

The Effect of Learning Approach and Personality Type Towards Learning Outcomes

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Abstract - This research aims to find out: (1) the difference between students' English learning outcomes whose taught using Scientific Learning Approach with Communicative Learning Approach (2) the difference between students' English learning outcomes who have Sanguine, Choleric, Phlegmatic and Melancholic Personality (3) interaction between learning approach and personality type that effect students' English learning outcomes. The research method was quasi-experimental study using factorial 2x4 designs. The instrument used was English test which consist 35 multiple choices and instrument used was personality type which consist 40 questionnaire statements. The technique of data analysis using ANOVA two ways. The Conclusion of the research are as follows (1) there is difference between students' English learning outcomes which is taught using Scientific Learning Approach with Communicative Learning Approach. The learning outcomes of English taught using Scientific Learning Approach is higher than the learning outcomes of English taught using Communicative Learning Approach, (2) there is a difference between student's English learning outcomes who have Sanguine, Choleric, Phlegmatic and Melancholic Personality. The learning outcomes of English of Sanguine Personality is higher than Choleric, Phlegmatic and Melancholic Personality (3) there is significance interaction between the use of learning approach and the personality type on learning outcomes.

Keywords: *scientific learning approach, personality type, english' learning outcomes.*

I. INTRODUCTION

Language is a medium to communicate in the implementation of learning, so that language has an important role in the intellectual, social, emotional development of students and a supporter of success in learning teaching materials. English is a worldwide language spoken throughout all parts of life such as in the arts, sciences, human sciences, travel and the social sciences. Survey English First which

announced the results of the survey of English Proficiency in Indonesia in 2016 with a score of 52.91 Indonesia. This score put Indonesia in 32nd position from 72 countries surveyed globally. It shows if the English language skills of Indonesian society is still very low. Indonesia achieved lower scores compared to some of its neighbors in the region, including Vietnam in 31st position. Another fact is seen directly in the decline in the value of subjects on the implementation of the National Exam junior level in Indonesia in 2016. As disclosed the Minister of Education and Culture in case of impairment in English subjects of 2.84 points from the previous year. The low learning result of English can also be seen from the observations conducted by researchers in SMP Negeri 6 Medan, seen the result of learning English class VII in the last 3 years.

The main problem in learning English is that students have less mastery of English grammar, especially about how to compose sentences, how to use appropriate words and verbs according to time changes. Students may be able to remember all the English grammar rules when they are asked to mention the rules of grammar they were able to answer them well. However, most students difficult to express their thoughts in the form of spoken language and written language well [1]. Other facts that occur in the field in teaching and learning process teachers usually only use lecture methods, question and answer and assignment, so that student are less interested in the lessons and passive in the learning process. This condition can make students not interested in learning activities. This has an impact on student learning outcomes.

According to research from Jumardi (2014) the use of student centered approach can improve student learning outcomes [2]. One learning approach in Indonesia is a scientific approach. The scientific approach includes; observing, questioning, gathering information, associating and communicating. In traditional teaching the teacher engages the students in a series of tasks that do not give them the

opportunity to develop an in-depth understanding of how to build a convincing scientific argument through the collection of evidence. The acquisition of knowledge must be built through life experiences, especially through participation and interaction with others in meaningful activities. Teachers need to involve students in learning activities where they actually do themselves with the experiences that teachers create. In the application of a scientific approach is in need of a reliable teacher, where teachers are required to be more creative so that learners interested and active in the learning process. Learning using the scientific approach of teachers is no longer a learning center but centered on the students themselves. That is, the scientific approach is intended to provide an understanding to learners in knowing, understanding the various materials using a scientific approach, that information can come from anywhere, anytime, regardless of teacher's in-line information [3]. Some important principles of learning with a scientific approach include; student-centered learning, learning encourages the improvement of students 'thinking ability, and learning improves students' learning motivation.

The scientific approach is highly relevant to three learning theories: Bruner's theory, Piaget's theory, and Vygotsky's theory. Bruner's learning theory is also called discovery learning theory. There are four main points related to Bruner's theory of learning [4]. First, the individual only learns and develops his mind when he uses his mind. Secondly, by performing cognitive processes in the process of discovery, students will gain intellectual sensation and satisfaction which is an intrinsic reward. Third, the only way that one can learn the techniques of discovery is that he has the opportunity to make discoveries. Fourth, by making the discovery it will strengthen the retention of memory. The above four points are consistent with the cognitive processes necessary for learning using a scientific approach. The Piaget theory, states that learning is concerned with the formation and development of schemes. Vygotsky Theory, states that learning occurs when learners work or learn to handle unasked tasks, problem-solving skills under the guidance of more capable adults or peers.

Based on these three theories can see how humans do the discovery by thinking up to the ability in solving problems under the guidance of adults or more capable. Conforming with constructivism theory, educators must place themselves in the role of facilitator for learners. This is in line with the intent and purpose of learning using a scientific approach. That in the learning process learners are required actively and the task of an educator the task of an educator is to facilitate learners for the creation of desired learning. The essence of this approach expects students to observe, question, reason, try, communicate (create networks) of everything related to the learning process itself. Through this approach, students are expected to think scientifically and can learn and work in groups solve problems given teachers so as to achieve optimal learning achievement.

Another approach used by teachers in schools is the communicative approach. The communicative approach is based on the belief that language learning is not only determined by how to teach certain aspects of the language

but is pursuing various exercises that provide opportunities for students to develop their language skills.

One of the things that need to be considered in the factors that influence the learning outcomes is personality. In the psychological world, there are four personalities first introduced by Hippocrates (460-370 SM). Hippocrates' opinion is refined by Galenus (129-200 SM) which suggests that in the human body there are four kinds of personality that become characteristic of psychiatric characteristic of human being, sanguine, choleric, melancholy and phlegmatic [5]. Research about relationship of personality type sanguine, choleric, melancholy and phlegmatic to the learning outcomes has been done by Nesia (2011) who found if by paying attention to the student personality type in the learning process there is an increase in the cumulative achievement index in the students. With very good interaction level. The greatest value was found in the choleric personality type with a percentage of 3.750 with a comparison of phlegmatic personality types showing that choleric had a 3.75 times higher chance of achieving satisfactory performance than choleric and other personality types. This proves if the relationship of learning outcomes and personality types also have a close relationship [6].

According to research from Wartini (2014) who found there are differences in student learning outcomes that follow the learning with the scientific approach and students who follow conventional learning produce F value of 31.172 > F table (4.08) with significance less than 0.05. It is also supported by the average score of Civic learning outcomes that follow the learning with a scientific approach of 33.87 which is at intervals of 36 - 40. Based on the results category table is very high category. While the scores of students who followed the learning with conventional models average score of 29.13 are at intervals 26 - 31.6. Based on category tables including medium category [7].

Both research results above are also reinforced by Kumaravadivelu, according to him that the learning outcomes achieved by an individual is the result of interaction between various factors that influence it, both internal and external factors. Internal factors, including: age, characteristics, anxiety, empathy, personality, risk taking, attitude, and motivation. While external factors, such as: approaches, models, strategies and methods, learning, social environment and learning environment [8].

In relation to the above, the purpose of this research is (1) to find out English learning result student that is taught by scientific approach is higher than the result of learning English student which is taught by the approach of communicative learning (2) to know the difference of English learning result students who have sanguine personality type with English learning result of students who have personality type choleric, phlegmatic, and melancholy (3) to know the interaction between learning approach and student personality type to English learning result.

II. METHOD

This research was conducted in SMP Negeri 6 Medan having address at Jalan Bahagia No. 42 in class 7th grade in the academic year 2016 / 2017. The population in this study is all students of class 7th grade SMP Negeri 6 Medan consisted of 11 classes year 2016/2017 classes of classes 7th grade A until 7th grade E consist of students 396 students. The sampling technique in this research is by cluster random sampling technique, class 7th grade A amounted to 35 students of the class given the learning with scientific approach and 7th grade E amounted to 34 students of the class given the learning with communicative approach at SMP Negeri 6 Medan.

The method used in this research is the experimental method (quasi experiment). The research design used is the factorial design 2 x 4, which compares the scientific approach and the communicative approach to personality type sanguine, choleric, melancholy, phlegmatic.

Table I. Research Design

Personality Type (B)	Learning Approach (A)	
	Scientific (A ₁)	Communicative (A ₂)
Sanguine (B ₁)	A ₁ B ₁	A ₂ B ₁
Choleric (B ₂)	A ₁ B ₂	A ₂ B ₂
Phlegmatic (B ₃)	A ₁ B ₃	A ₂ B ₃
Melancholy (B ₄)	A ₁ B ₄	A ₂ B ₄

A₁B₁ : English learning outcomes are taught by scientific approach to students with sanguine personality type

A₁B₂ : English learning outcomes are taught by scientific approach to students with choleric personality type

A₁B₃ : English learning outcomes that are taught by a scientific approach to students with phlegmatic personality types

A₁B₄ : English learning outcomes are taught by a scientific approach to students with melancholy personality types

A₂B₁: English learning outcomes are taught by communicative approaches to students with sanguine personality type

A₂B₂: English learning outcomes that are learned by communicative approach to students with choleric personality type

A₂B₃ : English learning outcomes learned by communicative approaches to students with phlegmatic personality types

A₂B₄: English learning outcomes are taught by communicative approaches to students with melancholy personality types

Technique data collection in this study is to use test and questionnaire techniques. The test is used to obtain English learning result data and questionnaire to determine student personality type. The test is used to obtain student data of English learning result. The form of English learning result test used is multiple choice test form. Test results of learning English conducted as many as 35 questions. Questionnaire type personality developed from Florence Littauer in his Personality Plus. The instruments in the study used indicators in each personality type. Questionnaires are created so that students must choose the appropriate statement by giving a check list (√).

The questionnaire scale used is likert scale with 5 choices. The instrument test is performed to obtain valid and reliable

research instruments. The goal is to see whether the instrument is capable of measuring what should be measured (validity) and reliability of the instrument (reliable). It also sees the level of difficulty and distinguishing power of each item tested. In this research the experiments were conducted on the students of 8th grade SMP Negeri 6 Medan.

Data analysis technique used is descriptive and inferential statistic technique. Descriptive analysis techniques used to describe data, among others; average, median, mode, variance, and standard deviation values. Inferential statistic technique is used to test the research hypothesis, where the inferential technique to be used is two way Analysis Variance (factorial 2 x 4) with significant level 0.05. Prior to the two-way Anava, the first test requirement analysis was performed which included normality test and homogeneity test. Normality test using liliefors test, while homogeneity test used Fisher test and Bartlett test. When the two way Anava test is significant, then a further test is performed using the scheffe test. If the number of samples from each cell in the study design is not the same, but if found the number of participants for each cell is the same then the test will be continued using the tuckey test. All tests were performed at the 0.05 level.

To test the hypothesis, formulated statistical hypothesis as follows:

a. The first hypothesis

Ho: $\mu A_1 < \mu A_2$

Ha: $\mu A_1 > \mu A_2$

b. Second Hypothesis

Ho: $\mu B_1 = \mu B_2 = \mu B_3 = \mu B_4$

Ha: $\mu B_1 \neq \mu B_2 \neq \mu B_3 \neq \mu B_4$

c. Third Hypothesis

Ho: $A > < B = 0$

Ha: $A > < B \neq 0$

III. RESULTS

The first, second and third hypothesis testing was performed using two-way Anava.

Table II. Summary of Anava two way

	dk	JK	RJK	Fh	Ft
(A)	1	45.25	45.25	6.62	3.9
(B)	3	115.15	38.38	5.61	2.7
(AB)	3	90.18	30.06	4.40	2.7
Galat	61	416.72			
Total	68	667.30			

The interaction of learning approach and personality type to students' learning achievement can be described below:

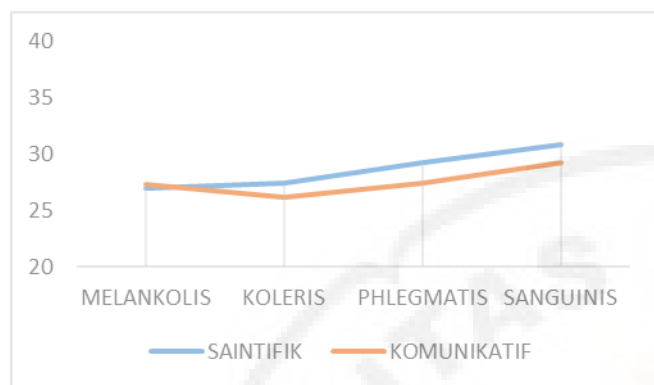


Figure 1. Interaction learning approach and personality type

Based on the results of the first hypothesis testing then the results of hypothesis calculation obtained $F_{\text{calculated}} = 6.62$. For the distribution value $F_{\text{table}} = 3.9$ then this result indicates that $F_{\text{calculated}} > F_{\text{table}}$ so as to give decision that H_0 rejected and H_a accepted. Thus, the proposed research hypothesis that the result of learning English students class scientific approach is higher than the result of learning English students class communicative approach.

Appropriate with the results of research Ida Ayu (2014) which states that there is an increase in student learning outcomes by using a scientific approach to learning. According to Ida's research, the scientific study approach provides opportunities and opportunities for students to think more and reason about what students are learning. This approach also encourages students to perform skills skills such as observing, questioning, gathering information, associating, and communicating. Where students here in demand must be active in doing these skills in private. The scientific approach can also develop the attitudes, skills and knowledge of learners. The application of scientific approach in learning not only focus on how to develop the competence of learners in doing the observation or experiment, but how to develop the knowledge and skill of thinking so as to support the creative activity in innovate or work. Through a series of learning that uses a scientific approach then student learning outcomes include the cognitive domain, affective domain, and psychomotor domain can be trained.

While the communicative approach is an approach that prioritizes the purpose of teaching that emphasizes the function of language as a communication tool. The focus of the communicative approach lies in how language is used as a communication tool rather than a grammatical structure. Whereas learning outcomes at school is not just about using the language / skill of students in mastering the language but also the students' understanding of the structure of grammar.

From the above description, it can be seen that the students' learning outcomes related to the cognitive aspect very developed in the approach of scientific learning. Thus, it is clear that using a scientific approach will have a better impact on learning English than learning using a communicative learning approach.

From the results of the second hypothesis calculation obtained $F_{\text{count}} = 5.61$. For the value of the distribution $F_{\text{table}} = 2.7$ then this result shows that $F_{\text{calculated}} > F_{\text{table}}$ so

as to give a decision that H_0 rejected and H_a accepted. Thus, the research hypothesis proposed that there are differences in English learning outcomes of students with sanguine personality type with the result of learning English students with the type choleric, phlegmatic and melancholy personality. The results show that the average value of English learning outcomes of students who have sanguine personality type is higher than that of students with phlegmatic, choleric and melancholy personality types. This indicates that students who have sanguine personality types are better able to understand English lessons compared to students with phlegmatic, choleric and melancholy personality types. The results of the researchers' observations during the learning process showed that students who belong to sanguine personality type tend to be more sociable, mingle with new environment, active in group or person, more motivated and enthusiastic follow learning, more confident in asking questions, answering questions, opinion. Students who have sanguine personality type also do not feel afraid of wrong or different opinions with other students and more have mutual respect.

Based on the above descriptions, it is clear that students who have sanguine personality type get higher learning outcomes than students with phlegmatic, choleric and melancholy personality types. Can be concluded if there are differences in English learning outcomes of students who have sanguine personality type with other personality types.

From the results of the third hypothesis calculation obtained $F_{\text{count}} = 4.40$. For the value of the distribution $F_{\text{table}} = 2.7$ then this result shows that $F_{\text{calculated}} > F_{\text{table}}$ so as to give a decision that H_0 rejected and H_a accepted. Thus, the proposed research hypothesis that there is interaction between learning approach and personality type to English learning outcomes. When viewed from the average English learning outcomes in groups of students who have sanguine personality type and are taught with a scientific approach to learning is higher than the average learning outcomes of other student groups. This is because learners can follow the learning well, where learners are able to solve the problems posed, the learning approach that can foster the spirit of learners in learning. Meanwhile, in teaching and learning activities, either in a scientific approach or communicative approach can take place interactively because the atmosphere of learning is fun.

Learning using the scientific approach of teachers is no learning center but centered on the students themselves. That is, the scientific approach is intended to provide an understanding to learners in knowing, understanding the various materials using a scientific approach, that information can come from anywhere, anytime, regardless of teacher's in-line information [3]. The essence of this approach expects students to observe, question, reason, try, communicate (create networks) of everything related to the learning process itself. Through this approach students are expected to think scientifically and can learn and work in groups solve problems given teachers so as to achieve optimal learning achievement.

IV. CONCLUSION

First, the results of learning English in the classroom with a scientific approach is higher than the result of learning English in the classroom with a communicative approach in students of SMP Negeri 6 Medan. Secondly, there are differences in English learning outcomes of students with sanguine personality type with students learning English with phlegmatic, choleric and melancholy type. Third, there is an interaction between learning approach and personality type to English learning outcomes in SMP Negeri 6 Medan students.

REFERENCES

- [1] A. Bibi. The Comparative Effectiveness of Teaching English Grammar with The Help of Textbook and by Using Group Work Activities. 2002. Islamabad: Journal of Allama Iqbal Open University."in press".
- [2] Jumardi. Pengaruh Pendekatan Pembelajaran dan Gaya Belajar Terhadap Hasil Belajar Sejarah Siswa. Jurnal Pascasarjana Universitas Negeri Jakarta. 2004. Volume 3 No.1. "unpublished".
- [3] Daryanto. "Pendekatan Pembelajaran Saintifik Kurikulum 2013". Yogyakarta. 2014. Gava Media.
- [4] A.A. Carin & R.B. Sund. "Teaching Science Through Discovery". Colombus. 1975. Merril Publishing Company
- [5] N. Sukmadinata, 2003. "Landasan Psikologi Proses Pendidikan". Bandung: Remaja Rosdakarya
- [6] Nesia. Hubungan Antara Tipe Kepribadian dengan Indeks Prestasi Kumulatif Mahasiswa Program A Fakultas Keperawatan Universitas Sumatera. 2011. Jurnal Keperawatan Universitas Sumatera Utara."unpublished"
- [7] M. Wartini, Pengaruh Implementasi Pendekatan Saintifik Terhadap Sikap Sosial dan Hasil Belajar Pkn di Kelas VI SD Jembatan Budaya. Jurnal Pascasarjana Universitas Pendidikan Ganesha. Volume 4. "unpublished"
- [8] B. Kumaravadivelu. 2006. "Understanding language teaching from method to post method". New Jersey: LEA Publis