

THE EFFECTIVENESS OF CLUSTERING ESSAY TECHNIQUE IN TEACHING WRITING VIEWED FROM STUDENTS' INTELLIGENCE

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Abstract : This research is aimed at finding out: (1) whether or not Clustering essay Technique is more effective than conventional Technique in teaching writing; (2) whether the students who have high intelligence have better writing ability than those who have low intelligence; and (3) whether there is an interaction between teaching techniques and intelligence in teaching writing. This experimental research was carried out in SMAN I Berbek Nganjuk in the academic year of 2016/2017 from April to June 2017. The population was the eleventh grade students of in the academic year of 2016/2017, and the number of population was 168 students who were divided into four classes. The samples, which were selected by using cluster random sampling, were XI B as the experimental group and XI D as the control group. Each group consists of 42 students. The experimental group was treated by using Clustering essay Technique, while the control group was treated by using Conventional Technique. The data analysis shows the following findings: (1) Clustering essay Technique is more effective than Conventional Technique in teaching writing; (2) students with high intelligence have better writing ability than those having low intelligence; and (3) there is an interaction between teaching techniques and intelligence in teaching writing.

Keywords: *Clustering Technique, Writing Ability, Intelligence*

INTRODUCTION

Writing as a skill involves a number of complex rhetorical and linguistic operations which must be taught. The act of writing is deprived of an immediate context of communication. Thus, for effective writing, the writer has to use a large number of formal features in order to help his/her readers infer the intended meaning. Failure to use these features correctly causes vagueness, ellipsis and ambiguity in some writings.

Writing becomes important because of some reasons. Raimes (1983: 3) states that writing helps the students to learn since it reinforces the grammatical structures, idioms, and vocabulary that the teachers have been teaching the students. Besides, when the students write, they also have a chance to be adventurous with the language, to go beyond what they have just learned to say, to take risks. The next is that when they write, they necessarily become very involved with the new language, the effort to express ideas and the constant use

of eye, hand and brain is a unique way to reinforce learning. Writing in EFL classes is difficult for both teachers and students because there are many aspects to deal with.

Raimes (1983: 6) mentions those aspects are syntax, content, the writers' process, audience, purpose, word choice, organization, mechanics and grammar. Byrne (1993: 3) mentions three aspects which make writing difficult. The first is the psychological problem. Writing is a solitary activity. The teachers cannot get direct feedback like in speaking activity. The second is linguistics problem. The writers have to ensure that the choice of words, sentence structure, and other cohesive devices are correct for conveying their message. The last is the cognitive problem. Writing is learned through a process of instruction. It is not a natural process like speaking. Both Raimes and Byrne basically have the same idea, but Raimes does not classify the problem. Audience and purpose of writing is included in Byrne's psychological problem. Byrne's linguistic problem covered syntax, word choice, mechanic, and grammar. Meanwhile, Raimes' writer process, organization and content are covered in Byrne cognitive problem. Because of that, learning to write is not an easy task to do. Many students still make errors and mistakes and, then, they are fossilized. Their interest becomes less and less and students begin to create negative stimuli about learning to write. This condition drives the students to assume that writing is a very difficult task to do. The problem emerges as students are not familiar yet with the types of written discourse in English due to lack of exposure. Consequently, they are not able or willing to think directly in English. They, therefore, tend to formulate their ideas in Indonesian language when they express ideas in writing. Afterward they try to translate them in English which is not an easy task and even dangerous.

To help the teachers in teaching writing to senior high school students, teachers may use interesting teaching techniques to present their teaching materials that also help them in creating fun class. Clustering technique which is suggested to be applied in teaching writing. Considering that background, the writer formulates the problems of this study as follows:

1. Is Clustering essay technique more effective than conventional technique to teach writing?
2. Do students who have high intelligence have better writing ability than those who have low intelligence?
3. Is there any interaction between teaching techniques and students' intelligence in teaching writing?

The objectives of this research in detail are:

1. To find out whether Clustering essay technique is more effective than conventional technique in teaching writing.
2. To find out whether students who have high intelligence have better writing ability than those who have low intelligence.
3. To find out whether there is an interaction between teaching techniques and students' intelligence in teaching writing.

Review of Related Literature

Byrne (1984: 1) states that writing is the act of forming graphic symbols. Farbairn and Winch (1996: 32) state that writing is about conveying meaning by using words that have been selected and put together in a written or printed form. Ur (1996: 163) writing is the expressing

of ideas, the conveying of a message to the readers, so that the ideas themselves should arguably be seen as the most aspects of writing.

Rico (1983) states that clustering is a technique to divide some related ideas and write down in a blank of paper without evaluating the truth or value of the ideas themselves. Clustering technique can be used in any kind of writing genres, such as report, essay, proposal, short story, or poem (De Porter, 1999: 184)

In line with Rico (1983), Hernowo (2004: 195) states that clustering technique can produce writing that can deliver its message with the same comprehension and surge as spoken language. Dawson and Essid (2010: 1) say that clustering is a type of prewriting that allows the learners to explore many ideas around some stimulus as soon as they occur to the learners. Like brainstorming or free associating, clustering allows learners to begin without clear ideas.

Munandar (2009: 68) defines verbal intelligence as an ability to think creatively and to measure one's fluency, flexibility, and originality of verbal form which deals with words and sentences. Mednick and Mednick in Sinolungan (in Faisal, 2010: 42) say that verbal intelligence is an ability to see a relationship of different ideas and to combine these ideas into new associations. Children with this special ability are able to create new patterns based on their own thought in their cognitive mind. Guilford in Rockler (1988: 45) also states that verbal intelligence is an ability to think divergently. Thinking divergently means that it tries to find any possible alternative solution upon a problem.

RESEARCH METHODOLOGY

Related to this study, the writer used experimental study because the aim of this study is revealing the effect of teaching techniques and students' intelligence towards the students' writing ability. It involves three variables. The first variable is independent variable. In this study, the independent variable is teaching techniques. The second variable is a dependent variable. The dependent variable in this study is writing ability. The third variable is a secondary independent variable or moderator/attributive variable. It is intelligence. The population of this study is the eleventh grade Students of SMAN I Berbek Nganjuk in the academic year of 2016/2017. The total number of the population in this research is 168 students who are divided into 4 classes, XIA, XIB, XIC, and XID. In this study, the writer only took two classes of the eleventh grade Students of SMAN I Berbek Nganjuk. The two classes were XIB and XID. XIB was the experimental class and XID was the control class. The sample, in this study, was chosen randomly from the population of clusters which is usually called as Cluster Random Sampling. It means that all the members of the cluster must be included in the sample.

Results

Hypotheses Testing

Table 1. The summary of a 2 x 2 Multifactor Analysis of Variance

Source of variance	ssd	df	MS	Fo	Ft(0.5)	Conclusion
Between columns (teaching techniques)	618.8571	1	618.8571	36.40336	3.96	Ho is rejected
Between rows (level of creativity)	2928.762	1	2928.762	172.2801	3.96	Ho is rejected
Columns by rows (interaction)	80.04762	1	80.04762	4.708683	3.96	Ho is rejected
Between groups	3627.667	3	1209.222			
Within groups	1360	80	17			
Total	4987.667	83				

Based on the summary of 2 x 2 Multifactor Analysis of Variance (ANOVA) above, some interpretations can be drawn as follows:

1. The impacts of employing teaching techniques (clustering essay technique and conventional technique) upon the students' writing ability. Based on the table, it can be seen that clustering essay technique is more effective than conventional.
2. Based on the table, it can be seen that the students who have high intelligence have better writing ability than the students who have low intelligence.
3. The interaction effect of teaching techniques and intelligence level upon the students' writing ability. Based on the table, it can be seen that there is an interaction effect between teaching techniques and intelligence upon students' writing ability. Thus, the effect of teaching techniques on performance of writing depends on the degree of intelligence.

Table 2. The Summary of Tukey Test

Between groups	qo	qt(.05)	Meaning	Category
A1 - A2	8.53	2.86	qo > qt	Significant
B1 - B2	18.56	2.86	qo > qt	Significant
A1B1 - A2B1	6.48	2.95	qo > qt	Significant
A1B2 - A2B2	2.58	2.95	qo < qt	Not significant

Based on the summary of Tukey Test above, the interpretations can be drawn as follows:

1. Comparing two means between-columns (clustering essay technique is compared with conventional technique) By comparing two means between-columns (A1 – A2), it can be found that qo is 8.53. The value of qt for $\alpha=0.05$ and $n=42$ is 2.86. Because qo (8.53) is higher than qt (2.86), clustering essay technique differs significantly from conventional technique to teach writing. The mean score of the students who are taught by using clustering essay technique (77.88) is higher than the mean score of the students who are

- taught by using conventional technique (72.45). *Therefore, it can be concluded that clustering essay technique is more effective than conventional technique to teach writing.*
2. Comparing two means between-rows (high intelligence is compared with low intelligence) By comparing two means between-rows (B1 – B2), it can be found that q_0 is 18.56. The value of q_t for $\alpha=0.05$ and $n=42$ is 2.86. Because (18.56) is higher than q_t (2.86), the students who have high intelligence are significantly different from the students who have low intelligence in writing ability. The mean score of the students who have high intelligence (81.07) is higher than the mean score of the students who have low intelligence (69.26). *Therefore, it can be concluded that the students who have high intelligence have better writing ability than the students who have low intelligence.*
 3. Comparing two means columns by rows (clustering essay technique is compared with conventional technique) for the students having high intelligence By comparing two means columns by rows (A1B1 – A2B1), it can be found that q_0 is 6.48. The value of q_t for $\alpha=0.05$ and $n=21$ is 2.95. Because q_0 (6.48) is higher than q_t (2.95), the students who have high intelligence and taught by using clustering essay technique are significantly different from the students who have high intelligence and taught by using conventional technique in writing ability. The mean score of the students who have high intelligence and taught by using clustering essay technique (84.76) is higher than the mean score of the students who have high intelligence and taught by using conventional technique (77.38). *Therefore, it can be concluded that the students who have high intelligence and taught by using clustering essay technique have better writing ability than the students who have high intelligence and taught by using conventional technique.*
 4. Comparing two means columns by rows (clustering essay technique is compared with conventional technique for the students having low intelligence) By comparing two means columns by rows (A1B2 – A2B2), it can be found that q_0 is 2.58. The value of q_t for $\alpha=0.05$ and $n=21$ is 2.95. Because q_0 (2.58) is lower than q_t (2.95), it means that the students who have low intelligence and taught by using clustering essay technique are **not significantly different** from the students who have low intelligence and taught by using conventional technique in writing ability. *Therefore, it can be concluded that the students' writing ability between the students who have low intelligence and taught by using clustering essay technique and the students who have low intelligence and taught by using conventional technique is not significantly different.*

DISCUSSION

By considering the data analyses above, there are some conclusions that can be drawn.

1. Clustering essay technique is more effective than conventional technique to teach writing. Teaching technique is one of the aspects of teaching and learning process that needs to be fully considered by the teacher. Teaching technique will influence much the students' attitude toward the subject. Clustering essay also can improve students' critical thinking. From the statement above, it can be concluded that clustering essay technique has some advantages such as: (1) it can promote effective learning; (2) it can combine both motivational and cognitive approaches to collaboration; (3) it can promote cognitive process through a structured approach to teaching and learning within a tutoring context;

On the other hand, conventional technique cannot navigate like what clustering essay technique does. Clustering technique is a kind of brainstorming activity that one can use to generate ideas. This technique is used for collecting thoughts around some stimulus, for finding focus, and for allowing a sense of the whole arrangement to emerge even though all the details are not yet apparent. In short, it is a discovery process. In clustering technique, the students learn how to generate, develop, and arrange the ideas that have to be used in their everyday lives as a valuable and satisfying writing. Reid (1993: 6) mentions that the invention of clustering helps writers to generate, develop, and arrange their ideas. It can be said that clustering helps the learners in developing their ideas. Clustering involves writing down words or phrases and engaging in free association. Each association is written down and connected to the original of associated words are produced. Dawson and Essid (2010: 1) state that there are some steps: (1) choosing words or phrases; (2) putting the words or phrases in central; (3) circling the words or phrases; (4) writing words all around the word or phrase that associate with the word in central; and (5) connecting the new words or phrases to previous one with lines. Moreover, clustering technique helps the writers or learners to start the writing activity from the new expectation words and develop them in bubbles or circle forms. The learners start to write down the ideas and then the ideas are connected by using an arrow or line. It is used to overcome the difficulty in developing ideas.

2. The students who have high intelligence have better writing ability than the students who have low intelligence. Creative individuals have a great deal of energy. This great deal of energy makes them energetic and always ready to do everything. They will see any kinds of things, including the difficult one, as challenges to conquer. They like challenges and enjoy its every single activity. They like to explore their ideas and imagination and to think freely. Furthermore, students with high intelligence have a combination of playfulness, discipline, and also responsibility. They like to alternate between imagination and fantasy at one end, and rooted sense of reality at the other. Besides, they do not like to be bound. They like to be given freedom to think and to express themselves in many ways. This kind of characteristics, in the end, leads the students who have intelligence to get better score since they have better flexibility, fluency, and originality of thinking which are important in producing a piece of writing. On the contrary, according to the statement stated by Csikszentmihalyi (1996: 58-73) about the characteristics of creative personality above, it can also be inferred that students with low intelligence tend to be passive. They do any kinds of tasks only based on the instruction given and do not really like if they are asked to think beyond what is given. In addition, they will be reluctant to do activities which require them to think creatively. They like something simple and like being guided. Students with low intelligence usually see process and challenge as burdens. The more activities they have to do, the more burdens they will have. They do not really like activities because they like simple, guided, and straightforward activities which in turns make the teacher should control them intensively. Uebergang (2012:1) states that limited intelligence and views affect how we act. It means that the students who have low intelligence will get difficulties in generating ideas and expressing it into written form. Munandar (1999: 25) states that everyone has different level of intelligence which affects their ways of thinking, their

behavior, and their competences in all aspects. These are some of the reasons why their writing scores are less than those having high intelligence. Their low intelligence makes them unable to express their ideas better. This can be seen from the results of their writing ability in which the scores of both control and experimental groups are lower than those having high level of intelligence from both groups given treatment.

3. There is an interaction between teaching techniques and students' intelligence in teaching writing. Good teaching technique challenges students to perform better learning. They also minimize boredom and energize students to do more than usual. Good teaching technique increases students' intelligence. Students are more creative when they are taught using challenging and interesting teaching technique. Intelligence as a process can be formulated as a form of thought in which an individual finds out new relationship, answer, methods, or new ways in facing a problem. Csikszentmihalyi (1996: 58-73) states that creative individuals have a great deal of energy. This great deal of energy makes them energetic and always ready to do everything. They will see any kinds of things, including the difficult one, as challenges to conquer. They like challenges and enjoy its every single activity. They like to explore their ideas and imagination and to think freely. They like to alternate between imagination and fantasy at one end, and rooted sense of reality at the other. Besides, they do not like to be bound. They like to be given freedom to think and to express themselves in many ways. So, the students with high level of intelligence are able to manifest nice learning activity into their writing. Uebergang (2012: 1) states that intelligence is associated with the ability to quickly think what is in our mind. It means that the students who have high intelligence will easily express what in their mind in the form of writing. Clustering technique is a kind of brainstorming activity that one can use to generate ideas. This technique is used for collecting thoughts around some stimulus, for finding focus, and for allowing a sense of the whole arrangement to emerge even though all the details are not yet apparent. In short, it is a discovery process. In clustering technique, the students learn how to generate, develop, and arrange the ideas that have to be used in their everyday lives as a valuable and satisfying writing. Reid (1993: 6) mentions that the invention of clustering helps writers to generate, develop, and arrange their ideas. It can be said that clustering helps the learners in developing their ideas. Dawson and Essid (2010: 1) say that clustering is a type of prewriting that allows the learners to explore many ideas around some stimulus as soon as they occur to the learners. Like brainstorming or free associating, clustering allows learners to begin without clear ideas. Kaufman and Sternberg (2006: 82) state that brainstorming is a technique used by Osborn (1953) to facilitate and stimulate intelligence for individuals having low intelligence. De Prado (1982) uses brainstorming to (a) stimulate and develop the different aspects of intelligence (fluency, or the ability to generate multiple ideas; flexibility, or a broad view of category and analysis; and originality, or the ability to produce unique, rare, and unusual ideas); (b) generate new ideas and alternatives to complete a working project; and (c) create a working climate of trust, happiness, and productivity, which favors free expression, group cohesion, and efficiency. De Prado in Kaufman and Sternberg (2006: 82) states that brainstorming helps facilitate participation among members of a working team, promotes mental flexibility and a wealth and variety of innovative ideas, teaches

attitudes of tolerance and respect for all ideas, and encourages development of vocabulary in the classroom.

CONCLUSION AND SUGGESTION

A. Conclusion

1. In general, clustering essay technique is more effective than Clustering Technique to teach writing to the second semester students of SMAN I Berbek Nganjuk, in the academic year of 2016/2017.
2. The students having high level of intelligence have better writing ability especially in report text than those having low level of intelligence to the second semester students of SMAN I Berbek Nganjuk in the academic year of 2016/2017.
3. There is interaction between teaching techniques (clustering essay technique and conventional technique) and intelligence to teach writing to the second semester students of SMAN I Berbek Nganjuk in the academic year of 2016/2017.

B. Suggestion

Based on the research findings the conclusion of this research is that Clustering Essay Technique is an effective technique in teaching writing especially for students with high intelligence. Therefore, it is recommended that: (1) lecturers should apply clustering Essay Technique to make students enjoy their learning in the classroom; (2) the students need to be actively involved in the learning activities in the classroom, asking questions, reading books, or learning from other learning sources; and (3) future researchers may conduct the same kind of research with different sample and condition.

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