Integration of Mind Mapping and Carousel Feedback as the Effective Brainstorming to Improve EFL Students' Writing Skill

Ahmad Subhan Roza[*], Trisna Dinillah Harya, Dimas Sukma Cahyadi

English Department, Faculty of Education, State Islamic Institute of Metro, Indonesia

Abstract This study was aimed to investigate the effectiveness of integrated mind mapping and carousel feedback technique in teaching writing. These techniques were integrated to facilitate the students for practicing individual and group brainstorming. It was aimed to create sufficient teaching procedures which effectively could solve the students' writing problem especially in generating and organizing ideas at prewriting process. Thus, the students' writing skill could be improved. Furthermore, a quantitative research with one-group pretest–posttest design was conducted. The samples of this study involved 21 participants consisting of 8 males and 13 females who were chosen purposively based on their low writing skill. They were students at the second semester of English Department in State Islamic Institute of (IAIN) Metro. The pretest and posttest were administered before and after the treatment was given. The data was analyzed through paired sample T-test by SPSS. The results showed that there was significant improvement of the students' writing skill after being taught by using integrated mind mapping and carousel feedback technique. The data proved that $t_{observed}$ (7.421) is higher than t_{table} (2.086). Much deeper, the result also found that there was significant improvement on the aspects of content, organization, and vocabulary. The $t_{observed}$ of content (5.458), organization (5.487), and vocabulary (2.335) is higher than t_{table} (2.086) at the significance level less than 0.05. It can be inferred that, the integrated mind mapping and carousel feedback technique is effective to enhance the students' writing skill particularly on the aspects of content, organization, and vocabulary. This study implied that the English teachers can apply integrated mind mapping and carousel feedback technique especially to solve students' problem in prewriting process.

Keywords Writing Skill, Prewriting, Brainstorming Ideas, Integrated Technique

1. Introduction

Teaching English as a Foreign Language is not a simple matter for English teachers around the world. They have a duty to teach four skills in English namely listening, speaking, reading and writing. Especially for writing, it is considered as the difficult skill to be mastered by the students. Richards and Willy[1] state that the difficulty of writing lies in generating or organizing ideas and in translating ideas into readable text. According to Brown[2], there are several compositions which are important in English writing. Brown organizes a good deal of attention was placed on "model" compositions that students would emulate and on how well a student's final product measured up against a list of criteria that include; content, organization, vocabulary, grammar, and mechanical

considerations (spelling and punctuation). It can be inferred that, writing as the productive skill does not only require vocabulary mastery and grammar comprehension, but also it needs the ability in generating and organizing the ideas. It also means that there is no guaranty for the students if they had mastered vocabularies and grammar, they would have had a good writing skill. Moreover, there are several writing processes which have significant roles in determining final product of writing. Graves (1983) in Johnson[3] organizes five writing processes namely prewriting, drafting, revising, editing, and publishing and sharing.

As the EFL learners, writing is essential to be taught from junior high school until university level in Indonesia. Based on Indonesian curriculum, the learners have a duty to master academic writing such as producing a text, essay or project paper. However, there are many students who still have difficulties in writing although they have mastered sufficient English vocabularies and grammar in their schools or courses. It means that their main problem in writing is in generating and organizing the appropriate ideas related to writing topic. In other words, the problem lies in prewriting or brainstorming process. Therefore, formulating appropriate solution for this problem is needed.

Related to brainstorming, Bailey[4] explains that it is best to begin planning by analysing the title and then writing down any ideas that seem relevant. Brainstorming technique in prewriting process also can be done by individuals or group. For individual brainstorming, the techniques mostly used in teaching are mind mapping or clustering. Actually, the concepts of both techniques are similar. Those are used to facilitate the students to practice individual brainstorming through a graphic for organizing ideas. Harmer[5] elaborates that another visual way of making preparation notes is often referred to as a spidergram or mind map. In this idea-generating model students start with a topic at the center and then generate a web of ideas from that. Moreover, mind mapping is assumed as the easiest way to develop information in a human mind and take information from out of brain. It is a creative and an effective way that map our ideas.

There are several previous studies which have investigated the effectiveness of clustering and mind mapping. Previous study from Triza, et al. [6] concluded that clustering technique has given significant effect towards students' writing skill of narrative text. Marzelia, et al. [7] found that the use of clustering technique in teaching writing was effective to improve students' skill in writing hortatory exposition. Related to mind mapping, Bukhari[8] identified appropriate mind mapping techniques to enhance the EFL learners' writing ability. The results indicated that the learners, who were taught through mind maps, improved cohesion and coherence; content paragraph structure and length in writing. The results manifested that the hierarchical structure of the Mind mapping techniques used in the prewriting process enhanced the EFL learners' writings. Moreover, Riswanto and Pebri[9] found that mind mapping improved students' writing achievement. In addition, Riswanto[10] concluded that there is good impact on the students' achievement and ability in writing report genre through mind-mapping technique. On the other hand, Yunus and Chien[11] infered that majority of the students had positive perceptions of the use of mind mapping strategy in enhancing their writing skills. The use of mind mapping helps students in planning their writing, adapting a deeper level of understanding of the writing topics and promoting creativity in writing.
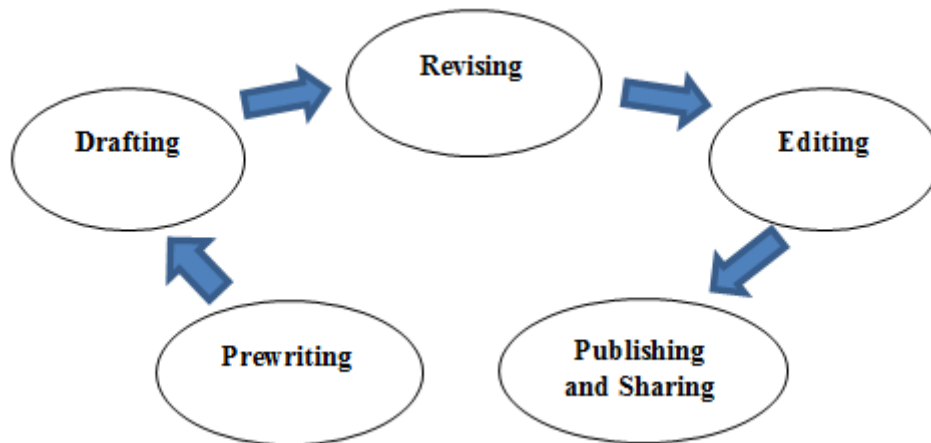
(Source: Adapted from Graves (1983) in Johnson [3])

Figure 1. Writing Processes

Based on the previous studies above, mind mapping technique is potentially useful for helping students to generate and organize the ideas before writing. However, when it is implemented individually, it is assumed less effective because the students only organize their own limited ideas. It does not provide the students another resource to find the ideas related to writing topic. Therefore, group brainstorming is assumed more effective than individuals. According to Manktelow[12], group brainstorming can be very effective for bringing the full experience and creativity of all members of the group to bear on an issue. When individual group members get stuck with an idea, another member's creativity experience can take the idea to the next stage. It can be inferred that mind mapping technique needs to be integrated with one technique that facilitates students to work in pairs.

In facilitating students to practice group brainstorming, the teacher can use mind mapping technique integrated with one of cooperative learning techniques. Related to cooperative learning, Luzzatto and DiMarco[13] argues that in cooperative learning, students are seated in groups and have a mutual goal. Typically, student assignments in a cooperative learning setting do not require students to work together: The assignments can also be completed individually. On the other way, Kagan[14] states that cooperative learning also builds communication skills, develops self-esteem and internal locus of control, increases students' motivation, reduces discipline problems, and promotes cognitive development. In addition, Marashi and Kathami[15] investigated the effect of cooperative learning on EFL learners' creativity and motivation. They applied several Kagan's cooperative structures. The result clarified that the use of CL techniques improved EFL students' creativity and motivation.

Actually, there are many cooperative learning techniques which have been developed by Kagan for teaching. There are carousel feedback, roundtable, roundrobin, rallycoach, numbered heads together, etc. Focus on carousel feedback, it is believed can work effectively as brainstorming group because it provides the opportunity for the students to alternatelly giving the ideas each others. Kagan[16] explains that in applying this technique, teams rotate from project to project to leave feedback for other teams. Specifically, team projects are placed on the team's desk or posted around the room with a feedback form. Each team stands in front of their project. They rotate clockwise to the next team's project. For a specified time, the team discusses their reaction to the project. Timed roundrobin works well for this team discussion. When discussion time is up, Student 1 records the team's feedback. The team rotates to the next project, discusses it, and Student 2 records the team's feedback. The process is continued for each team project. The recorder role is rotated for each project. Teams use the carousel feedback form to record their feedback. Moreover, Kagan[17] also assumes that this technique can be functioned to enhance the students' social and thinking

skills. It is in line with the study from Yusmanto, et al. [18] that found carousel feedback and roundtable cooperative learning models could increase students' HOTS and Social Studies learning outcomes. Carousel feedback provides an opportunity for students to work in groups to discuss and understand issues, problems, and concepts to remember facts, beliefs, information, and/or agreements. During this process, the students work together to produce a response to the question posed by the teacher and reflect responses generated by fellow students. Another investigation, Ahmadifar, et al. [19] compared the effectiveness of two types of cooperative learning techniques namely fishbowl and carousel brainstorming strategies on EFL learners' foreign language speaking ability and anxiety. The results results revealed that carousel brainstorming group outperformed fishbowl group on speaking ability, and reduction of speaking anxiety.

Recalling the previous discussions, most of researchers assumed that mind mapping is the best technique for brainstorming process in writing. However, when it is implemented individually, it is assumed less effective because the students only organize their own limited ideas. It does not provide the students another resource to find the ideas related to writing topic. Therefore, this study aimed to integrate mind mapping and carousel feedback technique to investigate its' effectiveness for teaching writing skill. The combination of these techniques as individual and group brainstorming was aimed to create a sufficient teaching procedure which is able to solve the students' writing problem especially in prewriting process. Thus, the students' writing skill can be improved. Mind mapping was used as the note, graphic organizer, and controller of the students' ideas for writing. Then, carousel feedback was integrated to facilitate the students the opportunity for sharing ideas and giving feedback each other when they note and organize the ideas through mind mapping.

Essentially, the procedures of this integrated technique can be illustrated as follows:

Figure 2.   Integrated Techniques (Mind Mapping and Carousel Feedback)

The figure above illustrates the procedures of integrated mind mapping and carousel feedback technique as the brainstorming activity in pre writing process. It can be organized as follows:
(1) Explaining the definition, generic structure, and language features of the text to the students.
(2) The procedures of mind mapping and carousel feedback are also elaborated by the teacher.

(3) The students are divided into several groups. There are several different writing topics distributed to each group.

(4) A piece of paper for mind mapping is distributed for each group.

(5) Every group discuss to organize and note the writing ideas in mind mapping paper.

(6) All groups are instructed to apply carousel feedback. Each group rotate clockwise from project to project and give feedback each other for the content of their mind mapping.

(7) All the students back to their groups and reorganize their mind mapping content maximally.

(8) As the next stage, the students write a text based on the given topic individually.

(9) The students submit their writing to the teacher.

This research was purposed to answer the following research questions:

(1) Is there any significant improvement of the students' writing skill after being taught by using integrated mind mapping and carousel feedback technique?

(2) What the writing aspects significantly improve?

2. Method

To answer the formulated research questions in this research, the researcher conducted a quantitative study in the form of pre-experimental design. According to Creswell[20], with pre-experimental designs, the researcher studies a single group and provides an intervention during the experiment. This design does not have a control group to compare with the experimental group. The design can be organized as follows:

Table 1. One-Group Pretest–Posttest Design

Pre-Test	Independent	Post-Test
Y_1	X	Y_2

(Source: Adapted from Ary, et al. [21])

Related to the design presented above, this research was started by collecting the data the students' writing pretest score at the first meeting. Then, the treatment (integrated technique: mind mapping and carousel feedback) for teaching writing was given in two meetings for them. As the final stage, the posttest was administered to 21 students who have received the treatment.

As the population, there were 152 students at the second semester of English Department in State Islamic Institute of Metro. Based on the syllabus at the second semester, the students were supposed to master academic writing such as composing a text, essay, or project paper. The samples of this study involved 21 participants consisting of 8 males and 13 females who were chosen purposively based on their low level of writing skill. Relevant with the purpose of study, the participants were the students who have

mastered sufficient grammar and vocabulary but still have difficulties in mastering writing skill especially in prewriting process. Therefore, the chosen samples are believed can to be suitable representatives being generalized in the result of this research.

In collecting the data, writing tests were conducted as the pre-test and post-test to evaluate the students' writing skill. The pretest was given at the first meeting before the treatment. Meanwhile, posttest was administered after the treatment had been implemented. The treatment was the implementation of integrated technique (mind mapping and carousel feedback) in teaching writing skill.

In writing pretest, the students were required to write a descriptive text about famous people individually based on provided topics in worksheet. They had 60 minutes to write at least two paragraphs. The posttest was also conducted with the same rule and instrument as in pretest. However, it had different topics of writing. Moreover, the students' writing was scored by using rating scales of writing assessment adapted from Heaton[22] which has good construct validity. Using this writing assessment scale, the students' writing was scored based on each writing aspect. Then, it was calculated to conclude the final score.

To answer the research questions, the data was analyzed through paired sample T-test by using SPSS statistics 17.0 to compare the mean of students' writing scores of pretest and posttest in general and each aspect.

Essentially, the formulated hypothesis below was addressed to answer the first research question of the study.

- H0: There is no significant improvement of students' writing skill after being taught by using integrated mind mapping and carousel feedback technique.

- H1: There is significant improvement of students' writing skill after being taught by using integrated mind mapping and carousel feedback technique.

The hypotheses above would be accepted or rejected based on the criteria of data analysis interpretations. If the probability *(p)* value < 0.05, and $t_{observed} > t_{table}$, H1 is accepted. On the contrary, if the $t_{observed} < t_{table}$, H0 is accepted.

3. Result and Findings

The results of this research are elaborated based on the formulated research questions. It can be discussed as follows:

1) Is there any significant improvement of the students' writing skill after being taught by using integrated mind mapping and carousel feedback technique?

After conducting pretest and posttest, the students' writing was scored by using rating scales of writing assessment adapted from Heaton (1988: 146). The result of the students' writing pretest and posttest score in general

can be summarized in table 2.

Table 2.   Descriptive Statistics of Writing Scores in General

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	63.5714	21	7.64573	1.66843
	Posttest	73.2381	21	9.12636	1.99154

The table 2 shows that the mean score of pretest was 63.5714 and posttest was 73.2381. It indicates that there is a difference in mean of pretest and posttest that is 9.6667. It can be inferred that there is an improvement of students' score from pretest to posttest, before and after the treatment was given. Since there is the improvement, it means that the use of integrated mind mapping and carousel feedback technique is effective to improve students' writing skill.

Furthermore, to answer the first research question, the data of students' writing pretest and posttest scores in general also was analyzed through paired sample T-test SPSS statistics 17.0. The result can be shown in table 3.

As shown by the table 3 that the p value (0,000) is lower than 0.05 and $t_{observed}$ (7.421) is higher than t_{table} (2.086) at df (20). It means H1 is accepted and H0 is rejected. It can be inferred that there is a significant improvement of the students' writing skill after being taught by using integrated mind mapping and carousel feedback technique.

2)   What the writing aspects significantly improve?

As stated at the previous discussion, the students' writing was also scored based on each aspect. The result of the students' writing pretest and posttest scores for each aspect can be summarized in table 4.

Table 3.   Paired Samples Test of Writing Scores in General

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest – Posttest	-9.66667	5.96937	1.30262	-12.38389	-6.94944	-7.421	20	.000

Table 4.   Descriptive Statistics of Writing Scores in Each Aspect

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Content Pretest	17.4286	21	2.31455	.50508
	Content Posttest	21.4762	21	3.84212	.83842
Pair 2	Organization Pretest	12.2381	21	2.40634	.52511
	Organization Posttest	15.7619	21	2.38547	.52055
Pair 3	Vocabulary Pretest	12.8095	21	1.99045	.43435
	Vocabulary Posttest	13.9524	21	1.74574	.38095
Pair 4	Language Use Pretest	16.8571	21	4.31608	.94185
	Language Use Posttest	17.9048	21	3.80664	.83068
Pair 5	Mechanics Pretest	4.2381	21	.43644	.09524
	Mechanics Posttest	4.1429	21	.35857	.07825

Table 5.   Paired Samples Test of Writing Scores in Each Aspect

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Content Pretest - Content Posttest	-4.04762	3.39818	.74154	-5.59445	-2.50079	-5.458	20	.000
Pair 2	Organization Pretest - Organization Posttest	-3.52381	2.94311	.64224	-4.86350	-2.18412	-5.487	20	.000
Pair 3	Vocabulary Pretest - Vocabulary Posttest	-1.14286	2.24245	.48934	-2.16361	-.12211	-2.335	20	.030
Pair 4	Language Use Pretest - Language Use Posttest	-1.04762	3.36862	.73509	-2.58100	.48576	-1.425	20	.170
Pair 5	Mechanics Pretest - Mechanics Posttest	.09524	.30079	.06564	-.04168	.23216	1.451	20	.162

The statistics table 4 reports the results of students' writing pretest and posttest scores for each writing aspect. It shows that there are improvements of the students writing skill in all aspects except mechanics. Since the mean of posttest for content, organization, vocabulary, and language use is higher than pretest.

In order to answer the second research question, the data of the students' writing score of pretest and posttest in each aspect was compared through paired sample T-test by using SPSS statistics 17.0. The result can be seen in the table 5.

Based on the table 5, it can be found that there are significant improvements only on the aspects of content, organization, and vocabulary. It can be known from the p value of content (0.000), organization (0.000), and vocabulary (0.030) less than 0.05, then $t_{observed}$ of content (5.458), organization (5.487), and vocabulary (2.335) is higher than t_{table} (2.086) at df (20). It can be inferred that there is significant improvement of the students' writing skill especially on the aspects of content, organization, and vocabulary after being taught by using integrated mind mapping and carousel feedback technique.

4. Conclusion

The main purpose of this research was to investigate the effectiveness of integrated mind mapping and carousel feedback technique in teaching writing skill. There were two formulated research questions addressed based on the objective of this study. The first research question was formulated to find out whether there was any significant improvement of students' writing skill after being taught by using integrated mind mapping and carousel feedback technique and the second question was to find out what the writing aspects significantly improved.

Considering the result obtained from paired sample T-test analysis by using SPSS, it was found that there was a significant improvement of the students' writing skill after being taught by using integrated mind mapping and carousel feedback technique. The data proved that $t_{observed}$ (7.421) is higher than t_{table} (2.086) at the significance level less than 0.05. Much deeper, the result also found that there was significant improvement on the aspects of content, organization, and vocabulary. The *p* value of content (0.000), organization (0.000), and vocabulary (0.030) less than 0.05, then $t_{observed}$ of content (5.458), organization (5.487), and vocabulary (2.335) is higher than t_{table} (2.086) at df (20).

Based on the results above, it can be inferred that the integrated mind mapping and carousel feedback technique is effective to enhance the students' writing skill particularly on the aspects of content, organization, and vocabulary. Thus, the integration of these techniques (mind mapping and carousel feedback) successfully solved the students' writing problem especially in prewriting process. On the other word, it was effective to provide the solution for the students at intermediate level who have mastered sufficient vocabularies and grammar, however they still have problem in organizing and generating ideas for writing. Actually, the role of mind mapping was as the effective technique for note, graphic organizer, and controller of students' ideas in writing.

However, when it is implemented individually, it is assumed less effective because the students only organize their own limited ideas. It does not provide the students another resource to find the ideas related to writing topics. Therefore, carousel feedback was integrated in this research as group brainstorming to facilitate the students the opportunity for sharing ideas and giving feedback each other when they note and organize the ideas through mind mapping. As suggested by Manktelow (2011:6) that group brainstorming can be very effective for bringing the full experience and creativity of all members of the group to bear on an issue. When individual group members get stuck with an idea, another member's creativity experience can take the idea to the next stage. Overall, the result of this research was in line with Bukhari (2016) who concluded that the learners who were taught through Mind maps, improved cohesion and coherence; content paragraph structure and length in writing. Moreover, it also successfully proved the theory from Kagan (2009: 6.24) that carousel feedback technique can be functioned to enhance the students' social and thinking skills.

As the pedagogical implications, this present research implies that the English teachers can apply integrated technique (mind mapping and carousel feedback) to solve students' problem especially in prewriting process. It aims to facilitate the students for practicing individual and group brainstorming at the same occasion. Moreover, it also remains that the integrations of some techniques in teaching are essentially needed to maximize the teaching process. Thus, the students' skill can be improved. Considering the limitation of the study, this research only involved 21 participants as the samples. Therefore, the further researches are suggested to conduct relevant research with more quantity of samples.

APPENDICES

Appendix 1. Instrument of Pretest and Posttest

<div align="center">

PRE-TEST

</div>

Name:

Class:

Direction: *Write a descriptive text about person based on the provided topics below (at least two paragraphs)!*

1.   Atta Halilintar
2.   Ariel Noah
3.   Afgan
4.   Syahrini
5.   Jokowi

Time allocation: 60 Minutes

Answer:

_____

<div align="center">

POST-TEST

</div>

Name:

Class:

Direction: *Write a descriptive text about person based on the provided topics below (at least two paragraphs)!*

1.   Ahmad Dhani
2.   Sule
3.   Deddy Corbuzier
4.   Rhoma Irama
5.   Raffi Ahmad

Time allocation: 60 Minutes

Answer:

Appendix 2. The Students' Writing Pre-Test and Posttest Scores

THE STUDENTS' WRITING PRE-TEST SCORES

NO	NAME	CO	OR	VO	LU	MC	TOTAL SCORE
1	AP	16	13	13	17	4	63
2	ARP	21	13	13	21	4	72
3	AS	16	9	13	21	4	63
4	CCP	16	13	13	10	4	56
5	DMS	16	9	9	10	4	48
6	EP	16	9	9	17	5	56
7	ENS	16	9	17	17	4	63
8	FBD	21	13	13	17	4	68
9	FAL	16	9	13	21	4	63
10	ILS	16	17	13	17	5	68
11	MKDS	21	13	13	21	4	72
12	SN	16	9	9	10	4	48
13	SP	21	13	13	21	4	72
14	SS	16	17	17	17	5	72
15	SA	21	13	13	17	4	68
16	SW	16	13	13	10	4	56
17	TF	16	13	13	10	4	56
18	TQ	21	13	13	21	4	72
19	TS	16	13	13	21	5	68
20	VRP	16	13	13	17	4	63
21	VLA	16	13	13	21	5	68
	TOTAL	366	257	269	354	89	1335

THE STUDENTS' WRITING POST-TEST SCORES

NO	NAME	CO	OR	VO	LU	MC	TOTAL SCORE
1	AP	26	17	13	21	4	81
2	ARP	26	20	17	21	4	88
3	AS	21	13	13	21	4	72
4	CCP	16	13	13	17	4	63
5	DMS	16	13	13	10	4	56
6	EP	16	17	13	17	5	68
7	ENS	21	17	13	17	4	72
8	FBD	26	20	17	21	4	88
9	FAL	26	17	13	17	4	77
10	ILS	16	17	13	17	5	68
11	MKDS	21	17	13	21	4	76
12	SN	21	13	13	10	4	61
13	SP	26	17	17	21	4	85
14	SS	21	17	17	17	5	77
15	SA	21	17	17	17	4	76
16	SW	21	13	13	21	4	72
17	TF	21	13	13	10	4	61
18	TQ	26	17	13	21	4	81
19	TS	16	13	13	17	4	63
20	VRP	21	13	13	21	4	72
21	VLA	26	17	13	21	4	81
	TOTAL	451	331	293	376	87	1538

Appendix 3. Rating Scales of Writing Assessment

Table a.   Rating Scales of Writing Assessment

	Excellent to very good	Good to average	Fair to poor	Very poor
Content	30-27	26-22	21-17	16-13
	Knowledgeable– substantive – etc.	Some knowledge of subject – adequate range – etc.	Limited knowledge of subject – little substance – etc.	Does not show knowledge of subject – non-substantive – etc.
Organization	Excellent to very good 20-18	Good to average 17-14	Fair to poor 13-10	Very poor 9-7
	Fluent expression – ideas clearly stated – etc.	Somewhat choppy – loosely organized but main ideas stand out – etc.	Non-fluent – ideas confused or disconnected – etc.	Does not communicate – no organization – etc.
Vocabulary	Excellent to very good 20-18	Good to average 17-14	Fair to poor 13-10	Very poor 9-7
	Sophisticated range – effective word/ idiom choice and usage – etc.	Adequate range – occasional errors of word/idiom form, choice, usage but meaning not obscured.	Limited range – frequent errors of word/ idiom form, choice, usage – etc.	Essentially translation – little knowledge of English vocabulary.
Language use	Excellent to very good 25-22	Good to average 21-19	Fair to poor 17-11	Very poor 10-5
	Effective complex constructions – etc.	Effective but simple constructions – etc.	Major problems in simple/ complex constructions – etc.	Virtually no mastery of sentence construction rules – etc.
Mechanics	Excellent to very good 5	Good to average 4	Fair to poor 3	Very poor 2
	Demonstrates mastery of conventions – etc.	Occasional errors of spelling, punctuation – etc.	Frequent errors of spelling, punctuation, capitalization – etc.	No mastery of conventions – dominated by errors of spelling, punctuation, capitalization, paragraphing – etc.

(Source: Adapted from Heaton, 1988:146)

REFERENCES

[1] J. C. Richards, Willy A. R., "Teaching Writing," in Methodology in Language Teaching-An Anthology of Current Practice, CUP, 2002, pp. 303.

[2] H. D. Brown, "Teaching Writing," in Teaching by Principles an interactive Approach to Language Pedagogy, 2nd ed, Longman, 2001, pp. 335.

[3] A. P. Johnson, "The Process of Writing," in Teaching Reading and Writing, BLC, 2008, pp. 179-180.

[4] S. Bailey, "The Writing Process," Academic Writing A Handbook for International Student, 2nd ed, Routledge, 2006, pp. 39.

[5] J. Harmer, "Worked on Writing," How to Teach Writing, PL, 2004, pp. 89.

[6] R. Triza., Muhammad K., Indra J. and Nova A., "The Effect of Clustering Technique Towards Students' Writing Skill Of Narrative Text In High School 5 Pariaman," Research Journal of Social Sciences, vol. 9, no. 2, pp. 10-16, 2016.

[7] A. Marzelia, Jamiluddin, Hastini, "The Use of Clustering Technique to Improve Students' Skill in Writing Hortatory Exposition Text," e-Journal of English Language Teaching Society (ELTS), vol. 2, no. 2, pp. 1-14, 2014.

[8] S.S.F. Bukhari, "Mind Mapping Techniques to Enhance EFL Writing Skill," International Journal of Linguistics and Communication, vol. 4, no. 1, pp. 58-77, 2016.

[9] Riswanto, Pebri P. P., "The Use of Mind Mapping Strategy in the Teaching of Writing at SMAN 3 Bengkulu, Indonesia," International Journal of Humanities and Social Science, vol. 2, no. 21, pp. 60-68, 2012.

[10] Riswanto, "Improving the Students' Ability in Writing Report Genre Through Mind Mapping at Junior High Schools in South Sumatera, Indonesia," International Journal of Social Sciences, vol. 2, no. 1, pp. 1-18, 2016.

[11] M. M. Yunus, C. H. Chien, "The Use of Mind Mapping Strategy in Malaysian University English Test (MUET) Writing," Creative Education, vol. 7, pp. 619-626, 2016.

[12] J. C. E. O. Manktelow, "Brainstorming," Brainstorming Toolkit, MT, 2011, pp. 6.

[13] E. Luzzatto, Giordano DiMarco, "An Overview of Techniques to Measure Peer Interactions from Three Perspectives and a Proposal for an Integrative Model," Collaborative learning. methodology, types of interactions and techniques, NSP, Inc., 2010, pp. 199.

[14] S. Kagan, "What Does the Research Say?," Kagan Cooperative Learning, KP, 2009, pp. 3.6.

[15] H. Marashi, H. Khatami, "Using Cooperative Learning to

Boost Creativity and Motivation in Language Learning," Journal of Language and Translation, vol. 7, no. 1(13), pp.43-58, 2017.

[16] S. Kagan, "Cooperative Projects and Presentations," Kagan Cooperative Learning, KP, 2009, pp. 13.9.

[17] S. Kagan, "Structures," Kagan Cooperative Learning, KP, 2009, pp. 6.24.

[18] H. Yusmanto, Budi E. S., Ery T. D., "The Application of Carousel Feedback and Round Table Cooperative Learning Models to Improve Student's Higher Order Thinking Skills (HOTS) and Social Studies Learning Outcomes," International Education Studies, vol. 10, no. 10, 2017. DOI:10.5539/ies.v10n10p39

[19] M. Ahmadifar, Nasim S., H. Marashi, "A Comparative Effect of Using Fishbowl and Carousel Brainstorming Strategies on EFL Learners' Foreign Language Speaking Ability and Anxiety," Journal of Applied Linguistics and Language Research, vol. 6, no. 1, pp. 276-294.

[20] J. W. Creswell, "Quantitative Methods," Research Design Qualitative, Quantitative, and Mixed Method Approaches, 3rd ed, SP, 2009, pp. 158.

[21] D. Ary, Lucy C. J., Chris S., "Experimental Research Designs," Introduction to Research in Education, 8th ed, WCL, 2010, pp. 304.

[22] J. B. Heaton, "Testing the Writing Skills," Writing English Language Test, Longman Inc., 1998, pp. 146.