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Writing Proficiency and Learning Activities among First Year College Students

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ABSTRACT

The study examined the writing proficiency and learning activities of first-year college students. An experimental research design was employed, involving two groups: the problem-based learning (PBL) group and the cooperative learning (CL) group. Participants were randomly selected from sections A1B, C1C, and E1F, with 10 respondents from each section. Both groups underwent a treatment or intervention program, and their writing competency was assessed before and after the intervention using rubric. The Mann-Whitney U test was used to determine any significant differences in their scores.

Based on the rubric-based evaluation, most students in both the PBL and CL groups demonstrated good performance in writing, particularly in content, organization, vocabulary, sentence construction, and mechanics. While their posttest results showed similar interpretations to the pretest, there was a notable increase in mean scores and the number of students who improved.

To further explore the effects of the intervention, the researcher implemented problem-based and cooperative learning strategies to determine their impact on students' writing proficiency. The findings showed that cooperative learning was more effective than problem-based learning in improving content. However, in terms of organization and vocabulary, both approaches yielded no significant difference between pretest and posttest scores. In sentence construction, both PBL and CL resulted in significant improvements, indicating the effectiveness of the activities. As for mechanics, problem-based learning showed a significant difference and was found to be more effective than cooperative learning.

Overall, the use of problem-based and cooperative learning strategies contributed positively to students' writing performance, suggesting that these approaches can be valuable tools for English teachers and professors to enhance writing instruction.

Keywords: Writing Proficiency; Learning Activities; Problem-based Learning; Cooperative Learning

INTRODUCTION

Writing is one of the essential skills every individual should possess. It plays a crucial role in effectively communicating information, whether in the public or private sector and views as a culturally and individually intentional act (Berge, et al., 2016). However, writing requires adherence to specific guidelines and procedures, which writers must be properly educated in. Aristotle emphasized that one of the primary purposes of education is to develop virtuous and responsible citizens. Supporting this view, Widaningrum, et al. (2015) highlighted that learners have diverse preferences and styles when it comes to acquiring new knowledge.

Cooperative learning and problem-based learning (PBL) draw some of their theoretical foundations from John Dewey's educational philosophy. In his seminal work Democracy and Education (2006), Dewey envisioned schools as microcosms of society, where classrooms serve as laboratories for inquiry and real-life problem-solving.

According to Arends (2015), problem-based learning promotes higher-order thinking skills in contexts that require learners to engage in critical and reflective problem-solving. This approach is also known as project-

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based instruction, authentic learning, or anchored instruction. In contrast, cooperative learning was designed to achieve multiple instructional goals: improving academic performance, fostering tolerance and appreciation for diversity, and enhancing social skills.

Recognizing that writing is a social activity, the researcher developed a keen interest in exploring the impact of learning strategies, specifically, problem-based learning and cooperative learning on students' writing composition proficiency. This investigation aims to contribute to a deeper understanding of how these instructional methods influence current and future writing performance among students. Thus, the study focused on determining the effect of learning activities on the writing composition skills of first-year college students.

Wrigley (2017) proposed that learners operate at two levels of development: the actual level, which reflects their current independent capabilities, and the potential level, which indicates what they can achieve with the guidance of a teacher, parent, or more knowledgeable peer. This framework underscores the importance of social interaction in the learning process.

With this, the study sought answers to the following questions:

1. What are the pre-test scores of problem-based learning group and cooperative learning group in writing competency in terms of:

1.1. Content,

1.2. Organization,

1.3. Vocabulary,

1.4. Sentence construction, and

1.5. Mechanics?

2. What are the post-test scores of problem-based learning group and cooperative learning group in writing competency in terms of:

2.1. Content,

2.2. Organization,

2.3. Vocabulary,

2.4. Sentence Construction, and

2.5. Mechanics?

3. Is there a difference in the pretest and post-test scores using problem-based learning and cooperative learning along the aforementioned writing competency areas?

4. Based on the result of the study, what work plan can be proposed to develop their proficiency in writing composition?

The study focused on the writing proficiency and the learning activities among first year college students. The research sample consisted of first year BS Engineering, BS Accountancy, and BS Business Administration students who were enrolled in English 200, Communication Arts 2, handled by the researcher. These groups were academically heterogeneous. Problem-based learning and cooperative learning were used to determine its influence on writing proficiency of the students, and the two types of learning were conducted for almost one month. There was only limited time available to the students because of some school activities wherein they are all required to attend.

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METHOD

Research Design

This study used an experimental research design involving two groups: the problem-based learning (PBL) group and the cooperative learning (CL) group. Participants were randomly selected from three first-year college sections A1B, C1C, and E1F. From each section, 10 students were randomly chosen, resulting in 30 participants in total for each group. These groups underwent a treatment or intervention program. Writing competency for both the PBL and CL groups was assessed through pretest and post-test evaluations administered before and after the intervention.

Respondents of the Study

All respondents were first-year students enrolled in Communication Arts II during the second semester of Academic Year 2015–2016. Out of ten sections handled by the researcher, three A1B, C1C, and E1F were randomly selected to participate in the study. A total of 30 students were assigned to either the PBL or CL group, with each section contributing an equal number of participants. It was assumed that all sections followed the same course objectives, received similar instructional supervision, and were subjected to uniform assessment methods. These conditions were maintained consistently throughout the duration of the experiment.

Table 1. Gender Profile Of The Respondents

Learning Group	**A1B**		**C1C**		**E1F**		**Total**
	male	female	male	female	male	female	
Problem-based Learning	1	9	-	10	3	7	30
Cooperative Learning	5	5	7	3	7	3	30

Section A1B is composed of first year BS Accountancy students. 10 students were randomly selected from this section for problem-based learning and the sampling yielded 1 boy and 9 girls, 10 girls from section C1C which constituted first year BS Business Administration students, and 3 boys and 7 girls from section E1F, the first-year engineering students. For cooperative learning, 5 boys and 5 girls were randomly selected from section A1B, 7 boys and 3 girls from section C1C, and 7 boys and 3 girls from section E1F.

Research Instrument

In this study, students' essay compositions based on a topic provided by the researcher served as the primary instrument. Two data collection methods were utilized to examine the influence of learning activities on the writing composition proficiency of first-year college students.

The first data collection method involved journal logs, which documented the researcher's daily observations of individual and group performance during the intervention phase (see Appendices C, D, and E). These logs captured students' engagement and participation in both problem-based learning (PBL) and cooperative learning (CL) settings.

The second method involved collecting the students' raw scores based on a standardized rubric used to assess their writing proficiency in both pretest and posttest essays. These scores were encoded into a spreadsheet for analysis, with each participant's results from the PBL and CL groups recorded and organized for comparison.

Data Gathering Procedure

To evaluate their initial writing competency, students in both the PBL and CL groups were first instructed to write an essay (pretest) on a topic provided by the researcher. They were given 90 minutes to complete the task, which was scored using a rubric adapted from the Brandywine School District Intermediate Writing

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Rubric, aligned with A Taxonomy for Learning, Teaching, and Assessing. After this, the participants were reminded of their scheduled intervention sessions.

The day following the pretest, the PBL intervention began. Students were grouped and assigned a real-life problem scenario to solve. They were given 60 minutes during five class periods to research, write, and organize their information—using textbooks, computers, or collaborating in-class with peers. Some groups extended their work beyond class hours, either at home or elsewhere, to prepare presentations. During the second week of PBL, each group presented their outputs to at least two other first-year sections taught by the researcher. These sessions were documented in a journal, noting the number of groups that stayed on task throughout the process.

On the same day in the afternoon, the CL intervention was introduced. Students were evenly grouped based on ability levels, as determined by the researcher's prior observations. Each group was allotted 90 minutes to complete various collaborative tasks over a period of nearly one month. Throughout this process, the researcher documented student participation and group dynamics to ensure active engagement.

To maintain objectivity and fairness, the intervention sessions were observed by a supervising professor who also contributed suggestions to enhance the activities. This oversight ensured that both interventions were implemented consistently and equitably across the two groups. The entire study was conducted within the Academic Year 2015–2016.

After completing all interventions, students were asked to write another essay (post-test) using the same format and topic as the pretest. The same rubric was used to assess the posttest essays. Pre-test and post-test results were then compared to determine the impact of the learning activities on students' writing composition proficiency.

The researcher ensured fairness and impartiality in the selection of respondents. To avoid any perception of favoritism or bias, two groups were randomly selected from the identified sections. Even during the formation of student groups, participants were equitably distributed based on their observed performance levels. The assigned project was relevant, appropriate, and aligned with the materials available to the students, and it was fairly assigned to all groups. The researcher took care to treat all respondents equally, respecting their rights and maintaining the confidentiality of their results. Proper procedures were followed in terms of presenting, gaining approval for, and conducting the study, ensuring ethical considerations were upheld throughout.

Statistical Treatment of Data

The data collected in this experimental research underwent **Frequency Count and Mean**. Frequency counts were used to display the number of students who received scores of 1, 2, 3, or 4 based on the writing rubric in both the pretest and posttest. The mean scores represented the average performance of the respondents in the problem-based learning and cooperative learning groups during both phases of assessment, and **Mann-Whitney U Test**, since the data distribution for each group did not meet the assumption of normality, the Mann-Whitney U test, a non-parametric alternative, was employed. This test was used to compare the pretest and posttest scores of students in the PBL and CL groups and to determine whether there were statistically significant differences in their writing performance following the interventions.

RESULT AND DISCUSSION

The first objective of the study was to determine the pretest result on writing competency of the first-year college students of University of Perpetual Help System in terms of content, organization, vocabulary, sentence construction, and mechanics. The results are presented in table form and are verbally interpreted in the following:

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Table 1.1. Pretest Scores On Writing Competency In Terms Of Content

	Group	Mean	Rounded Mean (Mode)	Interpretation
Content	Problem-Based Learning	2.97	3	Good
	Cooperative Learning	2.63	3	Good

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Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

Table 1.1 reveals the pretest results on writing competency of the respondents of problem-based learning (weighted mean=2.97) and cooperative learning (weighted mean=2.63) interpreted as **good** in **terms of content** which implies that the details and main ideas of their composition are usually well explained, but not well supported by the detailed information.

Table 1.2. Pretest Scores On Writing Competency In Terms Of Organization

	Group	Mean	Rounded Mean (Mode)	Interpretation
Organization	Problem-Based Learning	3.03	3	Good
	Cooperative Learning	2.70	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

As shown in the table, the respondents of PBL and CL group reported as **good** which implies that they used cohesive devices appropriately in organizing the details in their writing composition, although there may be some under-over-use. The two groups differ only to the mean result where PBL had a weighed mean of 3.03 and CL weighted mean of 2.70.

Table 1.3. Pretest Scores On Writing Competency In Terms Of Vocabulary

	Group	Mean	Rounded Mean (Mode)	Interpretation
Vocabulary	Problem-Based Learning	2.97	3	Good
	Cooperative Learning	2.73	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

As presented in table 1.3, PBL had a mean score of 2.97 and 2.73 for CL which belong to 2.50-3.49 from the legend, so the two groups interpreted as **good** which implies that the respondents may produce occasional errors in word choice and placement of words in their composition.

Table 1.4. Pretest Scores On Writing Competency In Terms Of Sentence Construction

	Group	Mean	Rounded Mean (Mode)	Interpretation
Sentence Construction	Problem-Based Learning	2.87	3	Good
	Cooperative Learning	2.43	2	Poor

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

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As illustrated in table 1.4, when it comes to the capability of the students **in constructing a sentence**, problem-based learning group was reported as **good** with the mean score of 2.87 which means that most of the respondents in PBL had structurally complete sentences, but produced occasional errors in word formation while cooperative learning group had a mean score of 2.43 and interpreted as **poor**. It implies that students make some errors in word formation and often start in the same way. Possibly, some students were just doing their task for requirement purposes only without using their thinking skills.

Table 1.5. Pretest Scores On Writing Competency In Terms Of Mechanics

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Mechanics	Problem-Based Learning	2.53	3	Good
	Cooperative Learning	2.27	2	Poor

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

The table shows that the respondents of PBL were **good** (weighted mean=2.53) that implies the proper usage of capitalization, punctuation marks, subject, verb, and pronouns that agree, and spelling. Whereas CL group was reported as **poor** (weighted mean=2.27) which also implies that students sometimes have proper usage of mechanics.

The overall mean to the pretest scores of the respondents in problem-based learning is 2.87 and 2.55 to the cooperative learning group reported as **good** in their writing competency. Zamani and Huang (2016) suggested for a group composition or grouping through cooperation which is one of the important aspect for learning and teaching. So as to the students with intention to learn in the specific part of grammar. Without the intention to learn, students will not acquire knowledge.

The second purpose of the study is to determine the post-test scores of the respondents in terms of content, organization, vocabulary, sentence construction, and mechanics. The results are presented in the following tables:

Table 2.1. Post-Test Scores On Writing Competency In Terms Of Content

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Content	Problem-Based Learning	3.27	3	Good
	Cooperative Learning	3.00	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

Table 2.1 presents the experimental result of data on writing competency of the respondents in PBL and CL in terms content. The weighted mean of 3.27 for PBL and 3.00 for CL implies that the respondents of the two groups were good at providing a clear explanation to the topic. The mean score of PBL group almost reached an excellent score.

Table 2.2. Posttest Scores On Writing Competency In Terms Of Organization

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Organization	Problem-Based Learning	3.37	3	Good
	Cooperative Learning	3.03	3	Good

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Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

Table 2.2 displays data on the weighted mean scores of the respondents in PBL acquired 3.37 reveals that they are **good** in their writing composition. It also implies that they were good in providing an overview of the paper with the proper usage of cohesive devices. Similar to the CL group with the mean score of 3.03 also account for **good** interpretation.

Table 2.3. Posttest Scores On Writing Competency In Terms Of Vocabulary

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Vocabulary	Problem-Based Learning	3.20	3	Good
	Cooperative Learning	2.83	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

Table 2.3 shows that the PBL group garnered the mean score of 3.20 and the CL group of respondents got the mean score of 2.83 reported as good in their vocabulary. This implies that students' capability in varying words with proper placement in the sentence structure is good. The two groups were good for the reason that they adapted terminologies or word usage through cooperation and collaboration with others. It helps students create new knowledge using their skills in thinking and socializing others. To compare the two groups, respondents of PBL are more exposed for they are required to ask and to investigate outside the campus.

Table 2.4. Posttest Scores On Writing Competency In Terms Of Sentence Construction

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Sentence Construction	Problem-Based Learning	3.30	3	Good
	Cooperative Learning	2.83	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

As shown in table 2.4, the respondents in both PBL (weighted mean=3.30) and CL (weighted mean=2.83) group described as **good** which implies that the respondents were good in forming words in a sentence with complete thought. For this, Froyd and Simpson (2010) synthesized that learner-centered provide opportunities for feedback and improvement throughout the learning process leading to evaluation and judgment at the end of the learning process.

As illustrated in table 2.5, the respondents of problem-based learning with the mean score of 3.02 revealed as good in following the rules of capitalization, punctuation, and agreement of subject, verb, and pronoun. Though CL group resulted a mean score of 2.67 which almost down to the needs of improvement, is still considered as good.

Table 2.5. Posttest Scores On Writing Competency In Terms Of Mechanics

	Group	**Mean**	**Rounded Mean (Mode)**	**Interpretation**
Mechanics	Problem-Based Learning	3.02	3	Good
	Cooperative Learning	2.67	3	Good

Legend: 3.50-4.00 – Excellent, 2.50-3.49 – Good, 1.50-2.49 – Poor, 1.00-1.49 – Needs Improvement

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Daly (2014) theoretically gave his expectation that students with low apprehensive scored significantly better on comprehensive tests of grammar, mechanics, and larger concerns in writing skills, but the overall mean score of the respondents using problem-based learning is 3.20 and 2.87 is the mean score of the students using cooperative learning reported as **good**.

The third purpose of the study is to determine the difference in the pretest and posttest scores of the respondents using problem-based learning and cooperative learning. The result was illustrated in the table below with the discussion.

Table 3. Difference In The Pretest And Posttest Scores Using Problem-Based Learning And Cooperative Learning

Problem based	**p-value**	**Remarks**	**Cooperative**	**p-value**	**Remarks**
Content	0.11642	Not significant	Content	0.02320	significant
Organization	0.09894	Not significant	Organization	0.13622	Not significant
Vocabulary	0.22628	Not significant	Vocabulary	0.61006	Not significant
Sentence Construction	0.02444	significant	Sentence Construction	0.04338	significant
Mechanics	0.01828	significant	Mechanics	0.07030	Not significant

Test used: Mann Whitney U test at 5% Level of significance

The pre-test and post-test scores of the respondents using problem-based learning and cooperative learning was computed using the Mann Whitney U Test to determine the difference of the two groups.

The findings highlighted the difference of PBL and CL in terms of content, organization, vocabulary, sentence construction, and mechanics. PBL and CL were both effective to help improve students' writing proficiency. However, to compare the result of the two groups in terms of content, cooperative learning has significant difference for its p-value of 0.02320 less than 0.05 level of significance, so the null hypothesis was rejected which means that it is more effective than problem-based learning with the greater p-value of 0.11642 in the 0.05 level of significance where the null hypothesis was accepted. Accordingly, PBL and CL are not that effective to use in terms of organization and vocabulary. Since the p value of both PBL and CL was greater than the level of significance, the null hypothesis therefore was accepted and marked as not significant. Thus, the pretest and post-test result of the two groups had no significant difference.

On the other hand, problem-based learning (p-value=0.02444) and cooperative learning (p-value=0.04338) agree to the result in terms of sentence construction. Both groups had less p-value than 0.05 level of significance, and so the null hypothesis was rejected, implying the effectiveness of the given activities. But then, in terms of mechanics, PBL has less p-value of 0.01828 than 0.05 level of significance, so the null hypothesis was rejected. PBL has significant difference and determined as more effective to use than cooperative learning.

CONCLUSIONS AND RECOMMENDATION

The purpose of the study is to determine the writing proficiency and the learning activities among first year college students. It explicitly determined the pre-test and the post-test scores of the respondents' writing competency in terms of content, organization, vocabulary, sentence construction, and mechanics, the comparison of the result between problem-based learning and cooperative learning, and the proposed work plan of the study.

The respondents of the study were the randomly selected first year college students with the total number of 60

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(30 for PBL and 30 for CL). All respondents undergone pretest, intervention using the activities of problem-based learning and cooperative learning, and post-test. Both PBL and CL were effective, but problem-based learning is considered as more influential compared to the cooperative

Based on the above-mentioned findings of the study, the following conclusions are derived:

1. That the college students are good and competent in their writing performance that should be considered by the teachers/professors to develop more.

2. That the college students become most improved to their performance in writing using problem-based and cooperative learning activities.

3. That both problem-based learning and cooperative learning are effective to use in teaching writing skills, but problem-based learning is more effective compared to cooperative learning.

4. That activities from the proposed work plan of the researcher can be considered helpful to the students and the teachers.

Recommendations

Based on the foregoing conclusions represented, the researcher consequently developed the following conclusions:

1. The use of problem-based learning and cooperative learning to the teachers who teach writing skills in English should be employed by the teacher. These would be a big help for the students to improve their skills in writing.

2. In utilizing problem-based learning and cooperative learning, the English teacher should monitor or observe the performance of the students.

3. The school should provide should be sufficient references in the library to give students updated information.

4. Continuous use of problem-based learning and cooperative learning in English class and even in Filipino subject that should also be employed by the teacher.

5. Similar research using PBL and CL should be conducted in the different year levels of the same school.

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