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The Effect of Applying SABELS on Students' Ability in Designing Research Proposal

Selviana Napitupulu[1], David Berthony Manalu[2]
[1,2](English Study Program, Nommensen HKBP University, Medan, Indonesia)
Corresponding Author: Selviana Napitupulu

Abstract: This quasi experimental research is designed to find the effect of applying Scientific Approach Based English Learning Strategy (SABELS) on students' ability in designing research proposal. The population of this research is 235 undergraduate students of fifth semester, who contract Research Methodology Course, at English Study Program of Teacher Training and Education Faculty of Nommensen HKBP University in Pematangsiantar Municipality. The sample of this research is randomly chosen based on their classes. Students of Group G is as experimental group; and the control group is students of group F. Each of group consists of 35 students. To collect the data, test of designing a quantitative research proposal is administered. Using t-test in analyzing data, it is found that t-value (2,36) is higher than t-table (1,667) at level of significant 5%. This means that using SABELS is effective to develop students' ability in designing research proposal.

Keywords: integrated knowledge, skill, and character, research proposal, SABELS

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I. INTRODUCTION

Research Background

Conducting a research brings many advantages educationally, professionally, and even personally. The educational advantages includes: enhancing the student learning experience through consultation model, learning about issues and methods in students' chosen fields, applying concepts learned in coursework to "real life" situations, sharpening problem-solving skills, and learning to read primary literature. Professionally, research encourages a person to explore and prepare for future careers, and to collaborate with others and work effectively as part of a team. At last, research also gives personal benefits, such as: growing as a critical, analytical, and independent thinker; meeting challenges and demonstrating the ability to complete a project; discovering personal interests; and developing internal standards of excellence.

As part of the requirements for the award of degrees in higher education institutions, students at university level normally carry out research, which they report in the form of theses. But not all of them fully understand how to design research proposal, even though there have been interference of discussion process with the consultants and board of examiners.

Purnawan (2009) showed that only less than 7% of the students' proposals can be categorized as effective and flawless, in the sense that they meet all the above requirements, while the rest contain either minor or serious flaws. The absence of obligatory moves dominated the problem, 26 proposals in total failed in this category. Lack of vocabulary mastery dominated the diction problem, resulting in unnecessary redundancies and repeated use of general words instead of technical terms related to research methodology. Grammatical mistakes occurred mostly in the wrong use of tenses, verb phrases, passives, and parts of speech. The flawed respondents did not seem to understand the quotation and citation rules. The methodological flaws were incomplete designs, wrong techniques of data analysis, and failure to answer the research questions.

Napitupulu and Manalu (2017) exposed some problems faced by the university students in writing their research proposal, such as: 1) unable to differentiate quantitative to qualitative research; 2) the inconsistency of title to content. 3) quoting irrelevant theories. 4) using irrelevant techniques of data collection and analysis.

This issue has been taken seriously by the researchers as a challenge to conduct an experimental research to solve the students' difficulties in designing a research proposal by applying Scientific Approach-Based English Learning Strategy (SABELS). This strategy was developed by Napitupulu, Siahaan and Manalu (2018) as an answer to the establishment of 2013 curriculum in which all learning process should be based on the 5 (five) steps of scientific approach (i.e. observing, questioning, collecting information, associating, and communicating).

Originally, a scientific approach or method is basically a common term used in the field of inquiry. "Scientific method" originated from the empiricist theory that views experience as a foundation or source of knowledge (Aspin, 1995: 21). This view also gained support from a philosophy of science called positivism that believes the goal of knowledge is derived from logical and report of sensory experience of phenomena (Godfrey-Smith, 2003). In a positivist view of the world, science was seen as the way to get at truth, to understand the world well enough so that wemight predict and control it. Therefore, this belief gave rise to a method of finding the truth called scientific approach.

Scientific approach is defined as the process of finding out information in science, which involves testing the ideas by performing experiments and making decisions based on the result of analysis. It means that scientific approach is a body of techniques for investigating phenomena, acquiring new knowledge, and correcting and integrating previous knowledge. Tang, et al. (2009) says that scientific approach has the characteristics of "doing science". This approach allows teachers to improve the process of learning by breaking the process down into steps or stages which contains detailed instructions for conducting students learning.

These two ideas became the basic of using scientific approach to be the basis for implementing the 2013 curriculum. In accordance with the standard competence of the 2013 curriculum, learning objectives should include the development of the realm of attitudes, knowledge, and skills. Attitudes are acquired through activity: accept, execute, respect, appreciate, and practice. Knowledge was gained through the activity of remember, understand, apply, analyze, evaluate, and create. Skills were acquired through activities of observing, asking, experimenting, reasoning, serving, and creating (Kemdikbud, 2013a).

According to Said, Sutadji, and Sugandi (2016), the use of scientific approach affected the students' ability, such as: (1) the students are more quickly to form a group when they are instructed by the teacher; (2) the students from the experimental group are more orderly and regulated when they do the tasks given by the teacher; (3) at the one learning process, it starts by forming a group to complete the learning materials obtained in the right time; (4) The students can measure their own abilities individually through interactive multimedia software when they learn individually; and (6) the teachers are more easily control the student development through the group-sheet.

Zaim (2017), in his article, argued that scientific approach can be applied as a strategy of teaching English as foreign language in Senior High School in Indonesia. It has been implemented well enough by the English teacher. Scientific approach is effective to make the students actively involved in the classroom activity so that their speaking and listening skill can be improved. In addition, Ratnaningsih (2017) confirmed that while implementing scientific approach, teachers can demonstrate the student-centered learning strengthened by collaborative, cooperative, active and meaningful learning.

Research Problem

Based on issues stated in background, the formulation of this research problem is: what is the effect of applying SABELS on students' ability in designing research proposal?

II. REVIEW OF RELATED LITERATURE

Scientific Approach –Based English Learning Strategy (SABELS)

As it is mentioned earlier in the background section, SABELS is a strategy developed by Napitupulu, Siahaan and Manalu (2018) to answer a challenge from the establishment of newest Indonesian Curriculum (called as 2013 Curriculum) demanding all learning process should be based on scientific approach. English, as a foreign language in Indonesia, has been taught many years in some ways of teaching English as foreign language (TEFL) methodology, such as: grammar translation method, direct method, audio-lingual method, and communicative language teaching method. This means the application of scientific approach in English learning is a new thing.

In line with the basic concept of scientific approach, SABEL strategy encourages students to learn English by curiosity. The learning steps are observing, questioning, collecting, associating, and communicating. The process of English learning is primarily motivated by their willingness to be able to speak and write in English. This means the teachers should be the ones who can develop creativity and innovation. There are 4 points to be considered and prepared by English teachers in applying this strategy. Firstly, audio-visual media is strongly needed to establish the context of material being learnt. This media is primarily used in the first step of learning process, i.e. observing. Teacher is required to be able to select approprite and relevant videos to the learning goal and material. Secondly, a prohibition to use any gadgets should not be existed. The use of internet will be very helpful for students to collect any information related to the learning topic. In this case, teacher should be careful in monitoring students' works in their gadgets. Teacher may lead them to access certain sites which are relevant to their tasks. Nevertheless, it will be much wiser, if the school provides secured or trusted network so that the inappropriate contents can not be accessed by the students. Thirdly, the integration of knowledge, skills, and character is a must in order to encourage students to be productive, creative, innovative,

and affective. Knowledge refers to linguistic competence, such as: phonology, morphology, syntax, semantics, pragmatics, and discourse. Skill involves receptive skills (listening and reading) and productive skills (speaking and writing). Character is all positive attitude in communication.

Lastly, the distribution of each learning steps (observing, questioning, collecting, associating, and communicating) is not limited to one meeting. Teacher may continue the learning steps in the next meetings. It depends on the level of difficulties of the materials.

Teaching and Learning Process in SABEL Strategy

Napitupulu, Siahaan and Manalu (2018) argued to achieve successful learning by using SABELS, the roles of teacher and students in teaching and learning process should be determined clearly. At first, teacher should be able to establish learning context. This may refer to the use of audio-visual media. By showing videos, it is expected the basic knowledge of the students will be activated. After that, teacher gives explanation related to learning material and also assign students to group work. While the students are in group work, teacher is supposed to monitor the learning process. Beside that, teacher is also expected to assist students group work in solving some problems they face during discussion. The last role of teacher is evaluating the discussion results.

Students, as the main actors of learning process, should be encouraged to do 5 steps of learning. The first step is observing where students will watch videos of learning material. Guided questions should also be provided in this step, in order to maintain the objective of using that media. In the next step, students will have chance to pose some questions related to what they have just watched from the media. At the beginning, it may seem difficult for students to give questions. In this case, teacher may help them by showing some examples of questions related to the materials. Students should be trained well in this steps since it will raise their curious to learn the topic. After that, they work in group to collect information related to some tasks given. The use of internet is really needed in this step. This makes teacher should allow and monitor the use of some gadgets. It is believed that the use of gadgets in learning process will bring an excitement to students so that learning will be more interested. Next is associating. This step refers to the process of understanding and analyzing information, and also designing the report of discussion. It may take much time to accomplish this step. That is why teacher should not limit the use of SABELS only for one meeting since the nature of scientific process can not be achieved instantly. The last step is students report their discussion results in form of presentation. This will encouraged students to be more responsible to what they have just learnt. While presenting the result, various responses and arguments may come from other students. Here, teacher is needed to mediate the issues arise. Students should be free to express their arguments as long as it is relevant to the topic. This action will train students to be critical.

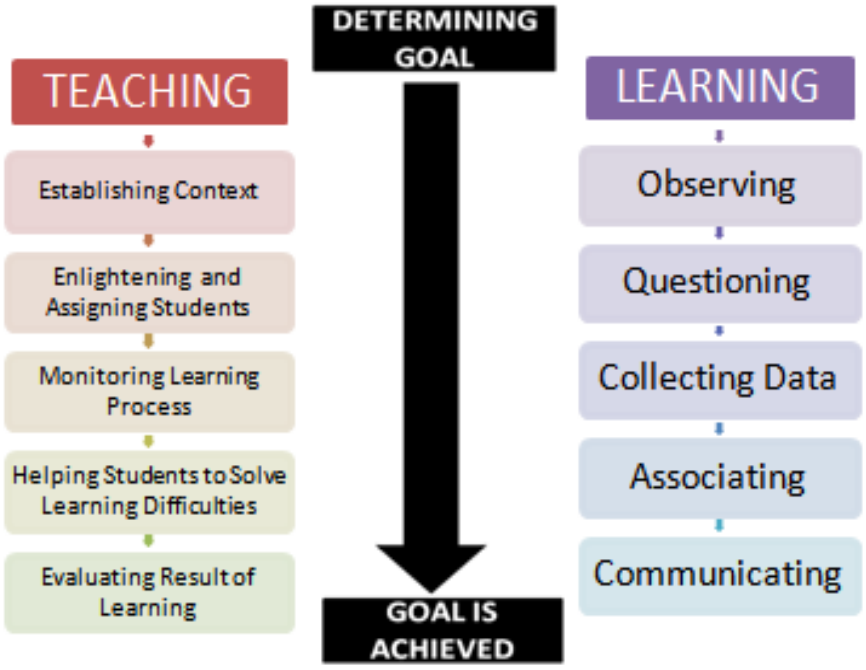

Figure 1. *Teaching and Learning Process in SABELS*

Steps to Implement SABELS

To make it applicable, Napitupulu, Siahaan and Manalu (2018) have designed steps of implementing SABELS. In the design, it is clearly shown the integration of three competencies (i.e linguistic knowledge, character building, and language skills) students should have in the end of a learning. Below is the design of steps to implement SABELS

Table 2.1 *Steps of Implementing SABELS*

No	Steps	Action		Linguistic Knowledge	Character Building	Language Skill	Media	Time (Minute)
		Teacher	Students					
A	OPENING							
1	Greetings	Greeting the students	Greeting their teacher		Respectful			10-15
2	Praying	Asking one of students to say a prayer	Praying		Religious			
3	Checking	Checking students' attendance	Responding to teacher's checking attendance		Discipline			
4	Apperception (activating prior knowledge)	1. Relating previous material to the on going material. 2. Explaining the learning goal of today's meeting	Giving attention and response to teacher's explanation		Logical			
B	CORE							
1	Observing	1. Showing a short video or audio recorder 2. Providing some probing questions related to learning topic (what, who, when, where, why, and how)	1. Watching short video or listen to audio recorder	Pronunciation, Meaning and Context	Curious	Listening	Short video, audio, list of questions	20-30
2	Questioning	1. Forming students' group work 2. Giving different task to each group 3. Explaining clear instruction to complete the task	1. Each group of students sits in circle form 2. Confirming what they should do (some questions may arise from students as they receive the tasks)	Vocabulary	Curious, cooperative		Textbook, powerpoint	10
3	Collecting Data	1. Monitoring and aiding students' work in groups	1. Each member of group gives participation to search sources of information (textbook, dictionary, and internet) 2. Selecting and deciding appropriate sources related to task	Vocabulary, Grammar	Independent, cooperative, curious	Reading	Textbook, dictionary, internet	20-30
4	Associating (Analyzing Data)	1. Monitoring and aiding students' work in groups	1. Discussing the task: each member should give point of view for each item of task. 2. Determining and writing the result of group work	Vocabulary, Grammar	Independent, cooperative, creative	Writing	Textbook, dictionary, internet	30-40
5	Communicating	1. Assessing the result of students' work (both writing and speaking) 2. Giving suggestions related to students' works	1. Presenting the result in form of role play, group presentation, or reading aloud 2. Giving chance to audiences to pose questions, or to give opinion and suggestion	Pronunciation, Fluency	Confident, communicative, critical	Speaking	Powerpoint, oral and written text, assessment rubric	50-60
C	CLOSING							
1	Conclusion	Asking students to give a brief conclusion (teacher may give the conclusion after the students stated theirs, or if none of the students can give the conclusion)	Giving conclusion		Confident, independent			10-15
2	Reinforcement	1. Giving appraisal to students' participation during learning process 2. Giving motivation 3. Giving further assignment as homework	Paying attention to teacher's reinforcement		Confident, independent			
3	Praying	Asking one of students to say a prayer	Praying		Religious			

III. RESEARCH METHODOLOGY

Research Design

This research uses design of non-randomized control group, pretest–posttest design. Ary, Jacobs, and Sorensen (2010: 316) argued that non-randomized control group, pretest–posttest design is used in a typical school situation, in which schedules cannot be disrupted nor classes reorganized to accommodate a research study. In such a case, researcher uses groups already organized into classes or other preexisting intact groups.

Table 3.1 *Research Design*

Group	Pre-Test	Treatment	Post-Test
Experimental	X_1	E	X_2
Control	Y_1	C	Y_2

Note:

X_1 and X_2 : Pre and Post Test conducted in experimental group
Y_1 and Y_2 : Pre and Post Test conducted in control group
E : Teaching by applying SABELS in experimental group
C : Teaching by applying conventional method in control group

Population and Sample

A population is defined as all members of any well-defined class of people, events, or objects, meanwhile a sample is a portion of a population (Ary, Jacobs, and Sorensen, 2010: 148). The population of this research is 235 undergraduate students of fifth semester, who contract Research Methodology Course, at English Study Program of Teacher Training and Education Faculty of Nommensen HKBP University in Pematangsiantar Municipality.

The sample is chosen by occupying random cluster sampling. It is a sampling technique used when "natural" but relatively heterogeneous groupings are evident in a statistical population. Students of Group G is as experimental group; and the control group is students of group F. Each of group consists of 35 students.

Data Collection

Test is conducted in order to get the data. The test is to design a quantitative research proposal which is conducted two times. The first is used as pre test and after treatment the second test wil be given as post test.

Validity and Reliability of Test

According to Fraenkel, Wallen, and Hyun (2012), validity refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes; while reliability refers to the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another. Both concepts are important to consider when it comes to the selection or design of the instruments a researcher intends to use.

Validity of Test

To make sure that the test is valid, content and criterion validity will be occupied. The content validity is achieved by clearly stating the objective of the test. the objectives of test in this research to measure the students' ability in designing research proposal.

The criterion validity is achieved by using appropriate scoring rubric. The rubric used in this research is adopted from English Department of Nommensen HKBP University (NHU), as follow:

Table 3.2 *Rubric to Score Student's Research Proposal*

NO	CRITERIA	DESCRIPTION	SCORE				
A	Content and Title	The consistency of title to the problem being discussed	1	2	3	4	5
B	The originality of idea	The recency of idea being developed	1	2	3	4	5
C	Table of content	The suitability of content to the proposal	1	2	3	4	5
D	Introduction	The clarity of research background	1	2	3	4	5
		The clarity of research problem	1	2	3	4	5
		The clarity of research purpose	1	2	3	4	5
		The clarity of research significance	1	2	3	4	5
E	Literature	The clarity of literature	1	2	3	4	5

	Review	The relevance of literature to research problem	1	2	3	4	5
		The recency of literature used	1	2	3	4	5
		The consistency of bibliography arrangement	1	2	3	4	5
F	Research Method	The suitability of method to problem	1	2	3	4	5
		The clarity of research design	1	2	3	4	5
		The clarity of collecting data technique	1	2	3	4	5
		The clarity of data analysis technique	1	2	3	4	5
G	Bibliography	The accuracy and consistency in writing references	1	2	3	4	5
H	Other Aspects	The suitability of proposal writing format	1	2	3	4	5
		The appropriateness of language use	1	2	3	4	5
TOTAL		$\sum$ = ...					
FINAL SCORE		($\sum$ / 90) x 100 =					

Note: (1=very poor, 2=poor, 3=sufficient, 4=good, 5=very good)

Reliability of Test

To achieve reliability, the test will be scored by two raters (interrater reliability). In this case the two raters are the researchers themselves. If the scorings do not show great discrepancy, it can be concluded that the test is reliable.

IV. DATA ANALYSIS AND FINDINGS

Data Analysis

Table 4.1 Pre-test and Post-test Scores in Experimental and Control Group

Students	Experimental Group			Control Group		
	Pre-test (x)	Post-test (y)	Range (d)	Pre-test (x)	Post-test (y)	Range (d)
1	62,22	71,11	8,89	70,00	76,67	6,67
2	65,56	75,56	10,00	55,56	60,00	4,44
3	50,00	67,78	17,78	70,00	74,44	4,44
4	68,89	77,78	8,89	66,67	70,00	3,33
5	71,11	80,00	8,89	55,56	61,11	5,55
6	51,11	63,33	12,22	63,33	70,00	6,67
7	50,00	67,78	17,78	71,11	73,33	2,22
8	56,67	68,89	12,22	51,11	55,56	4,45
9	53,33	66,67	13,34	66,67	70,00	3,33
10	70,00	78,89	8,89	64,44	71,11	6,67
11	64,44	73,33	8,89	65,56	74,44	8,88
12	75,56	84,44	8,88	73,33	76,67	3,34
13	55,56	67,78	12,22	60,00	68,89	8,89
14	63,33	70,00	6,67	66,67	75,56	8,89
15	76,67	86,67	10,00	55,56	57,78	2,22
16	50,00	63,33	13,33	50,00	53,33	3,33
17	60,00	67,78	7,78	71,11	76,67	5,56
18	62,22	70,00	7,78	70,00	77,78	7,78
19	51,11	62,22	11,11	62,22	68,89	6,67
20	67,78	75,56	7,78	50,00	52,22	2,22
21	60,00	71,11	11,11	56,67	60,00	3,33
22	66,67	76,67	10,00	46,67	48,89	2,22
23	64,44	74,44	10,00	67,78	71,11	3,33
24	65,56	77,78	12,22	60,00	64,44	4,44
25	80,00	86,67	6,67	63,33	68,89	5,56
26	60,00	71,11	11,11	76,67	80,00	3,33
27	74,44	81,11	6,67	70,00	74,44	4,44
28	77,78	86,67	8,89	55,56	60,00	4,44
29	67,78	75,56	7,78	75,56	82,22	6,66
30	60,00	68,89	8,89	62,22	70,00	7,78

31	61,11	67,78	6,67	64,44	72,22	7,78
32	66,67	74,44	7,77	74,44	85,56	11,12
33	55,56	65,56	10,00	66,67	71,11	4,44
34	70,00	77,78	7,78	48,89	52,22	3,33
35	62,22	73,33	11,11	77,78	81,11	3,33
∑	2217,79	2567,80	350,01	2226	2407	181,08
MEAN	63,37	73,37	10,00	63,59	68,76	5,17

The Progress of Students' Ability in Designing Research Proposal after Treatment

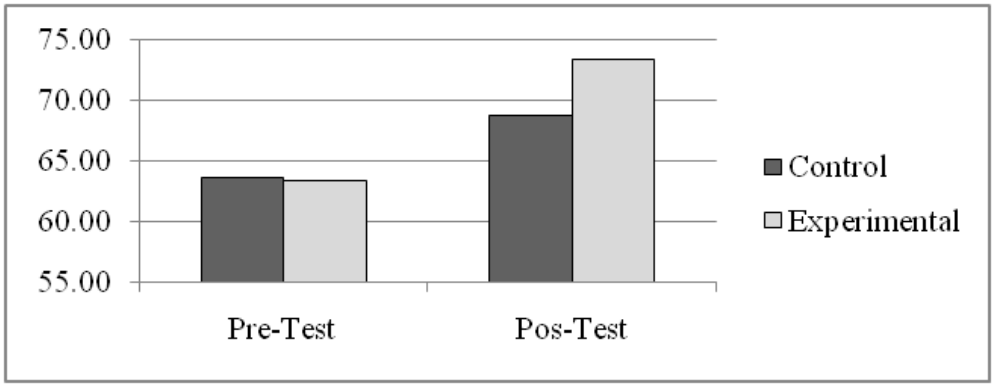

Table 4.2 Variance and Standard Deviation in Post Test of Experimental and Control Group

Students	Experimental Group				Control Group			
	x	X	(x-$\bar{X}$)	(x-$\bar{X}$)^2	x	X	(x-$\bar{X}$)	(x-$\bar{X}$)^2
1	71,11	73,37	-2,26	5,11	76,67	68,76	7,91	62,57
2	75,56	73,37	2,19	4,80	60,00	68,76	-8,76	76,74
3	67,78	73,37	-5,59	31,25	74,44	68,76	5,68	32,26
4	77,78	73,37	4,41	19,45	70,00	68,76	1,24	1,54
5	80,00	73,37	6,63	43,96	61,11	68,76	-7,65	58,52
6	63,33	73,37	-10,04	100,80	70,00	68,76	1,24	1,54
7	67,78	73,37	-5,59	31,25	73,33	68,76	4,57	20,88
8	68,89	73,37	-4,48	20,07	55,56	68,76	-13,2	174,24
9	66,67	73,37	-6,7	44,89	70,00	68,76	1,24	1,54
10	78,89	73,37	5,52	30,47	71,11	68,76	2,35	5,52
11	73,33	73,37	-0,04	0,00	74,44	68,76	5,68	32,26
12	84,44	73,37	11,07	122,54	76,67	68,76	7,91	62,57
13	67,78	73,37	-5,59	31,25	68,89	68,76	0,13	0,02
14	70,00	73,37	-3,37	11,36	75,56	68,76	6,8	46,24
15	86,67	73,37	13,3	176,89	57,78	68,76	-10,98	120,56
16	63,33	73,37	-10,04	100,80	53,33	68,76	-15,43	238,08
17	67,78	73,37	-5,59	31,25	76,67	68,76	7,91	62,57
18	70,00	73,37	-3,37	11,36	77,78	68,76	9,02	81,36
19	62,22	73,37	-11,15	124,32	68,89	68,76	0,13	0,02
20	75,56	73,37	2,19	4,80	52,22	68,76	-16,54	273,57
21	71,11	73,37	-2,26	5,11	60,00	68,76	-8,76	76,74
22	76,67	73,37	3,3	10,89	48,89	68,76	-19,87	394,82
23	74,44	73,37	1,07	1,14	71,11	68,76	2,35	5,52
24	77,78	73,37	4,41	19,45	64,44	68,76	-4,32	18,66
25	86,67	73,37	13,3	176,89	68,89	68,76	0,13	0,02
26	71,11	73,37	-2,26	5,11	80,00	68,76	11,24	126,34
27	81,11	73,37	7,74	59,91	74,44	68,76	5,68	32,26
28	86,67	73,37	13,3	176,89	60,00	68,76	-8,76	76,74
29	75,56	73,37	2,19	4,80	82,22	68,76	13,46	181,17
30	68,89	73,37	-4,48	20,07	70,00	68,76	1,24	1,54
31	67,78	73,37	-5,59	31,25	72,22	68,76	3,46	11,97

32	74,44	73,37	1,07	1,14	85,56	68,76	16,8	282,24
33	65,56	73,37	-7,81	61,00	71,11	68,76	2,35	5,52
34	77,78	73,37	4,41	19,45	52,22	68,76	-16,54	273,57
35	73,33	73,37	-0,04	0,00	81,11	68,76	12,35	152,52
$\sum(x-\bar{X})^2=\sum d^2$				1539,70	$\sum(x-\bar{X})^2=\sum d^2$			2992,23

The following is the standard deviation of post-test in experimental group:

$$S^e = \sqrt{\frac{\sum d^2}{N-1}}$$

$$S^e = \sqrt{\frac{1539,70}{35-1}}$$

$$S^e = 6,73$$

The following is the standard deviation of post-test in control group:

$$S^c = \sqrt{\frac{\sum d^2}{N-1}}$$

$$S^c = \sqrt{\frac{2992,23}{35-1}}$$

$$S^c = 9,38$$

Testing Hypothesis
Standard Error of the Difference of Mean:

$$SE\ (\chi e - \chi c) = \sqrt{\left(\frac{se}{\sqrt{N1}}\right)^2 + \left(\frac{sc}{\sqrt{N2}}\right)^2}$$

$$SE\ (\chi e - \chi c) = \sqrt{\left(\frac{6,73}{\sqrt{35}}\right)^2 + \left(\frac{9,38}{\sqrt{35}}\right)^2}$$

$$SE\ (\chi e - \chi c) = 1,95$$

Finding out t-test:

$$t_{test} = \frac{\bar{X}e - \bar{X}c}{SE\ (\chi e - \chi c)}$$

$$t_{test} = \frac{73,37 - 68,76}{1,95}$$

$$\boldsymbol{t_{test} = 2,36}$$

Finding out the degree of freedom (df) as follow:
df : (Ne-1) + (Nc-1)
: (35-1) + (35-1)
: 34 + 34
: 68
t-table at 5% of level of significance is **1,667**
Based on formula of hypothesis which was designed before, Null Hypothesis is rejected if t-test is higher than t-test. Referring to this, so the hypothesis can be constructed as follow:
t-test > t-table of 5%
2,36 > 1,667
As the score of t-test (2,36) is higher than t-table (1,667) at level of significant 5% for two tailed test, so null hypothesis is rejected and alternative hypothesis is accepted.

Findings

The findings of this research are:

1. The effect of applying SABELS is more significant than conventional strategy in designing research proposal at English Study Program of Teacher Training and Education Faculty of Nommensen HKBP University in Pematangsiantar Municipality.
2. The difference or the improvement as the whole students got in post test from control to experimental group is 161,14 or 4,60 point in average.
3. The total sum squares of the respondents at the time of administering the post-test in experimental group is 1539,70 where its standard deviation is 6,73.
4. Meanwhile, the total sum squares of the respondents at the time of administering the post-test in control group is 2992,23 where its standard deviation was 9,38.
5. Testing hypothesis shows that t-test (2,36) was higher than t-table (1,667) at level of significant 5% for two tailed test.

Discussion

The application of SABEL strategy is indeed able to improve quantitatively the students' ability in designing research proposal. However, in detail, some aspects of research proposal design still become a serious problem.

The first aspect is the originality of idea being developed. Most of the students used and copied their senior thesis or assignment, which is in this case, it may defined as an action of plagiarism. This is caused by lack of ability in identifying a research problem and experience in the location of research.

In line with that, the vagueness of research background is another problem caused by the same reason as above. Just a few students wrote their background effectively, while others included irrelevant information in introducing the problem being discussed in the proposal. This may bring readers and examiners to confusion since the paragraphs did not focus on specific topic. The urgency of doing a research has also become unclear.

The last aspect is the use of relevant literature to research problem. Indeed, students had chosen relevant literature. Nevertheless, not all of them understand what literature means. In their perspective, literature means any information comes from book. Their references are full of books which introduce the theories they used, meanwhile research journals are rarely found. It is caused by their action of plagiarism as stated before. They tend to copy all the references without any intention to read other sources such as online research journals which is being popular nowadays.

V. CONCLUSION AND SUGGESTION

Conclusion

Using Scientific Approach Based English Learning Strategy (SABELS) is effective to develop students' ability in designing research proposal at English Study Program of Teacher Training and Education Faculty of Nommensen HKBP University in Pematangsiantar Municipality.

The process of learning leads the students to be productive, creative, innovative, and affective since knowledge, skills, and character are integrated. Moreover, students are the learning center who independently choose their research topic and focus, and design the research plan. However, teacher's role is also essential to facilitate, assisst, monitor, and evaluate learning process. Otherwise, the learning goals and outcomes cannot be defined as achieved or successful.

Suggestion

Related to the finding of this research, some suggestions are addressed to:

a. Professors, lecturers, and teachers of English. Using SABELS is highly recommended since it produces an active learning. What the students need nowadays is up-to-date learning process. No one can give information as fast and accurate as Google. Students tend to use this engine search in completing all their needs. This new change should motivate us, educators, to upgrade our knowledge, and also to use it as our teaching media.
b. Other relevant researchers. It is suggested to apply this new strategy as solution to teaching problem in other learning subjects and research fields.
c. Principals. The success of SABELS application depends on learning facilities. The demand of using new and online technologies in this fourth industrial revolution drives innovation in education. It is essential to provide these technologies in classroom.

REFERENCES

[1]. Ary, D., Jacobs, L. C.,& Sorensen, C. K. (2010). *Introduction to research in education*. 8th ed. California: Wadsworth

[2]. Aspin, D. N. (1995). Logical empiricism, post-empiricism and education. In P.Higgs (Ed.). *Meta theories in philosophy of education* (p. 21 – 99). Johannesberg: Hieeman

[3]. Bell, J. (1999). *Doing your research project: A guide for first-time researchers in education and social science*. 3rd ed. Buckingham: Open University Press

[4]. Creswell, John W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* 4th ed. Boston: Pearson

[5]. Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education*. 8th ed. New York: McGraw-Hill

[6]. Godfrey-Smith, P. (2003). *Theory and reality: An introduction to philosophy of science.* Chicago: The University of Chicago Press

[7]. Hatch, E. & Farhady, H. (1982). *Research design and statistics for applied linguistics.* Massachusetts: New-Bury House Publishers**.**

[8]. Hosnan (2014). *Pendekatan saintifik dan kontekstual dalam pembelajaran abad 21: Kunci sukses implementasi Kurikulum 2013.* Bogor: Ghalia Indonesia

[9]. Intansari, R. (2013). Teachers' strategy in implementing English curriculum in a junior high school in Indonesia. *Indonesian Journal of Applied Linguistics*, *2*(2), 226-235

[10]. Napitupulu, S., & Manalu, D. B. (2017). Developing students' research proposal design through group investigation method. *IOSR Journal of Research & Method in Education, 7*(1), 37-43

[11]. Napitupulu, S., Siahaan, S., & Manalu, D. B. (2018). *SABELS (Scientific Approach Based English Learning Strategy)*. Medan: Kementrian Hukum dan Hak Asasi Manusia

[12]. Nunan, D. (1992). *Research methods in language learning***.** Cambridge: Cambridge University Press

[13]. Paltridge, B.,& Starfield, S. (2007). *Thesis and dissertation writing in a second language: A handbook for supervisors*. New York: Routledge

[14]. Peraturan Menteri Pendidikan dan Kebudayaan Nomor 65 Tahun 2013 tentang *Standar Proses Kurikulum 2013*

[15]. Peraturan Menteri Pendidikan dan Kebudayaan Nomor 81A Tahun 2013 lampiran IV tentang *Implementasi Kurikulum Pedoman Umum Pembelajaran*

[16]. Purnawan, A. (2009). *Common flaws in students' research proposals*. Proceeding of international seminar on education: Responding to global education challenges: p.261-270.

[17]. Ratnaningsih, S. (2017). Scientific approach of 2013 curriculum: Teachers' implementation in English language teaching. *English Review: Journal of English Education, 6*(1)

[18]. Said, I. M., Sutadji, E., & Sugandi, M. (2016) The scientific approach-based cooperative learning tool for vocational students vocation program of autotronic (automotive electronic) engineering. *IOSR Journal of Research & Method in Education*, *6*(3), 67-73

[19]. Tang, X., Coffey, J. E., Elby, A., & Levin, D. M. (2009). The scientific method and scientific inquiry: Tension in teaching and learning. *Science Education*, *94*(1), 29-47

[20]. Thelen, H. (1960). *Education and the human quest*. New York: Harper and Row

[21]. Wilkinson, A. M. (1991). *The Scientist's handbook for writing papers and dissertations*. Englewood Cliffs, NJ: Prenctice Hall

[22]. Zaim, M. (2017). Implementing scientific approach to teach english at senior high school in Indonesia. *Asian Social Science*, *13*(2), 33-40

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