

The Effects of Formative Tests and Students' Thinking Styles on English Study

Pengaruh Ujian Formatif dan Gaya Pemikiran Pelajar dalam Mempelajari Bahasa Inggeris

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ABSTRACT

English has a position as a foreign language in Indonesia and universal language in the world. It means that, English is very important as a tool of communication for most countries in the world. Therefore, Indonesian government put English in the curriculum 2006 as one of the subjects which has to be taught in Senior High School. On the other hand, many students have difficulties in studying English because English is not their first language. The students need given a formative test in studying English. The objective of this study is to analyze and to find out the influences of formative test and students' thinking style in studying English. The thinking style used in the study is lateral and vertical thinking styles with formative essay and multiple-choice tests. This study uses quantitative method. The design of this study is experimental design. The result of calculation showed that in the significance degree of 5%, the variant analyzes with Turkey-test to saw which one the groups is more excellent than others. The result showed that: first, there was a significant difference between students who were given formative essay and multiple-choice tests ($F_h = 4,189 > 4,043 = F$); second, there was a significant difference between students who had lateral and vertical thinking styles ($F_h = 4,238 > 4,043 = F$); third, there was correlation between formative test and students' thinking style toward students' ability in studying English ($F_h = 25,237 > 4,043 = F$). Based on the criteria of the test showed that students who have been given formative essay test with lateral thinking style was effective than students who have been given multiple-choice test with vertical thinking style in studying English at the classroom.

Keyword: The influences; formative test; thinking style; studying English

ABSTRAK

Bahasa Inggeris di Indonesia mempunyai kedudukan sebagai bahasa asing dan bahasa dunia yang bersifat universal. Hal ini dimaksudkan bahawa bahasa Inggeris sangat penting, sebagai alat komunikasi bagi kebanyakan negara di dunia. Oleh itu, pemerintah Indonesia telah meletakkan bahasa Inggeris sebagai salah satu mata pelajaran yang harus diajarkan dalam kurikulum Sekolah Menengah Atas (SMA) pada tahun 2006. Namun, pelajar-pelajar didapati menghadapi kesukaran dalam mempelajari bahasa Inggeris kerana bahasa Inggeris bukan bahasa pertama bagi mereka. Oleh itu, pelajar perlu diberi ujian formatif dalam mempelajari Bahasa Inggeris. Maka, objektif kajian ini adalah untuk mengenal pasti dan menganalisis pengaruh ujian formatif dan gaya berfikir pelajar dalam mempelajari bahasa Inggeris. Gaya berfikir yang digunakan dalam kajian ini adalah gaya berfikir lateral dan menegak dengan karangan formatif dan ujian pilihan ganda. Kajian ini menggunakan kaedah kuantitatif dengan kajian reka bentuk bersifat eksperimen. Hasil analisis menerusi ujian Turkey menunjukkan tahap keertian 5% varian digunakan untuk melihat kumpulan yang lebih baik daripada yang lain. Hasilnya, menunjukkan bahawa: Pertama, terdapat perbezaan yang signifikan antara pelajar yang diberi esei formatif dan ujian pilihan ganda ($F_h = 4,189 > 4,043 = F$); Kedua, terdapat perbezaan yang signifikan antara pelajar yang mempunyai gaya berfikir lateral dan menegak ($F_h = 4,238 > 4,043 = F$); Ketiga, terdapat hubungan antara ujian formatif dan gaya berfikir pelajar terhadap kemampuannya dalam mempelajari bahasa Inggeris ($F_h = 25,237 > 4,043 = F$). Berdasarkan ujian kriteria menunjukkan bahawa pelajar yang telah diberi ujian esei formatif dengan gaya berfikir lateral adalah lebih berkesan daripada pelajar yang telah diberi ujian pilihan ganda dengan gaya berfikir menegak dalam mempelajari bahasa Inggeris di bilik darjah.

Kata kunci: Pengaruh; ujian formatif; gaya berfikir; mempelajari bahasa Inggeris

INTRODUCTION

English is one of subject which has to be taught at school in Indonesia. English has a position as

foreign language in Indonesia. Therefore, English has an important position to develop a country because English is a universal language in the world. Then, English in Indonesia put in the curriculum

2006. In the curriculum, English developed of 4 skills, there are: listening, speaking, reading and writing. The orientation of learning based on the skills have purpose to improve the students' ability in communication (Nurhayati 2008:110). Sudjana (2009:22) states that there are two main factors to influence students' ability in learning that are: first, the factor of students' self which are their ability, learning motivation, students' interest, attitude and habit learning, diligence, economic social, physical and psychological. Second, the factor of students' outside especially is the quality of teaching. However, students' habit learning is related to students' learning style and students' thinking style. Students' thinking style is indicated from the outcome of test which has given by the teacher, so the outcome of study can influence by the test and the students' thinking style.

Moreover, according to Waluyo (2009:24), the students' ability in teaching and learning process is appropriate with the purpose of education. Apart from that, according to Purwanto (2013:49), the main outcome of teaching is students' ability in studying based on the curriculum and the purpose of studying. In the curriculum 2006 has the orientation of studying based on the improvement of students' ability in communication. The communication is measured by the teacher to indicate students' difficulty in studying so the teacher can determine the appropriate treatment to the students (DEPDKNAS 2006: 12). In this case, formative test needs to give for the students when the last material which has taught. Thus, the teacher can help the students to be more understand about the material. It makes the purpose of studying can be achieved. In this article, students will be given the formative test to assess their ability in studying English. The ability means that the cognitive process based on the basic competence in the purpose of studying on GBPP (*Garis Besar Program Pengajaran*) in 1994. Then, it was discussed on GBPP 1999, GBPP

KBK (Kurikulum Berbasis Kompetensi) and GBPP KTSP (Kurikulum Tingkat Satuan Pendidikan) at the end on curriculum 2004 in Indonesia. The cognitive aspects involve language aspects such as grammar, vocabulary, and utilizing of language in Bahasa or English. In Indonesia, English is not the first language for many students. It makes the students are difficult to understand in English. Then, the students need to give a formative test to improve their reading and writing skills in the material about functional text for the first grade at Insan Global Jakarta Vocational School (SMK) on the first semester. The purpose of the test is to evaluate students' ability based on the criteria in GBPP (*Garis Besar Program Pengajaran*).

As what has been mentioned before, this article focusses on how to solve the problems which can make the low outcome in studying English at Insan Global Jakarta Vocational School. The questions of this study are: (1) Is there differentiate between students' outcome in studying English who have been given essay formative test and multiple-choice? (2) Is there differentiate between students' outcome in studying English who have lateral and vertical thinking style? (3) Is there correlation between formative test and students' thinking style toward students' outcome in studying English? (4) Is there differentiate between students who have lateral thinking style and given essay and multiple-choice formative test? (5) Is there differentiate between students who have vertical thinking style and given essay and multiple-choice formative test?

METHOD OF THE STUDY

This study uses factorial 2x2 experimental designs. The study has two independent variables and one dependent variable. The independent variables are formative test and students' thinking style, while the dependent variable is students' outcome in studying English.

TABLE 1. Experimental design factorial 2 x 2

Formative Test \ Thinking Style	Essay Test (A ₁)	Multiple-choice Test (A ₂)	Σb
Lateral (B ₁)	A ₁ B ₁ (82,00)	A ₂ B ₁ (76,91)	B ₁ (79,45)
Vertical (B ₂)	A ₁ B ₂ (70,18)	A ₂ B ₂ (82,09)	A ₂ B ₂ (82,09)
Σk	A ₁ (76,09)	A ₂ (79,50)	Total

Where:

- A₁ = Students who have been given Essay Test
- A₂ = Students who have been given Multiple-choice Test
- B₁ = Lateral thinking style
- B₂ = Vertical thinking style
- A₁B₁ = Students' group who have been given Essay Test with lateral thinking style
- A₂B₁ = Students' group who have been given Multiple-choice Test with lateral thinking style
- A₁B₂ = Students' group who have been given Essay Test with vertical thinking style
- A₂B₂ = Students' group who have been given Multiple-choice Test with vertical thinking style
- Σk = Total

As what has been mentioned about the experimental design above, then the data will be elaborated with qualitative descriptive (Maman 2017) taken by the evaluation toward respondent (students) as participants. The elaboration comes from the participants' perspective with analytic descriptive based on some facts. Then, it will be analyzed and indicated the comparison (Maman 2014) on the influences of formative test and students' thinking style in studying English.

POPULATION AND SAMPLE

This article was held at Insan Global Jakarta vocational school. It is located at Tanjung Pura Street Pegadungan Kalideres, West Jakarta. The population of the study is the first grade of SMK Insan Global Jakarta in the academic year 2016 / 2017. It consists of two classes that are accounting and marketing class. Each class consists of 35 students. The sample of this study is first grade of accounting class at SMK Insan Global Jakarta which consists of 70 students. Each class consists of 35 students in accounting 1 and 35 students in accounting 2. This study uses the

purposeful sampling to take the sample. Sugiyono (2010: 218), he states that purposeful sampling is the technique to determine of sample with some judgments. It has purpose to get the data from the population that will be representative or informative about the topic of interest, especially about the influences of formative test and students' thinking style in studying English.

THE INFLUENCES OF FORMATIVE TEST AND STUDENTS' THINKING STYLE IN STUDYING ENGLISH

Based on the fact, many students have difficulties in studying English because English is not their first language. The students need to be given a formative test in studying English to improve their reading and writing skills in the material about functional text for the first grade at Insan Global Jakarta Vocational School (SMK) on the first semester. The formative test will influence the process of students' thinking style when they answer the test. The study doesn't only discuss about the formative test in studying English but also the alternative test to the students who have the low score in studying English.

In addition, the formative tests use essay and multiple-choice tests to assess the cognitive on students' thinking style (lateral and vertical). Edward De Bono (2000: 53), he states that the purpose of lateral thinking is to provide a more deliberate means for pattern-switching than relying on mistake or accident. Lateral thinking seeks to achieve the pattern-switching that occurs in insight. Lateral thinking is generative and creative thinking. It means that, there are many answers in the mind toward something. Moreover, it makes someone can create the new something. Lateral thinking judged as the way of thinking not common because it has contrast with vertical thinking (Green 2004: 25). Vertical thinking style brings problem, but lateral thinking is very effective because vertical thinking emphasizes on the process while lateral thinking style emphasizes on the result. As what has been mentioned, this article will solve the problems about the low score in studying English at SMK Insan Global Jakarta especially in the process of studying based on the score of the formative or non-formative test which has been given to the students.

FORMATIVE TEST

Formative assessment is used to track pupil development over time, according to Hamid (2013) in Wiersman & Jurs (1990). A formative evaluation is a test offered towards the end of the teaching and learning period to assess the students' ability once they have completed the curriculum (Arikunto. 2012: 67). Then, in the last subject, Sudijono (2007: 9) described formative testing as a diagnostic test. Formative tests are provided to provide input in order to enhance classroom learning. It is offered in a limited amount of time during the teaching and learning phase.

Gabel (1994: 389), stated that formative tests in the classroom would be divided into the following categories: 1) True-false item, 2) Multiple-choice item, 3) Completion item, 4) Short answer item, 5) Essay item, 6) Practical examination, 7) Paper and pencil test, 8) Project, 9) Questionnaires, 10) Inventories, 11) Checklist, 12) Peer rating, 13) Self rating, 14) Portfolios, 15) Observation,

In comparison, formative testing may take the form of an oral or written exam. A writing evaluation consists of a series of questions or comments that the instructor or evaluator asks in order to assess the students' abilities. Oral tests, on the other hand, are made up of a series of questions or comments that are presented to pupils without the use of written

materials. Students can need a remedial examination on occasion. It implies that the oral test is reliable. After the primary evaluation, this oral test serves as a supplement (Sukardi 2008: 93). This research would focus on writing tests, with an emphasis on essay and multiple-choice formative tests.

ESSAY TEST

Essay test is one of writing test arranged by some questions which consist of the problems to solved through elaboration of the words describe students' ability (Sukardi 2008: 94). Essay test consists of opened questions; students have to answer the questions based on their knowledge. Grounlund (1990), he states that there are two kinds of the essay test, which are:

1. Essay test with long answer.
2. Essay test with short answer.

Essay test with long answer is the question needs to be solved with the elaboration of the answer and put all of students' idea when they answer the question. It can show students' creativity when they put their idea in the answer comprehensive, coherence, and systematic. The questions use 4 W + 1 H (where, who, what, why, and how). Sudijono (2007: 101), he states that essay test is one of the tools to assess students' outcome in studying English. The test can be used to describe students' ability when they elaborate, describe, compare, and give the reason based on the questions using their knowledge. Essay test is different with multiple-choice tests because the test cannot make the students have the critical thinking when they answer the questions.

MULTIPLE-CHOICE TESTS

According to Nitko and Brookhart (2007: 148-148), their states that a multiple-choice item consists of one or more introductory sentences followed by a list of two or more suggested responses. The student must choose the correct answer from among the responses listed. Teachers call the list of suggested responses by various names: alternative, responses, choices, and options. The alternative should always be arranged in a meaningful way (logically, numerically, alphabetically, etc.). Apart from that, according to Joesmani (1998:84), he states that multiple-choice test assesses students' knowledge but the test is not effective to assess students' ability in the organize their idea.

In addition, Arikunto (2012: 185), recorded five explanations about multiple-choice tests, which are:

1. The instruction uses the example clearly
2. Multiple-choice tests has the one true answer
3. The main sentence has to be appropriate with the answer
4. The questions use short sentence
5. The alternative answer has to be appropriate with the content of the question.

Moreover, Arikunto (2012: 190), concluded that after the students answer the multiple-choice test, the teachers have to give the score to know the result of the test. In the scoring process of multiple-choice tests are simple, more effective and easy to understand by the evaluators and the students. The formulation of the scoring, which are:

$$\boxed{S = R}$$

Where:

S = Score

R = Total of true answer

It means that the last score is true answer

From the explanation above, it can be concluded that the evaluators have to observe the advantages and disadvantages of the multiple-choice tests. Based on the content validity, the test uses the questions with the one true answer and the alternative answers as distracters so it can assess students' thinking style.

STUDENTS' THINKING STYLE

According to Edward De Bono (2000: 53), thinking style is consist of two types identified as lateral and vertical thinking style.

Lateral Thinking Style

The ability to think laterally is linked to imagination. It has the potential to enhance students' imagination. A lateral thought style is a form of thinking that can be learned by education. The thinking style does not utilise pre-existing principles; instead, it creates new concepts focused on the students' new ideas. Furthermore, according to De Bono (2000), the aim of lateral thought is to provide a more deliberate means of pattern-switching than depending on error or error. The aim of lateral thought is to accomplish the pattern-switching that happens during insight.

According to the theory, the aim of lateral thought is to demonstrate issues by rearranging new ideas and creating alternate concepts in various ways. According to Mansyur (2014: 85-86), lateral thought style may be a tool for solving issues in unconventional ways. Since it contradicts vertical thought style, crossing thinking style mentions lateral thinking style. Lateral thought is a method that allows you to solve problems in a more innovative way. It is generative and innovative thought, which implies that there are many possible solutions to issues. Students' thought styles must be established and they are expected to be innovative and selective while learning.

Next, when we are thinking about a different situation, imagination offers our brain strength. It is impossible to exist without the ability to be creative. According to De Bono (2000:73), lateral thought is a way of thinking that involves shifting concepts and perceptions in order to receive fresh ideas or be open-minded. When we are thinking about something, our thinking style is described by the shifting of the idea. The theory of lateral thought is that thinking to solve an issue involves several different approaches to developing insightful ideas, while in vertical thinking, there is no such thing as a bad assumption or a positive alternative assumption.

Vertical Thinking Style

Vertical thought type, according to Mansyur (2014: 85), is a sluggish, step-by-step method of thinking. The aim of the thought method is to solve a problem slowly yet steadily. Vertical reasoning is a method of thought logically and seeing an answer to a dilemma. The idea evolved over time, based on truth, to see possible alternatives to the dilemma and objectively select one.

In general, the vertical thinking model lacked alternate responses to issues. It's about following the path that's laid out for you. Green (2004: 25) goes on to say that everything is the product of something else in terms of relevance. People often use the vertical thought model because it is seen as rational, but the lateral thinking style is rare. It implies that the vertical thought model emphasises the procedure objectively, while the horizontal thinking style emphasises the outcome as a method of problem solving.

It can be inferred that one's thought style is linked to one's research process. It may be used to further the idea of imagination, since horizontal and

vertical thought styles complement one another. In order to learn effectively, all thinking types must be used. It is as much about concentrating on the research as it is about the imagination.

RESULT OF THE STUDY

The result of the article used hypothesis testing, which are: the examination of thinking style instrument. The result of the reliability was (α) 0.848, while the reliability of the studying English test was (r_{11}) 0.780. Then, the examination of normality used Lyllifors formula to show eight of the data groups from the data population had normally distributed.

On the examination of homogeneity proposed to make the experiment was homogeneous.

The null hypothesis testing (H_0) was about there is no differentiate between gains in the sample used to variants analyzes (ANAVA) two ways and then did Tuckey testing. ANAVA two ways used to main effect testing and interaction effect between dependent and independent variables. In this article, independent variable was formative test and students' thinking style. Formative test was essay and multiple-choice tests. Independent variable of students' thinking style was lateral and vertical thinking styles. Dependent variable was the outcome of studying English, it can be seen on the table 2 below:

TABLE 2. ANAVA 2 ways (Outcome of studying English)

Source of Variance	Jk	db	RJK	F0	F _{tab}
Between A	134.75	1	134.750	4.189	4.043
Between B	114.57	1	114.568	4.238	4.043
Interaction AB	811.84	1	811.841	25.237	4.043
Inside	1286.73	40	32.168		
Total	2347.89	43			

Where:

db : Degree of Freedom

JK : Total of Quadrate

RJK = s^2 : Gains of total variants

F_h : F_{cal}

F₀ : F_{tab}

* : Significance

** : Very Significance

Based on the calculation of ANAVA two ways above, there are the elaborations of each hypothesis, which are:

1. First Hypothesis Testing

The hypothesis of the students' outcome in studying English which have been given the essay test is higher than the students which have been given the multiple-choice test. The formulation of statistical hypothesis is:

$$H_0 : \mu_{01} = \mu_{02}$$

$$H_1 : \mu_{01} > \mu_{02}$$

Where:

μ_{01} = The gain score of students' outcome in studying English which have been given the essay test ($\bar{X}_{A1} = 76,09$).

μ_{02} = The gain score of students' outcome in studying English which have been given the multiple-choice test ($\bar{X}_{A2} = 79,50$).

Based on the table 2 above, there is $F_h = 4,189 > 4,043 = F_t$ in significant degree of $\alpha = 0,01$ because $F_h (A) = 4,189 > F_{tab} = 4,043$. It means that there is a significant difference between students' outcome in studying English who have been given essay test and students who have been given multiple-choice test. In the other word, H_0 (the null hypothesis) is accepted where $\bar{X}_{A1} = 76,09 < \bar{X}_{A2} = 79,50$, so the hypothesis is invalid.

2. Second Hypothesis Testing

The hypothesis of the students' outcome in studying English which has lateral thinking style is higher

than the students which have vertical thinking style. The formulation of statistical hypothesis is:

$$H_0 : \mu_{10} = \mu_{20}$$

$$H_1 : \mu_{10} > \mu_{20}$$

Where:

μ_{01} = The gain score of students' outcome in studying English which has lateral thinking style ($\bar{X}_{B1} = 79,45$).

μ_{02} = The gain score of students' outcome in studying English which has vertical thinking style ($\bar{X}_{B2} = 76,14$).

Based on the table 2 above, there is $F_h = 4,238 > 4,043 = F_t$ in significant degree of $\alpha = 0,05$ because $F_h(B) = 4,238 > F_{tab} = 4,043$ so H_0 (the null hypothesis) is rejected. It means that there is a significant difference between students' outcome in studying English who have lateral thinking style and students

who have vertical thinking style where $\bar{X}_{B1} = 79,45 < \bar{X}_{B2} = 76,14$, so the hypothesis is valid.

3. Third Hypothesis Testing

There is an interaction between formative tests and thinking styles toward students' outcome in studying English. The formulation of statistical hypothesis is:

$$H_0 : \text{Interaction K X B} = 0$$

$$H_1 : \text{Interaction K X B} \neq 0$$

Based on the table 2 above, there is $F_h = 25,237 > 4,043 = F_t$ in significant degree of $\alpha = 0,05$ because $F_0(AB) = 25,237 > F_{tab} = 4,043$ so H_0 (the null hypothesis) is rejected. It means that there is a significant correlation formative test and thinking styles students' outcome in studying English. After that, the writer used Tuckey testing to test of the next hypothesis. The calculation of Tuckey testing can be seen on the table 3 below:

TABLE 3. The Result of Tuckey Testing

No	The Group of Comparison	Q _h	Q _t		Explanation
			$\alpha = 0,05$	$\alpha = 0,01$	
1	A ₁ B ₁ and A ₂ B ₁	2,105	2,01	5,15	Significant
2	A ₁ B ₂ and A ₂ B ₂	5,000	2,01	5,15	Significant

4. Fourth Hypothesis Testing

The students' outcome in studying English which have been given the essay test is higher than the students which have been given the multiple-choice test, on the students' group who have lateral thinking style. The formulation of statistical hypothesis is:

$$H_0 : \mu A1 B1 \leq \mu A2 B1$$

$$H_1 : \mu A1 B1 > \mu A2 B1$$

Where:

μ_{01} = The gain score of students' outcome in studying English which has been given the essay test on the students' group who have lateral thinking style ($\bar{X}_{A1B1} = 82,00$).

μ_{02} = The gain score of students' outcome in studying English which has been given the multiple-choice test on the students' group who have lateral thinking style ($\bar{X}_{A2B1} = 76,91$).

Based on the table 3 above, the calculation of Tuckey testing of A₁B₁ and A₂B₁ groups are $Q_h = 2,105 > 2,01 = Q_t$ p in significant degree of $\alpha = 0,01$, so H_0 (the null hypothesis) is rejected and H_1 is accepted. It showed that the students' outcome in studying English which has been given the essay test is higher than the students which has been given the multiple-choice test for the students who have lateral thinking style, where $\bar{X}_{A1B1} = 82,00 < \bar{X}_{A2B1} = 76,91$.

5. Fifth Hypothesis Testing

The students' outcome in studying English which have been given the essay test is lower than the students which have been given the multiple-choice test, on the students' group who have vertical thinking style. The formulation of statistical hypothesis is:

$$H_0 : \mu A1 B2 \geq \mu A2 B2$$

$$H_1 : \mu A1 B2 < \mu A2 B2$$

Where:

μ_{01} = The gain score of students' outcome in studying English which has been given the essay test on the students' group who have vertical thinking style ($\bar{X}_{A_1B_2} = 70,18$).

μ_{02} = = The gain score of students' outcome in studying English which has been given the multiple-choice test on the students' group who have vertical thinking style ($\bar{X}_{A_2B_2} = 82,09$).

Based on the table 3 above, the calculation of Tuckey testing of A_1B_2 and A_2B_2 groups are $Q_h = 5,000 > 3,82 = Q_t$ p in significant degree of $\alpha = 0,05$, so H_0 (the null hypothesis) is rejected and H_1 is accepted. It showed that the students' outcome in studying English which have been given the essay test is lower than the students which have given the multiple-choice test for the students who have vertical thinking style, where $\bar{X}_{A_1B_2} = 70,18 < \bar{X}_{A_2B_2} = 82,09$.

INTERPRETATION OF DATA

In the description of the data showed that, the students' outcome in studying English which have been given the essay test was higher than the students which have been given the multiple-choice test. The data didn't prove the first hypothesis because:

1. Essay formative test was more difficult than multiple-choice tests especially to the students who have vertical thinking style. It can be concluded that students have to evaluated, critical thinking, and showed the new ideas on the essay test.
2. The scoring of students' outcome in studying English which have been given the essay test with vertical thinking style was lower than the scoring students' outcome in studying English which have lateral thinking style, where ($\bar{X}_{A_1B_2} = 70,18$) < ($\bar{X}_{A_1B_1} = 82,00$). It influenced the gain score on the students' group who have been given essay test. The gain score was lower than students' group who have been given multiple-choice test. It showed that the students who have vertical thinking style was difficult if they gave the essay test, where ($\bar{X}_{A_2B_1} = 76,91$) < ($\bar{X}_{A_2B_2} = 82,09$).

The second hypothesis revealed that students with horizontal thinking styles performed better in English classes than students with vertical thinking styles. Based on data analysis, there was a substantial difference between the outcomes between students who have a horizontal learning style and students who have a vertical thinking style while learning English. It can be inferred that students' thought styles have an effect on their learning outcomes while studying English. Students with a horizontal thinking approach performed better in English than students with a vertical thinking style. It was proven that students with a lateral thinking style were more innovative and capable of solving their problems, according to a synthesis of the hypothesis regarding thinking types. They each had a different approach to the issue. It may be crucial in forming the second hypothesis, in which H_0 (the null hypothesis) is denied and H_1 is acknowledged.

The third hypothesis revealed that there was a substantial effect of association between formative assessments and thought types on students' outcomes in learning English $F_h = 25,237 > 4,043 = F_t$ with a significance level of 0.05. It was discovered that formative assessments and thinking patterns have an effect on students' English learning outcomes. The interaction revealed that essay and multiple-choice assessments have differing effects on students' learning outcomes in English when provided to groups of students with different thought styles.

Furthermore, the fourth hypothesis claimed that on the students' community who have lateral thinking style, the students' outcome in learning English who were given the essay test was higher than the students who were given the multiple-choice test. The benefit score of the students' result in learning English demonstrates this.

Essay tests are a type of writing exam that consists of a set of questions that must be answered using elaborations that describe the students' abilities. It encourages students to use their lateral thinking skills to interpret data. According to Joesmani (1998), quantitative tests are very effective in assessing students' skills and thought styles. It is used to determine their reaction. Multiple option assessments, according to Joesmani (1998), are analytical tests that measure students' comprehension of reality. Based on the hypotheses, it is possible to infer that an essay formative exam

is superior to a multiple-choice test in terms of developing students' abilities to learn English. Finally, the fifth hypothesis demonstrated that students who were given the essay test performed worse in English than students who were given the multiple-choice test in the students' community who had a vertical thought style. It is the result of students who think in a lateral manner. The students test their skills and problem-solving abilities. They alter their perspective to adopt a certain point of view. They will be selective and inventive in their application of the new knowledge. Furthermore, students with a vertical cognitive approach used abstract reasoning to address the issues. Students concentrate on one correct response to make multiple-choice tasks simpler to complete.

As previously said, an essay formative exam is best for students who have a horizontal thought style, while a multiple-choice question is better for students who have a vertical thinking style while learning English. The findings of the research are backed by prior hypotheses and rely on previous findings, allowing the conclusion to be applied to learning English at an Indonesian vocational school.

CONCLUSION

According to the clarification above, there is a difference in the outcomes of students learning English who were granted essay and multiple option formative exams. As a result, there is a connection between formative testing and students' English learning outcomes. Students who took an essay exam scored better than students who took a multiple-choice test. Then there is a distinction in the outcomes between students with horizontal and vertical thinking styles while learning English. To put it another way, there is a connection between lateral thought styles and student outcomes. As a result, students who use a horizontal thinking approach achieve better results than students who use a vertical thinking style. Following that, there is a connection between formative testing and students' thought styles in terms of lateral thinking type outcomes. As a result, students who were given an essay formative exam scored better than students who were given a multiple option test. Finally,

students who were given a multiple-choice exam performed better than students who were given an essay test in a vertical thought format. The study's findings may be seen as a blueprint for learning English at an Indonesian vocational school.

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