

## **THE EFFECTIVENESS OF PEER TUTORING IN LEARNING SKILLS ON FRESHMEN BSA STUDENTS OF BALIUAG UNIVERSITY**

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### **Abstract**

This research work is carried out to determine the effectiveness of Peer Tutoring as an intervention on the Freshmen BSA students in their Midterm's Intermediate Accounting topics. This study examined how different factors such as gender, scholarships grants, pre-tutorial and post-tutorial test scores could affect their perception towards peer tutoring. This study involved 28 Freshmen BSA students in Block 1 of Baliuag University who served as the tutees. This study used statistical research and descriptive research design. Cluster and voluntary sampling methods were used to select the respondents for this study. The paired sample t-test was used to measure the difference between the pre-tutorial test scores and post-tutorial test scores of the respondents. This study showed that the post-tutorial test scores of the tutees vary significantly from their pre-tutorial test scores, thus the intervention definitely improved their performance. On the other hand, gender, scholarship grant, SHS strand and previous grades of the respondents in accounting subjects were proved to be insignificant. This study also showed that regardless of the respondents' profile their perception towards peer tutoring are comparable. This study proved that peer tutoring provides positive effect especially to the tutees in an intervention. This is to recommend that tutorials must have a longer period with fewer tutees to fully develop their knowledge and skills in academics.

**Keywords:** peer tutoring, bsa students, learning skills

Education is really essential because it plays a great role in individual's life by providing knowledge, developing personality, enhancing skills and talents, and giving everyone the opportunity to get away from poverty. Without education, life becomes aimless and tough. In this modern world, the quality of education is constantly improving, paving the way to a better society. Hence the quality of education improves yet Department of Education records showed a declining achievement level of elementary and high school students based on National Achievement Tests (NAT) results, DepEd: Achievement rates of students declining. (The Philippine Star, 2011). One of the solutions to enhance and improve the achievement of the students is the exposure to peer tutoring, (Campit, Cayabyab and Galas, 2015).

Cooperative learning is one of the teaching strategies, where a small group of students work together for the benefit of one another while achieving a common goal. One example of this teaching strategy is peer tutoring, which involves two groups: the tutors and the tutees. Tutors are comprised of students who volunteered to teach their co-students the subjects which they find difficult. While, tutees are the students that are taking up knowledge the tutors are imparting to them.

According to Acer, 2000, as cited by Urbano, 2008, it is important that teachers should be knowledgeable of different ways and approaches in teaching to develop the process of learning. Accountancy students should be taught in a way that catches their interest. One of the approaches that can be used is cooperative approach which is proven that can help students in achieving the maximum extent of their skill in various areas. Cooperative learning approach also helps students to be ready in the application of their learnings in their everyday lives. It is an approach of learning

wherein students form a group, Slavin, 2007, as cited by Urbano. These students possess different knowledge and skills. Students who teach their co-students are expert in the area they teach, they are called novice. This strategy allows the students with expertise to share their knowledge and help those students who need assistance in studying a subject they have difficulty on. Peer tutoring allows students to go back and study the concepts they have dilemma in understanding. Peer tutoring gives more freedom to students to express their experiences and problems in studying topics because they are dealing with others students.

Furthermore, in subjects such as Science and Mathematics in America, peer tutoring has huge impact in the improvement of the students' grades. In line with this observation, the dropout rate declined. This also paved the way in launching forums for the need of formation of new strategies which will help in improving the learning ability of the students. ( Rye & Wallace, 2004, as cited by Urbano, 2008)

The tutor-tutee interaction encourages and supports personal growth and development for both the tutee and the tutor (Colvin & Ashman, 2010). The role of a peer tutor is therefore, an opportunity to academically lead, guide, and prepare their tutees for their courses. It is an effective assistance provided by the tutor usually for purpose of academic skill improvement. Mercer, Mercer and Pullen 2011 as cited in Njeri, 2016, stated also that peer tutoring strategy strengthens the learning process in some ways that, it provides tutee with ideas and knowledge that will give an opportunity to intensify and apply a targeted academic skill until mastery is reached, an opportunity to dig deeper on the content and context of the lesson.

The Baliuag University Junior Philippine Institute of Accountants have an ongoing peer tutoring program called Accounting Focus Group. This peer tutoring program intends to help students discover their strengths and weaknesses in different board related subjects which is established since 2016. However, this program is not implemented every term regularly. This paper aims to assess the effectiveness of the said implemented program to the freshman BSA students of Baliuag University. The peer tutoring implemented and supervised by the BUJPIA does not have any assessment test for the participating students. The mentors of the tutorial are composed of students who volunteered to guide the younger generations of its program. These students teach the first year students about their accounting subjects. The participants of the said peer tutoring are first year accountancy students who voluntarily attends the sessions because the said program, which was allotted during their free time, was not mandatory to be attended. Each session has a duration of two hours and the mentors and mentees agrees on a time when they are both available.

## **Review of Related Literature**

This review of related literature will focus on relevant studies and literature sources which pertain and examine peer tutoring as a method of learning, the effects of peer tutoring to the tutees and how different factors such as gender, scholarships grants, pre-tutorial test and post-tutorial test could affect the participants' level of perception on peer tutoring.

**Peer Tutoring.** It is a tool used to promote fluency through practicing or reviewing skills or knowledge, rather than as a means of initially teaching skills or knowledge. It can take into many forms, with pairs comprising different

combinations according to age and ability level Mitchell (2007). On the other hand Rullan, Vazquez and Wong (2014) stated that peer tutoring which is specifically designed for college may help to develop their adaptive skills and flexibility in their own problem-solving strategies that enhance their occupational performance as college students. As stated by Musni, Canlas and Duya (2011) to make the learning more lively and enjoyable, a strategy called cooperative learning is recommended. The experts described this strategy as a medium of teaching which involves formation of small group of students in different levels of ability who work together toward understanding and improving a certain subject. It is necessary for tutees to feel and know that their tutors are supporting them for their best interest Robinson (2014).

While Costantini (2015) stated that peer tutoring helps the learner to cope with his lesson by the guide of his tutor, peer tutoring helps to improve the overall knowledge. In peer tutoring, students practice content information in tutoring pairs rather than whole class learning. He also added that one way to measure the impact of peer tutoring on academic achievement is by administering and using a series of pre-test before the intervention and post-test after the intervention. The student's own performance rating can be used to measure the impact of tutoring.

Rizve (2012) stated that the significance of peer tutoring is increasing, and it has become an important part of many courses and disciplines in different countries which provides positive effects on student learning, motivation and socialization. Gordon, Downey, and Bangert (2013) proved that in order for students to achieve academically, they must develop social competence on the classroom. Peer tutoring gives a sense of connectedness, a relation that builds social

competence in the classroom. On the other hand (Blad, 2018, p. 4) in his journal mentioned about what Assistant Principal Uvonda Willis said “The program, Peer Group Connection, has given students a sense of responsibility for and accountability to each other.” The said program was adopted to encourage the tutee to talk about his frustrations to his tutor and to help the tutee develop social-emotional skills, like problem solving. The peer tutors become part of their tutees’ lives and help these students to stay on track academically and behaviorally.

As discussed by Foster (2001) in his study that positive tutees’ performance, including increased school attendance, and a more positive attitude has been attributed to connected tutoring relationships. Mayer (2008) elaborated that peer-assisted learning strategy has a significant impact on performance of students that are struggling on some of their subjects. One reason peer tutoring works may be that tutors and tutees speak a more similar language than do teachers and students. Outhred & Chester (2010) stated that peer tutoring relationship provides benefits to the peer tutees for they are more comfortable with their tutors. It is easier for them to accept their tutor’s advices than those of their teachers. The comfort reduces the pressure felt by the students.

As mentioned by Topping, Duran and Van Keer (2016) peer tutoring, as well as other instructional strategies, can also include disadvantages if not applied properly. Although the peer tutors can furnish different individual aids that teachers cannot, the quality of these aids is logically less superior than teachers’ aids. This can lead to inefficiently detecting tutees’ errors or misconceptions or demonstrating fallacious information that corrects those errors. Peer tutoring is undoubtedly effective if the tutors are suited

enough to its population, consistent and with high integrity in the execution of their tasks. Both ancient and current research evidence support the premise that peer tutoring strategies dictate significant gains in academic achievement. They also highlighted that peer tutoring is not a waste of time.

Mastropieri, Scruggs, Spencer, and Fontana (2001) performed a study where they compared qualitative and quantitative reading comprehension outcomes from students associated with peer tutoring versus teacher-directed guided notes in a world history class. Their findings revealed that students who participated in peer tutoring significantly outperformed those students who participated in teacher-led guided notes on three chapter exams as well as an end of the year exam.

**Gender and Academic Performance.** Gender plays an important role in influencing success in the university at least in two faculties, Faculty of Business and Accountancy and Faculty of Arts and Social Sciences. Generally, female students outperformed male students. This can also be due to high prior academic ability among them as compared to the male students Ismail and Othman (2006). It is agreed in the study of Dima and Mbekomize (2013) that female students perform better because they have better study ethics and work harder. Females attend more classes and tutorials, seek guidance on their studies from lecturers and participate more in class discussions than their male counterparts. Male students perform poorly because they lack enthusiasm towards studies and fail to balance social life and academic work while at school.

However, according in the study of Orabi (2007) he stated that there was no significant relationship exists

between gender and academic improvement. As the academic improvement is affected by motivation, student ability, and the quality of secondary education received. According to Wallace (2007) there do not appear to be significant differences in intelligence between males and females. It is important to remember that these are generalizations for males and females and they do not apply individually to all males and females.

#### **Scholarship Grant and Academic Performance.**

Scholarships create a strong foundation for supporting students in their success in pursuing a degree, and furthermore, completing that degree. It also contributes to student success by permitting for more financial flexibility in terms of the need for a student to hold a job throughout college that will help them to focus more and achieving their dreams Abduljelil (2011). According to UNESCO Institute for Statistics of University of Hawaii Foundation 2015 as cited in Sahatciu 2016, scholarships allow students to concentrate more on their studies that can be directed towards the reforming of educational systems and the improvement of the students as a person, as well as their academic achievement. Scholarships encouraged the students to continue to reach their goals while lessening the costs they could've possibly incurred while studying.

As discussed by Omeje and Abugu (2015) students' academic achievement significantly increase with an increase in the award of scholarships. Scholarship is a positive significant determinant of students' academic achievement of those in tertiary institutions. Students who have scholarships perform very well in their academics. This is because, they work harder in order to pass their exams and have no time for luxury lives. This may be because they are not armed with more financial resources to live luxury lives when compared

with their counterparts who have no scholarships. The impact of scholarships depends mainly on the recipients and/or on the socioeconomic status of the recipients. For instance, if scholarships are awarded to those who belong the high socio-economic status, the impact will not be felt but, if it is channelled to those with low socio-economic status, the impact will be high. As stated by Sahatciu (2016) due to additional help, either in academic or financial forms, scholarship beneficiaries can have higher cumulative grade point averages (CGPAs) during their studies. It only shows that the beneficiaries have a higher average CGPA than those non-beneficiaries. The low average CGPA of non-beneficiaries might have been the important factor in their failure to attain scholarship.

#### **Theoretical Framework**

**Social development theory.** It pertains to the ideas of Vygotsky (1978) as cited in Njeri (2016). Vygotsky proposed an involvement mode of learning where the incorporation of knowledge is deduced through interaction of individuals socially. All higher mental functions have social origins. They initially occur in communications between people before they are internalized. He argues that children learn concepts and practices that are relevant culturally as they perceive and partake in day-to-day lives of their communities and families. As children contribute to these experiences, they are reinforced by their associates with whom they cultivate mutual understandings. He also argues that as children partake in expressive experiences with others that more knowledgeable, there are prospects for children to become more knowledgeable, just like their peers. This theory largely relates to the current study since if the tutors correctly employ peer tutoring, tutees may learn many concepts from their peers and their performance be

enhanced. This is because pupils understand content taught by peers easily than if it was taught by teachers (Chomsky, 1989 as cited in Njeri, 2016).

The Zone of Proximal Development (ZPD) is a key notion within Vygotsky's theory. Vygotsky (1978) described it as the space between the definite development level as influenced by free problem solving and the level of potential development as decided through problem-solving under the guidance of an adult or partnership with more capable peers. The Zone of Proximal Development recognizes the prospects for education rather than outlining the child's ability by what they have accomplished developmentally at an exact point in time. The relevance of this theory to the current study is that tutoring by a more proficient peer can be an operative aid in transition through the ZPD.

### Conceptual Framework

The diagram below in Figure 1 shows the research paradigm of the study. It depicts the process of the intervention of peer tutoring. It also delineates the relationship between the independent variable and dependent variable. Pre-tutorial tests were given to evaluate the participants' knowledge in already-taught lessons in Intermediate Accounting without the intervention of peer-tutoring. The researchers then held peer tutorial sessions as an intervention. After conducting peer tutoring, the researchers administered post-tutorial test to measure and evaluate the effectiveness of the said intervention in the participants' learning particularly in their Intermediate Accounting subject.

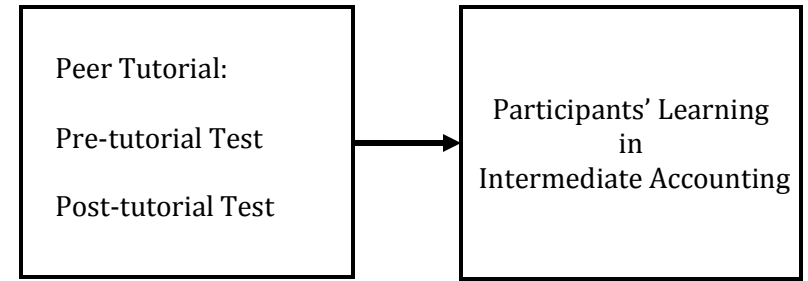


Figure 1. Research paradigm of the study

### Statement of the Problem

This study aimed to determine the impact of Peer Tutoring on the BSA students in block 1 of Baliuag University. Specifically, this study aimed to answer the following questions:

1. How may the respondents' pre-tutorial test scores be described in the areas of:
  - 1.1. Accounts Receivable
  - 1.2. Notes Receivable
2. How may the respondents' post-tutorial test scores be described in the areas of:
  - 2.1. Accounts Receivable
  - 2.2. Notes Receivable
3. Is there a significant difference between the respondents' pre-tutorial test scores and post-tutorial test scores in the areas of:
  - 3.1. Accounts Receivable
  - 3.2. Notes Receivable
4. How did the respondents perceived the peer-to-peer tutoring conducted?

## **Hypothesis of the Problem**

The following hypothesis for this study is formulated:

H01: There is no significant difference between the pre-tutorial test scores and post-tutorial test scores of BSA students.

## **Method**

This research involves the identification of the possible impact of the tutoring the student of the lower levels by the higher levels. The research design adopted by the researchers in this study is the experimental research design. This research design aims to establish causality and measure variables that might explain the mechanism of the treatment in the study. This study aims to determine the effectiveness of peer tutoring on the selected tutees.

## **Participants and Sampling Procedure**

The participants of this research are the First Year Bachelor of Science in Accountancy students, Block 1, of Baliuag University. This block is composed of 32 females and 8 males with a total of 40 students, but only 28 of them voluntarily participated in our study. The researchers used the cluster and voluntary sampling method in determining who will be our participants. We used the cluster sampling method by the process of screening and choosing the block that comprised BSA students only.

The cluster sampling method is a statistical sampling procedure in a population wherein the selection of a sample unit is based on selection of a block of contiguous items from within the population. The researchers also used voluntary sampling. A voluntary sample is one of the main types of non-

probability sampling methods. A voluntary sample is made up of people who self-select into the survey.

## **Research Instrument**

The study used pre and post tutorial test. A 20-item exam thoroughly formulated for the students that had undergone the focused group tutoring conducted by selected researchers as tutors. The structure of the exam is based on the Certified Public Accountant licensure examination which consists of 30% easy, 50% average and 20% difficult. It validated before distributed to the students by Mr. Luisito V. Correa Jr., an accounting professor.

The researchers also provided modules about the topic they are discussing and problems to be answered by the students who are participating in the tutorials. A module is distributed to the tutees to understand the topic at ease and serves as additional materials for the review. The module is composed of the summary and important details about the topic that the researchers have discussed.

The study used survey questionnaire modified to obtain the necessary information about the perception and effectiveness of peer tutoring to first year BSA student. Item were taken from the study of Peer-to-Peer Mentoring Works in the College Newsroom by Dr. Douglas J. Swanson (2011) includes peer-to-peer mentoring made me more productive in my job, allowed me to make new friends, improved my understanding of the college media workplace, gave me important workplace knowledge I will need after graduation, allowed me to learn things I might not have learned any other way, in my organization, people who have used peer-to-peer mentoring are more productive, my peer-to-peer mentoring experience met or exceeded my expectations for professional growth, and feel less intimidated about new ideas because of

my peer-to-peer mentoring experience. The above items were the modified survey questions from the study of Dr. Swanson.

The researchers use the modified Likert Scale format that is narrowed down into: 4 – Strongly Agree, 3 – Agree, 2 – Disagree, 1 – Strongly Disagree

The researchers used the following to interpret the computed mean score :

Range	Description
3.26 – 4.00	Strongly Agree
2.51 – 3.25	Agree
1.76 – 2.50	Disagree
1.00 – 1.75	Strongly Disagree

The researchers used the eleven-point grading system and 40 items transmutation table used by Baliuag University to interpret the results of profile of academic performance and pre and post tutorial test.

Range	Description
1.00 – 1.12	Excellent
1.13 – 1.37	Very Good
1.38 – 1.62	Very Good
1.63 – 1.87	Good
1.88 – 2.12	Good
2.13 – 2.37	Good
2.38 – 2.62	Fair
2.63 – 2.87	Passing
2.88 – 3.44	Passing
3.45 – 4.44	Failed
4.45 – 5.00	Failed

The researchers used the following to convert the test scores to the eleven-point grading system :

39 – 40	1.0
37 – 38	1.25
34 – 36	1.50
32 – 33	1.75
30 – 31	2.0
27 – 29	2.25
25 – 26	2.50
22 – 24	2.75
20 – 21	3.0
19 - below	4.0 – 5.0

## Data Gathering

The researchers sought the approval of an accounting professor and adviser of the freshman students to conduct a focused group tutoring and a survey to the selected students from the chosen block. After obtaining the approval, the researchers proceeded in administering the tutorial sessions. The focused group tutoring is conducted in four sessions for three hours. Each session discussed about accounting topics like Accounts Receivable and Notes Receivable. The focused group is composed of four tutors and seven tutees, tutors had been selected based on their competency on accounting subject. The tutors distributed modules on the first session and gave pre-test before the discussion and post-test on the second session including the discussion of answers on the test.

After four sessions, the researchers personally distributed the questionnaire to the respondents to assess the effectiveness of tutoring to them.



Table 1. *Frequency and Percentage Distribution of Respondents according to Gender, SHS Strand and Scholarship*

<b>Sex</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	6	21.4
Female	22	78.6
Total	28	100.0
<b>Strand</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Accountancy, Business and Management	25	89.29
Science Technology and Engineering and Mathematics	2	7.14
General Academic Strand	1	3.57
Total	28	100.00
<b>Sex</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Scholar	16	57.10
Not Scholar	12	42.90
Total	28	100.0

Table 1 presents the demographic profile of the respondents in terms of gender among the 28 participating students, 22 (78.6%) are females and six (21.4%) are males. It also presents the distribution of respondents in terms of strand when they were in senior high school twenty five students (89.29%) took the Accountancy, Business and Management strand, two (7.14%) took the Science, Technology, Engineering and Mathematics strand, and one (3.57%) student was from the General Academic Strand. Lastly, it shows the demographic profile of the respondents in terms of scholarship among the 28 participating students, 16 (57.10%) are scholars and 12 (42.90%) are non-scholars.

## Data Analysis and Statistical Treatment

The quantitative approach used by the researchers were measured and demonstrated by using Likert Scale. Likert Scale is a method of attributing quantitative value to qualitative data, to make it susceptible to statistical analysis. A numerical value is equated to each potential choice and a mean figure for all the responses is computed at the end of the evaluation or survey. The final average score represents the overall level of accomplishment or attitude toward the subject matter. According to Business Dictionary (2018), it is adopted by the name of its inventor, the US organizational-behavior psychologist Dr. Rensis Likert.

The researchers used the modified four-point Likert rating scale for the survey questionnaire. The participants rated whether they Strongly Agree, Agree, Disagree, and Strongly Disagree. Survey questionnaire was tested by calculating the mean score.

To further analyze the data, the researchers used the descriptive and inferential statistics. Descriptive statistics involves summarizing and organizing the data so they can be easily understood. The researchers used descriptive statistics to analyze the data from the problem “How may the respondents’ pre-tutorial test scores be described”, “How may the respondents’ post-tutorial test scores be described”, and “How did the respondents perceived the peer-to-peer tutoring conducted”. Descriptive analysis come in to break numerous amounts of data into a simple form by using frequencies, percentages, mean, median, mode, and minimum and maximum values. In this research, the researchers used the frequencies, percentage and mean in analyzing the data.

On the other hand, inferential statistics examines the

differences between two or more samples of populations. The researchers used inferential statistics to analyze the data from the problem “Is there a significant difference between the respondents’ pre-tutorial test scores and post-tutorial test scores”. The inferential statistics also allows the researchers to test hypothesis and generalize results to populations as a whole. In this research, the researchers used the independent samples t-test and paired t-test under the inferential statistics.

The paired samples t-test, sometimes called the dependent sample t-test, is a statistical procedure used to determine whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured twice, resulting in pairs of observations.

### Results and Discussions

Table 2. *Participants’ Pre-tutorial Test Scores*

		<b><u>Pre-Tutorial Test</u></b>	
<b>Names of Participants</b>		<b>Accounts Receivable</b>	<b>Notes Receivable</b>
1	Aratea, Khatlyn Joy S.	6	7
2	Bunquin, Marianne DC.	10	7
3	Coronel, Kim Aiverene P.	9	6
4	Cruz, Princess Alecs Y.	7	6
5	Dela Cruz, Bhabyline Q.	9	7
6	Dionisio, Jan Nadine D.	9	5
7	Domingo, Ardy Jerick V.	9	9
8	Galvez, Lady Rosete S.	10	8
9	Gonzales, Christian DJ.	17	8
10	Ingalla, Alexandra Louise A.	6	7
11	Lagrimas, Erwin Q.	9	7
12	Lao, Shekinah Marie C.	8	9

Table 2. Continuation

		<b><u>Pre-Tutorial Test</u></b>	
<b>Names of Participants</b>		<b>Accounts Receivable</b>	<b>Notes Receivable</b>
13	Madarang, Gale Nadine R.	9	10
14	Manalastas, Jimbo P.	9	5
15	Marquez, Rei Aldrin	9	9
16	Martin, Rica Marie C.	8	10
17	Miranda, Cherry Joy G.	9	5
18	Olchondra, Nicole V.	10	9
19	Ortega, Shannen	10	8
20	Reyes, Trisha Miles A.	6	9
21	Roque, Minella Louise G.	9	8
22	Salvador, Ericka Mari G.	12	7
23	Santiago, Michelle D.	9	9
24	Santos, Amiel Joy A.	8	9
25	Santos, Corrine GC.	7	6
26	Serrano, Joy Haidee C.	8	8
27	Sta. Ana, John Michael Vincent C.	5	9
28	Valle, Jane Andrea Grace G.	10	7

### *Mean and Standard Deviation*

		<b><u>Inventory Score</u></b>		
		<b>N</b>	<b>M</b>	<b>SD</b>
Accounts Receivable		28	8.82	2.21
Notes Receivable		28	7.64	1.47

Table 2 presents the level of the pre-test scores of the respondents in accounts receivable (M=8.82, SD=2.21, N=28) and notes receivable (M=7.64, SD=1.47, N=28). These are both interpreted as “Failed.”

It supports the study made by Constantini (2015) that the tutees' own performance rating in the pre-tutorial test can be used to assess their level before the intervention. The use of series of test before and after the discussion is effective to measure the effectiveness of peer tutoring on academic achievement, as the case may be in the tutorial sessions. The result shows that the peer tutoring session is a need to cope up with the tutees' scores and their knowledge about the lesson is not sufficient enough for them to pass the pre-tutorial test administered by the tutors. The tutees' attendance in the peer tutorial sessions can assess their performance and the effectiveness of it to them.

Table 3. *Participants' Post-tutorial Test Scores*

		<b>Post Tutorial Test</b>	
<b>Names of Participating Students</b>		<b>Accounts Receivable</b>	<b>Notes Receivable</b>
1	Aratea, Khatlyn Joy S.	9	18
2	Bunquin, Marianne DC.	10	15
3	Coronel, Kim Aiverene P.	9	12
4	Cruz, Princess Alecs Y.	12	14
5	Dela Cruz, Bhabyline Q.	11	14
6	Dionisio, Jan Nadine D.	12	12
7	Domingo, Ardy Jerick V.	8	14
8	Galvez, Lady Rosete S.	14	15
9	Gonzales, Christian DJ.	15	19
10	Ingalla, Alexandra Louise A.	10	14
11	Lagrimas, Erwin Q.	4	12
12	Lao, Shekinah Marie C.	12	16
13	Madarang, Gale Nadine R.	13	14
14	Manalastas, Jimbo P.	6	10
15	Marquez, Rei Aldrin	10	14
16	Martin, Rica Marie C.	13	16

Table 3. Continuation

		<b>Post Tutorial Test</b>	
<b>Names of Participating Students</b>		<b>Accounts Receivable</b>	<b>Notes Receivable</b>
17	Miranda, Cherry Joy G.	14	17
18	Olchondra, Nicole V.	9	14
19	Ortega, Shannen	13	13
20	Reyes, Trisha Miles A.	10	17
21	Roque, Minella Louise G.	13	15
22	Salvador, Ericka Mari G.	15	16
23	Santiago, Michelle D.	11	18
24	Santos, Amiel Joy A.	10	15
25	Santos, Corrine GC.	15	17
26	Serrano, Joy Haidee C.	14	16
27	Sta. Ana, John Michael Vincent C.	9	13
28	Valle, Jane Andrea Grace G.	10	13

*Mean and Standard Deviation*

		<b>Inventory Score</b>		
		<b>N</b>	<b>M</b>	<b>SD</b>
Accounts Receivable		28	11.11	2.71
Notes Receivable		28	14.75	2.10

Table 3 presents the level of the post-test scores of the respondents in Accounts receivable (M=11.11, SD=2.71, N=28) and notes receivable (M=14.75, SD=2.10, N=28). These are both interpreted as "Fair"

It supports the study made by Constantini (2015) that after post-tutorial test the tutees can fairly cope up with the lessons by the guide of their tutors. Also, the peer tutorial

sessions help to improve their overall knowledge about the lesson. The result shows that peer tutorial sessions are effective in improving the performance of the tutees after the intervention by administering post-tutorial test. The tutees' knowledge after the intervention was enhanced as evidently shown on the results of administering post-tutorial test by the tutors.

Table 4. *Significant Difference of Pre-test and Post-test Scores in Accounts Receivable*

<i>Paired Samples t-test</i>								
<u>Group</u>								
<u>Pre-test</u>			<u>Post-test</u>			t	df	p
M	SD	n	M	SD	n			
8.82	2.21	28	11.11	2.71	28	-4.147	27	.000

A paired-samples t-test was conducted to compare the pre-test and post-test scores in Accounts Receivable. There was a significant difference in the scores in the pre-test (M=8.82, SD=2.21) and post-test (M=11.11, SD=2.71);  $t(27) = -4.147$ ,  $p < .001$ . These results show that the scores of the students improved significantly after the conduct of the intervention in the topic of Accounts Receivable.

Costantini (2015) stated that peer tutoring helps to improve the overall knowledge of tutees. The student's own performance rating will be used to measure the impact of tutoring. One way to measure the impact of peer tutoring on academic achievement is by administering and using a series of pre-tutorial test before the intervention and post-tutorial test after the intervention. Both ancient and current research evidence support the premise that peer tutoring strategies dictate significant gains in academic achievement and it has become an important part of many courses and disciplines

which provides positive effects on student learning Rizve (2012) but as mentioned by Topping, Duran and Van Keer (2016) peer tutoring can also include disadvantage if not applied properly. Therefore, since tutoring is performed after the pre-tutorial test, it enables the tutees to gain additional knowledge which reflects a positive effect and improvement in their post-tutorial test scores. It also shows that pre-tutorial test of accounts receivable vary significantly with the post-tutorial test scores.

Table 5. *Significant Difference of Pre-test and Post-test Scores in Notes Receivable*

<i>Paired Samples t-test</i>								
<u>Group</u>								
<u>Pre-test</u>			<u>Post-test</u>			t	df	p
M	SD	n	M	SD	n			
7.64	1.47	28	14.75	2.10	28	-17.094	27	.000

Another paired-samples t-test was conducted this time to compare the pre-test and post-test scores in Notes Receivable. Similarly, there was a significant difference in the scores in the pre-test (M=7.64, SD=1.47) and post-test (M=14.75, SD=2.10);  $t(27) = -17.094$ ,  $p < .001$ . These results show that the scores of the students also improved significantly after the conduct of the intervention in the topic Notes Receivable.

It supports the study made by Constantini (2015) that peer tutoring helps to improve the overall knowledge of tutees. The student's own performance rating will be used to measure the impact of tutoring. One way to measure the impact of peer tutoring on academic achievement is by administering and using a series of pre-tutorial test before

the intervention and post-tutorial test after the intervention. Therefore, the peer tutorial sessions are effective in improving the academic performance of the tutees after the intervention by administering post-tutorial test. It also shows that pre-tutorial test of notes receivable vary significantly with the post-tutorial test scores.

Table 6. *Frequency and Percentage of Participants' Preferred Hours per Tutorial Session in a Week*

Session Hours	Frequency	Percentage (%)
2 hours	20	71.43
30 minutes	6	21.43
1 hour and 30 minutes	2	7.14
Total	28	100.00

Table 6 presents the preference of the respondents in terms of number of hours per session in a week. Among the 28 participating students, 20 (71.43%) preferred two hours, six (21.43%) preferred 30 minutes, and two (7.14%) preferred 1 hour and 30 minutes.

This answers the question "What are the respondents' perceptions on the peer tutoring conducted?"

Table 7. *Frequency and Percentage of Participants' Preferred Number of Tutors in Peer Tutorial Session*

Number of Tutors	Frequency	Percentage (%)
3 to 4	14	50.00
1 to 2	10	35.71
5 to 6	2	7.14
7 to 8	2	7.14
Total	28	100.00

Table 7 presents the preference of the respondents in terms of number of tutors in peer tutorial session. Among the 28 participating students, 14 (50%) preferred three to four tutors, 10 (35.71%) preferred one to two tutors, 2 (7.14%) preferred five to six tutors and 2 (7.14%) preferred 7 to 8 tutors.

This answers the question "What are the respondents' perceptions on the peer tutoring conducted?"

Table 8. *Frequency and Percentage of Participants' Preference in Peer Tutoring*

	Frequency	Percentage (%)
Using pre and post-tutorial test	28	100.00
Not using pre and post-tutorial test	0	0.00
Total	28	100.00

Table 8 presents the preference of the respondents in terms of using pre-tutorial test and post-tutorial test in peer tutoring. Among the 28 participating students, 28 (100%) preferred pre-tutorial test and post-tutorial test in peer tutoring.

This answers the question "What are the respondents' perceptions on the peer tutoring conducted?"

Table 9. *Frequency and Percentage of Participants' Preferred Number of Tutees in Peer Tutorial Session*

Number of Tutees	Frequency	Percentage (%)
4	7	25.00
5	7	25.00

Table 9. Continuation

Number of Tutees	Frequency	Percentage (%)
6	7	25.00
7	7	25.00
Total	28	100.00

Table 9 presents the preference of the respondents in terms of number of tutees in peer tutorial session. Among the 28 participating students, seven (25%) preferred four tutees, seven (25%) preferred five tutees, seven (25%) preferred six tutees and seven (25%) preferred seven tutees.

This answers the question “What are the respondents’ perceptions on the peer tutoring conducted?”

Table 10. *Frequency and Percentage of Respondents’ Preference in Peer Tutoring*

	Frequency	Percentage (%)
Distributing summarized modules	28	100.00%
Total	28	100.00%

Table 10 presents the preference of the respondents in terms of distributing summarized modules for reference in peer tutoring. Among the 28 participating students, all 28 (100%) preferred distributing summarized modules.

This answers the question “What are the respondents’ perceptions on the peer tutoring conducted?”

## Conclusions

**Level of Pre-Tutorial Performance.** The participants got failing scores in the pre-tutorial test in both Accounts Receivable and Notes Receivable . The researchers concluded that before the intervention the participants had insufficient knowledge to answer the test. The peer tutoring conducted is a useful method and big help for them to improve their knowledge on accounting subjects and to enlighten them to the things or topics they don't fully understand yet.

**Level of Post-Tutorial Performance.** Based on the results in chapter three, the researchers concluded that the participants' knowledge and understanding about the overall lessons are improved. The respondents' post-tutorial test in both Accounts Receivable and Notes Receivable results showed that they fairly passed the test they took as reflected by the statistical and verbal interpretation. Their attendance in the peer tutoring sessions helped them cope with the lessons fairly. In addition to this, their knowledge about the overall lessons is improved.

**Comparison between Pre-tutorial and Post-tutorial.** The results of the study found out that the pre-tutorial test in Accounts Receivable and Notes Receivable vary significantly with the post-tutorial test of the said topics. The comparison shows that the scores of the students in the post-tutorial test conducted are higher than the pre-tutorial test. This means that the performance of the students had improved significantly after the tutorial sessions. The researchers concluded that the peer tutorial session helped the students to improve their knowledge and understanding about the topics that the mentors discussed. Hence, the peer tutorial sessions does not replace the whole-class instruction but it provides a way of helping the students when whole-

class discussion have not been enough for them to better understand the topics.

**Students' Perception on Peer Tutoring.** The study found out that the peer tutoring positively affects and improved the overall knowledge of the students particularly in Intermediate Accounting. The researchers led to conclusions that because of the peer tutorials conducted, their academic performance improved and it is really beneficial for them. The researchers also believed that students have the same enthusiasm and dedication to learn.

### Recommendations

The sample size of this study has been narrowed down due to the limitations encountered by the researchers. Future research may include a larger sample size, for example, gathering data from different courses, colleges and/or universities to have a larger view about the effectiveness of peer tutoring.

The research solely focused on the effectiveness of peer tutoring to the students and not to judge their capacity in terms of academic performance. Future research may include other methods or techniques to improve tutoring.

The researchers recommend the preference of the previous tutees that the tutorials should consist of four to five tutees per group being taught by three to four tutors, the use of pre and post tutorial test and a module is highly recommend to further develop their skill and knowledge. The researchers would also recommend that the tutorials be done two hours and more with at least two sessions per week and a longer time frame to conduct the tutorials. This should be done in the first four semesters of the students who are enrolled in the Bachelor of Science in Accountancy program

because the said semesters are critical ones for them to pass the ceiling grade in their accounting subjects. It is only then, that they will be fully recognized as Accountancy student.

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