

LAPORAN PENELITIAN KERJASAMA KELEMBAGAAN



THE EFFECT OF STUDENT-CENTRED LEARNING APPROACH IN TEACHING BASIC GRAMMAR

Disusun Oleh:
Prof. Dr. Bustami Subhan, M.S.

Program Studi Pendidikan Bahasa Inggris S2
PROGRAM PASCASARJANA
UNIVERSITAS AHMAD DAHLAN
2016

PENELITIAN INI DILAKSANAKAN ATAS BIAYA DARI ANGGARAN PENDAPATAN DAN BELANJA
UNIVERSITAS AHMAD DAHLAN NOMOR KONTRAK PKK-29/LPP-UAD/III/2016

HALAMAN PENGESAHAN

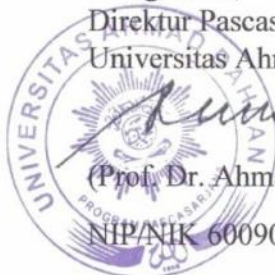
Judul : The Effect of Student-Centred Learning Approach in Teaching Basic Grammar

Peneliti/Pelaksana : Prof. Dr. Bustami Subhan, M.S.

Nama Lengkap :
NIDN : 0022095601
Jabatan Fungsional : Guru Besar
Program Studi : Pendidikan Bahasa Inggris S2
Nomor HP : -
Alamat surel (e-mail) : -

Institusi Mitra
Nama Institusi Mitra : Program Studi PBI S2 UAD
: Jl. Pramuka NO. 42 Sidikan, Umbulharjo,
Yogyakarta
Alamat : Dr. Noer Doddy Irmawati, M.Hum.
Penanggung Jawab : 2016
Tahun Pelaksanaan : Rp 20.000.000,-
Biaya Keseluruhan

Mengetahui,
Direktur Pascasarjana
Universitas Ahmad Dahlan



(Prof. Dr. Ahmad Mursyidi, M.Sc.)

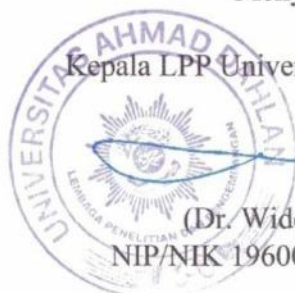
NIP/NIK 60090571

Yogyakarta, 16 Maret 2016
Ketua,

(Prof. Dr. Bustami Subhan, M.S.)

NIP/NIK 19560922 198403 1 002

Menyetujui,



Kepala LPP Universitas Ahmad Dahlan

(Dr. Widodo, M.Si.)

NIP/NIK 196002211987091001

TABLE OF CONTENTS

TITLE PAGE	i
APPROVAL SHEET	ii
TABLE OF CONTENTS.....	iii
ABSTRACT.....	v

CHAPTER I THE PROBLEM

A. Introduction.....	1
B. Statement of the Problem.....	4
C. Significance of the Study	4
D. Scope and Delimitation.....	5
E. Review of Related Literature and Studies	6

CHAPTER II RESEARCH FINDING AND DISCUSSION

A. Theoretical Framework.....	24
B. Conceptual Framework.....	27
C. Definition of Terms.....	29

CHAPTER III METHODOLOGY

A. Research Design.....	32
B. Subject	33
C. Research Instrument.....	33
D. Data Gathering Procedure.....	34
E. Scoring Test	36
F. Statistical Tools.....	36
G. Data Analysis	37

CHAPTER IV STUDENT-CENTERED LEARNING APPROACH IN TEACHING BASIC GRAMMAR

A. Classroom Observation Result.....	42
B. Pre-test Result of the Control Group and Experimental Group	44

C. Post-Test Result of the Control and Experimental Groups.....	46
D. Test of Significant Difference of the Mean Scores in the Pre-Test and Post-Test of the Control and Experimental Groups	47
E. Student-Centered Teaching Guide in Basic Grammar.....	50
CHAPTER V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	
A. Summary	51
B. Conclusions.....	52
C. Recommendations.....	53
BIBLIOGRAPHY	55
APPENDICES	59
A. Pre-Test and Post-Test	59
B. Pre-Test and Post-Test Result.....	66
C. Class Demonstration	74

Subhan, Bustami. 2016. *The Effect of Students Centered Learning Approach in Teaching Basic Grammar*.

ABSTRACT

The study determined the effect of student-centered learning approach in teaching basic grammar of the tenth-grade students in Islamic Senior High School Pangkalan Bun, Central Borneo, Indonesia. Specifically, this study sought answers to following questions: 1). How does the result of the pre-test compare with post-test of the control and experimental groups? 2). Is there significant difference in the result of the test between the control and experimental groups? 3). what student-centered teaching guide in basic grammar can be developed based from the findings of the study? The test was conducted before and after the treatment. The student-centered learning approach in teaching basic grammar was the treatment given to the experimental group while traditional method was given to the control group.

The findings of this study were: 1). the mean scores in the pre-test of the control and experimental groups were 52.1 and 51 respectively, interpreted as satisfactory in both groups. The mean scores of the control groups in the post-test was 64.85, interpreted as satisfactory, while 70.5 in the experimental groups interpreted as very satisfactory. 2). the computed T value based from the result in the pre-test of the control and experimental groups was 0.14. It was lesser than the tabular value of 2.03, at df of 34, at 5% level of significance. This result indicates that there is no significant difference in the mean scores of the pre-test of the control and experimental groups. These findings proved that from the start, the mean scores were good in both groups. The result in the post-test of the control and experimental groups showed that the computed the T value of 3.03 was higher than the tabular value of 2.03, at of 34, at 5% level of significance. This condition rejects the null hypothesis that there is no significant difference in the mean scores in the post-test of the control and experimental groups. 3). The student-centered teaching guide enhanced the students' writing skill in basic grammar of the tenth grade students in the experimental group.

Based on the findings, the following conclusions were drawn: 1). the mean score of experimental group was higher than control group. 2). the post-test result of the control and experimental groups varies significantly. 3). the use of student-centered learning approach in teaching basic grammar had significantly improved the performance of students' writing skill particularly the experimental group. According to the findings and conclusions, this study provided the following recommendations: 1). the researcher should make sure that the entry level of the control and experimental groups are homogenous to give appropriate baseline data before the start of the treatment for experimental group. Student-centered learning approach in teaching be utilized in teaching basic grammar to improve the writing skills of the students. 2). The use of student-centered learning approach as teaching guide in basic grammar can be enhanced by submitting to curricular and content validation. 3). The use of educational learning approach also known as the student-centered learning approach in teaching basic grammar be adapted by teachers of other disciplines to ensure learning to take place with ease and enjoyment.

Keywords: Student-Centered Learning Approach, Writing Skills, Basic Grammar

CHAPTER 1

THE PROBLEM

A. Introduction

For many years, the traditional teaching style specifically, teacher-centered instruction has been dominant in higher education around the world. In a traditional classroom, students become passive learners. They have no control over their own learning. Teachers make all the decisions concerning the curriculum, teaching methods and the different forms of assessment.

Duckworth¹ asserted that teacher-centered learning actually prevents students' educational growth. In contrast, in a student-centered classroom, students are actively learning and they have greater input into what they learn, how they learn it, and when they learn it. This means that students take responsibility of their own learning and are directly involved in the learning process.

Weimer² stated that student-centered learning method focuses on how students learn instead of how teachers teach. In a student-centered classroom, teachers abandon lecture notes and utilize power point presentations for a more active, engaging and collaborative style of teaching³.

During the last few decades, teacher-centered approach has been replaced by learner-centered teaching style in higher education⁴. Learner-centered instruction is most suitable for a more autonomous, and more self-directed learners who do not only participate in what, how, and when to learn, but also construct their own learning

experiences. The learner-centered method reflects and is rooted in constructivist philosophy of teaching⁵.

In Constructivism, the learners are learning by doing and experiencing rather than depending on the teachers' wisdom and expertise to transmit knowledge. Constructivism was strongly influenced by the writings of John Dewey who emphasized learning by doing and direct experience. The purpose of this exploratory study is to examine and find out the effects of teaching through student-centered learning approach to the writing skills especially in basic grammar of the students.

One of productive skills which is very important to be mastered by English learners is writing skill. Richard⁶ stated that writing is the most difficult skill for second language and foreign language learners. Furthermore, they claim that writing is not only generating and organizing ideas in our mind, but also translating these ideas into a readable text. It seems common that many learners particularly those foreign language learners have some degrees of difficulties in expressing their ideas through writing. Therefore, teachers need a continuous application of this approach in order to maintain or improve the students' writing skill.

It is a fact that writing skill produces many contributions in the literary world. Brown⁷ stated that writing skill has become indispensable and has high significance in this global literature. As it has been known that business transactions, records, legal documents, political and military agreements are written by those who are experts in their field with sound knowledge of writing skill. Besides, it is also apparent that in the

literate culture nowadays, some degree of writing skill has become a prerequisite requirement for getting employment.

Stated in the Constitution of Republic of Indonesia Number 20, 2003, mandating all schools and teachers to teach all Indonesian students to become creative, faithful, and to develop their potentials in the academics in any of the three kinds of education in Indonesia, such as informal education, non-formal education, and formal education.

In Pangkalan Bun, Central Borneo there is an Islamic Senior High School named Islamic Senior High School Pangkalan Bun (Madrasah Aliyah Pangkalan Bun). Although the students have many subject especially in Islamic subject, they should also learn English because it is one of the subject area being tested in the National Final Examination (UAN). It is the reason why the researcher finds an interest to research about and use Student-Centered Learning approach in improving students' writing skill.

As an English teacher, developing students' writing skill especially in basic grammar is a great responsibility, because most of the students do not know how to choose the appropriate vocabulary and the part of speech, specifically the verb.

This study expects to increase the student's understanding in choosing the appropriate vocabulary in every sentences. Writing is a macro skill that should be learned well and should be emphasized as it reflects the students higher thinking skill.

It is in this point of view that through the student-centered learning approach is an effective way to make students understand about basic grammar creatively.

B. Statement of the Problem

This study is an attempt to determine the effects of the student-centered learning approach in teaching basic grammar to the Tenth Grade students in Senior High School of Pangkalan Bun. Specifically it seeks to answer the following:

1. How does the result of the pre-test compare with post-test of the control and experimental groups?
2. Is there significant difference in the result of the test between the control and experimental groups?
3. What student-centered teaching guide in basic grammar can be developed based from the findings of the study?

C. Significance of the Study

The findings of this study have benefits to the following parties:

1. Students. They have benefit from the result of this study, because the students are the users of the validated instructional method.
2. Language Teachers. This study will benefit the language teachers, as this may serve as guide to enrich their teaching method.
3. The School Administrators. The result of this research will give the school administrators additional information on how to use student-centered learning

approach. It will also help them formulate policies on the use of innovative teaching method in the classroom, thus, allowing the teachers to explore alternative method or strategies in teaching.

4. Islamic Senior High School of Pangkalan Bun. The result of this study can increase, promote and enhance the quality of education and may serve as basis of the Islamic school in planning for future program.
5. Curriculum Developers. The findings of this research may be utilized in developing a more substantive, objective, and up-to-date curriculum in teaching English.
6. Parents. The result of this study may possibly increase the parents' awareness of the latest trends on teaching and learning process in school, also help them to understand how to teach their children at home.
7. Researchers. They may utilize the findings of this study as a related study or can be used as guide in making parallel research work in their own place.

D. Scope and Delimitation of Study

The subjects of the study are the tenth grade students of Islamic Senior High School Pangkalan Bun, Indonesia, academic years 2015-2016 the students were selected by using cluster random sampling technique to determine the control and experimental groups, both groups will consist of 35 students, a total of 70 students as the subject of the study.

The researcher uses the Student-Centered Learning approach in teaching for experimental group while the traditional method to the control group.

E. Review of Related Literature and Studies

This section is a review of the literature and studies which guided the researcher in conducting of the study. These literature and studies provided the information relevant to the present research.

1. Writing Skills

Henry¹⁶ mentioned that writing is one of the most significant cultural accomplishments of human being. It allows us to record and convey information and stories beyond the immediate moment. Writing allows us to communicate at a distance, either at a distant place or at distant time.

Pethy¹⁷ stated that writing is a mental and physical act of forming letter and word. It means that people can communicate to each other through writing. Dust and Newel¹⁸ suggest that writing is further used as a tool for gathering, remembering, and sharing subject matter. It will help the students organizing the most important information from lecturers, literatures, and texts. It also will be available for later review and study.

Ghaith¹⁹ asserted that the researcher has to explore thought and ideas and make them visible and concrete. The researcher has to try encode the ideas from which the reader will eventually understand the ideas and meaning.

Diana Hanbury King²⁰ mentioned that writing skill is a program of comprehensive writing that is performed for beginning, struggling, at risk writers. It is able to help someone becomes a good writers. Writing skill also gives special instruction in spelling, handwriting, and key boarding. Writing skill is able to build the fluency and confidence of students and providing the variety of strategy and opportunity in applying it.

Anne²¹ added writing is one of the skills that is connected with emotions, feelings, language thoughts, experiences, mechanical actions and different strategies.

There are a lot of definitions stated by experts; Raymond stated that writing is more than a medium of communication²². It means that writing is not just a way to communicate to each other but also a means expressing ideas and emotional. Writing makes word permanent, and thus expands the collective memory of human beings from the relatively small store that we can remember and pass on orally to the infinite capacity of a modern library²³.

Writing is also a way of finding out what people know and what people need to learn. Spoken words disappear as soon as they are spoken, but writing freezes their thoughts, makes them visible and permanent so people can examine and test their quality²⁴. It can be seen that writing is a way of remembering because it makes word permanent and writing also is a good way to communicate because in writing, the researcher really thinks about what he or she wants to say.

Writing is a process of discovering and shaping meaning²⁵. Experienced writers rarely gather and understand immediately all the information they need. From the

definitions above, writing is a process which must be surpassed by the writer, and a tool to share information or stories to others because someone can read it several times.

Essential writing will need a long process from the planning, drafting, writing, and revising²⁶. This process can be done by anyone, especially students. The stages of writing process help students learn writing, so they will be able to acquire this skill easily and be able to make a good writing output.

When someone writes, he or she has purposes. Each writer has his own purpose, in accordance to the text he or she was planning to write. In addition, based on Competency Standard Standar Kompetensi (SK) and Basic Competency-Kompetensi Dasar (KD), the second year students are expected to be able to express meaningful ideas in term of functional text and simple short essay in the form of descriptive and recount to interact with people in their nearest environment.

Braine and May²⁷ defined four common purposes in writing: writing to inform; writing to explain; writing to persuade; and writing to amuse others. First, writing to inform purposed to educate the readers about a particular topic. This writing provides interesting details and facts to hold an audience's attention. It means that writers share interest knowledge to readers knows. Second, writing to explain is to describe the topic which was not clear, by using examples or other facts. In other words, a writer takes what is unclear and makes it clear. Then, writing to persuade is more demanding and more ambitious than many other types of writing. It means that writers convince the readers to accept the ideas. The last, writing to amuse other means someone who uses

language and established forms well to express his or her point of view²⁸. It is writing to entertain and give the reader something to enjoy.

Writing process includes learning how to write. This current emphasis in writing instruction focuses on the process of creating writing rather than the end product. The basic premise of writing process is that all children, regardless of age, can write. The initial focus is on creating quality content and learning the genres of writing. Langan stated that writing is a process that involves the following steps:

1. Discovering a point-often through prewriting.
2. Developing solid support for the point-often through more prewriting.
3. Organizing the supporting material and writing it out in a first draft.
4. Revising and then editing carefully to ensure an effective, error free paper.

Prewriting is the first stage of the writing process, a time of discovering your ideas²⁹. In other words, prewriting is any activity designed to help students generate or organize their ideas before writing. The prewriting methods discussed are designed to get started: to generate ideas, to recall facts and anecdotes, to realize patterns³⁰. However, these activities are preliminary before writing a draft; need to establish a structure for an essay. It also help writer to generate ideas and allows the writer to see the connections among those ideas. Second step is drafting. Drafting is making draft of the goal to state main idea clearly and develop the content with plenty of specific details. In addition, an essay gets stronger as the drafting process continues. As the essay evolves and develops, the writer also gets more and more invested in the process and its

outcome. No one is able to write a perfect first draft, even people who tend to write very strong first draft essays realize the need for revision and redrafting. Then, revising is rewriting a paper, building upon what has already been done, in order to make it stronger. The last step is editing. Editing is the stage where the students are engaged in tidying up their texts as they prepare the final draft for evaluation by checking a paper for mistakes in grammar, punctuation, usage, and spelling³¹.

Writing is not easy. An experienced writer will often labor over a single paragraph for more than an hour-not counting the thought and research that went on before the actual writing³². Therefore, many problems are faced by teachers and students.

The writing skills are complex and difficult to teach. According to Thomas S Kane³³, writing involves the following rules. Firstly, grammatical rules means ability to write correct sentences. Secondly, usage rules means the ability to make sentences and use language effectively. Third, mechanical rules means the ability to use correctly those conventions peculiar to written language. E.g., punctuation and spelling.

The first problem is “the less proficient writer” problem³⁴. Less proficient writers jump the process of writing by skip the prewriting strategies to generate ideas. Students might take much time to write down their ideas. The suggestion for this problem is teacher should teach less proficient writers the writing process. Teachers also need to give full attention to them, to show them how to plan a piece of writing

through prewriting activities³⁵. The second problem is “I can’t write English” problem³⁶. Students usually give up toward writing and believe that they cannot write. The solution is teachers should apply the writing process to the students. Teachers can lead students through prewriting, drafting, and revising activities. By doing this, students can see that writing is indeed a process of development that takes time and effort³⁷. The last problem is “teacher response” problem. Writing teachers often spend many hours reading and marking students’ papers. The suggestion for this problem is teachers can work with students on developing their written work through student-to-student conferences³⁸.

When the teachers find the difficulty in teaching writing, according to Raimes³⁹ there are some principles in teaching writing: (1) Focus on Form. The current traditional approach is text based; (2) Focus on the writer. The process approach concentrates on writer’s writing process. (3) Focus on the reader. The genre approach is centered on the purpose of communication between the reader and the writer.

2. Teaching

Teaching is an education activity. Teaching helps someone how to do something and make them understand the new knowledge. Achieving new knowledge is the goal of teaching. Douglas Brown⁴⁰ stated that teaching is showing or helping someone to learn how to do something, giving instruction, guiding in the study of something; providing with knowledge, and causing to understand.

Active learning is an approach to instruction in which students employ the material that they study through reading, writing, speaking, listening, and reflecting. Student active learning or Students centered learning stands in contrast to “standard modes of instruction in which teachers do most of the active and the students are only passive⁴¹.

Bonwell and Eison⁴² stated that defining students centered learning as the activity which involves the students in doing things and thinking about the things they are doing. It means that the students should do more than just listen to the teachers, they must read, write, discuss, or be engaged in solving problems.

According to Jacson⁴³, there are many principles in students centered learning method, such as: a) It involves everyone in the group; b) It is students centered, not teachers centered; c) It is process oriented, not outcome oriented; d) It is reinforced and directed through a discussion period; e) It allows leaders to observe their group members as they interact with each other; f) It puts the burden of learning where it belongs on the delegates themselves; g) It allows students to have fun while they learn.

Creativity is a central element of human nature, yet the word is frequently confused in common language. According to Runco's⁴⁴, he stated that creativity is a uniquely human trait that reflects our ability to adapt in changing circumstances and our effective cognitive abilities to combine and improve upon ideas to which we are exposed.

3. **Student-Centered Learning**

Student-Centered Learning (SCL) is mentioned on Gibbs⁴⁵ describes that student-centered learning emphasized the students' activity rather than passivity; students' experience on the course outside the institution and prior to the course; process and competence, rather than content; where the key decisions about learning are made by the student through negotiation with the teacher. Moreover, Harden and Crosby⁴⁶ defined student-centered learning as focusing on the students' learning and 'what students do to achieve this, rather than what the teacher does.

Student-centered learning (SCL) is an instructional method in which students influence the content, activities, materials, and pace of learning. This learning model places the student (learner) in the center of the learning process. The instructor provides students with opportunities to learn independently and from one another and coaches them in the skills they need to do so effectively. The Student-centered learning approach includes such techniques as substituting active learning experiences for lectures, assigning open-ended problems and problems requiring critical or creative thinking that cannot be solved by following text examples, involving students in simulations and role plays, and using self-paced and/or cooperative (team-based) learning⁴⁷.

In a traditional classroom, students become passive learners, or rather just recipients of teachers' knowledge and wisdom. They have no control over their own learning. Teachers make all the decisions concerning the curriculum, teaching

methods, and the different forms of assessment. Duckworth⁴⁸ asserts that teacher centered learning actually prevents students' educational growth.

In brief, the Student-Centered method is based on the hypothesis that students who are given the freedom to explore areas based on their personal interests, and who are accompanied in their striving for solutions by a supportive, understanding facilitator not only achieve higher academic results but also experience an increase in personal values, such as flexibility, self-confidence and social skills. This method, also known as experiential learning, requires specific personal attitudes on the side of the instructor who takes over the role of a facilitator. These attitudes are highly transparent, open communication, positive regard towards students and the seeking for deep understanding⁴⁹.

Collins & O'Brien mentioned⁵⁰ that the SCL method includes such techniques as substituting active learning experiences for lectures, assigning open-ended problems and problems requiring critical or creative thinking that cannot be solved by following text examples, involving students in simulations and role plays, and using self-paced and/or cooperative (team-based) learning. Properly implemented SCL can lead to increased motivation to learn, greater retention of knowledge, deeper understanding, and more positive attitudes towards the subject being taught.

In conclusion, Student-Centered Learning method (SCL) is an method that focuses on the students' activity rather than the teachers'. Student-centered learning, also known as learner-centered education, broadly encompasses methods of teaching that shift the focus of instruction from the teacher to the student. In original usage,

student-centered learning aims to develop learner autonomy and independence. Student-centered learning puts students' interests first, acknowledging student voice as central to the learning experience. In a student-centered classroom, students choose what they will learn, how they will learn, and how they will assess their own learning.

According to Napoli⁵¹, there are some ways how to apply students centered learning method in teaching, they are like:

1. Students are not considered to be empty vessels. They come with their own perceptual frameworks.
2. Focus is not just on what is taught but on how effective learning should be promoted.
3. Student learning becomes the main preoccupation of the teacher (not his/her performance as a teacher or a raw number of facts to be transmitted to the students).
4. It is recognized that students learn in different ways and have different learning styles. Personalised/individualised responses are encouraged. This helps to foster creativity in students.
5. Learning is recognized as an active dynamic process in which connections (between different facts, ideas and processes) are constantly changing and their structure is continually reformatted. Such connections are fostered through dialogue between teacher and students, and students with their peers. This makes 'Student-centred Learning' a highly social enterprise

that requires the constant development of human relationships and communication. Students are constantly encouraged to formulate and re-formulate their hypotheses in the solution of problems and tasks they work on.

6. Students construct their own meaning by talking, listening, writing, reading, and reflecting on content, ideas, issues and concerns.
7. Assessment is 'formative' in character. This means that its main aim is not to 'quantify' a student's performance in terms of the number of 'facts' they are supposed to acquire but understanding (and helping them to understand) the processes through which they arrive at certain conclusions in solving a given task/problem. In this way, the student is supported in making sense of their 'journey' through knowledge construction. Constructive and continuous feedback is paramount here. Students work with teachers to define performance criteria and develop self-and peer assessment skills.
8. Syllabi and curricula are organised not just around the 'facts' the learner is supposed to acquire but around the processes through which learning is to be developed. In the most radical 'student-centred' syllabi/curricula, these are 'constructed' jointly by teachers and students.

According to Angelo and Cross⁵², the advantages of using student-centered learning method, such as:

1. Students learn important communicative and collaborative skills through group work.
2. Students learn directly their own learning, ask questions and complete tasks independently.
3. Students are more interested in learning activities when they can interact with one another and participate actively.
4. The students have more active role to play in their learning.
5. The students can adapt the way they learn, to make their studies more effective.
6. Students can also learn from one another through co-operative learning, the ideal situation for this type group work is that weaker students should be placed with more able students to act as scaffolding.
7. SCL can help the students to build social skills and self-esteem and also to gain more emotional and cognitive support from their peers.
8. Students are more attentive and willing to participate in the class.

According to Pillay⁵³, the disadvantages of student-centered learning method are:

1. Because students are talking, classrooms are often busy, noisy and chaotic.
2. Teachers must attempt to manage all students' activities at once, which can be difficult when students are working on different stages of the same project.

3. Because the teacher does not deliver instruction to all students at once, some students may miss important facts.
4. Some students prefer to work alone, so group work can become problematic.

Rahmawati Ningsih⁵⁴ in Malang City of Indonesia had conducted a study about “Improving the English Speaking Skill by Using PAIKEM Approach”, this study mentions that teacher must create a condition, so the students are able to be active in asking, creating the ideas, and doing something directly by experiences, and students will be able to be responsible in their learning process.

Zuliana⁵⁵ found in her study about “the use of mind mapping technique to improve the writing skill of the English eight grade students”. The finding of her study shows that students can be more active with mind mapping and it is able to improve the students’ writing skill.

While Annida Nurul Faiza Asni⁵⁶ investigated in her study about “improving the teaching and learning of reading and writing in English through cooperative intergrated reading and composition”. The result shows that there are improvements in the students’ involvement, motivation, reading and writing abilities, and the teaching and learning process of reading and writing. it shows that the students that are more active and enthusiast in doing the reading and writing activities.

Rusman⁵⁷ expressed in his study that student-centered learning method is a learning method that involves more students’ activity in accessing some of information

and knowledge to be discussed and examined in learning process, so they get some of experiences to increase students' comprehension and ability.

According to Johar⁵⁸ active teaching and learning is focused to the students, the teachers create a situation in such a manner that students will actively inquire, ask questions, and tell their ideas. Learning is an active not a passive process.

Isdiyah⁵⁹ suggested in her study that the English teacher should use a method that giving chances to the students to increase their creativity in teaching writing and other kinds of text types. It is suggested that the students should write in outline form before writing the entire paragraph.

Supriyadi⁶⁰ said in his study about "learning community to improve the ability of the fifth grade students in writing descriptive texts" that the implementation of learning community strategy is able to improve the students' writing achievements reflected in the data obtained from participant observation, observation, interview, and tests. In addition, the strategy can improve the students' learning activity, collaborative skills, learning effectiveness, and social competences.

Rima Putri⁶¹ said in her study about "the effectiveness of student-centered learning to improve students' English skills" that students centered learning method is a learning process that focus on the students and the role of teacher is only as facilitator in learning process. It is able to make the students be more active in teaching process, creating the new ideas, and finding out the new information about their own questions.

Harsono⁶² stated in her study that Students centered learning is built on the principles of learning which consist of active and constructive process as well as social activity, require mental reflection, use prior knowledge, take time, depend on rich context, and need motivation. The process of learning is a cycle of reflection, idea, action, and result.

Fauziah⁶³ stated that nowadays learning system in almost every higher education in Indonesia still one-directional have character, namely lesson giving by the lecturers. This learning system knows as teacher centered learning that unfortunately make passive students that only listening the teachers so their creativity underdeveloped or even uncreative. In Students Centered Learning method, the students being demanded active doing assignment and discussed with teachers as facilitator. This condition will encourage teachers to advance their knowledge and lesson content, adjusting it with the science and technology improvement.

Carrol⁶⁴ stated in his study about “effectiveness of student centered learning strategies in online composition courses³⁷ by from Truckee Meadows Community College Reno, NV USA that the research on studentcentered teaching approaches revealed that teaching approaches which are deemed studentcentered in the traditional classroom are considered to be studentcentered in the online classroom as well. For example, it was widely agreed upon that basic studentcentered approaches include understanding the various student learning styles and the need to provide instruction in a variety of forms in order to reach as many learning styles as possible and to foster content retention. That is, using instructional methods such as peer interaction, group

work, course discussion, multimedia, and individual reflection contribute to creating a more effective learning environment and fostering a learning community. Furthermore, the basic student-centered learning approach include students as active participants in the learning process and instructors who take on the responsibility of facilitators of the learning process.

Ahmed⁶⁵ stated in his study about “teacher-centered versus learner - centered teaching style, from Al Ain University of Science and Technology College of Education that during the last few decades, teacher-centered teaching style has been replaced by learner-centered teaching style in higher education. Learner-centered instruction is most suitable for the more autonomous, and more self-directed learners who not only participate in what, how, and when to learn, but also construct their own learning experiences. The learner-centered method reflects and is rooted in constructivist philosophy of teaching. In Constructivism, the learners are learning by doing and experiencing rather than depending on the teachers’ wisdom and expertise to transmit knowledge.

Ambelu⁶⁶ stated in his study that The study has briefly surveyed the effectiveness of student-centered instruction in improving students’ graphical interpretation skills and conceptual understanding of kinematical motion. Based on the findings of his study, the outcome of student-centered instruction compared with traditional instruction was found to be significant in the students graphical interpretation skills, understandings of kinematics concepts and elimination of

misconceptions are more enhanced than traditional instruction. Finding also showed the achievement of the student-centered group was found to be better than that of the traditional group. In short, when student-centered instruction is used, it is highly probable that these cause significantly better understandings of scientific conception and elimination of alternative concepts.

Deay⁶⁷ stated on his study that when teachers participated in a university class during which they studied techniques for implementing experiential, student-centered instructional approaches that give students a voice in the process of their education. Changes in classroom practices that affect teachers' interactions with students, parents, and other community members are described.

While Tracey⁶⁸ stated in her study that the major purpose of this case study was to document the classroom management beliefs and practices of three teachers reputed to implement student-centered instruction and to examine the relationship between their instructional and managerial approaches. Results indicate that, although all three teachers used an eclectic approach, two teachers tended to be more student-centered while one was more teacher-centered with respect to classroom management. All three teachers' approaches also reflected the principles of "good classroom management" derived from studies conducted in the 1960's and 1970's in traditional transmission classrooms. Results also indicate that the teachers did think about the relationship between instruction and classroom management, but not in terms of using student-centered management to support their student-centered instruction.

Khademi⁶⁹ stated in his study that most studies in the field of comparing traditional teaching methods and student-centered approach in medical science indicate that most students tend to the traditional method. However, evidence indicates increasing use of student-centered teaching styles. Some studies also show more effect and priority of student-centered approach on student learning. This indicates that there is need to a student-centered learning environment, but in practice, its application is trouble-some.

Channa⁷⁰ stated in her study that Students are expected to know how to synthesize information, determine what's important, and present what they have learned and be able to answer any questions that may come up about the content and process of learning. In this way, Impact's assessment model, exhibitions, and defenses become the ultimate measure of whether a student fully understands a concept.

Ghadah⁷¹ stated in his study that Building students 'confidence that they "can do it"' was the main goal of conducting the workshop. Giving the students' the first experience to live even though its struggles, gave them at the end the satisfaction and success feeling which they deserve because learning is fun. Which other students could not get as a result of their financial or political issues.

Learning should be fun and enjoyable, not boring and killing the students' innovation and creativity. Learning should encourage students to express their voices to be heard and discuss among their instructors and peers.

CHAPTER II

RESEARCH FINDING AND DISCUSSION

A. Theoretical Framework

This study was anchored on the Constructivism Theory espoused by Jerome Brunner who gave significant insight in the formulation of the researcher's theory. Constructivism is basically a theory based on observation and scientific study about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting it with their previous ideas and experiences.

Writing is one of the most significant cultural accomplishments of human being. It allows us to record and convey information and stories beyond the immediate moment. Writing allows us to communicate at a distance, either at a distant place or at distant time.

The use of student-centered approach in teaching basic grammar is also backed up by the Creative Writing by Burges Johnson. Burges stated that creative writing is any writing that goes outside the bounds of normal professional, journalistic, academic, or technical forms of literature, typically identified by an emphasis on narrative craft, character development, and the use of literary tropes or with various traditions of poetry and poetics. Due to the looseness of the definition, it is possible for writing such as feature stories to be considered creative writing, even though they fall under journalism,

because the content of features is specifically focused on narrative and character development. Both fictional and non-fictional works fall into this category, including such forms as novels, biographies, short stories, and poems. In the academic setting, creative writing is typically separated into fiction and poetry classes, with a focus on writing in an original style, as opposed to imitating pre-existing genres such as crime or horror.

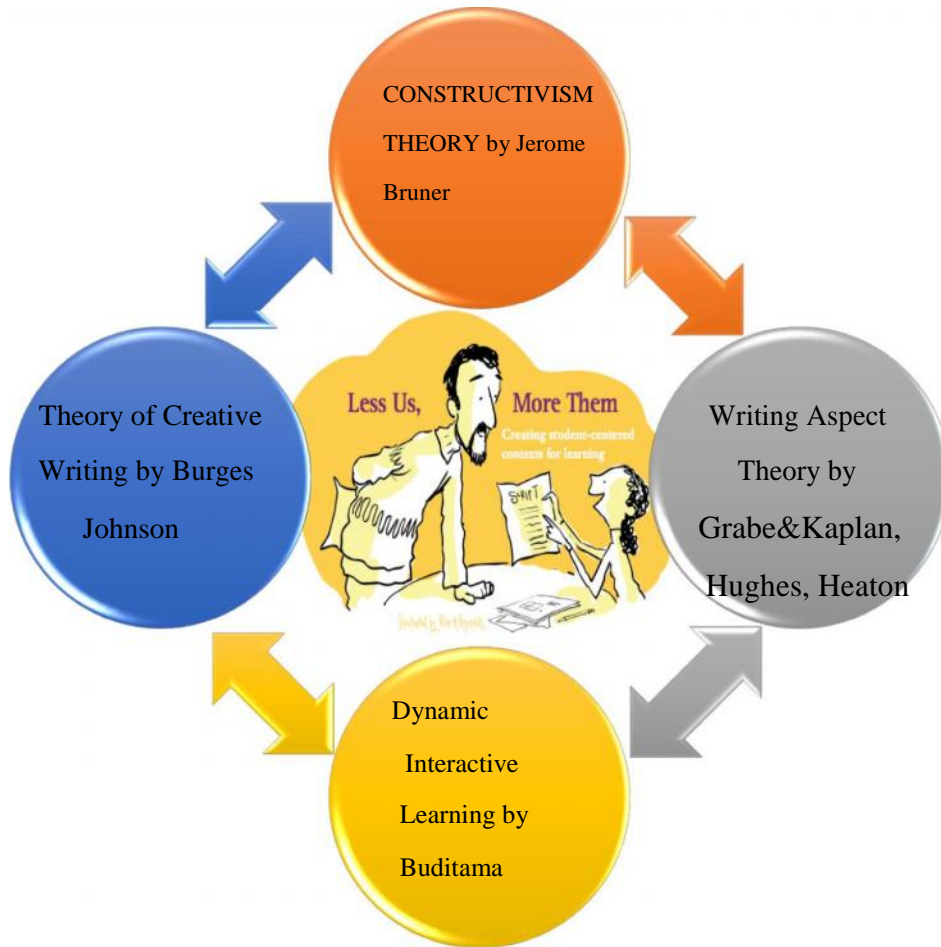


Figure 1

Theoretical Paradigm

Another theory on writing skill that categorically supports the principle of creative writing is Writing Aspect Theory by Grabe and Kaplan, Hughes, and Heaton. Grabe and Kaplan⁸ divides some aspects of writing based on Taxonomy language knowledge as follows: a) Knowledge of the written code, b) Orthography, c) Spelling, d) Punctuation, e) Formating conventions (margins, paragraphing, spacing, etc). Hughes⁹ enumerates five aspects of writing. These are Language use (grammar), Vocabulary, Mechanics (spelling, punctuation), Fluency (style and ease of communication), and Form (organization). Heaton¹⁰ defined the aspects of writing as follows: Content, Organization, Vocabulary, Language Use, and Mechanics.

Based on the three experts that defined the theory of writing aspects above, it can be said that the aspects of writing consist of language use, content, vocabulary, organization and mechanics.

In combining the three theories mentioned, the researcher proposes his own theory entitled Dynamic Interactive Theory. This theory identifies two important elements in teaching, such as creativities and activities. The teacher should be creative to make students more active. The teachers should transform the learning environment into a place that has visual appeal that will stimulate the learners. Furthermore, the theory explains that students learn better when they are able to do things on their own ways and construct the real meaning of concepts by practical work with the assistance of a teacher. The student-centered learning approach will ensure students to learn creatively, actively, and joyfully in basic grammar.

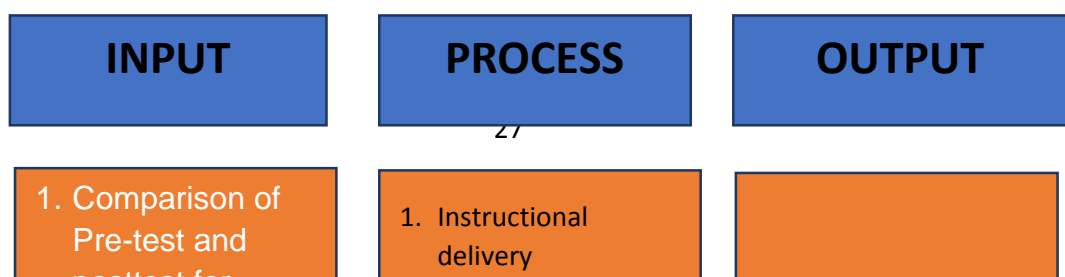
The researcher believes in the dictum of the philosophy: *There is nothing in the mind that was not first in the senses*. Therefore, it is easier to visualize and absorb a concept if it is clearly seen by the eyes. Moreover, it is much easier to undertake a basic grammar exercises if there is a student-centered learning approach that leads the learners to be more creative and active.

B. Conceptual Framework

The conceptual framework of the study is reflected which describes the logical illustration of the study in its input, process, output, and feedback.

The Input. The input of the study includes the pre-test and posttest for control and experimental group, and the Students Centered Learning approach as treatment will be given to experimental group.

Process. The process of the study includes the Instructional delivery, conducting the pre-test and posttest, statistical computation of significant difference of mean scores, and preparation of Student-Centered Learning material in improving students' writing.



Output. The output of the study refers to student-centered teaching guide that is designed to enhance the writing skills of the tenth-grade students by using the writing indicators based on the experts developed by the researcher.

Feedback. The feedback represents the process, techniques or system in assuring the continual development of study. The feedback will further guide the researcher to upgrade the effect of student-centered learning approach in improving students' writing skills, especially in basic grammar.

C. Definition of Term

To avoid confusion in the discussion and to provide a clear guide in understanding this study, the researcher gives some definition of important terms either conceptually or operationally.

Achievement Test is a test to develop skill or knowledge¹¹. Achievements test scores are often used in an educational system to determine what level of instructions for which a student is prepared. High achievement scores usually indicate a mastery of grade-level material. Low achievement scores indicate the need for remediation or repeating a course grade.

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

Control group is a group separated from the rest of the experiment where the independent variable being tested cannot influence the results¹². This isolate the independent variable's effects on the experiment and can help rule out alternate explanations of the experimental results.

Experimental group is the group in a scientific experiment where the experimental procedure is performed¹³. This group is exposed to the independent variable being tested and the changes observed and recorded, in this study there are the students treated with the student-centered learning approach in teaching.

Grammar. Refers to the use of correct sentences structure, syntax, word order/function, articles, pronouns, and prepositions.

Mean Score. This is the average score obtained by adding up all the individual scores of the students and then dividing the sum by the number of the students. This is computed after the pre-test and post-test results were obtained.

Post-Test. This is a test administered immediately after teaching a skill or unit to evaluate the achievement level or learning of the students on the subject after a given period. In this study, it refers to the teacher-made test administered to the students after the use of the student-centered approach, especially in teaching basic grammar.

Pre-Test. It is a test which was used as an evaluation tool administered before instruction begins, that is, before teaching a new unit or developing a major skill objective. In this study, it refers to the test given to the students before using the student-centered approach.

Students Centered Learning (SCL) is an approach that focuses on the students' activity rather than the teachers¹⁴. In this study, it means that the teaching-learning process is focused on the students and giving the chance to students for exploring their ability.

Students' Achievements. Measure the amount of academic content a student learns in a determined amount of time. Each grade level has learning goals or instructional standards that educators are required to teach. Standards are similar to a 'to-do' list that a teacher can use to guide instruction. Student achievement will increase when quality instruction is used to teach instructional standards.

Writing is a process of discovering and shaping the meaning, and writing is a tool of man to share and get information, thus it means to communicate and express oneself¹⁵.

CHAPTER III

RESEARCH METHODOLOGY

This part of study presents the research design and method used, the selection of the respondents, the research instruments, the preparation and administration of the test instruments, the data gathering procedures, the experimental procedures and the statistical tools utilized.

A. Research Design

This research is an experimental research. Experimental research is a research that provides treatment (manipulation) of the variables (independent variables), then observes the consequences of the treatment on the object of study (the dependent variable). The method that is used in this study is quasi-experimental methods (quasi).

In this particular design, the experimental and control groups are carefully selected by using appropriate randomization procedures. Both of the experimental and control groups will be given pre-test before the treatment and post test after the treatment. The experiment condition or treatment is administered to the experimental group and not for the control group, keeping all conditions the same for both groups. This is necessary so that the only difference is the manipulation of independent variable.

This experimental study was conducted from December 2015 until February 2016 to the students of tenth grade of Islamic Senior High School of Pangkalan Bun, Indonesia. The subjects are divided into two groups, the experimental group and

control group. The experimental group is taught by using Student-Centered Learning approach whereas the control group is taught by using traditional method.

B. Subjects

The subject-respondents of this study are representative samples from seven classes in the tenth grade Islamic Senior High School students of Pangkalan Bun, Indonesia at the academic year of 2015/2016. The researcher utilized 70 students selected through simple random sampling technique. The selection of subject is determined by the use of fishbowl technique.

C. Research Instruments

Instrument is the tool used to collect the data. Instrument is a facility that is used to collect the data of the study. Instrument also can be defined as tools for measuring, observing, or documenting quantitative data¹.

The Student-Centered Learning approach is the main data-gathering treatment. Beside the treatment, pre-test and post test are administered to the subjects by using the multiple choice type of test.

Table 1

Sample Population of the Study

Groups	Male	Female	Total
Experiment	14	21	35
Control	16	19	35
Total	30	40	70

Pre-test and Post test. These are 40 items of multiple choice test that is taken from their teachers book.

Presentation and Administration of Test Instruments. The pre-test and post test are prepared to determine the performance of the students before and after the treatment. The pre-test and post test have exactly the same items administered to both the control and experimental groups.

D. Data Gathering Procedure

Since the quasi-experimental design is used, drawing of lots is done to make the selection fair as to which groups will be the experimental group and which will be the control group. The two groups are subjected to the same subject matter under the same teacher, the researcher himself who conducted the experiment regularly as scheduled.

The result of pre-test and post test of the respondents are the data used in evaluating the performance level of student-respondents. The formula in computing the performance level of the students is discussed under the statistical tools used. The T-test will be used for computing the data to determine whether there is a significant difference in the students' writing skills of the two groups and to accept or rejecting the null hypothesis.

Teaching Procedures. The experimental method is used to determine whether the use of a treatment affects the performance of students between the two groups.

Initial phase. This part consists of the preparation of all research respondents and instruments. The pre-test, Student-Centered Learning approach material are prepared, refined and validated. The target of population is identified and selected into two groups.

Actual experimental phase. The validated teacher-made test was administered to the two groups before the actual teaching started. The groups were handled by the researcher. At the start of the experiment the experimental group was briefly oriented as to the time schedule, venue, and on how the lesson will be undertaken. During the learning time, the students are exposed to do something by their own self, the researcher as a teacher is the facilitator in the learning activity. The students also should solve the problem and answering the question by their own ways. It is able to make a discussion group, look for the answer in other references, or make a learning project based on the problem that they find in the learning process.

The traditional method or teachers-centered learning was used in the control group. In a traditional classroom students become passive learners or rather just recipients of teachers' knowledge and wisdom. They have no control over their own learning. Teachers make all the decisions concerning the curriculum, teaching methods, and the different forms of assessment.

E. Scoring the Test

The reseracher himself checked both the pre-test and post-test. the raw score were used is shown on table 2.

Table 2

Descriptive Equivalents of the Scores

Score	Categories
80 – 100	Excellent
60 – 79	Very Satisfactory
40 – 59	Satisfactory
20 – 39	Fair
0 – 19	Unsatisfactory

F. Statistical Tools

Validity. The extent to which the instrument measures what it purpose to measure.

Reliability. Refers to the consistency of the scores obtained-how consistent they are for each individual from one administration of an instrument to another and one set items to another.

$$KR21 = \frac{1 - \frac{M^2}{V_t}}{K - 1}$$

K = Number of items of the test

M = mean

Vt = total variant

G. Data Analysis

The data in this research were analyzed using two techniques, they are descriptive analysis and inferential analysis.

1) Descriptive Analysis

Creswell² stated that descriptive analysis indicates general tendencies in the data (mean, mode, median), the spread of score (variance, deviation, and range), or a comparison of how one score relates to all others. The descriptive analysis is use to find the avarage score. In this research, the data will be interpret based on the mean and the standard deviation.

Mean of data is found by adding up all the values of the data points and dividing by the total number of data points. The formula used to find out the mean of data as follow:

$$M = \frac{\sum X}{N}$$

Where:

M = Mean

X = Raw score value

N = Total number of scores

Standard Deviation

Standard deviation is the positive square root of the variance. The formula to find out standard deviation of a data as follow:

$$SD = \sqrt{\frac{\sum X^2}{N} - \left(\frac{\sum X}{N}\right)^2}$$

Where:

SD = Standard Deviation

$\sum X^2$ = Total of squared score

N = Number of sample

2) Inferential Analysis

The inferential analysis is directed to provide the answer if there is a significant difference in teaching using student-centered learning approach versus traditional method.

Normality Test

The normality test is use to find out whether the data are normal or not.

The data spread between the high and low score. A good data is the data which have normal distribution. The normality test using this formula:

$$\chi^2 = \sum \left(\frac{f_o - f_h}{f_h} \right)^2$$

Where:

f_o = The observation data frequency

f_h = The Ideal frequency

Homogeneity Test

To find out whether or not the scores of one group have homogeneous variance with the other group's score, it is required homogeneity test with the *F-test* formula as below:

$$F = \frac{s_1^2}{s_2^2}$$

Where:

s_1^2 = Biggest variance

s_2^2 = Smallest variance

Hypothesis Test

Creswell³ stated that hypothesis test is the procedure of making decision about result by comparing an observed value of sample with population value to determine the difference or relationship between the values.

In this research, hypothesis testing was done through *t-test* which is the formula as below:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where:

\bar{x}_1 = the mean of the scores of the experimental group

\bar{x}_2 = the mean of the scores of the control group

n_1 = the number of students in the experimental group

s_1 = the standard deviation of the control group

s_2 = the standard deviation of the experimental group

n_2 = the standard deviation of the control group

NOTES

¹Cresswell, W. J. **Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research**. California, 2008, 86.

²Cresswell, W. J. **Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research**. California, 2008, 190.

³Cresswell, W. J. **Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research**. California, 2008, 195.

⁴Gay, and Airasian. **Language Research: Competencies for Analysis and Application**. New Jersey: Pearson Education, 2000, 378.

CHAPTER IV

STUDENT-CENTERED LEARNING APPROACH IN TEACHING BASIC GRAMMAR

This chapter mainly presents the outcome of the research with reference to the problem stated, it provides the data and inferences as well as the literature and studies affirming and/or negating the findings. It presents the discussion of the writing skill, the effects of the use student-centered approach in the result of post-test, analysis and interpretation of the data, and followed by implications to teaching writing skills through basic grammar.

A. Classroom Observation Result

Based on the results of the observation, it can be concluded that only 50% of the students were active and enthusiastic, and half of the students need more attention from the teacher in the learning process. Thus, the students find it difficult to answer and respond to the teacher's questions and explanations.

The researcher conducted the observation to find and assess the students' problems in English, especially in basic grammar. This finding was evident in the result of the writing test in basic grammar and their daily test provided by the teacher. The result is not good enough, so it made the researcher interested to try and find out ways or approach how to teach writing more interesting especially in basic grammar by the use of student-centered approach.

Most of students find the difficulties in organizing their ideas to create a paragraph or sentences, and made a lot of grammatical errors, and the sentences were influenced by the students' mother tongue. The students also find the difficulties in choosing appropriate vocabulary, they do not know the meaning of the words which making it difficult for them to express their ideas.

In addition, the condition of the class before the researcher facilitated the student-centered approach was also described in several conditions. The students' attitude and motivation towards basic grammar was low. It appeared that the students were not active, creative, and enthusiastic to ask the question about basic grammar. They were also shy and not confident to present their writings in front of the class.

After knowing the situation of the class, the researcher proceeded in administering the pre-test, the data was collected to measure the student's competencies along the components of writing skills in basic grammar.

Before the researcher gave the students material using student-centered learning approach, the researcher gave the students pre-test. According to Kuehn¹, a pre-test design covers all of the topics which a students will be studying during the study. While, taking the pre-test means to know how far the students' knowledge are regarding basic grammar.

B. Pre-test Result of the Control Group and Experimental Group

The pre-test was administered to both control and experimental groups to determine the entry level. Result of the mean performance in the pre-test are found in table three (3).

Table 3

Pre-test Result of the Control and Experimental Groups

Groups	Total (N)	Mean	Standard	Verbal
			Deviation	Interpretation
Control	35	52.1	6.76	Satisfactory
Experimental	35	51	7.01	Satisfactory

Legend: 0-19 unsatisfactory; 20-39 fair; 40-59 satisfactory; 60-79 Very satisfactory;

80-100 Excellent

The result shows that the mean scores of the control and experimental groups in the pre-test were 52.1 and 51 respectively, interpreted as satisfactory.

The purpose of the pre-test given to the students in a form of multiple choices is to measure their writing skill in basic grammar which is the main focus of this study. Considering the scores of the students, it can be concluded that a large percentage of the students need to improve their basic grammar in writing skills.

The findings imply that the students of the control and experimental groups have the same entry level in terms of their writing performance which is a very good indicator in determining homogeneity of the groups.

Tabel 4
The Result of Homogeneity Test

Groups	Df	Sd1	Sd ²	FO	FT
Experiment	34	7.01	49.02	1.071	1.772
Control	34	6.85	45.77		

= 5%

The result of homogeneity test that is shown in table four (4) states that FO=1.071 and FTable=1.772 with = 5%, it appears that FO < FTable. It means that the experimental and control groups are homogeneous.

Noel² supported this finding that since the two classes have almost the same performance level at the start of the experiment; they are much suited to the research subject of the study, which means that there is homogeneity of the subjects that comprise the control group.

C. Post-Test Result of the Control and Experimental Groups

After the treatment, the post-test was administered and the same analysis with the pre-test was done, and the results is shown in table five.

Table 5

Post-Test Result of the Experimental and Control Groups

Groups	Total (N)	Mean	Standard Deviation	Verbal Interpretation
Control	35	64.85	6.41	Satisfactory
Experimental	35	70.5	8.84	Very Satisfactory

Legend: 0-19 unsatisfactory; 20-39 fair; 40-65 satisfactory; 66-79 Very satisfactory; 80-100 Excellent

The main score in the post-test of the control group is higher than the score obtained in the pre-test. However the mean score is only 64.91. Comparing the mean scores of the experimental class before and after the treatment, the score is higher after the treatment indicated by 70.5 mean rating, interpreted as very satisfactory. This result implies that the treatment that was given to the experimental group has increased students' achievements performance particularly in basic grammar.

Such findings were consistent with the study of Ambelu³ which discloses that the use of student-centered approach to improve students' graphical interpretation skills explained that by using student-centered approach, the students feel happy, and more active in the learning process. It can be concluded that the students can reach the minimum standard competence that is defined by the school. Thus, student-centered learning approach provided positive result in teaching basic grammar.

D. Test of Significant Difference of the Mean Scores in the Pre-Test and Post-Test of the Control and Experimental Groups

The T-test was used to determine the effect of the student-centered learning approach in the experimental group as against the use of the traditional method to the control group.

Furthermore, before comparing the result of pre-test and post test between control and experimental groups, the researcher computed and compared the result of pre-test and post-test in the control and experimental groups. Table six (6) shows the comparison in the pre-test and post-test result of the control and the experimental groups.

Table 6

The Result of Pre-Test and Post-Test in Control and Experimental Group

Group	Pre-Test	Post-Test	Md	T value	Tabular Value	Verbal Interpretation
Control	52.1	64.85	12.75	28.79	2.03	Significant
Experimental	51.85	70.5	18.65	13.28	2.03	Significant

Level of Significance: 5%

Based on the table above, the researcher can conclude that there is significant difference in the pre-test and post-test in experimental group after given the treatment by using student-centered approach in teaching basic grammar. It was shown by T value=13.28 is higher than tabular value=2.03, at $df=34$, and the level of significance 5%. It means that the use of student-centered approach has increased the students' writing skill significantly especially in basic grammar. While, the result of pre-test and post-test in control group has also increased a bit.

Next, the findings reveal that computed T value based from the result of the pre-test in the control and experimental groups is 0.14. such is lower than the tabular value of 2.03 at df of 34, at 5% level of significance. Thus, the null hypothesis stated that there is no significant difference of the result between control and experimental group is accepted. Table seven (7) shows the comparison in the pre-test of control and experimental groups and post-test result of control and experimental groups.

Table 7

**The Result of Pre-Test and Post-Test of the Control and Experimental
Groups Using T-test**

Test	Control	Experiment	Mean	T value	Tabular Value	Verbal Interpretation
Pre-Test	52.1	51	1.1	0.14	2.03	No Significant
Post-Test	64.85	70.5	5.6	3.03	2.03	Significant

Level of Significance: 5%

However, the result of the post-test of the control and experimental groups shows that T value of 3.03 is higher than the Tabular value of 2.03, at df of 34 and 5% level of significance. This result rejects the null hypothesis that there is no significant difference in the result of post-test of control and experimental groups. The results shows that the performance in the post-test of control and experimental groups vary, revealing the positive effect of student-centered learning approach as the teaching guide in basic grammar. The use of student-centered learning approach has indeed improve the performance in basic grammar, from satisfactory to be very satisfactory.

This findings is confirmed by Ghadah⁴ explained that building students 'confidence that they "can do it" was the main goal of conducting the workshop. Giving the students' the first experience to live even though they struggle, gave them

at the end the satisfaction and success feeling that they deserve because learning is joyful.

Based on the aforementioned data, it can be deduced that student-centered learning approach is an effective pedagogical approach that can meet the students' needs and learning objectives in any field of writing skills. Further, student-centered approach demonstrates flexibility and can be adapted to the requirements of students and teachers in different subject areas.

E. Student-Centered Teaching Guide in Basic Grammar

Based from the foregoing findings, the researcher strongly proposes student-centered teaching guide in basic grammar of the students as the output of the present study. This provides many benefits including relative advantages, exposures to new creativity, interactivity and differentiation, particularly to the students.

This section presents the student-centered approach in teaching basic grammar. This basic grammar teaching guide provides the students learning opportunity in various format. Topics and exercises were made clear and simple to facilitate learning also to address the students' need as an appropriate supplementary instructional tool that would help increase further the students writing skills.

The basic grammar teaching guide contain eight (8) chapters on mechanics of basic writing sentences to paragraph writing, each chapter includes a reading selection where students learn about the mechanics of grammar with exercises on sentence construction, composition writing and learning activities on vocabulary and spelling.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, findings, conclusions and recommendations of the study. The summary includes the statements of the problem, assumptions, hypothesis, data gathering procedures and statistical treatment. The major findings served as the basis and the formulations of conclusions also included are the recommendation.

A. Summary

This study determined the effect of student-centered learning approach in teaching basic grammar to the tenth-grade students of Islamic Senior High School Pangkalan Bun, Central Borneo, Indonesia. Specifically, this study sought answers to the following questions:

1. How does the result of the pre-test compare with post-test of the control and experimental groups?
2. Is there significant difference in the result of the test between the control and experimental groups?
3. 3. What student-centered teaching guide in basic grammar can be developed based from the findings of the study?

This study assumed that: 1). The use of student-centered approach in teaching basic grammar has positive effects on learners writing skills. 2). Student-centered teaching guide in basic grammar can be developed based from the finding of the study.

The study tested the null hypothesis that there is no significant difference between the students provided with the student-centered learning approach from the students under the traditional method to improve students' writing skills in basic grammar.

The investigation was delimited on the comparison of students' writing skill in basic grammar before and after the treatment of the tenth-grade students in Islamic Senior High School Pangkalan Bun, Central Borneo Indonesia. There were two sections of this research, consisted with control and experimental groups. It was taken from six sections of the tenth-grade students. Each section was comprised of 35 students, taken randomly by using the fishbowl technique.

The result of the test before and after applying the treatment was computed to determine the student's performance in basic grammar and writing skills. The mean performance in the test was computed by adding the scores divided by the number of students in separate groups, while the T-test computation was done by using the statistical software, the Microsoft Excel Formulations.

B. Findings

The following are the salient findings of this study, such as:

1. The mean scores in the pre-test of the control and experimental groups were 52.1 and 51 interpreted as satisfactory in both groups. The mean scores of the control groups in the post-test was 64.85, interpreted as satisfactory, while 70.5 in the experimental groups interpreted as very satisfactory
2. The computed T value based from the result in the pre-test of the control and experimental groups was 0.14. It was lesser than the tabular value of

2.03, at df of 34, and 5% level of significance. This result indicates that there is no significant difference in the mean scores of the pre-test of the control and experimental groups. This finding proved that from the start, the mean scores were good in both groups. The result in the post-test of the control and experimental groups showed that the computed value of T value of 3.03 was higher than the tabular value of 2.03, at df of 34, and 5% level of significance. This condition rejects the null hypothesis that there is no significant difference in the mean scores in the post-test of the control and experimental groups.

3. The student-centered learning approach in teaching enhanced the students' writing skill in basic grammar of the tenth-grade students in the experimental group.

C. Conclusions

Based from the findings, the following are the conclusions drawn from the study:

1. The mean score of experimental group was higher than control group.
2. The post-test result of the control and experimental groups varies significantly.
3. The use of student-centered learning approach in teaching basic grammar had significantly improved the performance of students' writing skill particularly the experimental group.

D. Recommendations

Based on the findings and conclusions, this study provides the following recommendations:

1. The researcher should make sure that the entry level of the control and experimental groups are homogenous (see the result of homogeneity test in chapter 3) to give appropriate baseline data before the start of the treatment for experimental group. Student-centered learning approach in teaching be utilized in teaching basic grammar to improve the writing skills of the students.
2. The use of student-centered learning approach as teaching guide in basic grammar may be enhanced by submitting to curricular and content validation.
3. The use of educational learning approach also known as the student-centered learning approach in teaching basic grammar be adapted by teachers from other disciplines to ensure that learning will take place with ease, and enjoyment.

BIBLIOGRAPHY

- Andrew P Johnson, 2008. **Teaching Reading and Writing, A guided book for Tutoring and Remediating Students**. The Rowman & Littlefield Publishing Group, Inc: United States of America.
- Antonina C. Sta. Maria, et al. **General Statistics**. Quezon City: National Bookstore, 1998.
- Bram, Barli. **Critical Discourse Analysis: The Critical Study of Language**. London: Longman Group Limited. 2002.
- Brookes, I., Marshall, M. **Good Writing Guide**. New York: Harap Publishers Ltd. 2004.
- Carlito D. Garcia Ed. D., **Fundamentals of Research and Research Designing**. Quezon City: Katha Publishing Co. Inc., 2003.
- Collins, J. W., 3rd, & O'Brien, N. P. (Eds.). **Greenwood Dictionary of Education**. Westport, CT: Greenwood. 2003.
- Cresswell, W. J. **Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research**. California: SAGE Publication Inc. 2008.
- Csikszentmihalyi, Mihaly. **Creativity - Flow and the Psychology of Discovery and Invention**. Chicago: Harper Perennial. 2013.
- Franken, Robert E. **Human Motivation: 3rd Edition**. Northridge: Brooks/Cole. 1993.
- Gay, and Airasian. **Language Research: Competencies for Analysis and Application**. New Jersey: Pearson Education. 2000.
- Gibbs, G. **Assessing Student Centred Courses**. Oxford: Oxford Centre for Staff Learning and Development. 1995.
- Gould, Eric, Robert DiYanni, dan William Smith. **The Educated child**. New York: The Free Press. 1989.
- Grabe W and Kaplan, R.B. **Theory and Practice of writing**. New York: Longman. 1996.
- Harden, R.M. and J. Crosby. **AMEE Guide No 20: The good teacher is more than a lecturer the twelve roles of the teacher**. Medical Teacher 22(4), 2000.

- Harmer, Jeremy. **The Practice of English Language Teaching (4th Ed)**. London: Longman. 2000.
- Heaton, J. B. **Writing English Language Test**. New York: Longman Inc. 1995.
- Hughes, Arthur. **Testing for Language Teachers**. Cambridge: Cambridge University Press. 2003.
- Jones, C.E. **Student-Centered Instruction Vs. Direct-Teacher Instruction: Which is Most Effective?**. Georgia: LaGrange College. 2011.
- Napoli, R. D. **What is Students-Centered Learning?**. Westminster: University of Westminster. 2004.
- Pat Foad. **Students Study Guide for Use with Elementary Statistics: A Step by Steps Approach, Third Edition**. Usa: Mc Graw-Hill Companies, Inc., 1998..
- Richards J. **New Trends in the Teaching of Writing in ESL/ EFL in Wang Z. (ed.) *ELT in China***. Papers Presented at the International Symposium on Teaching English in the Chinese Context, Foreign Language Teaching and Research Press, Beijing. 1990.
- Semi, M. Atar. **Dasar-Dasar Keterampilan Menulis**. Bandung: Angkasa. 2007.
- Tarigan, Henry Guntur. **Menulis: Sebagai Suatu Keterampilan Berbahasa**. Angkasa: Bandung. 1986.

JOURNALS

- Ahmed. **Teacher-Centered Versus Learner -Centered Teaching Style**. Al Ain University of Science and Technology College of Education, 22. 2013.
- Ambelu Tebabal. **The Effectsof Student-Centered Approach in Improving Students' Graphical Interpretation Skills and Conceptual Understanding of Kinematical Motion**. Department of Physics, College of Science, Bahir Dar University, Bahir Dar, Ethiopia. 2011.
- Annida Nurul Faiza Asni, **"Improving the Teaching and Learning of Reading and Writing in Learning Through Cooperative Integrated Reading and Composition (CIRC)"**, Unpublished master thesis, Yogyakarta, Indonesia, 2012.
- Ardeth Deay. **Student-Centered Learning Communities: Teachers' Perspectives**. West Virginia University. 2004.

Carroll. **Effectiveness of Student-Centered Learning Strategies in Online Composition Courses**. Truckee Meadows Community College Reno, NV USA, 2007.

Channa Mae Cook-Harvey. **Student-Centered Learning: Impact Academy of Arts and Technology**. Stanford, CA: Stanford Center for Opportunity Policy in Education. 2014.

Fauziah Nuraini Kurdi, **The Applying of Students Centered Learning Method from Teachers' Centered Learning Method in Subject of English**", Unpublished master thesis, Yogyakarta, Indonesia, 2014.

Ghadah Al Murshidi. **The Impact of Student-Centered Learning Approach Through Workshops Conduction on The UAE University Female Students' Confidence**. UAE University, UAE. 2014.

Gholamreza Khademi. **The Impact of Student-Centered Pedagogy on Training in a Pediatrics Course**. Department of pediatrics, Faculty of Medicine, Mashhad University of Medical sciences, Mashhad, Iran. 2014.

Harsono, **"Students' Centered Learning di Perguruan Tinggi"**, Yogyakarta: Universitas Gajah Mada Press, 2008.

Isdiyah, Analiaka. **"Using Think Pair Share (TPS) to Improve the Descriptive Writing Skill of the Seventh Grade of MTs Darussalam Aryojedong Thesis**. English Education Program, Pendidikan Bahasa Inggris. Islamic State College Studies (STAIN) of Tulung Agung, Indonesia, 2012

Rahmah, Johar. **"Development of Learning Material of PAKEM-Plus for Mathematics Lesson at Elementary School"**. Proceedings International Seminar and the Fourth National Conference on Mathematics Education, 2011.

Rahmawati Ningsih. **"Improving the English Speaking Skill by Using PAIKEM Approach"**, Unpublished master thesis, Malang, Indonesia, 2008.

Rima Putri, **"the effectiveness of students centered learning to improve students' English skills"**, Unpublished master thesis, Yogyakarta, Indonesia, 2011.

Rusman. **Model-model Pembelajaran dan Pengajaran**. Bandung: Mulia Mandiri Press, 1997.

Supriyadi, **"Implementing Learning Community Strategy to Improve the Ability of the Fifth Grade Students in Writing Descriptive Texts**. Sulawesi, Indonesia, 2012.

Tracey Garrett. **Student-Centered and Teacher-Centered Classroom Management: A Case Study of Three Elementary Teachers**. Rider University, Lawrenceville, New Jersey. 2008.

Zuliana, “**The Use of Mind Mapping Technique to Improve the Writing Skill of the Eight Grade Students of SMP Jati, Kudus**”. Unpublished master thesis, Kudus, Indonesia, 2012.

Online Websites

https://en.wikipedia.org/wiki/Student-centred_learning

<http://www.facultyfocus.com/articles/effective-teaching-strategies/five-characteristics-of-learner-centered-teaching/>

<http://edglossary.org/student-centered-learning/>

<https://kbmefektif.wordpress.com/2010/12/31/student-centered-approach/>

APPENDIX
THE PRE-TEST AND POST TEST

Name :
Class :
Date :

Please choose the correct answer in the view space!

1. My sister feels drowsy _____ she has a long-time fever.
 - a. Because
 - b. So
 - c. But
 - d. Until

2. She was tired _____ she took a rest in a long time.
 - a. Because
 - b. So
 - c. But
 - d. Until

3. We drive to north _____ we went to Europe.
 - a. Because
 - b. So
 - c. But
 - d. Until

4. My laptop is the _____ among others.
 - a. Good
 - b. Better
 - c. Bestest
 - d. Best

5. Isn't he the _____?
 - a. Tall
 - b. Taller
 - c. Tallest
 - d. Most tall

6. This book is too _____.
 - a. Big

- b. Biggest
 - c. Bigger
 - d. Biggers
7. Randy has ____ old.
- a. Grown
 - b. Grow
 - c. Growed
 - d. Grows
8. She is falling in ____ with me.
- a. Love
 - b. Loving
 - c. Lover
 - d. Loves
9. I am going to buy an _____ fish.
- a. Extra large
 - b. Large
 - c. Medium
 - d. Largest
10. Cats ____ fast.
- a. Run
 - b. Runs
 - c. Running
 - d. Ran
11. I _____ to your house.
- a. Went
 - b. Goes
 - c. Gone
 - d. Going
12. She will _____ us.
- a. Follow
 - b. Follows
 - c. Following
 - d. Followed
13. I have _____ a beautiful rose for her.

- a. Bring
 - b. Bringing
 - c. Brought
 - d. Brings
14. I _____ go to Washington D.C next week.
- a. Am going to
 - b. Will
 - c. Was going to
 - d. Plans to
15. Do you _____ me to go?
- a. Wants
 - b. Want
 - c. Wanted
 - d. Wanting
16. She is the best _____.
- a. Singing
 - b. Sings
 - c. Singer
 - d. Singers
17. _____ here will make you being arrested.
- a. Hide
 - b. Hidden
 - c. Hides
 - d. Hiding
18. She is fast _____ she is old
- a. Because
 - b. But
 - c. Although
 - d. Since
19. Move fast _____ we cannot reach them.
- a. Or
 - b. But
 - c. Because

- d. Until
20. I have lived here ____ you were child.
- a. Since
 - b. Because
 - c. Until
 - d. So
21. I cannot speak English ____.
- a. Good
 - b. Best
 - c. Well
 - d. Worse
22. My lecturer smokes ____ he never drink alcohol.
- a. And
 - b. But
 - c. For
 - d. Since
23. My brother drink either mineral water ____ cola every day.
- a. Or
 - b. Nor
 - c. Yet
 - d. And
24. You have to keep quiet ____ the help come.
- a. So
 - b. Till
 - c. But
 - d. For
25. She is permitted to drive a car ____ she is 16 years old.
- a. Because

- b. So
 - c. Until
 - d. Although
26. Do you need a car ____ a bike?
- a. Or
 - b. And
 - c. For
 - d. Nor
27. The room is clean ____ the food is bad.
- a. Or
 - b. And
 - c. For
 - d. Nor
28. I had a new car ____ a new job.
- a. Or
 - b. And
 - c. For
 - d. Nor
29. I was playing a guitar _____ she was typing a letter.
- a. For
 - b. Since
 - c. While
 - d. But
30. _____ I have learnt English for over 3 years, I am still shy to speak.
- a. Even though
 - b. Since
 - c. While
 - d. But
31. I have read this book ____ 3 hours.
- a. For over
 - b. In
 - c. Since

- d. By
32. There are so many vegetables ____ orange contain vitamin C.
- a. Include
 - b. Including
 - c. And
 - d. Includes
33. You have to stand ____ me.
- a. But
 - b. Below
 - c. Above
 - d. By
34. She has been crazy ____ three years ago.
- a. Since
 - b. For
 - c. Until
 - d. At
35. My father does not ____ time.
- a. In
 - b. On
 - c. At
 - d. In the
36. I cannot ____ the floor.
- a. Cleans
 - b. Cleaning
 - c. Clean
 - d. Cleaned
37. Farhan, Abdi, Dina, and Salsa will discuss the problem ____ themselves.
- a. Among
 - b. Between
 - c. To
 - d. With
38. I have understood this material ____ I studied here.

- a. For
- b. Until
- c. From
- d. Since

39. She has been _____ in Jamaica in the last three years.

- a. Work
- b. Working
- c. Works
- d. Worked

40. You always make me _____.

- a. Pride
- b. Prouder
- c. Proud
- d. Have been proud

APPENDIX
PRE-TEST AND POST-TEST RESULT

THE RESULT OF PRE-TEST OF CONTROL GROUP

No.	Name	SCORES	
		Pre-Test	Post-Test
1	ACHMAD ANDI	45	57,5
	PRASETYO		
2	AJENG RETNO	50	62,5
	PREHATINI		
3	ANGGI SETIAWAN	50	62,5
4	ARI SILIH WIJANARKO	52,5	65
5	ATUL HIDAYAH	50	62,5
6	AYANG FAIZUN	50	62,5
7	DEVI MAHARANI	50	62,5
8	ERNI NURLATIFAH	55	67,5
9	FAJAR SODIQ PRAMUDI	52,5	65
10	IRMA NABILA AISAH	67,5	80
11	ITA NOVIYANI	40	52,5
12	JOHAN FAHRUDIN	50	62,5
13	LANGGENG WICAKSONO	52,5	65
14	LISA HESTY PRAMUDYA	52,5	65
	W.		
15	LUCKE AYUNISTYA	45	57,5
	MUNA S.		
16	MIYATUL FARIDA	55	67,5
17	MUHAMAD FAJRI	45	57,5
18	MUHAMAD SIDIQ	60	72,5
	NURQODRI		
19	MUHAMMAD CATUR	52,5	65
	WIBOWO		
20	NETY WIBOWO PUTRI	55	67,5
21	NISA RIYANI	52,5	65
22	NUR CAHYANI	47,5	60
23	NUR FANANI	50	62,5
24	NUR MUHAMAD	52,5	65
	YHANUAR A.		

25	NUROHMAD	57,5	70
26	PINDI SUNYATA	47,5	60
27	RAHMAD THORIQ	72,5	85
28	REZA ADI PRABOWO	55	67,5
	RIZKI ALIM		
29	MUNAWAROH	52,5	65
	SURYO BAGUS		
30	PURNOMO	42,5	52,5
31	SITI IZZATUL ARIFAH	52,5	67,5
32	TOREK IBNU ABA	67,5	72,5
33	TRIA ANGGRAINI	47,5	62,5
34	TRIMAN FAAT	45	70
35	WAHYU DONI RAHAYU	50	65
Total		1822,5	2270
Mean		52,07143	64,85714
Mean Difference		12,78571429	
Standard Deviation		6,765117	6,415252
T value		28,79	
T-Table		2,03	

T-Test: Paired Two Sample for Means		
	<i>Pre-Test</i>	<i>Post-Test</i>
Mean	52,07142857	64,85714
Variance	45,76680672	41,15546
Observations	35	35
Pearson Correlation	0,921902466	
Hypothesized Mean Difference	0	
df	34	
t Stat	-28,79352308	
P(T<=t) one-tail	9,17481E-26	
t Critical one-tail	1,690924255	

P(T≤t) two-tail	1,83496E-25	
t Critical two-tail	2,032244509	

THE RESULT OF PRE-TEST OF EXPERIMENTAL GROUP

No.	Name	Score	
		Pre-Test	Post-Test
1	AFNI ALFANIAH	47,5	77,5
2	AI SYAH PRIHATSARI	50	85
3	ANISSA DYAH PALUPI	47,5	82,5
4	APSARI RAHANI	52,5	72,5
5	AYU AMBARWATI	42,5	70
6	CRESIA SELLA RAMADIYANI	50	72,5
7	DANIA YULI CAHYANI	47,5	82,5
8	DESI FITRIANINGSIH	47,5	87,5
9	DEVI FITRIA RAHAYU	47,5	72,5
10	DEWI LARASATI	60	75
11	DIANA PRAVITA SARI RAHAYU	55	72,5
12	DEWI SEPTIANINI RAHAYU	77,5	92,5
13	EKA LISTYOWATI	47,5	72,5
14	HILYATUL TRI PANGESTU	50	75
15	ICHA AGUSTINA	52,5	77,5
16	KHOIROTUL NUR LAELA	47,5	65
17	LAELATUL MUNAWAROH	45	60
18	LAILATUL INAYAH	70	82,5
19	LIA FEBRIYANTI	50	62,5
20	LISTIYANI	52,5	65
21	MIA APRILIA	50	62,5
22	MILENIA ANGGRAYNI KUMALA	55	67,5
23	NANDA NIKA KURNIA PUTRI	55	67,5
24	NASIATUL KHABIBAH	47,5	60
25	NOVI WIDIASARI	52,5	65
26	NOVITA PUSPITA DEWI	45	57,5
27	PUTRI INDAH SARI	50	62,5
28	PUTRI YULIA SARI	42,5	57,5
29	RAHMA KARTIKA DEWI	50	62,5
30	RINDARTI	47,5	60
31	RIZKY ARDITYA P.	55	67,5

32	SITI KHANIFAH	60	72,5
33	SUCI FITRIANI	55	67,5
34	TRI MUGI LESTARI	57,5	70
35	UMI MASHITOH	52,5	65
Total		1815	2467,5
Mean		51,85714	70,5
Mean Difference		18,64285714	
Standard Deviation		7,001652	8,845072
T value		13,28	
T-Table		2,03	

T-Test: Paired Two Sample for Means		
	<i>Pre-Test</i>	<i>Post-Test</i>
Mean	51,85714286	70,5
Variance	49,02310924	78,23529
Observations	35	35
Pearson Correlation	0,471356839	
Hypothesized Mean Difference	0	
df	34	
t Stat	-13,28961428	
P(T<=t) one-tail	2,53384E-15	
t Critical one-tail	1,690924255	
P(T<=t) two-tail	5,06767E-15	
t Critical two-tail	2,032244509	

**THE COMPARISON OF PRE-TEST BETWEEN
EXPERIMENTAL AND CONTROL GROUP**

Name	Score of Pre-Test	
	Experimental	Control
A	47,5	45
B	50	50
C	47,5	50
D	52,5	52,5
E	42,5	50
F	50	50
G	47,5	50
H	47,5	55
I	47,5	52,5
J	60	67,5
K	55	40
L	77,5	50
M	47,5	52,5
N	50	52,5
O	52,5	45
P	47,5	55
Q	45	45
R	70	60
S	50	52,5
T	52,5	55
U	50	52,5
V	55	47,5
W	55	50
X	47,5	52,5
Y	52,5	57,5
Z	45	47,5
AA	50	72,5
AB	42,5	55

C	50	52,5
AD	47,5	42,5
AE	55	52,5
AF	60	67,5
AG	55	47,5
AH	57,5	45
AI	52,5	50
Mean	51,8571	52,0714
Sd1	7,00165	6,76512
Sd2	49,0231	45,7668

Fo	1,071149874
Ft	1,772066477
Mean Difference	0,21429
T-value	0,14
T-table	2,03

T-Test: Paired Two Sample for Means		
	<i>Experim</i>	<i>Control</i>
Mean	51,857143	52,0714286
Variance	49,023109	45,7668067
Observations	35	35
Pearson Correlation	0,2035776	
Hypothesized Mean Difference	0	
df	34	
t Stat	-0,1458954	
P(T<=t) one-tail	0,4424328	
t Critical one-tail	1,6909243	
P(T<=t) two-tail	0,8848655	
t Critical two-tail	2,0322445	

**THE COMPARISON OF POST-TEST BETWEEN
EXPERIMENTAL AND CONTROL GROUP**

Name	Score of Post-Test	
	Experiment	Control
A	77,5	57,5
B	85	62,5
C	82,5	62,5
D	72,5	65
E	70	62,5
F	72,5	62,5
G	82,5	62,5
H	87,5	67,5
I	72,5	65
J	75	80
K	72,5	52,5
L	92,5	62,5
M	72,5	65
N	75	65
O	77,5	57,5
P	65	67,5
Q	60	57,5
R	82,5	72,5
S	62,5	65
T	65	67,5
U	62,5	65
V	67,5	60
W	67,5	62,5
X	60	65
Y	65	70
Z	57,5	60
AA	62,5	85
AB	57,5	67,5
AC	62,5	65
AD	60	52,5

AE	67,5	67,5
AF	72,5	72,5
AG	67,5	62,5
AH	70	70
AI	65	65
Mean	70,5	64,8571
Standard Deviation	8,8450717	6,41525
Mean Difference	5,642857143	
T-value	3,03	
T-table	2,03	

T-Test: Paired Two Sample for Means		
	<i>Experiment</i>	<i>Control</i>
Mean	70,5	64,8571429
Variance	78,23529412	41,1554622
Observations	35	35
Pearson Correlation	-0,011662415	
Hypothesized Mean Difference	0	
df	34	
t Stat	3,038461538	
P(T<=t) one-tail	0,002274085	
t Critical one-tail	1,690924255	
P(T<=t) two-tail	0,004548169	
t Critical two-tail	2,032244509	

APPENDIX CLASS DEMONSTRATION

Experimental Group (Student-Centered Learning Approach)



Control Group (Traditional Method)

