The Effects of Cooperative Learning in Enhancing Writing Performance

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Abstract

Writing is one of the four language skills which is given emphasis in second language learning. In the Malaysian secondary educational scene, students learn different genres of writing like descriptive, expository, recount and narrative based on the prescribed syllabus of the Ministry of Education. The mastery of the writing skills is crucial since constant evaluation either formative or summative is conducted to gauge students' acquisition of their writing skills based on their writing performances. Hence teachers adopt and adapt various methods in the writing classrooms to ensure that the students excel in writing. One of the methods recommended in teaching writing is the incorporation of cooperative learning (Kagan 2002). This study investigates the effects of cooperative learning in enhancing the writing performance of form one students in an urban school. The research instrument used is the pre-test and post-test of the narrative essay. The data are analyzed using descriptive and inferential statistics. The students' writing performance is evaluated using analytical scoring on the composite scores and the five components of writing which are content, vocabulary, organization, grammatical accuracy and mechanics. The findings indicate that the students perform better in the post-test compared to the pre-test after the inclusion of cooperative learning in the writing classes. The findings lend credence to the positive effects of cooperative learning in enhancing writing performance.

1. Introduction

In the quest of attaining the status of a fully developed country, education undoubtedly plays an important role. The young generation need to be well educated to prepare them for the era of globalisation. At the secondary school level, an educational system which is comprehensive has been offered (Kusuma, Vasudevan, Cheng, Salehudin, Victor, Norsaedatul Rajeah, Isham, Zurina, Tan & Rozana 2001). Subjects from the arts and sciences, vocational and technical that provide a practical approach to learning are

included in the curriculum to mould the students into individuals who are prepared to face the challenges in this science and technology era.

One of the core subjects taught at a secondary school level is English Language. The Curriculum Specifications prescribed by the Ministry of Education specify the four skills which need to be mastered by the learners in three areas of language use, namely the interpersonal, the informational and the aesthetic (Pusat Perkembangan Kurikulum 2003). These areas incorporate the integration of the four skills of listening, speaking, reading and writing. Writing is one of the skills which need to be mastered by the learners. Students learn different genres of writing like descriptive, expository, recount and narrative based on the prescribed syllabus of the Ministry of Education. There are many methods adopted by the teachers in teaching writing in the classrooms. One of the methods recommended in teaching writing is the incorporation of cooperative learning (Kagan 2002).

2. Cooperative Learning

There are a few definitions on cooperative learning made by eminent scholars. Slavin (1980) describes cooperative learning as students working in small groups and are given rewards and recognition based on the group's performance. Artz and Newman (1990) define cooperative learning as a small group of learners who work as a team to solve a problem, complete a task or achieve a common goal. A definition on cooperative learning as a category under collaborative learning is given by Goodsell, Maher and Tinto (1992). They define cooperative learning as a learning approach which falls in the more general category of collaborative learning, which is described as students in groups of two or more, working together mutually to find an understanding, solutions or meaning and create a product.

Cooperative learning is a learning approach which has been proven to culminate positive results and outcome (Tengku Nor Rizan 2007). This approach is believed to enhance students' performance and achievement in various subjects and aspects of the language and producing positive social outcomes (Slavin 1995). Contrary to popular

belief cooperative learning is not mere group work. In group work sometimes the participation of the group members is not equal and there are group members who indulge on a free ride without contributing the group's work and objective. In a cooperative learning lesson, all of the team members have to assume roles to make the group task a success. The learning approach is highly structured and the teacher has to make sure that the elements of cooperative learning are evident in the lesson. This is to guarantee that each member performs their part in ensuring the success of the group's task and each member is dependent on the other to achieve the required goals.

There are different approaches and models in cooperative learning. Johnson's model of cooperative learning is referred to as 'Learning Together'. 'Learning Together' can be applied at any grade level with any subject (Kessler 1992). In this cooperative learning model, the teacher plays a crucial role to monitor the students' work or impart collaborative skills to the students. Another cooperative learning model is introduced by Spencer Kagan (1994) called Structural Approach. Structural Approach is based on the use of content-free ways of organizing interaction called structures. The structures can be adopted and adapted in various contexts (Kessler 1992). Group Investigation techniques are proposed by Sharan (1980). Group Investigation is designed to lead and propel students toward predetermined facts and skills. There are also other cooperative learning models such as Curriculum Packages (Kessler 1992). The Curriculum Packages are usually specific for certain age group and curriculum. Thus the packages are not suitable for all grade levels or all curriculum topics. The examples of Curriculum Packages are Finding Out/ Descubrimiento (De Avila, Duncan & Navarette 1987), Comprehensive Integrated Reading and Composition (CIRC) (Madden, Slavin & Stevens 1986) and Team Accelerated Instruction (TAI) (Slavin, Leavey & Madden 1986).

Cooperative learning is an approach under the umbrella of collaborative learning (Goodsell, Maher & Tinto 1992). But unlike collaborative learning or group work, in cooperative learning, the teacher plays a significant role to incorporate elements of cooperative learning and ensure that the students know how to work cooperatively in a cooperative learning situation. The absence of even one element in the lesson will lead to a non-cooperative environment. The elements of cooperative learning differ from one

approach to another. The cooperative learning model, 'Learning Together' focuses on five elements which are positive interdependence, individual accountability, face-to-face interaction, social skills and group processing (Johnson, Johnson & Holubec 1994). Slavin (1995) and his colleagues give emphasis on the use of group reward to enhance students' performance. There are four important elements of cooperative learning which need to be incorporated in Kagan's Structures (Kagan 1994). Kagan (1994) emphasizes on four basic principles of cooperative learning which are positive interdependence, individual accountability, equal participation and simultaneous interaction.

Based on the synthesis of the main elements of cooperative learning from the erudite cooperative learning researchers, seven elements are discovered (Biehler & Snowman 1997). The elements of cooperative learning are group heterogeneity, positive interdependence, promotive interaction, individual accountability, interpersonal skills, equal opportunities for success and team competition.

In cooperative learning, the teacher needs to provide a conducive environment and appropriate task for equal opportunities such as giving students learning assignments which are on par with their current level or giving marks for the improvement of scores compared to the previous test scores (Biehler & Snowman 1997). The element of team competition should also be incorporated once in a while in cooperative learning between well-matched competitors and without grading them for the norm-referenced grading system. This is because team competition can spur students to achieve the group's goal.

Group work or collaborative learning is the learning approach umbrella for cooperative learning. Erudite researchers had redesigned group work by incorporating elements that will make group work more effective and achieve its objectives. In a cooperative learning lesson, the elements of cooperative learning need to be implemented in order to make the lesson a cooperative learning lesson. If a lesson is devoid of any of the elements of cooperative learning, thus the lesson could not be considered as a cooperative learning lesson. Even though cooperative learning is learner-centred the teacher has a paramount role to play in structuring and planning the lessons.

3. Statement of the Problem

Diversified methods and approaches have been adopted and adapted by Malaysian English language teachers to teach writing. In order to ensure students' mastery of the writing skills, teachers need to employ methods and approaches which produce positive outcomes in the students' learning

Rote learning has been a common practice in the Malaysian educational scene in language learning (Campbell 2008). Most teachers and educators are in dubiety of the students' ability to acquire knowledge on their own. Most of the time, students are treated like empty vessels which need to be filled with facts in order to trigger their cognitive capability. Thus, the corollary of this perception leads to the rigidity of the teaching approach which is more teacher-centred. It also leads to the constant spoon-feeding on the teachers' part and students' dependency on the teacher in the quest of acquiring knowledge (Campbell 2008). Vadivelloo and Vijayarajoo (2004) concur that in the Malaysian educational practice including in schools, teacher-centred method still remains a widely used instructional strategies to impart knowledge. Teacher lectures, presents information, disciplines the students and gives instructions. This method is a popular method due to its convenience for the teachers since they can impart a large amount of information and knowledge to many students. Scholars believe that Malaysian schooling system should move beyond the rote learning method which most considered as methods of the past (Kaur 2001; Wong 2003; Chan 2004; Lee & Tan 2004; Yap 2004;Ismail 2005; Yen, Bakar, Roslan; Luan & Rahman 2005 & Campbell 2006).

One of the approaches which show positive result in boosting the students' writing skill is the incorporation of cooperative learning (Kagan & High 2002). Studies also show that there are 3 major positive impact of cooperative learning which are categorized into greater effort to achieve, more positive relationship among pupils and greater psychological health (Johnson & Johnson 1989). Thus, this research will contribute to the existing body of literature by investigating the effects of using cooperative learning with a group of adolescent learners in a Malaysian secondary school

context. It will focus on the effects of using cooperative learning in developing the students' writing skill.

4. Objective of the Study

The main objective of this study is to investigate the effects of cooperative learning on students' writing performance at a secondary school. This research will focus on the effects of cooperative learning in enhancing students' writing performance in the narrative genre. The cooperative learning technique will be based on Johnson and Johnson (1994) and Kagan (1994). The cooperative models used are a combination of Learning Together and Structural Approach. The writing lessons will incorporate the Coop Jigsaw II. Coop Jigsaw II is a lesson design which falls in the category of project design in Kagan's Structures (Kagan 1994).

5. Research Question

The study will answer a research question based on the objective of the study. The research question and research hypotheses are:

What are the effects of cooperative learning on students' writing performance?

Ho1: There is no significant difference in the mean gain scores (**μ)** of the writing performance before and after the incorporation of cooperative learning.

Ha1: There is a significant difference in the mean gain scores (**μ)** of the writing performance before and after the incorporation of cooperative learning.

Significance level is set at $\alpha=0.05$

6. Operational Definitions

a) Cooperative Learning

Cooperative learning is a method of instruction whereby students work cooperatively to perform a task or solve a problem presented by the teacher (Johnson & Johnson 1986). Kagan (1994) emphasizes on four basic principles of cooperative learning which are

positive interdependence, individual accountability, equal participation and simultaneous interaction. The absence of any of the elements will lead to a non-cooperative learning situation. This study will adopt and adapt two cooperative learning methods which are Learning Together by Johnson and Johnson (1994) and The Structural Approach developed by Kagan (1994).

b) Co-op Jigsaw II

Co-op Jigsaw II is a lesson design in cooperative learning. In this lesson design, each student becomes an expert on the assigned topic and meets with experts on the same topic from other teams. As a group expert they present their point to the whole class. Then, students return to their original teams (home teams). They share and apply the points and come up with a writing piece.

Coop Jigsaw II is applicable at almost any grade level across the curriculum. It is a combination of mastery and concept development which involves theory and practice (Kagan 1994). Thus the incorporation of this lesson design on form 1 students in their writing lessons will be apt and suitable.

c) Roundrobin

Roundrobin is information sharing structures in Kagan Structure (Kagan 1994). Each student in the group takes turn in stating their findings, ideas or opinion.

d) Rallyrobin

Rallyrobin is information sharing structures in Kagan Structure (Kagan 1994). Students in the group form pairs within the team and takes turn sharing ideas back and forth. After that the pairs discuss the ideas.

e) Paraphrase Passport

Paraphrase passport is communication skills structures in Kagan Structure (kagan 1994). A person can only provide his opinion or ideas after he has paraphrased the ideas put forth by the person before him.

f) Timed Pair Square

Timed Pair Share is one of the structures in Kagan Structure. Each student discussed the topic in their team within the required time frame. The timekeeper will ensure that each student in the group gives their ideas or opinion within the required time allocation

7. Writing in ESL And EFL Context

Writing is one of the skills that students need to master either at primary, secondary or tertiary level. The skill of expressing oneself in the form of writing has been the aim of many teachers to cultivate in their students (Krause 1994). However, in the ESL and EFL context, the teachers' effort to produce students who possess the skill of writing seem to be a herculean task. This is because writing skill is considered a complex cognitive skill since it requires the students to apply appropriate cognitive strategies, intellectual skills, verbal information and appropriate motivation (Tierney 1989). The students also need to create a text using certain rules and conventions and put the knowledge that they have gathered on paper (Byrne 1993).

Due to the complexity of writing for the students' cognitive capability, various approaches are adopted to make teaching writing an effective pedagogical practice (Harmer 2006). There are two approaches that teachers can adopt in teaching writing. The first approach is the product approach. The product approach focuses on the end result of the act of writing (Siti Khatijah 2004).The focus of the product approach is on the different part of the text, words, sentences, paragraphs but there is not much focus on ideas and meaning (Zamel 1985). The role of the teacher is to examine the finished product focusing more on linguistic accuracy (Mc Donough & Shaw 1993). Flower and

Hayes cited in White (1988) believe that this approach is insufficient in enhancing the students' writing performance.

Another approach to writing is the process approach (Siti Khatijah 2004). The process approach focuses on how writer actually do write. Writers are seen as active thinkers who employ strategies to compose text. The strategies adopted are generating ideas, reviewing, evaluating, focusing, structuring, and drafting (White & Arndt 1991).

Writing process is seen as both a cognitive process (Flower & Hayes 1981; Bereiter & Scardamalia 1987) and a socio-cultural activity (Freedman & Headway 1994). The cognitive model of writing is seen as a mental process involving directed decision making and problem solving (Chandrasegaran 2004). Siti Hamin (2004) state that the skills in writing are not acquired but culturally transmitted. The students writing skills do not come naturally but are cultivated through much practice and conscious effort. Students often find problems in writing due to their lack of skills in writing coherent and cohesive sentences.

The paradigm shift from product approach to process approach has redefined and renegotiated the teacher's role (Richards 1990; Taylor 1981). A teacher is no longer the authority figure in a writing class, but she acts as a consultant and an assistant in assisting the students to produce coherent, meaningful and a creative piece of writing. The teacher's role has changed from an evaluator of the written product to a facilitator and co-participant in the process of writing. The teacher also has a significant role to perform by providing assistance to the students during the writing process (White & Arndt 1991). The role of the teacher is to provide a learning environment that will enable the students to learn about writing, engage in writing and feel enthusiastic about writing (Siti Khatijah 2004).

8. Cooperative Learning and Writing

Writing is one of skills that students need to master. Students' acquisition of the writing skills are given much emphasis in the educational system. However, Grabe & Kaplan (1996) state that writing process received relatively little attention in research on foreign language teaching. Yet it is a valuable communicative skill to convey a person's thoughts and feelings. It is also a mean of self-discovery and linguistic discipline.

Harmer (2006) believes that writing in groups is effective in genre-based and process approach. Students found the activity motivating in terms of the writing itself. They also found the activity to be motivating when they embark on the research, discussed on the topics, had peer evaluation and achieved the group's goal

Legenhausen and Wolff (1990) concur that writing in small groups is an efficient way to promote writing abilities and it was an excellent interaction activity. Their views were supported by a study conducted by Kagan and High (2002) which showed that students performed better in writing when cooperative learning was incorporated in the classroom. In a study conducted in Catalina Ventura School in Phoenix where a high percentage of the students were students who learned English as a second language and low income students, the school's eight graders showed tremendous improvement in writing which is from 49% to 82% in their mastery level.

Data attained from ten limited English proficient (LEP) community college students who were taught largely using cooperative learning approaches also showed positive outcome (Jones & Carrasquillo 1998). For four months, the students worked together using brainstorming techniques and collaborative reading and writing tasks. Results indicated that the cooperative learning approach improved the students writing skills.

Mariam and Napisah (2005) postulated that when peer interaction was incorporated in learning writing, the students generated ideas and constructed sentences together. Thus this will lead to a better understanding of the topic that they are required to

write on. The students will also be able to write concrete, accurate and creative piece of writing (Mariam & Napisah 2005).

Collaborative work between learners is encouraged to increase motivation and develop positive attitudes towards the writing activities (Nunan 1991; Spencer 1983). The students should be responsible in their writing and given the opportunity to share their work with others. The immediate feedback and positive reinforcement will boost their motivation to engage in writing activities.

The studies conducted on the incorporation of cooperative learning in learning writing, showed that cooperative learning is an effective educational approach to improve the students' achievement in writing. This study will contribute to the existing body of literature in investigating the incorporation of cooperative learning in teaching writing to form one students in the Malaysian context.

9. Methodology

This study investigated the effects of cooperative learning on form one students in their writing performance for the narrative genre.

The study adopted the quantitative research method. The one- group time series design was employed for the quantitative research method since it involved ongoing measurement and the group experienced experimental treatment within a period of time. This one-group time series design is useful in educational studies since the repeated testing dispels some common threat to internal validity (Ary, Jacobs and Razavieh 2002).

$$Y_1 \quad X \quad Y_2$$

Y_1 Pre-test
Y_2 Post-test

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X Treatment

(Ary, Jacobs and Razavieh 2002)
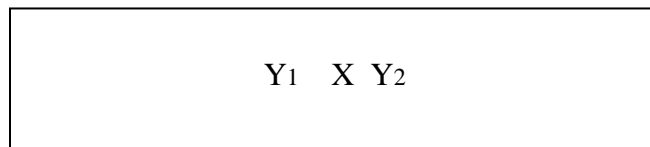
10. Participants

The data were drawn from two form one classes of intermediate level in an urban government school. The classes had approximately fifty-three students of mostly intermediate proficiency level in English Language based on their national examination for primary school which was Ujian Penilaian Sekolah Rendah (UPSR). The students sat for the examination last year when they were in standard six. Ten students obtained grade A, twenty-one students obtained grade B, twenty-two students obtained grade C which indicated that most of them were of an intermediate level. The sample consisted of thirty females and twenty-three males who had never experienced cooperative learning before the treatment

11. Research Instrument

The research instrument used to carry out the research which was the pre-test and the post-test.

11.1 Essay Writing (Pre-test and Post-test)

The pre-test and post-test were conducted to gauge the students' mastery of writing based on form one prescribed syllabus from the Ministry of Education. The format of the writing test was adapted from the lower secondary national examination, Penilaian Menengah Rendah (PMR) English Language paper which was also the format used to evaluate students' performance at the school level for summative evaluation. Thus the students had been exposed to the test format. In order to ensure reliability the pre-test and post-test were set by a panel of experts who had ten years of experience setting English Language paper for school and district level.

The pre-test and post-test were in tandem with the form one syllabus prescribed by the Ministry of Education. The question was based on the topic that the students were required to learn in form one. The topic evaluated in the tests was a topic on 'Friends'. The genre of writing that the students had to write on was based on the prescribed genre that the students were required to learn when they were in form one which was the narrative genre.

12. Research Procedures

This research was conducted on the cooperative learning group using a quasi-experimental design. The data was analyzed using pre-test and post-test. The researcher conducted the research for eleven weeks. One week was used to administer the pre-test for the narrative essay. Two weeks were then allocated to brief the students and the teacher on cooperative learning approaches which were Learning Together by Johnson and Johnson (2000) and Kagan Structures by Kagan (1994). Six weeks were then allotted for the execution of the cooperative learning lesson plans. The final two weeks were used to administer the post-test. Figure1 gives a clearer perspective on the research procedure.

Week	Procedure (n=53)	Conducted by
1	1. Writing test (pre-test)	teacher
2 and 3	1.Briefing on cooperative learning to the students 2.Briefing on cooperative learning to the teacher conducting the cooperative learning lessons	researcher researcher
4 to 9	Cooperative learning treatment	teacher
10	1.Writing test (post-test)	teacher

Figure 1 Research procedure

12.1 Essay Writing (Pre-test and Post-test)

During the first week, the pre-test of the narrative genre was given to the students in the cooperative learning group. During the pre-test, the participants were given to write on one genre which was the narrative genre. This genre was chosen for the test and for the

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cooperative learning lessons due to the fact that the genre is prescribed in the form one syllabus. Thus the participants will not be left behind from their counterparts due to this ten weeks research.

The students were asked to write an essay. The essay was based on pictorial stimulus. The students were required to write the essay for forty minutes and in not less than a hundred and twenty words. The students were required to write the same essay for their post-test after the completion of six weeks cooperative learning lessons. The post-test was conducted on the tenth week so that the students did not have much recollection of the pre-test given earlier.

Quantitative analysis using paired sample t-test was used to compare the writing performance of the cooperative learning group. Paired sample t-test was used since it tested the same people on a few occasions (Pallant 2001). The paired sample t-test was employed to determine whether there was a statistically significant difference in achievement for the cooperative learning group before and after the inclusion of cooperative learning. The pre-test and post-test of the narrative genre of writing was analyzed to determine whether there was a statistically significant difference in achievement of writing when cooperative learning was incorporated.

13. Evaluation of the Pre-Test And Post-Test

The assessment of the pre-tests and post-tests was based on analytical scoring. Analytical scoring means that the each writing components is assessed separately and the total score is based on the totality of the components . In this study the total scores and the scores of each component were of equal importance.

14. Cooperative Learning Treatment

The incorporation of cooperative learning was conducted for six weeks in the writing lesson in the English Language class. Thirty-five periods (forty minutes per period) were utilized for the cooperative learning treatment. The groups were taught writing using the

cooperative learning method from the fourth week until the ninth week. Then, the groups took the post-test on the tenth week.

This cooperative learning approach the Co-op Jigsaw II project lesson design of Kagan Structure was incorporated. This lesson design was incorporated because it was flexible and it can also be implemented in almost any subject (Kagan 1994).

In the cooperative learning writing lesson, the researcher incorporated the Coop Jigsaw II. Each member of the group was assigned to gather information on a particular topic. During the writing class, each member of the team discussed the topic with other members of the other teams who had to acquire the same information using Kagan's RoundRobin, Rallyrobin, Timed Pair Square and Paraphrase Passport structures. This group is called the expert group.

After the discussion the members of each team went back to their original groups (home teams) and shared their information. The students were required to brainstorm and discuss on the given topic based on the information that they had gathered and shared in their expert groups and their assigned groups using Kagan's Roundrobin, Rallyrobin, Timed Pair Square and Paraphrase Passport structures.

Then, the researcher asked each group to elect a leader, a secretary, a quiet master and checker (Positive interdependence and individual accountability). The roles were assigned to enable them to work as a group using the cooperative skills proposed by Johnson, Johnson and Holubec (1991).

Then, the teacher asked a presenter to present the group's work. The teacher gave feedback after each presentation. The teacher announced the group with the best presentation as extrinsic motivation. Grades were not awarded for the group's work. The students were assigned different topics and activities in gathering and presenting information during the six weeks.

15. Data Analysis

Descriptive and inferential statistics were used to analyze the data. The data was analyzed using a statistical software which was SPSS Version 14 for the inferential statistics. The cooperative learning approach was the independent variable whereas the students' performance in their writing tests was the dependent variable. The mean scores between the pre-test and post-test were analyzed to determine whether there was a statistically significant difference in the students' writing performance before and after the incorporation of cooperative learning.

15.1 Pre-Test and Post-Test

The pre-tests and post-tests were analyzed to determine whether there was a significant difference in the students' writing achievement when cooperative learning was used in the classroom. The data were analyzed using descriptive and inferential statistics. The descriptive and inferential statistics were employed to analyze the pre-test and post-test. The descriptive statistics analyzed the pre-test based on the mean, standard deviation and percentage whereas the inferential statistics analyzed the difference in the mean gain scores of the writing performance in the pre-tests and post-tests of the cooperative learning group in terms of the composite scores and five writing skills which were content, vocabulary, organization, grammar and mechanics adopting paired sample t-test.

15.1.2 Descriptive Statistics

The findings of the pre-test and post-test were analyzed using descriptive statistics to determine whether cooperative learning enhanced students' writing performance in the composite scores and the five writing components.

15.1.3 Pre-Test and Post-Test Scores

The pre-test and post-test scores were analyzed using descriptive statistics to determine whether the students' performance showed an increase in the post-test compared to the

pre-test for the narrative genre. The enhancement in the students' performance in the post-test compared to the pre-test provided proof that the students' showed an increase in their writing performance after the incorporation of cooperative learning in the writing lessons. Thus proving that the inclusion of cooperative learning in the writing lessons had positive effects on the students' writing performance in the composite scores and the five component of writing scores.

When compared between the pre-test and the post-test of the narrative writing, a few conclusions can be made. The study showed that students performed better in the post-test compared to the pre-test for the composite score and the five writing components which were content, vocabulary, organization, grammar and mechanics.

The composite scores indicated that the students performed better in the post-test compared to the pre-test. The range of marks for the pre-test was between 3 to 25 whereas for the post-test, the range of marks was between 12 to 32. This showed that there was a notable difference between the minimum scores and the maximum scores. The increase in the minimum score was 9 marks (22.5%) whereas the increase in the maximum score was 7 marks (17.5%). This showed that after the incorporation of cooperative learning, the students were able to perform better in narrative writing based on the increase in the minimum score and the maximum score.

The mean score for the post-test was also higher compared to the pre-test of the narrative writing. In the post-test the mean score was 26.37 whereas for the pre-test the mean score was 11.58. This showed that there was a 14.79 (36.98%) increase in the mean score of the post-test. This indicated that the students' writing performance had enhanced after the inclusion of cooperative learning in the writing lessons.

The scores for the five writing components also indicated that the students performed better in the post-test compared to the pre-test. The students performed better in all five writing components which were content, vocabulary, organization, grammar and mechanics.

For content, the range of marks for the post-test was 12 to 32 for whereas the range of marks for the pre-test was 4 to 26 . This indicated that the minimum mark for content increased by 8 marks (20%) whereas the maximum mark enhanced by 6 marks (15%). The mean score for the post-test for content was 26.72 whereas for the pre-test was 12.64. This showed that there was an increase of 14.08 (35.2%) in the mean score. This indicated that the students performed better in the content component in the narrative essay after they were taught using the cooperative learning approach. Thus, indicating that cooperative learning provided a platform for the students to write better content in their writing for the narrative essay.

In terms of vocabulary, the range of marks for the post-test was 12 to 33 for whereas the range of marks for the pre-test was 3 to 25 . This indicated that the minimum mark for vocabulary increased by 9 marks (22.5%) whereas the maximum mark was enhanced by 8 marks (20%). The mean score for the post-test for vocabulary was 26.26 whereas for the pre-test was 11.25. This showed that there was an increase of 15.01 (37.53%) in the mean score. This showed that the students' performance in writing in terms of vocabulary had been enhanced after the inclusion of cooperative learning. This proved that when the students experienced cooperative learning in their writing classes, they were able to generate more apt and appropriate vocabulary in their writing for the narrative essay.

For organization, the range of marks for the post-test was 14 to 33 whereas the range of marks for the pre-test was 3 to 25. This indicated that the minimum mark for organization increased by 11 marks (27.5%) whereas the maximum mark was enhanced by 8 marks (20%). The mean score for the post-test for organization was 26.23 whereas for the pre-test was 12.21. This showed that there was an increase of 14.02 (35.05%) in the mean score. This showed that the students' performance in writing in terms of organization had increased after the incorporation of cooperative learning. This indicated that when the students experienced cooperative learning in their writing classes, they were able to organize their writing better and produce a more coherent piece of writing.

In terms of grammar, the range of marks for the post-test was 12 to 32 whereas the range of marks for the pre-test was 3 to 23. This indicated that the minimum mark for grammar increased by 9 marks (22.5%) whereas the maximum mark was enhanced by 9 marks (22.5%). The mean score for the post-test for grammar was 25.85 whereas for the pre-test was 11.37. This showed that there was an increase of 14.48 (36.2%) in the mean score. Thus, showing that the students' performance in writing in terms of grammar had increased after the incorporation of cooperative learning. This proved that students were able to write more grammatically accurate sentences and had better control of the structures after the inclusion of cooperative learning.

For mechanics, the range of marks for the post-test was 12 to 32 whereas the range of marks for the pre-test was 3 to 26. This indicated that the minimum mark for mechanics increased by 9 marks (22.5%) whereas the maximum mark was enhanced by 6 marks (15%). The mean score for the post-test for mechanics was 26.19 whereas for the pre-test was 10.70. This showed that there was an increase of 15.49 (38.73%) in the mean score. Hence, indicating that the students' performance in writing in terms of organization had increased after the incorporation of cooperative learning. This proved that students were able to spell words better and made less error with punctuations after experiencing of cooperative learning.

Table 1 The difference in the composite scores and the five writing components in the pre-test and post-test of the narrative essays

(n=53)	Pre-test				Post-test				Mean	% of change
	Min	Max	M	SD	Min	Max	M	SD		
Composite	3	25	11.58	6.62	12	32	26.37	4.43	14.79	36.98
Content	4	26	12.64	7.25	12	32	26.72	4.43	14.08	35.25
Vocabulary	3	25	11.25	6.41	12	33	26.26	4.87	15.01	37.53
Organization	3	25	12.21	6.93	14	33	26.23	4.50	14.02	35.05
Grammar	3	23	11.37	6.69	12	32	25.85	4.63	14.48	36.2
Mechanics	3	26	10.70	5.89	12	32	26.19	4.45	15.49	38.73

14.1.4 Discussion and Interpretation of the Findings

The analysis of the findings of the pre-test and post-test of the narrative genre using descriptive statistics showed that the students performed better in the post-tests compared to the pre-tests. This proved that the incorporation of cooperative learning had culminated positive outcomes in enhancing the students' writing performance. The students not only performed better in the composite scores but they also showed enhanced performance in the five components of writing which were content, vocabulary, organization, grammar and mechanics. This proved that the inclusion of cooperative in the writing lessons had positive effects on the students' amelioration of all the five writing components which were important components in producing quality essays and for essay assessment. The effects of cooperative learning in enhancing students' performance which had been proven in various studies had also been proven in this study. The elements and effects of cooperative learning had made it feasible for the students to perform better in their writing after they had experienced cooperative learning in the writing lessons.

The increase in the students' writing performance for the composite scores and the five writing components could be due to the fact that cooperative learning provided a shared cognitive set between students (Johnson, Johnson & Smith 1991). When students discuss examples and viewpoints on a common issue, they are able to grasp what their peers think and understand the issue better. Besides, cooperative learning provides the opportunity for students to learn the material. When peer interaction is incorporated in learning writing, the students generate ideas, understand sentences and provide assistance.

Based on the descriptive analysis, it can be concluded the incorporation of cooperative learning can enhance students' writing performance in narrative writing. The elements and effects of cooperative learning can provide an avenue for the students to excel themselves in the writing classes for the narrative genre.

16. Inferential Statistics

The paired-samples t-test, was employed in the study since there was one group of people and the data were collected on two different occasions and under two different conditions (Pallant 2001).

16.1 Narrative Pre-test and Post-test Scores

A paired-samples t-test was conducted to determine whether there was a statistically significant difference between the pre-test and the post-test of the narrative essay for the composite score and the five writing components which were content, vocabulary, organization, grammar and mechanics.

The results for the composite score showed that there was a significant difference, $t(52)=25.82$, $p=0.00$. The mean for the post-test was higher than the pre-test. The mean for the post-test was 26.45, SD=4.44 whereas the mean for the pre-test was 11.58, SD=6.59. Table 2 and 3 illustrate the findings.

Table 2 Paired samples statistics for narrative pre-test and post-test composite scores

Narrative(Composite scores)	N	M	SD	SEM
Pre-test	53	12.21	6.93	0.95
Post-test	53	26.23	4.50	0.62

Table 3 Paired sample t-test for narrative pre-test and post-test composite scores

	Paired differences						
			95% Confidence interval of the Difference				
	Mean	Std Error Mean	lower	upper	t	df	Sig (2-tailed)
Pre-test Post-test	-14.02	0.58	-13.71	-16.02	25.82	52	0.00

This showed that the students performed better in the composite score in the post-test of the narrative genre compared to the pre-test. This indicated that the inclusion of cooperative learning had a significantly positive effect on the students' performance based on the better performance in the post-test compared to the pre-test.

The paired sample t-test was also conducted on the scores of the five components of writing which were content, vocabulary, organization, grammar and mechanics. In terms of content, the results showed that there was a statistically significant difference for the pre-test and the post-test. The findings showed that the students performed better in the post-test compared to the pre-test, $t(52)=21.42$, $p=0.00$. The mean for the post-test was higher than the mean for the pre-test. The mean for the post-test was 26.72, $SD=4.43$ whereas the mean for the pre-test was 12.64, $SD=7.25$. Table 3 and 4 illustrate the findings.

Table 3 Paired samples statistics for narrative pre-test and post-test content scores

Narrative (content scores)	N	M	SD	SEM
Pre-test	53	12.64	7.25	0.95
Post-test	53	26.72	4.43	0.62

Table 4 Paired sample t-test for narrative pre-test and post-test content scores

	Paired differences						
			95% Confidence interval of the Difference				
			lower	upper			
	Mean	Std Error Mean			t	df	Sig (2-tailed)
Pre-test Post-test	-14.08	0.66	-12.76	-15.39	21.42	52	0.00

This showed that that there was a statistically significant difference between the pre-test and the post-test. The incorporation of cooperative learning had a positive effect on the students' performance in terms of content in narrative writing.

The vocabulary component also showed significant difference in the post-test compared to the pre-test of the narrative writing. The results were, $t(52)=26.789$, $p=0.00$. The mean was 26.08, SD=4.55 for the post-test whereas for the pre-test was M= 11.40, SD=6.43. Table 5 and 6 illustrate the findings.

Table 5 Paired samples statistics for narrative pre-test and post-test vocabulary scores

Narrative (vocabulary scores)	N	SEM	M	SD
Pre-test	53	11.40	6.43	0.88
Post-test	53	26.08	4.55	0.63

Table 6 Paired sample t-test for narrative pre-test and post-test vocabulary scores

	Paired differences				t	df	Sig (2-tailed)
	Mean	Std Error Mean	95% Confidence interval of the Difference				
			lower	upper			
Pre-test Post-test	-14.68	0.55	-13.58	-15.78	26.79	52	0.00

The findings showed that the students performed significantly better in the post-test compared to the pre-test. This indicated that the students were able to perform better for the vocabulary component after the inclusion of cooperative learning in the writing classes.

The students' performance in organization also showed significant difference in the post-test compared to the pre-test. The results showed that there was a statistically significant difference, $t(52)=23.55$, $p=0.00$. The post-test mean and standard deviation

was M=26.23, SD=4.50 whereas for the pre-test was M=12.21, SD=6.93. Table 7 and 8 illustrate the findings.

Table 7 Paired samples statistics for narrative pre-test and post-test organization scores

Narrative(organization scores)	N	M	SD	SEM
Pre-test	53	12.21	6.93	0.95
Post-test	53	26.23	4.50	0.62

Table 8 Pairedsample t-test for narrative pre-test and post-test organization scores

	Paired differences						
			95% Confidence interval of the Difference				
	Mean	Std Error Mean	lower	upper	t	df	Sig (2-tailed)
Pre-test Post-test	-14.02	0.60	-12.82	-15.21	23.55	52	0.00

This showed that there was a statistically significant difference between the pre-test and the post-test. The findings indicated that the students performed better in the post-test compared to the pre-test. This proved that the inclusion of cooperative learning had a positive effect on the students' performance for organization in narrative writing.

The analysis of grammar component in narrative writing indicated that the students performed better in the post-test compared to the pre-test. The results showed that there was a statistically significant difference, t(52)=31.21, p=0.00. The mean for the pre-test was M=10.21, SD=5.21 whereas for the post-test was M=25.85, SD= 4.63. This indicated that the students performed better in the post-test compared to the pre-test for grammar component. Table 9 and table 10 illustrate the findings.

Table 9 Paired samples statistics for narrative pre-test and post-test grammar scores

Narrative (grammar scores)	N	M	SD	SEM
Pre-test	53	10.21	5.72	0.79
Post-test	53	25.85	4.63	0.64

Table 10 Paired sample t-test for narrative pre-test and post-test grammar scores

	Paired differences						
			95% Confidence interval of the Difference				
	Mean	Std Error Mean	lower	upper	t	df	Sig (2-tailed)
Pre-test Post-test	-15.64	0.50	-14.64	-16.65	31.21	52	0.00

The findings showed that the students performed better for the grammar component after they experienced cooperative learning in the writing classes. This proved that cooperative learning treatment had positive effect in improving students' performance in grammar component for narrative writing.

The students' performance in mechanics also showed significant difference in the post-test compared to the pre-test. The results showed that there was a statistically significant difference, $t(52)=22.70$, $p=0.00$. The post-test mean and standard deviation was M=26.28, SD=4.41 whereas for the pre-test was M=11.23, SD=6.70. Table 11 and 12 illustrate the findings.

Table 11 Paired samples statistics for narrative pre-test and post-test mechanics scores

Narrative (mechanics scores)	N	M	SD	SEM
Pre-test	53	11.23	6.70	0.92
Post-test	53	26.28	4.41	0.61

Table 12 Paired sample t-test for narrative pre-test and post-test mechanics scores

| | Paired differences | | | | t | df | Sig (2-tailed) |
| | Mean | Std Error Mean | 95% Confidence interval of the Difference | | | | |
			lower	upper			
Pre-test Post-test	-15.06	0.66	-13.73	-16.39	22.70	52	0.00

This showed that there was a statistically significant difference between the pre-test and the post-test. The findings indicated that the students performed better in the post-test compared to the pre-test. This proved that the inclusion of cooperative learning had a positive effect on the students' performance for mechanics in narrative writing.

16.1.2 Discussion and Interpretation of the Findings

The analysis based on inferential statistics revealed that there was a significant difference between students' pre-test score and post-test score in narrative writing in terms of the composite scores and the scores for the five writing components which were content, vocabulary, organization, grammar and mechanics. The findings indicated that students obtained significantly higher post-test scores than pre-test scores in narrative essay writing.

The findings proved that the incorporation of cooperative learning in the writing classes for narrative genre produced significantly positive outcome. Students showed a significant improvement in the post-test compared to the pre-test. This proved that students performed better in the composite scores and the five writing components after the inclusion of cooperative learning in the writing lessons. Thus the null hypothesis was rejected.

The enhancement of the students' writing performance for the composite score and the five writing components could be due to the fact that cooperative learning provides a platform for students to analyze and synthesize ideas which could lead to a higher level thinking and understanding (Kaur 2000). Besides, cooperative learning had helped them in terms of generating ideas and realizing their own errors when writing (Mariam & Napisah 2005). They also enjoyed themselves working with friends in exchanging ideas, interacting and getting to know their friends better.

17. Conclusion

This study elucidates that cooperative learning enhances students writing performance. The cooperative learning approach adopting the Kagan Structures and Learning Together cooperative learning model and using Co-op Jigsaw II learning design produces positive effects in the students' performance in the writing lessons. Apart from better composite scores, the students' essays are of better quality in terms of content, organization, vocabulary, grammar and mechanics.

In this study, before cooperative learning was incorporated in the lesson, the students obtained low scores for the narrative essay. However, after the implementation of cooperative learning for six weeks, the students scored significantly better in their essay writing. When the essays were analyzed based on the compartmentalization of the five writing skills which were content, organization, vocabulary, grammar and mechanics, it was indubitably obvious that the students showed significant enhancement in all the five components of the writing skills. This indicates that the incorporation of cooperative learning provides the mechanism in improving the students' writing performance and at the same time improving the five writing skills which are also vital language skills in language learning. Thus the benefits of the incorporation of cooperative learning are twofold. Not only will the students perform better in the composite score but at the same time they will improve in the five components writing which are also important elements in language learning in general.

The findings of this study would be useful for teachers in adopting this learning as a viable alternative in teaching writing. The implementation of cooperative learning in the writing lesson has been proven to produce positive effects in students' learning of writing.

The learning and teaching of writing should not be considered as Achilles Heels for the students and teachers. Writing lessons would be fun and effective when suitable learning approaches are adopted. The use of cooperative learning has been proven to culminate positive outcomes in terms of the students' writing performance.

In conclusion, this study lends credence to the belief that cooperative learning has positive effects on the students' writing performance. Therefore, teachers should consider this learning approach as a viable alternative for them in teaching writing.

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