,203	Post test of 101,687 experiment class 1,11 Post test of 91,203	Post test of 101,687 experiment class 1,11 1,85 Post test of 91,203

So $F_{observed} < F_{table}$ atau (1,11 < 1,85) so it can be concluded that the variant is homogenous.

3. Hypothesis Testing

The result of the hypothesis testing of this study can be shown from the table below (See appendix IX):

Table XI. T-test Result of Post Test

Data	Tobserved	t _{table}	Conclusion
Experiment class	6,70	1,99	There is significant effect of quantum learning method on the students'
Control class			mastery in English articles

The data shows that there was significant test though t-test was found that $t_{\rm observed} = 6,70$ whereas the $t_{\rm table} = 1,99$. It showed that students' mastery in English articles by using quantum learning method was significant at 0,05. From the result, the researcher found that there was significant of the students' mastery in English articles were taught by quantum learning method. This means that the students' mastery in English articles were taught by quantum learning method was better than taught by conventional learning method.

B. Discussion

Based on the result of the study the quantum learning method is better than the conventional learning method in teaching English article maybe because of some reasons. First, the process of quantum learning method is a complex phenomenon. Everything means every word, thought, action, and association, and to what extent we change the environment, performance, and design learning, as far as it is also the learning takes place. Quantum learning method is a learning festive arrangement, with all its nuances. Quantum learning method also includes all connection, interaction, and differences that maximize learning moments. Quantum learning method focuses on the dynamic relationship with in the classroom environment, interactions, establishing.

Second, in Quantum Learning method, the teacher wanted to compose (orchestrated) all students' abilities and natural talent to be a light that will benefit themselves and for others.

Quantum learning method can create a supportive to solve the lower students' anxiety and help them to overcome threatening affective factors, such as making errors or competing with peers. In addition, the students are not limited in their topics of writing. They are also feel comfortable to learning english articles because with quantum learning method the students feel enthusias to learn. This situational approach to language learning encourages the meaningful use of language which the learner can store, synthesize and use in new situations. As opposed to learners who memorize of using definite article or indefinite article. Moreover, it is believed that from the good implemantation of quantum learning method by the teacher, students will be able to mastering English articles.

The result of this research is supported by the study of Abdurrahman (2009: 14-16) stated that Quantum Learning provides learning processes and missions to be more meaningful and relevant to the daily lives of learners. This is due to the interwoven understanding of language and behavior between learners and educators. Educators know how to use positive language to improve positive suggestions and behaviors towards learners.

CHAPTER V

CONCLUSION, IMPLICATION AND SUGGESTIONS

A. Conclusion

From the data obtained it is seen that the result of quantum learning method to the students' mastery at grade eight of private Junior High School Alwashliyah I Medan was higher than using the conventional learning method. It is significant to be used in improving the students' mastery in English articles. The result of $t_{observed}$ was 6,70 and t_{table} was 1,99 ($t_{observed}$ > t_{table} , 6,70 > 1,99). It means that alternative hypothesis (Ha) was accepted and null hyphothesis (Ho) was rejected. There was an effect of quantum learning method on the students' mastery in English articles.

B. Implication

Based on the research findings and conclusion obtained are expected to provide positive impact on the English articles mastery issues in the form of implications.

This study found that quantum learning method was better than conventional learning method in improving English articles mastery. The implication of this finding is that the quantum learning method must be used and develop in English articles by forming small groups, making the learning process is fun with the activities of whispering. Therefore, in using quantum learning method requires

quite a long time and evaluation tools in accordance with the method. The most important principle is that the learning process emphasizes the client-counselor relationship. Thus, in implementing quantum learning method needed creativity of teachers. It is necessary for the existence of:

First, socializing quantum learning method to teachers. With socialization, teachers will understand the strengths and weaknesses of quantum learning method.

Second, forming a group of team teaching for the teachers who have the same field to assess and implement the quantum learning method. Thus, each teacher will develop and interpret this method in various forms and situation does not eliminate the basic principle.

Third, there is monitoring activities intensively and sustainly in order to implement quantum learning method in order to familiarize the teachers to apply this method and gradually abandon the old ways that are not effective and productive especially things that violate the basic principles of quantum learning method.

C. Suggestions

Based on the research findings, the writer suggests that:

- 1. The students are suggested to learn English articles.
- 2. The English teacher is expected to teaching students by using quantum learning method in order to improve their ability in English.
- 3. The Principal of Private Junior High School Al Washliyah I Medan to increase the English teachers competency in teaching English articles.

- 4. The stakeholders is suggested to use the result of this study as an input to improve the teachers ability in doing the effective learning processs.
- 5. Process in the class. This means that the learning process in class is not simply form a small group, but still pay attention to the needs of each individual.
- 6. The other researcher are expected to develop this method in doing the same research in order to increase the students' mastery in English articles.

REFERENCES

- Glenn Fulcher. *Testing Second Langage Speaking*. Britain: Pearson Education Ltd., 2010
- Departemen Agama RI. Al-Qur'an & Tajwid Semarang:CV Penerbit Diponegoro, 2010
- Diane Freeman Larsen. *Principle in Language Teaching and English Articles*.

 Oxford: Oxford University Press, 2000
- James Joyce. A Portrait of the Artist as a Young Man. New York: B. W. Huebsch, 1916
- Rahma Fitriani. *English Grammar*. Bandung: Cita Pustaka Media Perintis, 2010
- Marcella Frank, *Modern English,A Practical Reference Guide*. New Jersey: Prentice-Hall, 1972
- Diane Freeman Larsen. *Principle in Language Teaching and English Articles*.

 Oxford: Oxford University Press, 2000
- Bobby De Porter. Quantum Teaching. Boston: Allyn and Bacon, 2000
- Haidir dan Salim. Strategi Pembelajaran Perdana Publishing: 2012
- SuharsimiArikunto. *Prosedur Penelitian: Suatu Pendekatan Praktik* Jakarta: RinekaCipta, 2006
- Azuar Juliandi & Irfan. *Metodologi Penelitian Kuantitatif* Medan: Cita pustaka Media, 2013
- James H McMillan & Sally Schumacher. Research in Education A Conceptual Introduction New York: Logman, 2001
- Jack R Fraenkel. *How to Design and Evaluate Research in Education* Singapore: McGRAW-HILL INC, 1993

APPENDIC I

LESSON PLAN

(EXPERIMENT CLASS)

Scool Name : Private Junior High School Al Washliyah 1 Medan

Subject : English

Class : VIII-1

Time Allocation : 2 x 45 minutes

Skill : Writing

Theme : Definite Article (The)

Meeting : 1/2

Competence Standard

- 1. Understanding the meaning of short transactional and interpersonal to interact in their social life.
- 2. Expressing the meaning of short transactional and interpersonal conversational to interact in their social life.

Based Competence

- 1. Respond the meaning of transactional and interpersonal in a text.
- 2. Expressing the meaning of short transactional and interpersonal in a text.

Indicator

1. Identify Definite Article "The" in some sentences.

Learning Objectives

After study, the students are expected to be able to:

1. Identify Definite Article "The" in some sentences.

Teaching Materials

The definite article *the* is normally unstressed. It is pronounced $/\delta \vartheta$ (rhymes with *duh*) before words beginning with a consonant sound. For example:

- 1. The (/ðə/) team
- 2. The (/ðə/) bridge
- 3. The $(/\eth a/)$ song

The is pronounced /ðiy/ (rhymes with see) before words beginning with a vowel sound. For example:

- 1. The (/ðiy/) accident
- 2. The (/ðiy/) example
- 3. The /ðiy/) orange

Exercises:

1. The chef put __ suger on the cake.

2.	door has a special key.
3.	government erase the illegal organization in his country.
4.	floor is very dirty.
5.	He won prize is put in the bottle of Freshtea.
6.	He was crying when he wont a new car from bank BRI. He always put the
	money in bank.
7.	Most people would say that world's tallest mountain is Mount
	Everest.
8.	Today Indonesian government should act decisively government
	should erase the illegal organization.
9.	Joe Taslim is an actor in hollywood movie. He is best actor from
	Indonesia.
10.	The Eiffel Tower is an iron lattice tower located on Champ de Mars in
	Paris.
chi	ing Methodology : Quantum Learning

Tea

Teaching Media

1. Text book

Learning Activities

- 1. Opening
 - a. Greeting and doing self introduction.
 - b. Make learning situation to be very pleasent situation.

100

c. Telling the learning goal to the students.

d. Main Activities

2. Main Activities

Exploration

The teacher motivate the students.

b. The teacher asks the previous material to the students.

Elaboration

The teacher explains definite article to the students.

The teacher gives some examples how to use definite article.

The teacher asks students to do some assignments about definite

article.

d. The students do the assignments given by the teacher.

3. Closing

a. Teachers and students evaluate the learning that has been going on,

then celebrate (for example with five-finger tos, both fellow students

and students with teachers).

b. The teacher assigns the assignment to the students as homework to be

collected at the next meeting and pray.

Source: English grammar book

Assessment

The score = $\frac{True\ Answere}{Total\ Questions} \times 100$

LESSON PLAN

(EXPERIMENT CLASS)

Scool Name : Private Junior High School Al Washliyah 1 Medan

Subject : English

Class : VIII-1

Time Allocation : 2 x 45 minutes

Skill : Writing

Theme : Indefinite Article (a)

Meeting : 3/4

Competence Standard

- 1. Understanding the meaning of short transactional and interpersonal to interact in their social life.
- 2. Expressing the meaning of short transactional and interpersonal conversational to interact in their social life.

Based Competence

- 1. Respond the meaning of transactional and interpersonal in a text.
- 2. Expressing the meaning of short transactional and interpersonal in a text.

Indicator

1. Identify Indefinite Article *a* in a descriptive text.

Learning Objectives

After study, the students are expected to be able to:

1. Identify Indefinite Article *a* in a descriptive text.

Teaching Materials

The indefinite article a is used before nouns beginning with a consonant sound.

For example:

- 1. Do you have *a* minute?
- 2. This is *a* red pen.
- 3. This building is *a* library.

4. The door has a special key.

5. I have a beautiful house in Medan

Exercises:

1. When I saw him in the garden I find__ cute cat.

2. Once upon a time, a prime minister of __ kingdom in East Java,

Sidapaksa, was asked by his king to search for the bud of a magic flower

on Mount Ijen.

3. Once upon a time there perched a cockrow on a branch of a tree. She had

stolen __ big piece of cheese.

4. Once upon a time in __ kingdom by the sea, there lived a little Princess

named Lenore. She was ten years old and going to eleven.

5. They met when Panembahan Senopati lived as a hehemit at Parang

Kusumo beach. Suddenly __ bautiful girl came.

6. It is __ very small state, second only to Rhode Island.

7. Before a mother gives her first birth, the family had ___ secret ceremony

when pregnancy is seventh months old.

8. When Luna was in the fruits' market She bought me _ orange and some

apples.

9. When I watched a television I saw The hunter shooted ___ deer on its head.

10. The visitors said that a security forgot to lock the door.

Teaching Methodology: Quantum Learning

Teaching Media

2. Text book

Learning Activities

2. Opening

- e. Greeting and doing self introduction.
- f. Make learning situation to be very pleasent situation.
- g. Telling the learning goal to the students.
- h. Main Activities

3. Main Activities

Exploration

- c. The teacher motivate the students.
- d. The teacher asks the previous material to the students.

Elaboration

- e. The teacher explains definite article to the students.
- f. The teacher gives some examples how to use definite article.
- g. The teacher asks students to do some assignments about definite article.
- h. The students do the assignments given by the teacher.

4. Closing

a. Teachers and students evaluate the learning that has been going on, then celebrate (for example with five-finger tos, both fellow students and students with teachers).

b. The teacher assigns the assignment to the students as homework to be collected at the next meeting and pray

Source: English grammar book

Assessment

The score =
$$\frac{True\ Answere}{Total\ Questions} \times 100$$

LESSON PLAN

(EXPERIMENT CLASS)

Scool Name : Private Junior High School Al Washliyah 1 Medan

Subject : English

Class : VIII-1

Time Allocation : 2 x 45 minutes

Skill : Writing

Theme : Indefinite Article (an)

Meeting : 5/6

Competence Standard

1. Understanding the meaning of short transactional and interpersonal to interact in their social life.

2. Expressing the meaning of short transactional and interpersonal conversational to interact in their social life.

Based Competence

1. Respond the meaning of transactional and interpersonal in a text.

2. Expressing the meaning of short transactional and interpersonal in a text.

Indicator

1. Identify Indefinite Article an in a descriptive text.

Learning Objectives

After study, the students are expected to be able to:

1. Identify Indefinite Article an in a descriptive text.

Teaching Materials

The indefinite article an is used before nouns beginning with a vowel sound.

For example:

- 1. I have an apple
- 2. I saw an elephant in that zoo yesterday
- 3. He will come to my house arround an hour
- 4. We have *an* occasion to meet the persident.
- 5. That is *an* island

Exercises:

- 1. Jerry is training to be__ actor.
- 2. Tomy is __ English man.
- 3. I'd like __ apple and two pears please.
- 4. I read__ amazing story.
- 5. I live __ apartment. The apartment is new.
- 6. When I saw at the zoo, I saw __ elephant.

Teaching Methodology: Quantum Learning

Teaching Media

1. Text book

Learning Activities

1. Opening

- i. Greeting and doing self introduction.
- j. Make learning situation to be very pleasent situation.
- k. Telling the learning goal to the students.
- 1. Main Activities

2. Main Activities

Exploration

- e. The teacher motivate the students.
- f. The teacher asks the previous material to the students.

Elaboration

- i. The teacher explains definite article to the students.
- j. The teacher gives some examples how to use definite article.
- k. The teacher asks students to do some assignments about definite article.
- 1. The students do the assignments given by the teacher.

3. Closing

a. Teachers and students evaluate the learning that has been going on, then celebrate (for example with five-finger tos, both fellow students and students with teachers).

b. The teacher assigns the assignment to the students as homework to be

collected at the next meeting and pray.

Source: English grammar book

Assessment

The score =
$$\frac{True\ Answere}{Total\ Questions} \times 100$$

LESSON PLAN

(EXPERIMENT CLASS)

Scool Name : Private Junior High School Al Washliyah 1 Medan

Subject : English

Class : VIII-1

Time Allocation : 2 x 45 minutes

Skill : Writing

Theme : Indefinite Article (some)

Meeting : 7/8/9

Competence Standard

- 1. Understanding the meaning of short transactional and interpersonal to interact in their social life.
- 2. Expressing the meaning of short transactional and interpersonal conversational to interact in their social life.

Based Competence

1. Respond the meaning of transactional and interpersonal in a text.

2. Expressing the meaning of short transactional and interpersonal in a text.

Indicator

1. Identify Indefinite Article an in a descriptive text.

Learning Objectives

After study, the students are expected to be able to:

1. Identify Indefinite Article *an* in a descriptive text.

Teaching Materials

The indefinite article *some* is used in positive sentences. *Some* can be used for

countable and uncountable nouns. Some are not used in negative sentences or

queries.

Example:

I have some friends.

We bought some coffee.

- There are some grapes on the table.

My brothers buy some chairs.

If we use some for countable objects, then they should be plural.

Example:

Right: Tini has some books

False: Tini has some book.

Right: Nick and I have some pens.

False : Nick and I some pen.

When after a word we put a noun which can not be calculated / uncountable noun,

then the noun should not be added "s / es".

Example:

Right: There is some salt in the kitchen.

Wrong: There is some salts in the kitchen.

Right: I need some water.

False: I need some waters.

Note:

Remember, some should not be used in sentences in the form of negatives, nor on

sentences. But to offer something and also request, we need to use the word some

in the sentence asked.

Example:

Would you like some oranges? (offer)

Can I have some tea? (request)

Would you like some milk?

Can I borrow some money?

Teaching Methodology: Quantum Learning

Teaching Media

1. Text book

Learning Activities

1. Opening

- a. Greeting and doing self introduction.
- b. Make learning situation to be very pleasent situation.
- c. Telling the learning goal to the students.
- d. Main Activities
- e. Main Activities

Exploration

- a. The teacher motivate the students.
- b. The teacher asks the previous material to the students.

Elaboration

- a. The teacher explains definite article to the students.
- b. The teacher gives some examples how to use definite article.
- c. The teacher asks students to do some assignments about definite article.
- d. The students do the assignments given by the teacher.
- e. Closing

f. Teachers and students evaluate the learning that has been going on, then celebrate (for example with five-finger tos, both fellow students

and students with teachers).

g. The teacher assigns the assignment to the students as homework to be

collected at the next meeting and pray.

Source: English grammar book

Assessment

The score = $\frac{True\ Answere}{Total\ Questions} \times 100$

APPENDIC II

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 1

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake og life.

Indicator

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Teaching Materials

An articles is a word used to modify a noun, which is a person, place, object, or idea. Technically, an article is an adjective, which is any word that modifies a noun. Usually adjectives modify nouns through description, but articles are used instead to point out or refer to nouns.

A is one of indefinite articles used to refer to a noun, but the noun being referred to is not a specific person, place, object, or idea. Article "a" used for the nouns that beginning consonant alphabet. It can be any noun from a group of nouns. For example: I have a bag

Teaching Methodology: Conventional Method

Teaching Media

- 1. Book
- 2. Colored marker

Learning Activities

- 1. Opening
 - a. Greeting and doing self introduction
 - b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "a".
- b. Teacher asks students to learn about examples of article "a" in their book

Elaboration

- c. Teacher asks students to make sentences about article "a".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

e. Teachers corrects the students' assignments

3. Closing

- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 2

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake og life.

Indicator

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Teaching Materials

Making the sentences with using article "a"

Teaching Methodology: Conventional Method

Teaching Media

- 1. Book
- 2. Colored marker

Learning Activities

- 1. Opening
- a. Greeting and doing self introduction
- b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "a".
- b. Teacher asks students to learn about examples of article "a" in their book

Elaboration

- c. Teacher asks students to make sentences about article "a".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assigments
- f. Closing
- d. Repeating and emphasize main points
- e. Encouraging questions from students
- f. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 3

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

An is one of indefinite articles used to refer to a noun, but the noun

being referred to is not a specific person, place, object, or idea. Article

"an" used for the nouns that beginning vocal alphabet. It can be any noun

from a group of nouns. For example: an event in history.

Teaching Methodology

: Conventional Method

Teaching Media

- 1. Book
- 2. Colored marker

Learning Activities

- 1. Opening
 - a. Greeting and doing self introduction
 - b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "an".
- b. Teacher asks students to learn about examples of article "an" in their book

Elaboration

- c. Teacher asks students to make sentences about article "an".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assignments
- 3. Closing
 - a. Repeating and emphasize main points
 - b. Encouraging questions from students
 - c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 4

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake og life.

Indicator

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

- 1. Identify the nouns that using article "a" precisely.
- 2. Identify the nouns that using article "an" precisely.
- 3. Identify the nouns that using article "the" precisely.
- 4. Identify the nouns that using article "some" precisely.

Teaching Materials

Making the sentences with using article "an"

Teaching Methodology: Conventional Method

Teaching Media

- 1. Book
- 2. Colored marker

Learning Activities

- 1. Opening
- a. Greeting and doing self introduction
- b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "an".
- b. Teacher asks students to learn about examples of article "an" in their book

Elaboration

- c. Teacher asks students to make sentences about article "an".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assignments
- 3. Closing
- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 5

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

Article "the" is definite article. It refers directly to a specific noun

or groups of nouns. For example: The alligator in the pond.

Teaching Methodology

: Conventional Method

Teaching Media

1. Book

2. Colored marker

Learning Activities

- 1. Opening
 - a. Greeting and doing self introduction
 - b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "the".
- b. Teacher asks students to learn about examples of article "the" in their book

Elaboration

- c. Teacher asks students to make sentences about article "the".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assigments
- 3. Closing
 - a. Repeating and emphasize main points
 - b. Encouraging questions from students
 - c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 6

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

Making the sentences with using article "the"

Teaching Methodology: Conventional Method

Teaching Media

1. Book

2. Colored marker

Learning Activities

- 1. Opening
- a. Greeting and doing self introduction
- b. Telling the learning goal to the students
- 2. Main Activities

Exploration

- a. Teacher explains the materies of article "the".
- b. Teacher asks students to learn about examples of article "the" in their book

Elaboration

- c. Teacher asks students to make sentences about article "the".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assigments
- 3. Closing
- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 7

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

Some is one of articles too. Article "some" can be any noun from a

group of nouns. For example: there are some books.

Teaching Methodology

: Conventional Method

Teaching Media

1. Book

2. Colored marker

Learning Activities

1. Opening

- a. Greeting and doing self introduction
- b. Telling the learning goal to the students

2. Main Activities

Exploration

- a. Teacher explains the materies of article "some".
- b. Teacher asks students to learn about examples of article "some" in their book

Elaboration

- c. Teacher asks students to make sentences about article "some".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assignments
- 1. Closing
- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 8

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

Making the sentences with using article "the"

Teaching Methodology: Conventional Method

Teaching Media

1. Book

2. Colored marker

Learning Activities

- 1. Opening
- a. Greeting and doing self introduction
- b. Telling the learning goal to the students
- d. Main Activities

Exploration

- a. Teacher explains the materies of article "some".
- b. Teacher asks students to learn about examples of article "some" in their book

Elaboration

- c. Teacher asks students to make sentences about article "some".
- d. Teacher asks the students to perform their sentences and pay attention on it

Confirmation

- e. Teachers corrects the students' assignments
- d. Closing
- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the sentences students'.

LESSON PLAN F OR CONTROL CLASS

School Name : Junior High School Al-Washliyah

Subject : English

Class : VIII

Time Allocation : 2 x 35 minutes

Skill : Writing

Theme : Articles

Meeting : 9

Competence Standard

Communicating in English equivalent to nofice level.

Based Competence

To understanding the basic expressions of social interaction for the sake

og life.

Indicator

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Learning Objectives

After study, the students are expected can:

1. Identify the nouns that using article "a" precisely.

2. Identify the nouns that using article "an" precisely.

3. Identify the nouns that using article "the" precisely.

4. Identify the nouns that using article "some" precisely.

Teaching Materials

Asking the students to do the post test

Teaching Methodology: Conventional Method

Teaching Media

1. Book

2. Colored marker

Learning Activities

- 1. Opening
- a. Greeting and doing self introduction
- b. Telling the learning goal to the students
- 2. Main Activities
- a. Giving post test
- 3. Closing
- a. Repeating and emphasize main points
- b. Encouraging questions from students
- c. Relating content to previous and subsequent topics
- d.

Source

English book for grade eight of Junior High School

Assessment

Assessmenting based on the post test students'.

APPENDIC III

Name:

POST TEST SHEET

FOR BOTH EXPERIMENT AND CONTROL CLASS

Class	:	
CI	noose the correct answer	by crossing a,b,c or d to the following items!
11	. This is red pen.	
	a. an	c. the
	b. a	d. some
12	2. That is Island.	
	a. an	c. the
	b. a	d. some
13	3 Spiderman story is v	
	a. an	c. the
	b. a	d. some
14	I. This building is librar	
	a. an	c. the
	b. a	d. some
15	5. This is apple.	
	a. an	c. the
	b. a	d. some
16	5. The chef put suger o	n the cake.
	a. an	c. the
	b. a	d. some
17	7. The door has specia	l key.
	a. an	c. the
	b. a	d. some
18	3. Could you give me w	
	a. an	c. the
	b. a	d. some

19). My brother's dream is	
	a. an	c. the
20	b.a	d. some
20	 I need helps. I don't a. an 	c. the
	b. a	d. some
	D. a	u. some
21	. Her oldest sister studie	es in university
	a. an	c. the
	b. a	d. some
22	peoples only took th	ne fish in the ship.
	a. an	c. the
	b. a	d. some
23	B. We have occasion to	o meet the persident.
	a. an	c. the
	b. a	d. some
24	I government erase t	he illegal organization in his country.
	a. an	c. The
	b. a	d. some
25	5 floor is very dirty.	
	a. an	c. The
	b. a	d. some
26	5. Shanty found wild s	trowberries growing in her flower garden.
	a. an	c. the
	b. a	d. some
27	7. There are many movies	s, but only one particular movie is most popular.
	a. an	c. the
	b. a	d. some
28	3. I am from Winchester, a. an	Hampshire. Winchester is city in the United Kingdom. c. the
	b. a	d. some
20) I live in town called	Taunton which is on the river Tone.
2.	a. an	c. the
	b. a	d. some
20		I find your latter your interesting because I have
30	problem in my country	I find your latter very interesting because I have same .
	a. an	c. the
	b. a	d. some
31	They met when Panem	bahan Senopati lived as a hehemit at Parang Kusumo
	beach. Suddenly ba	

	b. a	d. some
32.	batik-both man and wo	ng blouse worn over the kain or skirt. The costumes are man wear same colorful batik.
	a. an	c. the
	b. a	d. some
33.		me minister of kingdom in East Java, Sidapaksa, was rch for the bud of a magic flower on Mount Ijen. c. the
	b. a	d. some
34.	Once upon a time there big piece of cheese.	e perched a cockrow on a branch of a tree. She had stolen
	a. an	c. the
	b. a	d. some
35.	skin in the morning.	ce energy in the world. I love to feelwarm sun on my
	a. an	c. the
	b. a	d. some
36.	He won prize is put a. an	in the bottle of Freshtea. c. the
	b. a	d. some
	D. a	u. some
37.	He was crying when he in bank.	wont a new car from bank BRI. He always put the money
	a. an	c. the
	b. a	d. some
38.	Most people would say a. an	that world's tallest mountain is Mount Everest. c. the
	b. a	d. some
39.	Putri's favorite song is A Indonesia right now.	Asal kau bahagia song is the most fenomenal in
	a. an	c. the
	b. a	d. some
40.	A child fell off a motorc	ycle when he he stepped on motorcycle transmission. c. the
	b. a	d. some
41.	Today Indonesian gover	rnment should act decisively government should
	a. an	c. the
	b. a	d. some
	∞. u	u. 30111C

c. the

a. an

42.	Before a mother gives her first birth, the family had secret ceremony when pregnancy is seventh months old.						
	a. an	c. the					
	b. a	d. some					
43.	Joe Taslim is an actor in	hollywood movie. He is best actor from Indonesia.					
	a. an	c. the					
	b. a	d. some					
44.	The Eiffel Tower is an ir	on lattice tower located on Champ de Mars in Paris.					
	a. an	c. the					
	b. a	d. some					
45.	The Tower is the tallest the world.	building in Paris and most visited paid monument in					
	a. an	c. the					
	b. a	d. some					
46.	When I watched a telev	rision I saw The hunter shooted deer on its head.					
	a. an	c. the					
	b. a	d. some					
47.	•	t to the theatre. He had a very good seat. The play was not enjoy it young man and a young woman were					
	a. an	c. the					
	b. a	d. some					
48.	•	of North Sumatra is one of the best University of Islam					
		and major. It has also extra organizations to train you as student of university.					
	a. an	c. the					
	b. a	d. some					
49.	foot of mountain ne						
	a. an	c. the					
	b. a	d. some					
50.	errupting. When errors. a. an	oing to Berastagi I saw a Sinabung mountain being uption happened my face was sprayed by ashes. c. the					
	b. a	d. some					

51. Basketball was invented in 1891 by a physical education instructor in Springfield, Massachusetts, by __ name of James Naismith.

a. an c. the b. a d. some

APPENDIC IV

THE STUDENTS' SCORE AT EXPERIMENT CLASS

No	Name of Students'	Post	Test
		Score (X)	\mathbf{X}^2
1	Abdul Haris Pohan	58	3364
2	Ade Aulia AR	73	5329
3	Ade Dwi Mashita	85	7225
4	Agung Aldiansyah	58	3364
5	Aryanto Syahputra	58	3364
6	Bagus Arya	70	4900
7	Bella Sintiya	83	6889
8	Cindy Aulia Amanda	59	3481
9	Diki Wahyudi Assri	60	3600
10	Dwi Ramadayanti	67	4489
11	Esti Nurul Hasanah	58	3364
12	Galuh Ayu Andini	67	4489
13	Inda Mustika	67	4489
14	Juwanda Syahputra	69	4761
15	Khairul Ilham	59	3481

16	Lindiana Syahputri	70	4900
17	M. Lutfi Rahman	70	4900
18	Nadiya Tri Dayanti	58	3364
19	Novita Sari	70	4900
20	Nurissa Aulia	72	5184
21	Putri Andre Asmara	58	3364
22	Ricky Kurniawan	82	6724
23	Ridha Febriana	82	6724
24	Riza Rachmada	83	6889
25	Salsah Dila	69	4761
26	Ubay Dillah Gunawan	83	6889
27	Viola Natasya	85	7225
28	Wahyu Ardhiansyah	67	4489
29	Weni Indah Sari	85	7225
30	Wittry Khairunnisyah	85	7225
	Total	2110	151352
	Mean	70,333	

APPENDIC V

THE STUDENTS' SCORE AT CONTROL CLASS

No	Name of Students	Post '	Test
	rume of statemes	Score (X)	\mathbf{X}^2
1	Ahmad Zailani	55	3025
2	Ahmad Syarifuddin	67	4489
3	Alvin Arlandani	50	2500
4	Atika Indriani	48	2304
5	Cindy Irawati Ramadhani	55	3025
6	Cindy Yulia Dewi	46	2116
7	Deby Suranti	62	3844
8	Deni Hermawan	65	4225
9	Dhea Ajeng Kiranti	58	3364
10	Dinda Al-Hidayah	41	1681
11	Fitri Rizky Aulia	53	2809
12	Ghariza Annisa	60	3600
13	Khoir Nadaya	65	4225
14	Latifa Tus-Sa'adah	41	1681
15	Muhammad Adjie Nurdin	48	2304
16	M. Ari Alfani	50	2500
17	Mutiani Siregar	53	2809
18	Neni Hardiyanti	43	1849
19	Nurmala Sari	36	1296
20	Nur Sari Asniah	62	3844
21	Nurhumairah	67	4489
22	Riski Syahputra	46	2116
23	Ricki Yuwanda	53	2809

24	Riatrisna	34	1156
25	Sri Wardaningsih	43	1849
26	Tia Puspita Dewi	53	2809
27	Ulan Saputra	62	3844
28	Usmi Meylan Dari	67	4489
29	Vidan Purmadahani	53	2809
30	Yona Anggraini	65	4225
	Total	1601	88085
	Mean	5,367	

APPENDIC VI

THE CALCULATION OF MEAN VALUE

AND STANDARD DEVIATION

- A. Calculation of the Mean Value and Standard Deviationat Experiment

 Class
- 1. Calculation of Post TestData

Tabulationofthe values obtained:

$$\sum X_i = 2110$$
 $\sum X_i^2 = 151352$ $n = 30$

So the mean was:

$$\overline{X} = \frac{\sum X}{n} = \frac{2110}{30} = 70,333$$

And standard deviation was:

$$S = \sqrt{\frac{n\sum X_i^2 - (\sum X_i)^2}{n(n-1)}} = \sqrt{\frac{30(151352) - (2110)^2}{30(30-1)}}$$

$$= \sqrt{\frac{4540560 - 4452100}{30(29)}}$$

$$= \sqrt{\frac{88460}{870}}$$

$$= 10,084$$

$$S^2 = 101,687$$

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

1. Calculation of Post TestData

Fromtabulatingthe values obtained:

$$\sum X_i^2 = 1601 \qquad \sum X_i^2 = 88085 \qquad n = 30$$

So the meanwas:

$$\overline{X} = \frac{\sum X}{n} = \frac{1601}{30} = 53,367$$

And the standard deviation was:

$$S = \sqrt{\frac{n\sum X_i^2 - (\sum X_i)^2}{n(n-1)}} = \sqrt{\frac{30(88085) - (1601)^2}{30(30-1)}}$$
$$= \sqrt{\frac{2642550 - 2563201}{30(29)}}$$
$$= \sqrt{\frac{79349}{870}}$$
$$= 9,550$$

$$S^2 = 91,203$$

APPENDIC VII

THE CALCULATION OF NORMALITY TESTING

A. Normality Testing of Post Test atExperiment Class

1. Normality Testing of Post Test

Find Z score by using the formula:

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

a.
$$Z_{i=} \frac{58-70,333}{10,084} = -1,223$$

b.
$$Z_{i=}\frac{59-70,333}{10,084}=-1,124$$

c.
$$Z_{i=}\frac{60-70,333}{10,084}=-1,025$$

d.
$$Z_{i=\frac{67-70,333}{10,084}} = -0,331$$

e.
$$Z_{i=\frac{69-70,333}{10,084}} = -0,132$$

f.
$$Z_{i=}\frac{70-70,333}{10,084}=-0,033$$

g.
$$Z_{i=}\frac{72-70,333}{10,084}=0,165$$

h.
$$Z_{i=}\frac{73-70,333}{10,084}=0,264$$

$$i. \quad Z_{i=}\frac{82-70,333}{10,084}=1,157$$

j.
$$Z_{i=\frac{83-70,333}{10,084}} = 1,256$$

k.
$$Z_{i=}\frac{85-70,333}{10,084}=1,455$$

Find out S(Zi) I used the formula : S(Zi) = $\frac{Fcum}{n}$

a.
$$S(Z_i) = \frac{6}{30} = 0.200$$

b.
$$S(Z_i) = \frac{8}{30} = 0.267$$

c.
$$S(Z_i) = \frac{9}{30} = 0.300$$

d.
$$S(Z_i) = \frac{13}{30} = 0.433$$

e.
$$S(Z_i) = \frac{15}{30} = 0,500$$

f.
$$S(Z_i) = \frac{19}{30} = 0.633$$

g.
$$S(Z_i) = \frac{20}{30} = 0,667$$

h.
$$S(Z_i) = \frac{21}{30} = 0.700$$

i.
$$S(Z_i) = \frac{23}{30} = 0.767$$

j.
$$S(Z_i) = \frac{26}{30} = 0.867$$

k.
$$S(Z_i) = \frac{30}{30} = 1,000$$

Normality Testing of Post Test at Experiment Class

No	Score	F	Fcum	Zi	Fzi	Szi	Fzi-Szi
1	58	6	6	-1,223	0,111	0,200	0,089
2	59	2	8	-1,124	0,131	0,267	0,136
3	60	1	9	-1,025	0,153	0,300	0,147
4	67	4	13	-0,331	0,370	0,433	0,063
5	69	2	15	-0,132	0,447	0,500	0,053
6	70	4	19	-0,033	0,487	0,633	0,147
7	72	1	20	0,165	0,566	0,667	0,101
8	73	1	21	0,264	0,604	0,700	0,096
9	82	2	23	1,157	0,876	0,767	0,110

10	83	3	26	1,256	0,895	0,867	0,029
11	85	4	30	1,455	0,927	1,000	0,073

From the table above, it can be seen that the Liliefors Observation or $L_0 = 0,147$ with n = 30 and at real level $\alpha = 0,05$ from the list critical value of Liliefors table, $L_t = 0,161$. It can be concluded that the data distribution was normal, because $L_0(0,147) < L_t(0,161)$.

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.
$$Z_{i=}\frac{34-53,367}{9,550} = -2,028$$

b.
$$Z_{i=}\frac{36-53,367}{9,550} = -1,818$$

c.
$$Z_{i=\frac{41-53,367}{9,550}} = -1,295$$

d.
$$Z_{i=\frac{43-53,367}{9,550}} = -1,085$$

e.
$$Z_{i} = \frac{46-53,367}{9,550} = -0,771$$

f.
$$Z_{i=}\frac{48-53,367}{9,550}=0,562$$

g.
$$Z_{i=} \frac{50-53,367}{9,550} = -0,353$$

h.
$$Z_{i} = \frac{53-53,367}{9,550} = -0,038$$

i.
$$Z_{i=\frac{55-53,367}{9,550}} = 0,171$$

j.
$$Z_{i=\frac{58-53,367}{9,550}} = 0,485$$

k.
$$Z_{i=} = \frac{60-53,367}{9,550} = 0,695$$

1.
$$Z_{i=} = \frac{62-53,367}{9,550} = 0,904$$

m.
$$Z_{i=\frac{65-53,367}{9,550}} = 1,218$$

n.
$$Z_{i=\frac{67-53,367}{9.550}} = 1,428$$

Find out S(Zi) I used the formula : S(Zi) = $\frac{Fcum}{n}$

a.
$$S(Z_i) = \frac{1}{30} = 0.033$$

b.
$$S(Z_i) = \frac{2}{30} = 0.067$$

c.
$$S(Z_i) = \frac{4}{30} = 0.133$$

d.
$$S(Z_i) = \frac{6}{30} = 0.200$$

e.
$$S(Z_i) = \frac{8}{30} = 0.267$$

f.
$$S(Z_i) = \frac{10}{30} = 0.333$$

g.
$$S(Z_i) = \frac{12}{30} = 0.400$$

h.
$$S(Z_i) = \frac{17}{30} = 0.567$$

i.
$$S(Z_i) = \frac{19}{30} = 0,633$$

j.
$$S(Z_i) = \frac{20}{30} = 0,667$$

k.
$$S(Z_i) = \frac{21}{30} = 0.700$$

1.
$$S(Z_i) = \frac{24}{30} = 0.800$$

m.
$$S(Z_i) = \frac{27}{30} = 0,900$$

n.
$$S(Z_i) = \frac{30}{30} = 1,000$$

Normality Testing of Post Test at Control Class

No	Score	F	Fcum	Zi	Fzi	Szi	Fzi-Szi
1	34	1	1	-2,028	0,021	0,033	0,012
2	36	1	2	-1,818	0,034	0,067	0,032
3	41	2	4	-1,295	0,098	0,133	0,036
4	43	2	6	-1,085	0,139	0,200	0,061
5	46	2	8	-0,771	0,220	0,267	0,046
6	48	2	10	-0,562	0,287	0,333	0,046
7	50	2	12	-0,353	0,362	0,400	0,038
8	53	5	17	-0,038	0,485	0,567	0,082
9	55	2	19	0,171	0,568	0,633	0,065
10	58	1	20	0,485	0,686	0,667	0,020
11	60	1	21	0,695	0,756	0,700	0,056
12	62	3	24	0,904	0,817	0,800	0,017
13	65	3	27	1,218	0,888	0,900	0,012
14	67	3	30	1,428	0,923	1,000	0,077

From the table above, it can be seen that the Liliefors Observation or $L_0=0.082$ with n=30 and at real level $\alpha=0,05$ from the list critical value of Liliefors table, $L_t=0.161$. It can be concluded that the data distribution was normal, because $L_0(0.082) < L_t(0.161)$.

APPENDIC VIII

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:

$$S_{eks}^2 = 101,687$$

$$n = 30$$

$$S_{cont}^2 = 91,203$$
 n = 30

$$n = 30$$

So:

$$F_{h} = \frac{S_{eks}^{2}}{S_{cont}^{2}}$$

$$F_h = \frac{101,687}{91,203} = 1,11$$

Then the coefficient of $F_{observed} = 1,11$ is compared with F_{table} , where F_{table} is determined at real level $\alpha = 0.05$ and the same numerator dk = n - 1 = 30 - 1 = 29 that was exist dk numerator 29, the denominator dk = n - 1 (30 - 1 = 29). Then F_{table} can becalculated $F_{0,05(29,29)} = 1,85$

So $F_{observed} < F_{table}$ atau (1,11< 1,85) so it can be concluded that the variant is homogenous.

APPENDIC IX

THE CALCULATION OF HYPOTHESIS TEST

A. T-test of Post Test

Experiment class : $\overline{X}_1 = 70,333$; $S_1^2 = 101,687$; $n_1 = 30$

Control class : $\overline{X}_2 = 53,367$; $S_2^2 = 91,203$; $n_2 = 30$

With:

$$S^{2} = \frac{(n_{1} - 1)S_{1}^{2} + (n_{2} - 1)S_{2}^{2}}{n_{1} + n_{2} - 2}$$

$$S^{2} = \frac{(30-1)101,687 + (30-1)91,203}{30+30-2}$$

$$S^2 = \frac{(29)101,687 + (29)91,203}{58}$$

$$S^2 = \frac{2948,923 + 2644,887}{58}$$

$$S^2 = \frac{5593,81}{58}$$

$$S^2 = 96,445$$

$$S = \sqrt{96,445}$$

$$S = 9,821$$

So:

$$T_{\text{observed}} = \frac{\overline{X}_1 - \overline{X}_2}{S\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$T_{observed} = \frac{70,333 - 53,367}{9,821\sqrt{\frac{1}{30} + \frac{1}{30}}}$$

$$T_{observed} = \frac{16,966}{2,534}$$

$$T_{observed} = 6,70$$

From the computation above, it can be seen the coefficient of $t_{observed} = 6,70$ 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 = 30 + 30 - 2 = 58, was between dk = 40 dan dk = 60 or $t_{(0,975)(58)}$ because $t_{(0,975)(58)}$ there was not in t distribution, so the writer used interpolation.

- $t_{(0,975)(40)} = 2,02$
- $t_{(0.975)(60)} = 2,00$

So:

$$t_{(0.975)(58)} = 2.02 + \frac{58 - 30}{60 - 40} (2.00 - 2.02)$$

$$t_{(0,975)(58)} = 2,02 + \frac{28}{20}(-0,02)$$

$$t_{(0.975(58)} = 2.02 + 1.4(-0.02)$$

$$t_{(0.975)(58)} = 2,02 - 0,03$$

$$t_{(0,975)(58)} = 1,99$$

The hypothesis was:

 H_a :There was significant effect of quantum learning on the students' mastery in English articles.

 H_0 : There was no significant effect of quantum learning on the students' mastery in English articles.

Based on the computation above, it can be seen the coefficient of $t_{observed}$ = 6,70with the level α = 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 = 30 + 30 - 2 = 58, which the real level of t_{table} = 1,99. It was found that the value of t_{count} (6,70) is higher than the value of t_{table} (1,99). It can be seen as follows:

This result showed that null hypothesis was rejected, the hypothesis formulated as "there was a significant effect of quantum learning on the students' mastery in English articles".

APPENDIC X

THE CRITICAL VALUE LILIEFORS TEST

Ukuran		T	araf Nyata (o)	
Sampel	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	0,022	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 ,1 4 4	0,136	0,131
n > 30	$\frac{1.031}{\sqrt{n}}$	0.886	$\frac{0.805}{\sqrt{n}}$	$\frac{0.768}{\sqrt{n}}$	$\frac{0.736}{\sqrt{n}}$
	√n	\sqrt{n}	√n	√n	√n

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

APPENDIC XI

TABEL WILAYAH LUAS DI BAWAH KURVA NORMAL 0

KE 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	0,6048
-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	0,0703	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	9,1611
-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	0,2266	0,2236	0,2206	0,2177	0,2118
-0,6	0,2742	0,2709	0,2676	0,2643	0,2611	0,2578	0,2546	0,2514	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	0,4033	0,3974	0,3936	0,3897	0,3859
-0,1 -0.0	0,4602 0,5000	0,4562 0,4960	0,4522 0,4920	0,4483 0,4880	0,4443	0,4404	0,4364	0,4325	0,4286 0,4681	0,4246 0,4641
					0,4840	0,4801	0,4761	0,4721		
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 0,3	0,5793 0,6179	0,5832 0,6217	0,5871 0,6255	0,5910 0,6293	0,5948 0,6331	0,5967 0,6368	0,6026 0,6406	0,6064 0,6443	0,61 0 3 0,64 8 0	0,6141 0,6517
0,3	0,6554	0,6591	0,6628	0,6664	0,6331	0,6736	0,6406	0,6808	0,6844	0,6879
	ı									-
0,5	0,6915	0,6950	0,6985	0,7019	0,7054	0,7088	0,7123	0,7157	0,7190	0,7224 0,7549
0,6 0,7	0,7258 0,7580	0,7291 0,7612	0,7324 0,7642	0,7357 0,7673	0,7389 0,7704	0,7422 0,7734	0,7454 0,7764	0,7486 0,7794	0,7518 0,7823	0,7882
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
	0,8413	0,8438	0,8461	0,8485	0,8508			-	0,8599	0,8621
1,0 1,1	0,8413	0,8438	0,8686	0,8483	0,8308	0,8531 0,8749	0,8554 0,8770	0,8577 0,8790	0,8399	0,8821
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	0,9297	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

APPENDIC XII

TABLE OF F DISTRIBUTION

(Bilangan Dalam Badan Daftar Menyatakaan:

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

v 2 = dk												v, = dkp	embilang											
penyebut	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 4062	200 4999	216 5403	225 5625	230 5764	234 5859	237 5928	239 5981	241 6022	242 6056	243 6082	244 6106	245 6142	246 6169	248 6208	249 6234	250 6258	251 6286	252 6302	253 6323	253 6334	254 6352	254 6361	254 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
1 - 1	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	99,48	99,49	99,49	99,49	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	26,69	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12
4	7,17	6,94 18,00	:6,59 16,69	6,39 15,98	6,26 15,52	6,16	6,09 14,98	6,04 14,80	6,00 14,66	5,96 14,54	5,93 14,45	5,91 14,37	5,87 14,24	5,84 14,15	5,80 14,02	5,77 13,93	5,74 13,83	5,71 13,74	5,70 13,69	5,68 13,61	5,66 13,57	5,65 13,52	5,64 13,48	5,63 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
1 , 1	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72 3,57	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99 3,28	6,94 3,25	6,90 3,24	6,88 3,23
1 1	5,59 12,25	4,74 9,55	4,35 8,45	4,12 7,86	3,97 7,46	3,87 7,19	3,79 7,00	3,73 6,84	3,68 6,71	3,63 6,62	3,60 6,54	6,47	3,52 6,35	3,49 6,27	3,44 6,15	3,41 6,07	3,38 5,98	3,34 5,90	3,32 5,85	3,29 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
1 1	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 1	5,12	4,26	3,86	3,63	3,48	3,37 5,80	3,29	3,23	3,18 5,35	3,13	3,10 5,18	3,07 5,11	3,02 5,00	2,98 4,92	2,93 4,80	2,90 4,73	2,86 4,64	2,82 4,56	2,80 4,51	2,77 4,45	2,76 4,41	2,73 4,36	2,72 4,33	2,71 4,31
10	10,56 4,96	8,02 4,80	3.71	6,42 3.48	6,06 3,33	3,22	5,62 3,14	5,47 3,07	3,02	5,26 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	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
111	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
1 1	9,65	7,20	16,22	5,67	5,32	3,07	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	3,86	3,62	3,50
12	4,75 9,38	3,88 6,93	3,49 :5,95	3,26 5,41	3,1 <i>1</i> 5,06	3,00 4,82	2,92 4,65	2,85 4,50	2,80 4,39	2,76 4,30	2,72 4,22	2,69 4,16	2,64 4,05	2,60 3,98	2,54 3,86	2,50 3,78	2,46 3,70	2,42 3,61	2,40 3,56	2,36 3,49	2,35 3,46	2,32 3,41	2,31 3,38	2,30 3,36
13	4,67	3,80	3,41	3.18	3.02	2,92	2,84	2,77	2,72	2,67	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
1	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	3,15
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
1	8,86	6,51	5,56	5,03	4,89	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 2,07
15	4,54 8,68	3,68 6,36	3,29	3,06 4,89	2,90 4,56	2,79 4,32	2,70 4,14	2,64 4,00	2,59 3,89	2,55 3,80	2,51 3,73	2,48 3,67	2,43 3,56	2,39 3,48	2,33 3,36	2,29 3,29	2,25 3,20	2,21 3,12	2,18 3,07	2,15 3,00	2,12	2,10	2,06	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
1	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
1.7	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 2,65
1 1	8,40	6,11	5,18	4,67	4,34	4,10	3,93	3,79	3,68	3,59	3,52 2,37	3,45 2,34	3,35 2,29	3,27 2,25	3,16 2,19	3,08 2,15	3,00 2,11	2,92	2,86	2,79	1,98	2,70 1,96	2,67 1,93	1,92
18	4,41 8,28	3,55 6,61	3,16	2,93 4,58	2,77 4,25	2,66	2,58 3,85	2,51 3,71	2,46 3,60	2,41 3,51	3,44	3,37	3,27	3,19	3,07	3,00	2,11	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 3,23	2,23 3,13	2,18 3,05	2,12	2,08 2,86	2,04 2,77	1,99 2,69	1,96 2,63	1,92 2,56	1,90 2,53	1,87 2,47	1,85 2,44	1,84 2,42
1 1	8,10	5,85	-4,94	4,48	4,10	3,87 2,57	3,71 2,49	3,56 2,42	3,45 2,37	3,37 2,32	3,30 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
21	4,32 8,02	3,47 5,78	4,87	2,84 4.37	2,68 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	1,80	1,78
i 1	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 1.82	2,37	2,33	2,34
23	4,28 7,88	3,42 5,66	3,03 4,76	2,80 4,26	2,64 3,94	2,53 3,71	2,45 3,54	2,38 3,41	2,32 3,30	2,28 3,21	2,24 3,14	2,20 3,07	2,14	2,10	2,78	2,00	1,96 2,62	1,91 2,53	1,88 2,48	1,84 2,41	2,37	1,79 2,32	1,77	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 2,32	1,77 2,29	1,74 2,23	1,72 2,19	1,71 2,17
1	7,77	5,57	4,68	4,18	3,86	5,63	3,46	3,32	3,21	3,13	3,05	2,99	2,89	2,81	2,70	2,62	2,54	2,43	2,40	4,34	4,29	2,23	2,19	2,17

26	4,22 7,72	3,37 5,53	2,89 4,64	2,74 4,14	2,59 3,82	2,47 3,59	2,39 3,42	2,32 3,29	2,27 3,17	2,22 3,09	2,18 3,02	2,15 2,96	2,10 2,86	2,05 2,77	1,99 2,66	1,95 2,58	1,90 2,50	1,85 2,41	1,82 2,36	1,78 2,28	1,76 2,25	1,72	1,70	1,69 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	2,19 1,71	2,15 1,68	1,67
28	7,68 4,20	5,49 3,34	4,60 2,95	4,11 2,71	3,79 2,56	3,56 2,44	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
1 -20	7,64	5,45	4,57	4,07	3,76	3,53	2,36 3,36	2,29 3,23	2,24 3,11	2,19 3,03	2,15 2,95	2,12	2,06 2,80	2,02 2,71	1,96 2,60	1,91 2,52	1,87 2,44	1,81 2,35	1,78 2,30	1,75 2,22	1,72 2,18	1,69 2,13	1,67 2,09	1,65 2,06
29	4,18 7,60	3,33 5,52	2,93 4,54	2,70 4,04	2,54 3,73	2,43 3,50	2,35 3,33	2,28 3,20	2,22 3,08	2,18 3,00	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
30	4,17	3,32	2,92	2,69	2,53	2,42	2,34	2,27	2,21	2,16	2,92 2,12	2,87	2,77	2,68 1,99	2,57 1,93	2,49 1,89	2,41 1,84	2,32 1,79	2,27 1,76	2,19 1,72	2,15 1,69	2,10 1,66	2,06 1,64	2,03 1,62
- 22	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	2,66	2,55	2,47	2,38	2,29	2,24	2,16	2,13	2,07	2,03	2,01
32	4,15 7,50	3,30 5,34	29,00 4,46	2,67 3,97	2,51 3,66	2,40 3,42	2,32 3,25	2,25 3,12	2,19 3,01	2,14 2,94	2,10	2,07	2,02	1,97 2,62	1,91 2,51	1,86 2,42	1,82 2,34	1,76 2,25	1,74 2,20	1,69 2,12	1,67 2,08	1,64 2,02	1,61	1,59 1,96
34	4,13 7,44	3,28 5,29	2,88 4,42	2,65 3,93	2,49 3,61	2,38 3,38	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
36	4,11	3,26	2,86	2,63	2,48	2,36	3,21 2,28	3,08 2,21	2,97 2,15	2,89 2,10	2,82 2,06	2,75 2,03	2,66 1,89	2,58 1,93	2;47 1,87	2,38 1,82	2,30 1,78	2,21 1,72	2,15 1,69	2,08 1,65	2,04 1,62	1,98	1,94 1,56	1,91 1,55
1	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 7,35	3,25 5,21	2,85 4,34	2,62 3,86	2,46 3,84	2,35 9,32	2,26 3,15	2,19 3,02	2,14 2,91	2,09 2,82	2,05 2,75	2,02 2,69	1,96 2,59	1,92 2,51	1,85 2,40	1,80 2,32	1,76	1.71 2,14	1,67 2,08	1,63 2,00	1,60 1,97	1,57 1,90	1,54 1,86	1,53 1,84
40	4,08 7,31	3,23 5,18	2,84	2,61 3,83	2,45 3,51	2,34 3,29	2,25 3,12	2,18	2,12 2,88	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
42	4,07	3,12	2,83	2,59	2,44	2,32	2,24	2,17	2,11	2,80 2,06	2,73 2,02	2,66 1,99	2,56 1,94	2,49 1,89	2,37 1,82	2,29 1,78	2,20 1,73	2,11 1,68	2,05 1,64	1,97 1,60	1,94 1,57	1,88 1,54	1,84	1,81
١.,	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
4#	4,06 7,24	3,21 5,12	4,26	2,58 3,78	2,43 3,46	2,31 5,24	2,23 3,07	2,16 2,94	2,10 2,84	2,05 2,75	2,01 2,68	1,98 2,62	1,92 2,52	1,88 2,44	1,81 2,32	1,76 2,24	2,17 1,72	1,66 2,06	1,63 2,00	1,58 1,92	1,56 1,88	1,52 1,82	1,50	1,48 1,75
46	4,05 7,21	3,20 5,10	2,81	2,57 3,76	2,42 3,44	2,30 3,22	2,22 3,05	2,14	2,09 2,82	2,04 2,73	2,00 2,66	1,97 2,60	1,91	1,87	1,80	1,75	2,15	1,65	1,62	1,57	1,54	1,51	1,48	1,46 1,72
48	4,04	3,19	2,80	2,56	2,41	2,30	2,21	2,14	2,08	2,73	1,99	1,96	2,50 1,90	2,42 1,86	1,79	2,22 1,74	1,71 2,13	2,04 1,64	1,98 1,61	1,90 1,56	1,86	1,80	1,76	1,72
50	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	1,70	2,02	1,96	1,88	1,84	1,78	1,73	1,70
30	4,03 7,17	3,18 5,06	4,20	2,56 3,72	2,40 3,44	2,29 3,18	2,20 3,02	2,13 2,88	2,07 2,78	2,02	1,98 2,62	1,95 2,56	1,90 2,46	1,85 2,39	1,78 2,26	1,74 2,18	1,69 2,10	1,63 2,00	1,60	1,55	1,52 1,82	1,48	1,46	1,44
55	4,02 7,12	3,17 5,01	2,78 4,16	2,54 3,65	2,38 3,37	2,27 3,15	2,18 2,98	2,11 2,85	2,05	2,00 2,66	1,97 2,59	1,93 2,53	1,88 2,43	1,83 2,35	1,76	1,72 2,15	1,67 2,00	1,61 1,96	1,58 1,90	1,52	1,50 1,78	1,46 1,71	1,43	1,41
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	1,82	1,48	1,44	1,66	1,64
	7,08	4,98	4,13	3,65	3,34	3,12	2,95	2,82	2,72	2,03	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 7,01	3,14 4,95	2,75 -4,10	2,51 3,62	2,36 3,31	2,21 3,09	2,15 2,93	2,08 2,79	2,02	1,98 2,61	1,94 2,54	1,90 2,47	1,85 2,37	1,80 2,30	1,73 2,18	1,68 2,09	1,63 2,00	1,57 1,90	1,54 1,84	1,49 1,76	1,46	1,42 1,64	1,39 1,60	1,37 1,56
70	3,98 7,01	3,13 4,92	4,08	2,50 3,60	2,35 3,29	2,32 3,07	2,14 2,91	2,07	2,01	1,97 2,59	1,93 2,51	1,89 2,45	1,84 2,35	1,79 2,28	1,72 2,15	1,67	1,62 1,98	1,56 1, 8 8	1,53 1,82	1,47	1,45	1,40 1,63	1,37 1,56	1,35
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	1,53
	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 6,90	3,09 4,82	3,98	2,46 3,51	2,30 3,20	2,19	2,10 2,82	2,03 2,69	1,97 2,59	1,92 2,51	1,88 2,43	1,85 2,36	1,79 2,26	1,75 2,19	1,68 2,06	1,63 1,98	1,57 1,89	1,51 1,79	1,48 1,73	1,42	1,39 1,59	1,34 1,51	1,30 1,46	1,28
125	3,92 6,84	3,07 4,78	3,94	2,44 3,47	2,29 3,17	2,17 2,95	2,08 2,79	2,01	1,95 2,56	1,90 2,17	1,86 2,40	1,83 2,33	1,77 2,23	1,72 2,15	1,65	1,60 1,94	1,55 1,85	1,49 1,75	1,45 1,68	1,39	1,36 1,54	1,31 1,46	1,27	1,25
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	1,00 1,44	1,59	1,34	1,29	1,40 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 6,76	3,01 4,71	2,65 3,88	2,41 3,41	2,26 3,11	2,14 2,90	2,05 2,73	1,98 2,60	1,92 2,50	1,87 2,41	1,83 2,34	1,80 2,28	1,74 1,17	1,69 2,09	1,62 1,97	1,57 1,88	1,52 1,79	1,45 1,69	1,42 1,62	1,35	1,32 1,48	1,26 1,39	1,22	1,19
400	3,86 6,70	3,02	2,62 3,83	2,39 3,36	2,23 3,06	2,12 2,85	2,03	1,96 2,55	1,90 2,16	1,85	1,81	1,78 2,23	1,72 2,12	1,67	1,60	1,54	1,49	1,42 1,64	1,38 1,57	1,32	1,28	1,22 1,32	1,16 1,24	1,13
1000	3,85	4,66 3,00	2,61	2,38	2,22	2,83	2,02	1,95	1,89	1,81	1,80	1,76	1,70	1,65	1,38	1,53	1,47	1,41	1,36	1,47	1,26	1,19	1,13	1,08
1	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
œ	3,84 6,64	2,99 4,60	3,78	2,37 3,32	2,21 3,02	2,09 2,80	2,01 2,64	1,94 2,51	1,88 2,41	1,83 2,32	1,79 2,24	1,75 2,18	1,69 2,07	1,64 1,99	1,57	1,52	1,46	1,40 1,59	1,35 1,52	1,28	1,24 1,36	1,17 1,25	1,11 1,12	1,00

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

APPENDIC XIII

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 ₀₇₅	t ₀₇₀	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

APPENDIC XIV

DOCUMENTATTION





Picture 1. The teacher tells some motivation to the students before giving the material



Picture 2. The teacher made statement of the goals and guidelines for the course





Picture 3. The teacher was start doing teaching the material



Picture 4. The students made circle y their own group





Picture 5. The teacher showed some picture familiar and asked the students to mention what kind of the picture.



The teacher describing the picture just showed to the students.



Each group analyzed a text were in the picture



The teacher made the class to be pleasant and fun by a little sing



The teacher was doing post test