
Peer-Tutoring: An Effective Approach in Teaching English Grammar

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Abstract:

This study sought to determine the effect of peer-tutoring as an effective approach in teaching grammar. This study was confined to determine the effect of peer-tutoring on the performance of the students in the tests. The quasi-experimental method under the “time-series design” was used in this study. The time-series design is an elaboration of the one-group pre-test - post-test design. There were 30 students involved in this study, wherein 15 students served as tutees and the other 15 served as tutors. A validated teacher- made test was used as an instrument to gathered data. The test contained the following: forming the plurals of nouns, writing sentences using plural nouns, and spelling of irregular nouns. The peer-tutoring was used as the treatment or approach in the experiment after administering the series of pre-tests. There is a significant difference in the performance of the students in the pre-tests. The students exhibited a good performance in the series of post-tests which could be attributed to the effect of peer-tutoring approach as applied in the selected topic in English Language. Peer-tutoring greatly improved the performance of the students in the test.

Based on the findings and conclusions, the following recommendations are offered: The giving of pretest in all subjects before the actual teaching of the concepts and skills should be given emphasis by the teacher in order to measure, evaluate and diagnose the mastery learning of the students. The pre-test will serve as a basis of comparison on the performance of the students before applying any

teaching strategy. The administration pre-tests to the students should be encouraged to the teachers so that the students will be familiarized on the items thus the retention level of the concepts/skills can be measured. The administration of the post-test as an evaluative tool to measure the performance of the students on the effect of instruction should be borne in mind by the teacher. In this way, the teacher could measure his teaching performance based on the result of the test as in post-test. Peer-tutoring should be used as a strategy to enhance the collaborative learning of the students. The use of peer-tutoring as an approach in teaching specific topics should also be tried to other subject areas in order to know its effect.

Key words: peer-tutoring, teaching English grammar

INTRODUCTION

Rationale of the Study

Peer-tutoring is a method of instruction that involves students teaching other students usually their classmates. Students learn more and demonstrate mastery when they are able to comprehensively teach a subject, having someone who is on the same age level as them helps to create bridges in the learning gaps. A peer tutor can form examples and relate to a student on an entirely different level than an adult educator. A struggling student can benefit greatly from having to prepare and teach the topic that they are studying to a tutor from the same age group as them.

The relationship that exist between a teacher and a student aren't as defined with someone who is the same age as the person learning, and are therefore easier to cross and find common ground with that said student. The most important aspect of peer-tutoring is a ready monitor to ensure that the correct information is being taught. Peer-tutoring works when used properly.

Tutoring means small-group learning which involves some degree of interaction between students and a teacher. Furthermore, to the benefits to the tutees, tutors can also benefit from the method because the program allows them to review and practice material ideas and skills, to improve thinking, develop and improve good communication skills, and to gain self-understanding and awareness of personal strengths and weaknesses (Foster, 1992).

Knowing they are making a meaningful contribution to another person's learning and skill development is a powerful experience, which often results in the tutors' increased self-esteem as they see their tutees improve (Gaustad, 1993). Tutors find it useful to use role-playing activities with each other to practice skills before actually beginning to tutor. In addition, there needs to be ongoing supervision and support for tutors by their teachers, whereby feedback between teacher and tutors may regularly occur.

In peer-tutoring time is set aside, so that tutors can have the opportunity to air their frustrations, share their positive achievements or experiences and provide moral support to each other. In other words, peer tutoring is an instruction which emphasize upon the potential students to teach each other (Jones, 1990). Peer tutoring in fact, refers to situations in which students tutor or teach other students of the same or similar age or year level, and usually on a one-to-one basis. For the purpose of this thesis, the study was primarily confined to peer-tutoring relationships.

Statement of the Problem

This study sought to determine the effect of peer-tutoring as an effective approach in teaching grammar. It sought to answer the following specific questions: (1) What is the performance of the students in the pre-test? (2) What is the performance of the students in the post-test? (3) What is the effect of peer-tutoring approach on the performance of the students in the tests?

Importance of the Study

The researcher believed that this study would be of great value to many teachers, head of the department, students and other researchers.

Students. The results of the study, indirectly benefit the students in a sense that any development and progress attained by the teacher, the students become the beneficiaries. Directly, the students can gain accessible information from the study, which can be used to develop and improve teaching strategies in order to promote better English instruction in the college.

Teachers. While the teachers have the general idea of what they should accomplish in their classes, the results of this study may provide them with information necessary to help them further accomplish their goals. This provides feedback that may indicate their effectiveness and specific areas for improvement for professional growth. The results of the investigation may encourage them to adapt relevant classroom instruction to facilitate the teaching–learning process.

Head of the Department. The results of the study provide an objective picture of the actual, specifically on grammar classes that may serve as basis for designing instructional programs and policies to develop effective and efficient English instruction.

Other Researchers. The results of this study usher other researchers to conduct similar studies in other learning areas.

Conceptual Framework of the Study

The study was based on the following concepts popularized by Zalolee (1999) a classroom needs to create a learning environment characterized by democratic procedures and scientific processes. In this situation, an effective strategies and

procedures for helping small groups of students to solve their own problems and at the same time learn democratic principles from their day-to-day interaction.

Furthermore, the present study was also based on the teaching strategies referred to by Salandanan (2000) called “peer tutoring”. Peer tutoring is commonly employed when the teacher requests the older, brighter and more cooperative member of the class to tutor (coach, teach, instruct) other classmates. This is based on the rationale that the former is better equipped than the others. This is due to their closeness in age, skills, study habits and even learning styles.

Both agreed that the classroom should be a laboratory for the purpose of study and inquiry into important social and interpersonal problems, thus the emergence of the use of group dynamics and group investigations. The small group theory as applied in the classroom for academic learning and socialization became the model for cooperative learning.

One reason peer tutoring or cross-age tutoring works may be that the tutors and tutees speak a more similar language than do teachers and students (Heden, 2000). Peer tutors may simply be “good teachers”. Teaching behaviors that were found to be positively related to response rates and academic gains include on-task behaviors, prompting and guiding, praise and encouragement, adjusting to the student’s needs, managing behavior problems, allowing autonomous performance, bonding, cooperation, “go-faster” prompts, and “help” (Gorrell, 1999). The conceptual framework of the study was illustrated in two rectangular boxes following the independent and dependent variables scheme:

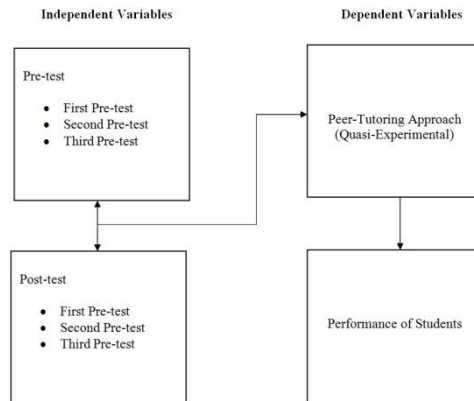


Figure 1: Paradigm of the Study

In the paradigm of the study, the students were exposed to a series of pre-tests (three). After the pre-testing series, the students went through the peer-tutoring approach. After this experience, the researcher proceeded by giving another series of post-tests to the subjects. An arrow line the independent variables signifies the differences and relationship on the performance in the pre-test and post-test of the students. An arrow pointing to the dependent variable represents the effect of peer-tutoring on the performance of the students in the tests.

Research Hypotheses

Based on the posited sub-problems of the study the following null hypotheses were formulated and tested at .05 level of significance: (1) There is a significant difference on the performance of the students in the pre-tests? (2) There is a significant difference on the performance of the students in the post-tests? (3) There is a significant difference in the series of pre-tests and post-tests results?

Scope and Delimitation of the Study

This study was confined to determine the effect of peer-tutoring on the performance of the students in the tests. The quasi-experimental method under the “time-series design” was used

in this study. The time-series design is an elaboration of the one-group pre-test - post-test design. Involving just one group, it is pre-tested three or four times and then the same group is post-tested three or four times. The number of times of pre-testing and post-testing in this study was limited to three testing (pre-test and post-test) only.

There were 30 students involved in this study, wherein 15 students served as tutees and the other 15 served as tutors. A validated teacher- made test was used as an instrument to gathered data. The test contained the following: (1) forming the plurals of nouns, (2) writing sentences using plural nouns, (3) and spelling of irregular nouns. The peer-tutoring was used as the treatment or approach in the experiment after administering the series of pre-tests.

Definition of Terms

For a common understanding the following terms were believed to be useful in the discussion of the research, thus were defined as they were used in the study. The researcher defined the terms using the dictionary and operational definition follows:

Approach. It refers to the way of dealing something. In this study, it refers to the application of peer-tutoring in teaching of grammar.

Effect. According to Webster dictionary, it means to produce as a cause, consequence or result, accomplish. In this study, it refers to the results of teaching-learning process performed by the teacher with the use of peer-tutoring.

Grammar. In this study, it refers to the learning of the structures of grammar particularly the following: (1) forming the plurals of nouns, (2) writing sentences using plural nouns, and (3) spelling of irregular nouns.

Peer-Tutoring. It refers to one-on-one tutoring program where learners (students) work with or teach their peers (classmates). In this study, it refers to the situation wherein the student taught by another student (classmate).

Test. It is tests developed on the basis of educational objectives that have verbal or mathematics aspects and are designed to measure the degree to which the students have achieved these stated objectives (Ahmann, 1999). In this study, it refers to the test constructed by the researcher, which are the pre-test and post-test.

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the review of the related literature and studies read by the researcher, which were related to his study. He came across related research papers which he believed have some bearing on the problem under study.

Related Literature

The most appropriate definition of peer tutoring comes from Damon and Phelps (1999) that peer tutoring is an approach in which one student instructs another student in material on which the first is an expert and the second is a beginner. However, multiple definitions of peer tutoring exist, and they are not all consistent. For example, not all peer tutors are "experts." They are sometimes randomly assigned, same-aged classmates or same-aged low achievers. To make matters more confusing, the term "peer tutoring" often referred both cross-age and same-aged tutoring. Peer-tutoring occurs when tutor and tutee are the same age. In cross-age tutoring, the tutor is older than the tutee. However, sometimes the term peer-tutoring is used to include both types. As if the overlap between peer and cross-age tutoring was not confusing enough, peer and cross-age tutoring also go by the names of "peer teaching," "peer education," "partner learning," "peer learning," "student-teach-student," and "learning through teaching" and there has been at least one instance in which cooperative learning has been referred to as peer-tutoring.

In the words of Ferrell (2011) peer-tutoring is a type of "peer resource programming," and shares attributes with youth service, youth involvement, peer helping (or counseling), peer mediation, peer leadership, and cooperative learning. Peer-tutoring has also been called one approach to "peer cooperation," along with cooperative learning and peer collaboration.

Heden (2000) pointed out the beneficial effect of peer and cross-age tutoring on tutees' achievement and a smaller but significant effect on their attitudes toward students. Looking at the effects on tutors, the researchers found a small but significant effect for academic outcomes and for self-concept and a slightly larger effect for attitudes toward subject matter.

Rekrut (2000) noted some significant effects of peer-tutoring on the language achievement of the tutors and especially tutees. The language arts areas that were examined include story grammar, comprehension, identification of sight words, acquisition of vocabulary, and general reading skills. Most of this research involved secondary students (some were middle-students), and positive results were found in his study.

Webb (1996) enumerated six conditions that have been identified which may be needed for effectively transfer of knowledge through peer-tutoring: (1) The tutor must provide relevant help which is (2) appropriately elaborated, (3) timely, and (4) understandable to the target student; (5) the tutor must provide an opportunity for the tutee to use the new information; and (6) the tutee must take advantage of that opportunity.

Riesman (1993) stressed the fact that peer-tutoring is not more widely used and offers suggestions in the hope of expanding its use. The potential of peer-tutoring is the "unutilized resource" of minimal cost and high effectiveness. In her words, it seems imperative to encourage and provide students the opportunities to relate to each other and work together in a cooperative and/or collaborative way.

Feldman (1990) elucidated that peer tutors can effectively model study skills such as concentrating on the material, organizing work habits, and asking questions. He notes that similarity between model and learner increases the influence of modeling. An at-risk student may more easily identify with a student relatively close in age, particularly one of the same ethnic or social backgrounds, than with an adult.

Stofferahn (1988) says that peer and cross-age tutoring often improve the overall classroom atmosphere. It creates a more supportive classroom environment. Peer-tutoring provides opportunities to practice and improve communication skills and work habits. Tutors' self-esteem rises as they see their tutees improve. Knowing they are making a meaningful contribution is a powerful experience.

Benard (1990) explained that in peer-tutoring it can adapt instruction to the learner's pace, learning style, and level of understanding. Feedback and correction are immediate. Basic misunderstandings can be quickly identified and corrected, practice provided, and more difficult material can be introduced as soon as the student is ready. Students can achieve at their own pace without being compared with faster learners.

According to Bloom (2000) the students receiving peer-tutoring as part of their instructional day by a well-trained tutors produce significant higher academic gains than students receiving teacher lecturing and mastery learning methods of teaching for the same part of their day. Peer-tutoring produces significant increases in academically engaged time.

In the study of Greenwood (2012) tutoring allows for individualized instruction, peer-tutoring is an effective strategy in the classrooms that have many different skill levels; it produced a greater gain in the achievement of the students; tutors benefit as much or more academically than their tutees. This may be especially true when tutors teach skills that they have recently mastered.

Recapitulation

The review of related literature helped the researcher on the processes and procedures on how to manage the quasi-experimental method. The researcher gained much insight and knowledge that equipped the investigator in the conduct of the study.

Furthermore, the review of related studies gave the researcher a clearer view on the appropriate statistical tools to be used in the study. Thus, the present study made use of quasi-experimental method and the validated tests were used to measure the effectiveness of the approach (peer-tutoring) through the students' performance in the tests.

METHODS AND PROCEDURES

This chapter presents the methods and procedures used in this study which includes the research method, research respondents, instruments used, research procedure and the statistical treatment of the data.

Research Method

This study employed the quasi-experimental method of research under the time-series design of experiment. The quasi-experiment is sometimes referred to as semi-experimental. These are partly but not fully true experimental designs; they control some but not all of the sources of internal validity. They exist for situation in which complete experimental control is difficult or impossible (Tuckman, 2000).

In this method, the researcher cannot design a "full" or "pure" experiment, with the usual control group assignment to groups, manipulation of the test stimulus, and pre and post-tests, but must design "partial" experiments lacking one or more of these factors. That's why they are called "quasi" or "semi" to signify that they lack at least some of the control expected in a full or pure experiment (Bailey, 1994).

Along this line, the researcher employed the quasi-experimental method of research because of the following claimed: (a) that there was no randomization done among the group of subjects; (b) one class of students were involved in this study, in which possible effects of reactive arrangement was minimized; (c) the group under study was left intact; and (d) the use of pre-test to ascertain the initial achievement of the intact group and adjust to initial differences.

Research Instruments

The main instrument used by the researcher in this study was the 25 item test in English grammar (25 items in the first administration of the test, 25 items in the second administration of the test, 25 items in the third administration of the test) constructed and validated by the researcher. A questionnaire and a checklist were also prepared by the researcher to establish the content and face validity of the test through the judgment of competent teachers.

Research Respondents

The research respondents of the study were the 30 students of the Foundation Program who currently enrolled in Technical English. To establish the content and face validity of the questionnaire, 5 teachers teaching English Language served as the respondents.

Research Procedures

In the conduct of the study the following research procedures were observed as a guide: (a) the researcher used one section in the conduct of the experiment. The 15 students served as “tutee” while the other 15 served as “tutor” on one-on-one scheme; (b) the researcher administered a series of pre-tests (three pre-testing) to the students (subjects); (c) the pre-testing of the subjects was conducted on the month of September and October.

The subjects were exposed to the treatment, the application of “peer-tutoring” in teaching the following subject matters: (1) forming the plurals of nouns, (2) writing sentences using plural nouns and (3) spelling irregular nouns. The experiment lasted for three months (September and November) in which the researcher himself conducted the experiment. The researcher taught the specified subject matters to the students”. Prior to the actual peer-tutoring the students went on proper advice and guidance.

After using the peer-teaching approach, the students were subjected to a series of post tests in the identified topics. The series of post-tests were scheduled in November then, analysis of the pre test and post test results follows.

Furthermore in the construction of the main instrument of the study, the following steps were followed: (a) to establish the content validity of the pre-test and post-test as an instrument of the study, the researcher carefully determined that every item was pertinent to the topics as stated in the scope and sequence being taught in English grammar. Every item was referred to the content of the intended learning outcome in English (Language). The researcher prepared a table of specification to ensure a good distribution of content and objectives tested. Moreover, the researcher requested 5 teachers validate the test. Through a questionnaire, their pooled judgment was sought to determine the suitability of the test items.

To establish the face validity of the test, a checklist was prepared by the researcher and requested the 5 teachers to validate the test. Through a checklist, their pooled judgment was sought to determine the suitability of the test items.

The test was tried out to 15 students three weeks before the actual experiments. After scoring the papers, the test was subjected to item analysis. The computation of the discrimination power and index of difficulty of each item was done following the procedure given by Adanza (1999): (a)

average the scored tests or answer sheets in order from high to low; (b) separate two subgroups of test papers, an upper group consisting of approximately 27 percent of the total group which received the highest score in the test, and a lower group consisting of an equal number of papers from those which received the lowest scores; (c) count the number of times each possible response to each item was chosen on the papers of the upper group and do the same procedures separately for the papers of the lower group; (d) record these response counts opposite the responses they refer to on a copy of the test.

In a tally sheet, tally the number of cases from each group, which gets the item right for each of all the items; (e) convert the tallies to frequencies and then to proportions; (f) compute the difficulty index of each item; (g) Compute the discrimination index of each item; (h) in the item analysis, items with difficulty indices within .20 and .80 are good/valid items while below .20 and above .80 are poor items. However, items with index of discrimination of .40 and above are very good items, .30 to .39 reasonably good item, .20 to .29 marginal item and .19 and below poor item;

The reliability of the instrument was determined by using the inter-consistency method. The Kuder-Richardson 20 formula was used. This formula is a measure of internal consistency or homogeneity of the measuring instrument. The result of the item analysis of the try-out test served as the basis for the refinement and improvement of the test.

Statistical Treatment of the Data

The data gathered were subjected to statistical analysis using various statistical treatments. Hypotheses were tested using extensively the analysis of variance (ANOVA) for data derived from the students samples (Downie and Heath, 1984). The level of significance is set at .05 to test the null hypothesis.

For the computation of the performance of students in the pre-test, post-test and the effect of peer-tutoring the mean

standard deviation and the t-test were employed. To determine the level of performance of the students the mean performance scores in the series of pre-tests and post-tests were used using the following scales: 76–100 (Excellent), 51–75 (Very Good), 26–50 (Good), 0–25 (Poor).

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the analysis and interpretation of data gathered by the researcher. In the presentation, analysis and interpretation of data the researcher was guided by the formulated sub-problems and research hypothesis of the study. Table 1 shows the performance of students in the pre-tests. Before the actual application of the peer-tutoring approach, the researcher conducted a series of pre-tests to the students.

Table 1: Statistical Measures on the Performance of the Students in the Pre-tests

Statistical Measures	Number of Pre-test		
	First	Second	Third
• Total Number of Items	25	25	25
• Highest Score	14	19	19
• Lowest Score	03	05	08
• Mean	08.20	12.04	13.73
• Mean Performance Score (MPS)	14.91	21.89	24.96

Interestingly, the table shows that out of the 25 items on each series of pre-tests the highest score obtained by the students are 14 (first pre-test) and 19 (second and third pre-tests). Obviously, three (3), five (5) and eight (8) are the lowest scores obtained by the students in the first, second and third administration of the pre-test respectively.

In the above data, the scores of the students yielded a mean of 8.2 (for the first pre-test), 12.04 (for the second pre-test) and 13.73 (for the third pre-test). Furthermore, the

performance of the students in the pre-tests could be described by their mean percentage score (MPS) such as 14.91 in the first pre-test, 21.89 in the second pre-test and 24.96 in the third pre-test.

Along this line, it can be construed that 14.91 or 15 percent of the concepts and skills on the given test items were only mastered by the respondents (students) on the first administration of the pre-test therefore it seems that 85 percent of the skills are needed to be mastered or learned by the students.

In the second administration of the pre-test the scores of the students disclosed their mean performance score to 21.89 percent which means that there were 21.89 or 22 percent of the content of the test were retained or mastered by the students. The data in the table further shows that the mean performance score of the students was 24.96 percent in the last administration of the pre-test which implies that 24.96 or 25 percent of the given items were mastered by the students. Generally, the data in the table approximately 75 to 80 percent of the skills in the tests were not mastered by the students.

Table 2 presents the analysis of variance on the significant difference in the performance of the students in the pre-tests.

Table 2

Analysis of Variance (ANOVA) on the Significant Difference on the Performance of Students in the Pre-tests

Source of Variation	Degree of Freedom (df)	Sum of Squares	Mean Square
• Between Groups	14	713.515	50.965
• Within Groups	40	6.667	0.167
• Total	54	720.182	

Computed F-value=305.792 Tabular F-value=2.27 Decision=Reject Ho
Data Analysis=SPSS 10.8

Evidently, the data show that the computed F-value of 305.792 is greater than the tabular F-value of 2.27 at the degree of

freedom (df) of $n_1 = 14$ and $n_2 = 40$ which warrants to reject the hypothesis.

Thus, there is a significant difference on the performance of the students in the pre-tests in English (Language), which means that the first pre-test gives an effect on the second and third pre-tests. To sum up, the repeated administration of the pre-test exposed the respondents to some of the items and skills/contents to be measured.

Table 2 shows the statistical measures on the performance of the students on the post-tests in English (Language). After the application of the cross-age tutoring approach in the selected topics in English (Language), a series of post-tests were administered to the students.

Table 3

Statistical Measures on the Performance of Students on the Post-tests

Statistical Measures	Number of Post-test		
	First	Second	Third
• Total Number of Items	25	25	25
• Highest Score	23	23	23
• Lowest Score	12	15	16
• Mean	16.56	19.22	19.71
• Mean Performance Score (MPS)	30.11	34.95	35.84

A closer look at the table, out of 25 items for each series of post-test conducted by the researcher the highest score was 23 from each post-test. Interestingly, 12 was the lowest score obtained by the students in the first administration of the post-test, 15 in the second and 16 in the third post-test. A mean of 16.56 was computed on the first administration of the post-test, 19.22 on the second post-test and 19.71 on the third administration of the post-test.

Undeniably, there was 30.11 percent of the content and the students as revealed mastered skills in the first administration of the pos-test on their mean performance score.

There was an increase on the performance of the students on the second administration of the post-test, which is 34.95 percent, and 35.84 percent as the mean performance score on the third post-test.

From the above performance of the students it can be gleaned that there was an increase on the mean performance of the students and the level of mastered skill and content of the achievement test. This implies that the application and exposure of the students to cross-age tutoring approach give a remarkable difference on the scores of the students. The assistance given to the students seems to contribute to the performance of the students. According to Cohen (1986), he discussed the following benefits in practicing tutoring (this supports the study findings) that: (1) in tutoring students need to increase their confidence, social skills and or leadership skill may be prioritized, (2) pupils whose schedules allow free time corresponding with available time of students receiving tutoring, (3) develop a corps of peer tutors who are prepared to assist with pre-referral intervention needs in the school, (4) include students who speak other language than English in tutor training sessions, (5) peer tutoring is a good way to foster cooperative relationship between minority and majority students.

Table 2.1 presents the analysis of variance on the significant difference in the performance of the students in the post-tests.

Table 4: Analysis of Variance (ANOVA) on the Significant Difference on the Performance of Students in the Post-tests

Source of Variation	Degree of Freedom (df)	Sum of Squares	Mean Square
• Between Groups	7	731.555	104.508
• Within Groups	47	25.282	0.538
• Total	54	756.836	

Computed F-value=194.286 Tabular F-value=3.34 Decision=Reject Ho
Data Analysis=SPSS 10.8

In the analysis of variance (ANOVA), the results of the post-tests in the test revealed that the computed F-value of 194.286 is much greater than the tabular F-value of 3.34. This implies that the null hypothesis that is, there is no significant difference in the performance of the students in the series of post-tests is rejected. Thus, there is a significant difference on the performance of students in the series of post-tests. This could be construed that the increase in the scores of the students may be due to the application or intervention of the peer-tutoring approach.

As pointed by Niedemeyer (2000) as a support to the study finding, trained tutors produce better achievement outcomes for their students than non-trained tutors. Further, Bloom (1984) stated a support to the present findings saying that students receiving peer tutoring for part of their instructional day by well-trained tutors produce significantly higher academic gains than students receiving only teacher lectures and mastery learning methods of teaching for the same part of their day.

Greenwood and Hall (1988) stated that peer-tutoring is an effective approach in classroom that has many different skill levels. Table 3 shows the significant difference of the series of pre-tests to the series of post-tests of the students test.

Table 5: The Significant Difference on the Series of Pre-tests and Post-tests of the Students

TEST	MEAN (X ₁)	MEAN (X ₂)	COMPUTED <i>t-value</i>	TABULAR <i>t-value</i>	DECISION
Pre T1 vs. Po T1	8.2	16.56	12.3485	1.980	Reject Ho
Pre T1 vs. Po T2	8.2	19.22	15.5649	1.980	Reject Ho
Pre T1 vs. Po T3	8.2	19.71	15.5649	1.980	Reject Ho
Pre T2 vs. Po T1	12.04	16.56	9.8978	1.980	Reject Ho
Pre T2 vs. Po T2	12.04	19.22	5.91717	1.980	Reject Ho
Pre T2 vs. Po T3	12.04	19.71	10.0550	1.980	Reject Ho
Pre T3 vs. Po T1	13.73	16.56	3.7842	1.980	Reject Ho
Pre T3 vs. Po T2	13.73	19.22	7.0647	1.980	Reject Ho
Pre T3 vs. Po T3	13.73	19.71	7.6382	1.980	Reject Ho

It can be gleaned in the table that the series of pre-tests and the series of post-tests administered to the students show a significant difference as revealed by their computed t-value as greater than their tabular t-value, giving warrant to the rejection of the hypothesis. This implies that the series of pre-tests of the students show a significant difference on their scores in the series of post-tests.

Table 6: Comparison on the Results of the Pre-tests and Post-tests given to the Students

Statistical Measures	Number of Pre-test			Number of Post-test		
	First	Second	Third	First	Second	Third
Mean	8.2	12.04	13.73	16.56	19.22	19.71
Mean Performance Score	14.91	21.89	24.96	30.11	34.95	35.84
Performance Level	Poor	Poor	Poor	Good	Good	Good

It can be gleaned on the table that the MPS during the series of pre-tests, which are 14.91, 21.89 and 24.96 respectively, fall under poor level of performance. And in the series of post-tests, it can be observed that there is progression in the MPS, which are 30.11, 34.95 and 35.84 respectively, and fall under “good” level of performance. The findings can be explained by the fact that the intervention of the peer-tutoring approach gives much difference on the achievement test of the students.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This portion of the research study presents the summary, conclusions and recommendations of the study.

Statement of the Problem

This study sought to determine the effect of peer-tutoring as an effective approach in teaching grammar. It sought to answer the following specific questions: (1) What is the performance of the students in the pre-test? (2) What is the performance of the students in the post-test? (3) What is the effect of peer-tutoring approach on the performance of the students in the tests?

Research Hypotheses

Based on the posited sub-problems of the study the following null hypotheses were formulated and tested at .05 level of significance: (1) There is a significant difference on the performance of the students in the pre-tests? (2) There is a significant difference on the performance of the students in the post-tests? (3) There is a significant difference in the series of pre-tests and post-tests results?

Scope and Delimitation of the Study

This study was confined to determine the effect of peer-tutoring on the performance of the students in the tests. The quasi-experimental method under the “time-series design” was used in this study. The time-series design is an elaboration of the one-group pre-test - post-test design. Involving just one group, it is pre-tested three or four times and then the same group is post-tested three or four times. The number of times of pre-testing and post-testing in this study was limited to three testing (pre-test and post-test) only.

There were 30 students involved in this study, wherein 15 students served as tutees and the other 15 served as tutors. A validated teacher- made test was used as an instrument to gathered data. The test contained the following: (1) forming the plurals of nouns, (2) writing sentences using plural nouns, (3) and spelling of irregular nouns. The peer-tutoring was used as the treatment or approach in the experiment after administering the series of pre-tests.

Research Method

This study employed the quasi-experimental method of research under the time-series design of experiment. The quasi-experiment is sometimes referred to as semi-experimental. These are partly but not fully true experimental designs; they control some but not all of the sources of internal validity. They

exist for situation in which complete experimental control is difficult or impossible (Tuckman, 2000).

In this method, the researcher cannot design a “full” or “pure” experiment, with the usual control group assignment to groups, manipulation of the test stimulus, and pre and post-tests, but must design “partial” experiments lacking one or more of these factors. That’s why they are called “quasi” or “semi” to signify that they lack at least some of the control expected in a full or pure experiment (Bailey, 1994).

Along this line, the researcher employed the quasi-experimental method of research because of the following claimed: (a) that there was no randomization done among the group of subjects; (b) one class of students were involved in this study, in which possible effects of reactive arrangement was minimized; (c) the group under study was left intact; and (d) the use of pre-test to ascertain the initial achievement of the intact group and adjust to initial differences.

Research Instruments

The main instrument used by the researcher in this study was the 25 item test in English grammar (25 items in the first administration of the test, 25 items in the second administration of the test, 25 items in the third administration of the test) constructed and validated by the researcher. A questionnaire and a checklist were also prepared by the researcher to establish the content and face validity of the test through the judgment of competent teachers.

Research Respondents

The research respondents of the study were the 30 students of the Foundation Program who currently enrolled in Technical English. To establish the content and face validity of the questionnaire, 5 teachers teaching English Language served as the respondents.

Research Procedures

In the conduct of the study the following research procedures were observed as a guide: (a) the researcher used one section in the conduct of the experiment. The 15 students served as “tutee” while the other 15 served as “tutor” on one-on-one scheme; (b) the researcher administered a series of pre-tests (three pre-testing) to the students (subjects); (c) the pre-testing of the subjects was conducted on the month of September and October.

The subjects were exposed to the treatment, the application of “peer-tutoring” in teaching the following subject matters: (1) forming the plurals of nouns, (2) writing sentences using plural nouns and (3) spelling irregular nouns. The experiment lasted for three months (September and November) in which the researcher himself conducted the experiment. The researcher taught the specified subject matters to the students”. Prior to the actual peer-tutoring the students went on proper advice and guidance.

After using the peer-teaching approach, the students were subjected to a series of post-tests in the identified topics. The series of post-tests were scheduled in November then, analysis of the pre-test and post test results follows.

Furthermore in the construction of the main instrument of the study, the following steps were followed: (a) to establish the content validity of the pre-test and post-test as an instrument of the study, the researcher carefully determined that every item was pertinent to the topics as stated in the scope and sequence being taught in English grammar. Every item was referred to the content of the intended learning outcome in English (Grammar). The researcher prepared a table of specification to ensure a good distribution of content and objectives tested. Moreover, the researcher requested 5 teachers validate the test. Through a questionnaire, their pooled judgment was sought to determine the suitability of the test items.

To establish the face validity of the test, a checklist was prepared by the researcher and requested the 5 teachers to validate the test. Through a checklist, their pooled judgment was sought to determine the suitability of the test items.

The test was tried out to 15 students three weeks before the actual experiments. After scoring the papers, the test was subjected to item analysis. The computation of the discrimination power and index of difficulty of each item was done following the procedure given by Adanza (1999): (a) average the scored tests or answer sheets in order from high to low; (b) separate two subgroups of test papers, an upper group consisting of approximately 27 percent of the total group which received the highest score in the test, and a lower group consisting of an equal number of papers from those which received the lowest scores; (c) count the number of times each possible response to each item was chosen on the papers of the upper group and do the same procedures separately for the papers of the lower group; (d) record these response counts opposite the responses they refer to on a copy of the test.

In a tally sheet, tally the number of cases from each group, which gets the item right for each of all the items; (e) convert the tallies to frequencies and then to proportions; (f) compute the difficulty index of each item; (g) Compute the discrimination index of each item; (h) in the item analysis, items with difficulty indices within .20 and .80 are good/valid items while below .20 and above .80 are poor items. However, items with index of discrimination of .40 and above are very good items, .30 to .39 reasonably good item, .20 to .29 marginal item and .19 and below poor item;

The reliability of the instrument was determined by using the inter-consistency method. The Kuder-Richardson 20 formula was used. This formula is a measure of internal consistency or homogeneity of the measuring instrument. The result of the item analysis of the try-out test served as the basis for the refinement and improvement of the test.

Statistical Treatment of the Data

The data gathered were subjected to statistical analysis using various statistical treatments. Hypotheses were tested using extensively the analysis of variance (ANOVA) for data derived from the students samples (Downie and Heath, 1984). The level of significance is set at .05 to test the null hypothesis.

For the computation of the performance of students in the pre-test, post-test and the effect of peer-tutoring the mean standard deviation and the t-test were employed. To determine the level of performance of the students the mean performance scores in the series of pre-tests and post-tests were used using the following scales: 76–100 (Excellent), 51–75 (Very Good), 26–50 (Good), 0–25 (Poor).

Study Findings:

Based on the gathered and analysis of the data the following study findings are offered and formulated:

- (1) In the administration of the series of pre-tests, the scores of the students yielded a mean of 8.2 (first pre-test), 12.04 (second pre-test) and 13.73 (third pre-test). The students revealed the following mean performance score: 14.91 (first pre-test), 21.89 (second pre-test) and 24.96 (third pre-test). There is a significant difference in the performance of the students in the pre-test in English Language, as revealed by the F-value of 305.792 and tabular F-value of 2.27.
- (2) In the post-test, the performance of the students exhibited a mean of 16.56 (first post-test), 19.22 (second post-test) and 19.71 (third post-test). The students' mean performance scores were 30.11 (first post-test), 34.95 (second post-test), and 35.84 (third post-test).
- (3) There is a significant difference on the performance of the students in the series of post-tests. There is a significant difference on the performance of the students in the series of pre-tests and post-tests. Peer-tutoring has positively influenced the performance of the students on the test results.

Conclusions:

Based on the findings the following conclusions are drawn: The performance of the students in the series of pre-tests in English Language is poor. There is a significant difference in the performance of the students in the pre-tests. The students exhibited a good performance in the series of post-tests which could be attributed to the effect of peer-tutoring approach as applied in the selected topic in English Language. There is a significant difference on the performance of the students in the series post-tests. There is a significant difference on the performance of the students in the series of pre-tests and post-tests. Peer-tutoring greatly improved the performance of the students in the test.

Recommendations:

Based on the findings and conclusions, the following recommendations are offered:

1. That the giving of pretest in all subjects before the actual teaching of the concepts/skills should be given emphasis by the teacher in order to measure, evaluate and diagnose the mastery learning of the students. The pre-test will serve as a basis of comparison on the performance of the pupils before applying any teaching strategy.

2. That the giving of series of pre-tests to the students should be encouraged to the teachers so that the students will be familiarized on the items thus the retention level of the concepts/skills can be measured.

3. That the administration of the post-test as an evaluative tool to measure the performance of the students on the effect of instruction should be borne in mind by the teacher. In this way, the teacher could measure his teaching performance based on the result of the test as in post-test.

4. That peer-tutoring should be used as a strategy to enhance the collaborative learning of the students. The use of

peer-tutoring as an approach in teaching specific topics should also be tried to other subject areas in order to know its effect.

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