

BRAINSTORMING TECHNIQUE TO PROMOTE STUDENTS' CREATIVITY AND PRODUCTIVITY IN WRITING COMPOSITIONS

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Abstract: This study was pre-experimental in that it explained the percentage rates of content, organization, and various means of paragraph development achieved by the second semester students of English Department in writing compositions. The findings indicate that brainstorming technique was good to promote the students' creativity and productivity in writing compositions; the progress was 18.63%. It was discovered that their pretest classification was *poor* and their posttest was *average*. The students' ability progressed from poor to average.

Keywords: brainstorming technique, creativity, productivity, compositions.

Challenges will be found by the lecturer in teaching the English writing skill if he asks his students to write compositions. The students are confronted with a number of problems, but the principal ones are concerned with the creativity and productivity of thoughts and the use of language. It looks hard for the students to create new "things", to produce their thoughts, to organize them in good compositions, to use the proper words in context, and to perform the grammatical accuracy. As stated by Dalle (2006: 197) accuracy is one of the verbal properties that commonly refers to the ability to produce grammatically correct expressions. Accurate expressions are, anyhow, not always acceptable unless they are appropriate, but accuracy indicates the quality of expressions made by the speakers or writers.

Students who take English as their major are expected to be able to get along in writing compositions, understand spoken and written discourses, and communicate their thoughts, messages, feelings, etc. This is true of the case to set up their thoughts in language production because they cannot focus on content and also on form at the same time. If their attention focuses on composition content, they will show limited performance on the language form and use.

Raimes (1983: 6) considers nine aspects with their different features dealing with the production of a piece of writing in order to achieve clear, flu-

ent and effective communication of ideas. Those aspects are [1] the writer's process (getting ideas, getting started, writing drafts, revising), [2] content (relevance, clarity, originality, logic, etc.), [3] syntax (sentence structure, sentence boundaries, stylistic choices, etc.), [4] grammar (rules for verbs, agreements, articles, pronouns, etc.), [5] mechanics (handwriting, spelling, punctuation, etc.), [6] organization (paragraphs, topic and support, cohesion and unity), [7] word choice (vocabulary, idiom, tone), [8] purpose (the reason for writing), and [9] audience (the reader/s). All of the aspects and sub-aspects refer to the given characteristics of communication of ideas.

With reference to these complex areas of writing skills, greater efforts are obviously required to highlight the development of the teaching and learning processes. Evidently, the teaching of written compositions meets problems to adhere to these areas to be acquired at once. Instead, the purpose of teaching that limits itself to specific areas will involve the discovery of some others. For instances, the teaching of paragraph organization may also involve the ability to use vocabulary, grammar, syntax, etc. These aspects are essential to serve organization of paragraph and any piece of composition.

Hedge (1988: 90-93) elaborates the major features of written texts through the analysis of a letter. The analysis brings to light these five features:

form, discourse organization, paragraph structure, cohesive devices, and choice of vocabulary. The layout of a piece of writing, e.g. memos and academic articles, relates to the convention of form. Discourse organization is necessary in the development of whole text because it determines how the information is organized into paragraph. Each paragraph has a topic sentence leading to supporting sentences which develop the topic. Then, the means by which parts of a text are linked as logically related sequences refers to the so-called cohesive devices. Finally, the selection of vocabulary is another significant feature of written texts that creates the desired effect.

This experimental study is concerned with the technique to promote the creativity and productivity in writing compositions. Brainstorming technique is one of the many techniques that the lecturer may introduce in the case of such a purpose. The observable objects to be decided as the scope consist of 'content' and 'organization'. Thus, the contemporary interest is to explain how the students create thoughts (ideas) as content and produce sequences of ideas as organization in their compositions. The matters of vocabulary, language use, and mechanics are the other ones having high probability to be investigated in another study.

Compositions are the written products resulting from the realization of cognitive repertoires possessed by the students at the moment. The content and organization of compositions will be poorly achieved if the given repertoires do not support them to do such tasks. The previous findings exemplified by Dalle (2007: 128-129) show that the class maintaining and class changing derivations treated by the students in their essays are unproductive (0.46%) because their competence of derivations is very poor (-32.85%); and then the difference between the students' competence and their performance on the morphosyntactic properties is less than -35.00%, therefore there is a relationship between students' linguistic repertoires and their capabilities in the English verb performance in their essays.

The learning of a language involves acquiring the ability to compose correct sentences and understanding of which sentences, or parts of sentences are appropriate in a particular context. The first aspect of ability depends on the user's knowledge of the grammatical structure system of a language and the second depends on how to use his knowledge of these language systems in order to achieve some kind of communicative purpose. These two aspects

of ability refer to the matters of usage and use. The similar distinction between usage and use is related to de Saussure's distinction between *langue* and *parole* and Chomsky's distinction between competence and performance (Widdowson, 1978: 2-3).

In relation to the ways of creating content and producing good organization of ideas in writing the English compositions, brainstorming technique might be applied in order to assist the students to solve their problems. Brainstorming is a widely used and effective way of getting ideas flowing for actual content or organizing the content. Brainstorming can be used to choose a topic, identify a reason or purpose for writing, find an appropriate form in which to write, develop a topic, work out a plot, and develop the organization of ideas. It is an especially useful technique for a very broad or general topic, such as computers and environment. Such open-endedness represents a problem that brainstorming can help to solve. Brainstorming can be done by the teacher and by the students. Demonstration of how it works by the teacher is an effective way of getting across to students what is involved. Brainstorming is best done in a group, so that it benefits from a cooperative approach to learning. Thus, this technique ensures that all students in their groups have a chance to participate (White & Arndt, 1991: 18-20).

The way of getting ideas flowing through brainstorming technique encourages the students to use their imagination. According to Oddleifson (1995: 1) Albert Einstein observed that imagination is more important than knowledge. And, in business, imaginative employees are highly sought after. Robert Root-Bernstein, a biologist and cellist, suggests that we need "tools of thought" to give meaning to facts and to facilitate creative or transformational thinking. He believes that the mind and senses alike must be trained equally in order to perceive and to imagine the constructing meaning from an assembly of facts or bits of information.

By using brainstorming technique, the students are trained to promote their creativity and productivity in constructing and connecting one fact and the others. Because of having "tools of thought", they may use analogy and metaphor, pattern forming and recognition, etc. Thus, all students are motivated to participate in the classroom activities. It has been observed that they are active to learn. They work together in their groups to brainstorm the selected topic. They attempt to discover what they need to write about that topic. This evidence has supported the argument to apply this technique in this study.

METHOD

This study was a pre-experimental design; it involved one group to be pretested (O1), exposed to a treatment (X), and post tested (O2). Within 90 minutes, the pretest and posttest of compositions were taken by the students in the classroom. The rating scores of those pretest and posttest results were compared in order to discover students' achievement progress. Using a purposive sampling technique, 20 pieces of compositions were considered to meet the criteria of acceptability. The subjects that had been used as sources of data were the second semester students of English Department, Indonesia Moslem University in Makassar.

The procedural brainstorming techniques in the teaching and learning processes were done in two meeting periods in the classroom. The activities were continued as home assignments. Feedback was given to the students in the second meeting. A week later, their assignments were submitted.

The lecturer demonstrated the way of brainstorming the selected topic, including reason for writing, topic development, organization of ideas into grouping or classification, sentence construction, paragraphing, etc. Then, the students were divided into small groups of three persons and asked to choose the topic to be brainstormed in their own group. Their work results were discussed as feedback. The lecturer responded to all problems to be solved at the time. Further, the students continued their activities at home, like the examples that had been done in the classroom. In the following meeting, the students' works were checked, discussed, evaluated, etc. as feedback in order to arrive at some criterion of acceptability. The classroom activities were continued by asking the students to write compositions together in a group. The lecturer monitored and managed the class. At the end of the classroom activities, the lecturer asked them to write compositions as individual work. In the following week, the students were required to submit their assignments.

The research variables, the paragraph content and the organization of ideas in compositions, were examined through their own indicators. The typical data were characterized as quantitative for discov-

ering the rates of content and done as qualitative for explaining the various ways of topic sentences being coherently developed into the paragraphs based on the evidence of creativity and productivity in writing compositions. For the purpose of measuring the students' compositions, the rating scale used was adapted from Heaten (1989: 146), ranging from the classifications of very poor to excellent for both content and organization.

In analyzing the qualitative data, these steps were operated thoroughly. The first step was to search the content and organization of each paragraph made in compositions based on the rating scale. The second was to rephrase the significant ideas contained in those compositions. In the third step, the ideas were re-edited in the form of points. Then, the fourth was to give codes to those points of ideas. The next was to classify the viewpoints into the ways of paragraph development. And finally, the viewpoints were explained in the context of paragraph development.

RESULTS

The second year students of English Department have successfully implemented the brainstorming technique to promote their creativity and productivity in writing compositions based on the content and organization of ideas. The research findings are put as tables and figures as in the following.

The effects of brainstorming technique indicate that the content and organization of the students' English compositions improved, i.e.: 19.00% (content) and 18.25% (organization). Therefore, brainstorming technique is best done to promote the students' creativity and productivity in writing compositions; the progress is 18.63%. Based on the rating scale used for the measurement, their pretest results of compositions are classified as *fair to poor* (55.38%), but this classification moves to the next rating scale in their posttest, that is *good to average* (74.00%). Then, if a line diagram is drawn logically, it will be discovered that their pretest classification is *poor* and their posttest is *average*. Therefore, progress is driven from *poor* to *average*.

Table 1. The Rates of Content and Organization in Compositions

No	Variables	Pretest		Posttest		Progress	
		Score	%	Score	%	Score	%
1	Content	17.25	57.50	22.95	76.50	5.70	19.00
2	Organization	10.65	53.25	14.30	71.50	3.65	18.25
	Total	27.90	110.75	37.25	148.00	9.35	37.25
	Mean	13.95	55.38	18.63	74.00	4.68	18.63

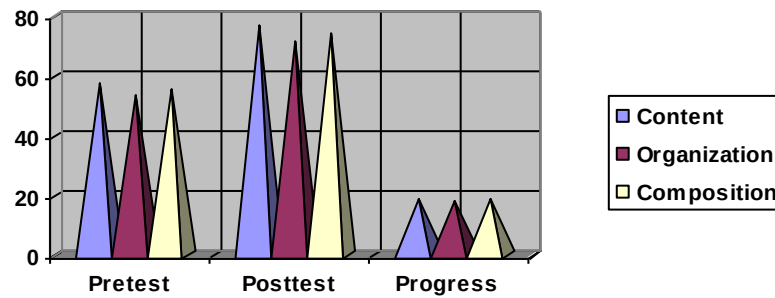


Figure 1. The Percentage Rates of Content and Organization in Compositions

The pyramid figure shows the comparison between the results of pretest and posttest that the students have made in their compositions. It demonstrates that the percentage rates of posttest are higher than those of pretest based on the content and organization of ideas in writing compositions. The legend of content takes the highest position; it approximately achieves 80.00%. Further, the realization of creativity and productivity based on the paragraph development by various means is presented in Table 2.

Table 2. The Percentage Rates of Paragraph Development

No	Various Means	Points of Ideas	
		Q	%
1	Listing	3	4.41
2	Example	8	11.77
3	Comparison	2	2.94
4	Contrast	10	14.71
5	Definition	0	0
6	Classification	3	4.41
7	Space and Time	1	1.47
8	Process Description	0	0
9	Cause and Effect	22	32.35
10	Generalization	19	27.94
Total		68	100

The above table indicates that cause and effect is the most frequently used by the students to create and produce the points of their ideas in the paragraph development (32.35%). Generalization (27.94%) is another means or way of paragraph development that is more frequently used than the others. Contrast which aims to compare dissimilar aspects of two or more subjects takes the third position (14.71%), and then it is followed by examples (11.77%). The facts indicate that brainstorming technique seems effective to promote creativity and productivity for the given four means of paragraph development in writing compositions. Then, Figure 2 illustrates how the paragraph development works in the students' compositions.

The four means of paragraph development are (1) cause and effect, (2) generalization, (3) contrast, and (4) example. These four represent the others in this bar chart figure. The present figure illustrates the effective implications of brainstorming technique to promote the students' creativity and productivity in writing compositions. The percentage rates denote that generalization of paragraph development is used more successfully than contrast and examples, but cause and effect is the most successful means of all. Therefore, the present technique is a very effective way to help the students create and organize their ideas in writing compositions.

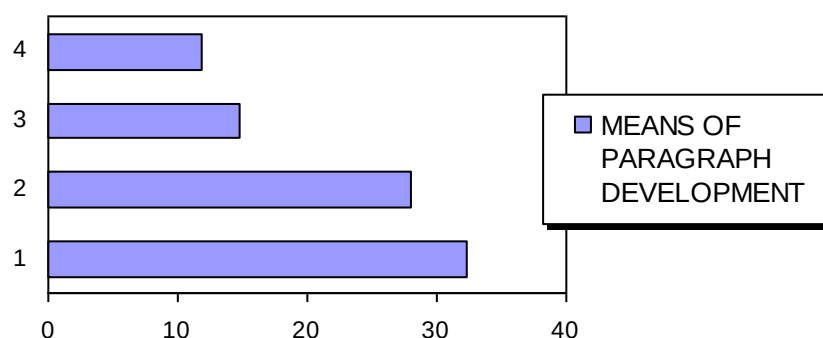


Figure 2. The Percentage Rates of Paragraph Development

DISCUSSIONS

The research findings describe the rates of content and organization in compositions and paragraph development by various means.

Content and Organization in Compositions

Since the content covers knowledge of subject, substantive matters, ideas, etc., the organization is concerned with a string of ideas expressed in compositions. The content and organization will be affected by the realization of cognitive repertoires possessed by the students. In writing compositions, these components will be properly achieved if the given repertoires support them to do such tasks. The students' competence on linguistic and extra-linguistic repertoires affects the performance in their compositions.

In creating and producing ideas in compositions, brainstorming technique assists the students to solve their problems. This technique gives a chance to them to participate actively and cooperatively in their groups. It develops the students' thoughts to get ideas flowing for content or organize the content. It is especially used to choose a topic, identify a purpose for writing, and develop a topic and the organization of ideas. The findings show that brainstorming technique promotes the students' creativity and productivity in writing compositions. The progress is 18.63%.

The effects of brainstorming technique also show that the progress of content is 19.00% and that of organization is 18.25%. The rating scale used for the measurement determines that the results of compositions achieved by second semester students' pretest are classified as *fair to poor* (55.38%), but this classification moves to the next rating scale in their posttest, that is *good to average* (74.00%). It is discovered that their pretest classification is *poor* and their posttest is *average*. Therefore, their progress is driven from *poor* to *average*.

The present findings support the scientific concepts stated by White and Arndt (1991) that brainstorming is a widely used and effective way of getting ideas flowing. The technique implied encourages the students to use their imagination in writing compositions. The present technique also facilitates them to discover the creative and productive mood of thinking.

The objects observed as the scope of research consist of 'content' and 'organization'. Obviously, the contemporary problem focuses on the ways the students create thoughts as content and produce se-

quences of ideas as organization in writing compositions. Thus, this experimental study is concerned with the technique to promote the creativity and productivity in writing compositions. Brainstorming technique is one of the many techniques that the lecturers may use for achieving the progress such a purpose.

Recall that by using brainstorming technique, the students are trained to promote their creativity and productivity in constructing and connecting one fact and the others. The students are motivated to participate in the classroom activities. It has been observed that they are active to learn. They work together in their groups to brainstorm the selected topic. They attempt to discover what they need to write about that topic. This evidence has supported this technique to be applied in this study.

Paragraph Development by Various Means

The realization of creativity and productivity is affected by the paragraph development by various means, including listing, example, comparison, contrast, definition, classification, space and time, process description, cause and effect, and generalization.

The effects of brainstorming technique show that the means or way of cause and effect is the most frequently used by the students to create and produce their ideas in the paragraph development (32.35%). Another way of paragraph development is generalization (27.94%); that is more frequently used than the others. The third position is contrast (14.71%). This way aims to compare dissimilar aspects of two or more subjects, and then it is followed by examples (11.77%). The facts indicate that brainstorming technique seems effective to promote creativity and productivity for the given four means of paragraph development in writing compositions.

There are a number of statements as the examples of several means (ways) of paragraph development that the students create and produce in their compositions, i.e.: The Indonesian students need to know the ways and sequences in learning English (generalization/code: 5.1.5); The facts which cause the Indonesian students to succeed or fail in learning English are whether or not they practice, study hard, and are motivated (cause and effect/code: 7.1.7); Practice has an important role in learning English (generalization/code: 8.1.8); The influence of surrounding condition can make the students succeed or fail (cause and effect/code: 11.2.3); Upgrading has richer programs, such as lecturing,

speech, debate, free talk, and games (example/code: 16.3.3); There is a difference between curriculum in Indonesia and curriculum in the other countries, such as Japan and Australia (contrast/code: 26.6.1); We can compare between the development of education in Indonesia and in the other countries (comparison/code: 27.6.2); Many students have good spirit to study and to get knowledge, but the others are lazy to study because of the negative effect from outside (contrast/code: 28.7.1); The example to make the students fail is to spend their time for getting happiness outside with their friends (example/code: 29.7.2); Lecturers of Faculty of Letters always advice their students to study (generalization/code: 30.7.3); The ways to study English and Indonesian are different (contrast/code: 32.8.1); There are many problems of education: money, skill, and facility, and the cause of these give effect to the students' failure (cause and effect/code: 42.11.1); The handicaps to study are, for examples, books and facilities (example/code: 57.16.3); and However, English is important, it is an international language, and it helps people to get a job in the office (generalization/code: 68.20.3).

The interpretations and classifications exposed in the research findings and discussions above show that the English Department students implement brainstorming technique successfully to promote their creativity and productivity in writing compositions based on the content and organization of ideas. The effects of brainstorming technique indicate that the content and organization of the students' English compositions improve, i.e.: 19.00% (content) and 18.25% (organization). The technique is best done to promote the students' creativity and productivity in writing compositions; the progress is 18.63%. The students' pretest results of compositions are classified as *fair to poor* (55.38%), but this classification moves to the next rating scale in their posttest, that is *good to average* (74.00%). The comparison demonstrates that the percentage rates of posttest are higher than those of pretest based on the content and organization of ideas in writing compositions.

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The research statements also show that brainstorming is a very effective technique to help the students create and organize their ideas in writing compositions. The facts indicate that this technique is implemented very effectively to promote creativity and productivity for the given four means of paragraph development in writing compositions. Cause and effect is the most frequently used by the students to create and produce the points of their ideas in the paragraph development (32.35%). Generalization (27.94%) is another means or way of paragraph development that is more frequently used than the others. Contrast takes the third position (14.71%), and then it is followed by examples (11.77%).

CONCLUSIONS

Brainstorming technique is very effective to promote the students' creativity and productivity to write the content and organization of ideas in their compositions. Their progress is driven from poor to average (74.00%). The technique encourages the students to use their imagination, so that the term "tools of thought" used by Robert Root-Bernstein is reflected in their points of ideas.

The present findings support the scientific concepts stated by White and Arndt (1991) that brainstorming is a widely used and effective way of getting ideas flowing. The technique encourages the students to use their imagination in writing compositions and facilitates them to discover the creative and productive mood of thinking.

The percentage rates denote that there are four means or ways of paragraph development that are quite successfully and used by the students to create and produce the points of their ideas in the paragraph development, i.e. cause and effect (32.35%), generalization (27.94%), contrast (14.71%), and examples (11.77%). The percentage rates denote that generalization means of paragraph development is used more successfully than contrast and examples, but cause and effect is the most successful means of all.

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