

THE EFFECTIVENESS OF PEER TUTORING METHOD IN TEACHING ECONOMICS AT THE UPPER SECONDARY LEVEL

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Abstract

The main purpose of this study was to investigate the effectiveness of peer tutoring method in teaching economics at the upper secondary level. The research design used in this study was a nonequivalent control group design, one of the quasi-experimental designs. In order to do this study, No. (1) Basic Education High School and No. (4) Basic Education High School from Meiktila Township were selected. The participants were (141) Grade Eleven students from the selected schools. Two classes were randomly selected and assigned to the control and experimental groups. Before the treatment, a pretest was administered to both groups. According to the pretest results, the two groups in school were equivalent. Then, the experimental group was exposed to peer tutoring method, while the control group was exposed to formal instruction for two weeks. After the treatment, both groups received a posttest. In order to test the research questions, the independent samples *t* test was used to analyze the differences between the two groups. The findings showed that the students who were taught by peer tutoring method was significantly higher in economics achievement than those who were not. This result proves that the use of peer tutoring method effects on student's economics achievement at the upper secondary level.

Keywords: Teaching, Economics, Peer Tutoring Method, Effectiveness, Achievement

Introduction

Education provides people with knowledge of the world around them. It develops in people a perspective of looking at life. It is the most important element in the evolution of the nation. Without education, one will not explore new ideas. It means one will not be able to develop the world because without ideas there is no creativity and without creativity, there is no development of the nation. Education is a tool that provides people with knowledge, skill, technique, and information, enabling them to know rights and duties toward family, society as well as the nation. Education expands vision and outlook to see the world. It develops the capabilities to fight against injustice, violence, corruption, and many other bad elements in society (Prasad & Gupta, 2020).

Economics enables both leaders and citizens to understand basic economics concepts, principles as well as to understand, appreciate and seek to improve the economic situation for their own social good. The understanding of economics is a prerequisite for good citizenship. The principal objective of teaching economics should be to provide the economics understanding necessary for responsible citizenship. Therefore, the teacher needs to teach economics by using modern teaching methods to attain the objectives of teaching economics.

Teaching methods that consider the interaction between teachers and students have a positive effect on students' learning. The most effective strategy that instructors use to benefit students' learning in the classroom is to encourage them to link their experience in learning in the past to the new knowledge in the present through class discussion and help them come up with new ideas that benefit them in their real-life problem-solving (Akpan & Beard, 2016). Peer

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tutoring is a form of active learning in which learners help each other and learn themselves by teaching (Bombardellia, 2016). Peer tutoring is not a single, undifferentiated educational strategy. It encompasses a broad sweep of activities. Peer tutoring promotes metacognition in which students achieve higher levels of thinking at a quicker rate than they might if they worked independently. Today, to properly encounter the wonderful developments of the third millennium, students should improve their skills of critical and creative thinking so that they can make proper decisions and solve complicated problems in their society (Dehghan, 2013).

Purposes of the Study

The main purpose of the study is to examine the effectiveness of peer tutoring method in teaching economics at the upper secondary school level. The specific objectives of this study are as follows:

- to find out whether peer tutoring method can effect on students' achievement in economics or not
- to investigate the students' economics achievement taught by peer tutoring method
- to provide suggestions for effective economics teaching based on the result of the study

Research Questions

The research questions for the study are as follows:

- Are there any differences between the economics achievement of high school students who received instruction with peer tutoring method and that of those who received formal instruction?
- Are there any differences between the economics achievement of high school students who received instruction with peer tutoring method and that of those who received formal instruction on remembering level?
- Are there any differences between the economics achievement of high school students who received instruction with peer tutoring method and that of those who received formal instruction on understanding level?
- Are there any differences between the economics achievement of high school students who received instruction with peer tutoring method and that of those who received formal instruction on applying level?
- Are there any differences between the economics achievement of high school students who received instruction with peer tutoring method and that of those who received formal instruction on analyzing level?

Scope of the Study

This study is geographically restricted to Meiktila Township in Mandalay Region. The selected schools were No. (1) Basic Education High School, Meiktila, and No. (4) Basic Education High School, Meiktila, in Mandalay Region. Participants in this study are Grade Eleven students from selected schools in the 2023-2024 Academic Year. In this study, the content area is limited to Unit (4), Money and Banking, from the Grade Eleven Economics textbook by peer tutoring method was used in this study.

Definition of Key Terms

The definition of key terms are as follows:

Teaching

Teaching is an interactive process, primarily involving classroom talk which takes place between teacher and pupil and occurs during certain definable activities (Kumar, 2012).

Economics

Economics is the study of how human beings coordinate their wants and desires, given the decision-making mechanisms, social customs, and political realities of society (Backhouse & Medema, 2009).

Peer Tutoring Method

Peer tutoring is defined as an instructional arrangement in which the teacher pairs two students in a tutor-tutee relationship to promote the learning of academic skills or subject content (String, 2009).

Effectiveness

Effectiveness is a measure of the success in achieving a clearly stated objective (McCormick, 1981).

Achievement

Achievement is the outcome of education, the extent to which a student, teacher or institution has achieved the educational goals (Malik & Kumar, 2017).

Review of Related Literature**Theoretical Framework for Peer Tutoring Method**

Learning theories try to explain how students think and what factors determine their behavior and learning. They are conceptual frameworks that describe how information is absorbed, processed, and retained during learning. Therefore, it is important to understand the theoretical framework that peer tutoring method is built upon. Cognitive theories of Piaget and Vygotsky have significantly influenced on peer tutoring method.

Cognitive Developmental Theory

The explicit or implicit aim of much higher education is the development of students' cognitive abilities, and active, co-operative peer learning is no exception to this principle. Jean Piaget saw a progression of cognitive developmental stages as being inevitable, each building on the one which preceded it, and each being a prerequisite for the next. Piaget also believed that the rate of progression from one stage to another varied from person to person, and that progression through the stages involved multiple determinants: maturation, experience and social environmental factors. It was Piaget who stressed the value of cognitive conflict. Piaget argued that, when individuals encounter new information which does not fit into their current mental organization of knowledge and thought (their existing mental schema), a contradiction occurs which causes 'disequilibrium'. This enables learners to 'accommodate' the new information and modify their current understanding of aspects of the world, thus achieving a new 'equilibrium'. In this way, learners construct their own knowledge (Falchikov, 2001).

Vygotsky's Zone of Proximal Development

Vygotsky (1978, as cited in Slavin, 2018) believed that learning takes place most effectively when children are working within their zone of proximal development (ZPD). Tasks within the zone of proximal development are those that a child cannot yet accomplish alone but

could accomplish with the assistance of more competent peers or adults. That is, the zone of proximal development describes tasks that a child has not yet learned but is capable of learning at a given time. Some educators refer to a “teachable moment” when a child or group of children is exactly at the point of readiness for a given concept (Berger, 2012, as cited in Slavin, 2018). Vygotsky further believed that higher mental functioning usually exists in conversation and collaboration among individuals before it exists within the individual (Slavin, 2018). Peer tutoring method is based on Vygotsky’s socio-cultural theory. ZPD is the key concept of socio-cultural theory. Scaffolding and peer tutoring are extensions of Vygotsky’s notion of ZPD.

Peer Tutoring Method

Peer tutoring is a very old practice, traceable back at least as far as the ancient Greeks. Topping (1996) said that early manifestations of peer tutoring involved children acting as replacement teachers whose aim was the transmission of knowledge. In difference, more modern conceptions of peer tutoring involve ‘people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching’. Peer tutoring is characterized by specific role-taking. In other words, someone fulfills the role of a tutor while another or others take the role of the tutee.

Peer tutoring is a system of instruction in which learners help each other and learn by teaching. It is commonly used to describe tutoring that is done between two people who are close in age and at a similar academic level. It consists of students teaching other students, of the same or a different age, on a one-to-one basis, or one tutor working with two or three students simultaneously. These two students can work together to help each other understand difficult concepts while deepening student own knowledge of the subject. Peer tutoring is a flexible, peer-mediated strategy that involves students serving as academic tutors and tutees. Typically, a higher-performing student is paired with a lower-performing student to review critical academic or behavioral concepts (Dash, Baral & Jena, 2015). Being closer in knowledge and status, the tutee in a peer relationship feels freer to express opinions, ask questions, and risk untested solutions. The interaction between instructor and pupil is more balanced and more active when the tutor is a peer (Damon & Phelps, 1989, as cited in Dash, et al., 2015).

The Objectives and Aims of Peer Tutoring Method

Peer tutoring has a variety of objectives. Accordingly, Falchikov (2001) enumerated the followings:

- Promoting critical thinking.
- Improving metacognitive skills.
- Encouraging students to think about their own experiences, analyze their tutoring positions, and assess their performance.
- Incorporating conflict and disagreement into peer tutoring programs to aid learning.
- Empowering learners and give them more autonomy.
- Enhancing learners’ communication abilities.
- Enhancing their writing and literary review abilities.

Therefore, peer tutoring appears to have a favorable influence on learning. Though peer tutoring appears to help all types of students, there is some evidence that low achieving students and those with specific educational needs benefit the most.

Spencer (2006, as cited in Racha, 2012) adds further aims to peer tutoring:

- It's a well-studied approach that works for all ages, grade levels, and topic areas.
- Students can receive one-on-one guidance through the intervention.
- In smaller groups, students have more opportunity to reply.
- It encourages both the tutor and the tutee to grow academically and socially.
- Increased student involvement and time on task.
- Peer tutoring boosts self-esteem and effectiveness.

Techniques of Same-Age Peer Tutoring Method

Simple techniques include the following varieties of simple techniques designed predominantly to aid interaction and development of skills:

- co-operative note-taking pairs;
- peer coaching;
- peer monitoring;
- three-step interview;
- think-pair-share
- flashcard tutoring.

There are various simple techniques aimed at enhancing interaction and skill development. Among these, the chosen techniques for the use of peer tutoring method are three-step-interview and think-pair-share. The lessons covering topics such as the origins of Banks, the functions of Commercial Banks, creation of Credit by the Bank, and techniques of monetary control were taught using the think-pair-share technique. In contrast, the lessons on the origins of Central Banks, types of Banks and the functions of Central Banks were delivered through the three-step interview technique.

Three-step interview

In the three-step interview (Nattiv, Winitzky & Drickey, 1991, as cited in Falchikov, 2001), students interview each other in pairs to learn the opinions and ideas of the other on topics introduced by the teacher. The student then reports their findings back to the group. This technique, which may be familiar to many readers under another name such as 'introduce your partner' (or, indeed, no name at all). This exercise may also be used as an 'ice-breaker'. In three-step interview technique, student pairs take turn interviewing each other and then report what they learn to one another pair. In implementing three-step interview, there some stages that conducted in the teaching. The procedures of three-step interview technique (Barkley, Cross, & Major, 2005, as cited in Candraloka, 2016) are following:

Step 1: Group Formation

- In this step, students are divided into groups, with each group consisting of four students. The teacher organizes these groups, ensuring that there are four students in each group.

Step 2: Topic Assignment and Pair Interviews

- In this step, the teacher assigns a specific topic to each group of students.
- Within each group, students are paired up. These pairs take turns interviewing each other about the assigned topic. This means that each student in a pair act as both the interviewer and interviewee during this stage.

Step 3: Round Robin Sharing

- In the final step, students come together in their original groups, which still consist of four students each.
- Within these groups, the pairs formed in step 2 share what they learned from their interviews. Each pair takes turns sharing their insights with the other pair in the same group. This round-robin sharing allows all students in the group to benefit from the different perspectives and information gathered during the interviews.

Think-pair-share

In this system, pairs of students discuss their individual responses to a question posed by the teacher (or, sometimes, to a question from another student). Sherman (1991, as cited in Falchikov, 2001) attributes the discovery of the think-pair-share technique, but teacher predict that this technique, too, will be very familiar to many readers. Teacher have been using it for a very long time, without the benefit of a name, or the realization that such a common-sense activity might have one. The teacher finds this technique useful in tutorials for building up student confidence, allowing pairs to rehearse an answer by discussing and agreeing it so that a greater proportion of students will participate in class discussion. It is equally useful in large lectures where it may provide time for reflection, and opportunity for pairs of students to compare notes, figuratively and practically.

Millis and Cattell (1998, as cited in Falchikov, 2001) described a variant to think-pair-share, the think-pair square technique. In this variant, pairs work together solving a problem, but share their responses in structured learning teams rather than in the larger class group.

Steps of Think-Pair-Share

The teacher explains the technique to the students before beginning the exercises-describe the purpose, set discussion guidelines and time limits, and model the strategy to ensure that students know what is expected of them.

Step 1: Think

The students begin with a specific question, and give students time to individually think about an answer, and document their responses on their own, either written or in pictures. The students can be given 1-3 minutes for this part of the exercise.

Step 2: Pair

Students now get into pairs. Decide before whether the teacher will assign pairs or let students choose their own partners. Remember when pairing to think of student strengths and their personalities. Ask the students to share what they came up with their partners and discuss. The teacher can provide questions for the students to ask one another. This part of the activity can take at least 5 minutes.

Step 3: Share

For this part, come back together as a class and have a whole class discussion. The teacher can either choose to have one person from each pair share with the class, or the discussion can be more open. Students can also share with the class what their partner said.

Teachers should choose these techniques according to their desired aims. Co-operative note taking might be used when student skills in these areas are deemed inadequate. Peer tutoring

has particular relevance for trainee teachers or for assisting any student improve an oral presentation or performance skills. Peer monitoring, on the other hand, may be used to help students motivate each other and study together. The three-step interview can act as a simple ice-breaker, while think-pair-share is useful in helping students participate in tutorial discussions. Several examples within this category may be familiar to readers. All are uncomplicated and easily applied.

Research Method

In this session, research design, population and sample size, instruments, analysis of the data, and procedure will be presented.

Research Design

In this study, quasi-experimental viz. nonequivalent control group design was used.

Population and Sample Size

In this study, two Basic Education High Schools were selected to carry out the research work. The schools for this study were (71) Grade Eleven students from No. (1) Basic Education High School, Meiktila Township, and (70) Grade Eleven students from No. (4) Basic Education High School, Meiktila Township in Mandalay Region. The population and sample size of each school can be seen in Table 1.

Table 1 Population and Sample Size

Name of Schools	No. of Population	No. of Sample
No. (1) Basic Education High School, Meiktila	71	71
No. (4) Basic Education High School, Meiktila	70	70
Total	141	141

Instruments

The instruments were constructed in accordance with the research design. To conduct this experimental research, (1) a pretest, (2) a posttest was used.

(a) Pretest

The pretest consisted ten True or False items, ten comprehension items, ten multiple-choice items, five definitions, and a short note item, focusing on topics from the Grade Eleven economics textbook. It was allocated a time of one hour and thirty minutes and worth 50 marks. Seven expert educators and two experienced teachers reviewed and validated the test items, leading to modifications based on their feedback. The pretest was then administered to 45 Grade Eleven students at Chiset Basic Education High School in Meiktila. Reliability was assessed using Cronbach's alpha, which yielded a value of 0.761, indicating acceptable reliability for the test.

(b) Posttest

The posttest consisted twenty-seven items related to money and banking, including seven True or False questions, seven comprehension questions, six multiple-choice questions, five definitions, and two short note items. It was developed with guidance from seven expert educators and two experienced teachers. The test was allocated a duration of one hour and thirty

minutes and had a total of 50 marks. The reliability of the posttest was assessed using Cronbach's alpha, which yielded a value of 0.764.

Analysis of the Data

To analyze the data, the computer program: Statistical Package for Social Sciences (SPSS): Version (25), was applied in this study. The pretest was used to see if the groups had the same basic economics knowledge before the treatment. To be able to determine whether there were differences between the experimental group and control group in economics achievement, the posttest scores of the groups were compared by using the independent samples *t* test.

Procedure

For the theoretical formation, relevant data were explored and studied through education journals, books, theses and the resources from internet. After that, the literature review was made. The pretest, posttest, and the lesson plans used for this study were developed. And then, the pilot study was administered with (45) Grade Eleven students from Chiset Basic Education High School, Meiktila township. In order to carry out an experimental study, a nonequivalent control group design was used. This study used quasi-experimental design, so the students to keep existing classrooms intact when it is just not possible to assign individual students, to groups randomly. For this study, the two high schools, No. (1) Basic Education High School, Meiktila and No. (4) Basic Education High School Meiktila were selected. The two intact classrooms in each selected school were selected and one of the classes was assigned as the experimental group to receive the treatment of peer tutoring method.

Research Findings

This part presents the findings obtained according to the purposes of the research. Table 2 show the result of pretest scores in two selected schools.

Table 2 The Results of *t* Test on the Pretest Scores in Two Selected Schools

School	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>Sig</i> (2-tailed)
S 1	Experimental	35	38.34	2.10	0.17	0.306	69	.760
	Control	36	38.17	2.69				(ns)
S 2	Experimental	36	38.42	1.08	0.21	0.906	68	.368
	Control	34	38.21	0.85				(ns)

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila; ns = not statistically significant.

In school 1, the mean of the experimental group was 38.34 and the control group was 38.17. According to the results of S 1, $t(69) = 0.306$ and $p = 0.760$, there was no significant difference between the experimental and control groups on basic economics knowledge before the treatment period. In school 2, the mean of the experimental group was 38.42 and the control group was 38.21. According to the results of S 2, $t(68) = 0.906$ and $p = 0.368$, there was no significant difference between the experimental and control groups on basic economics knowledge before the treatment period. According to the results, it can be interpreted that in the two groups from each school all the students were not different in the pretest scores. The comparison of the mean between the two groups on the pretest is shown in Figure 1.

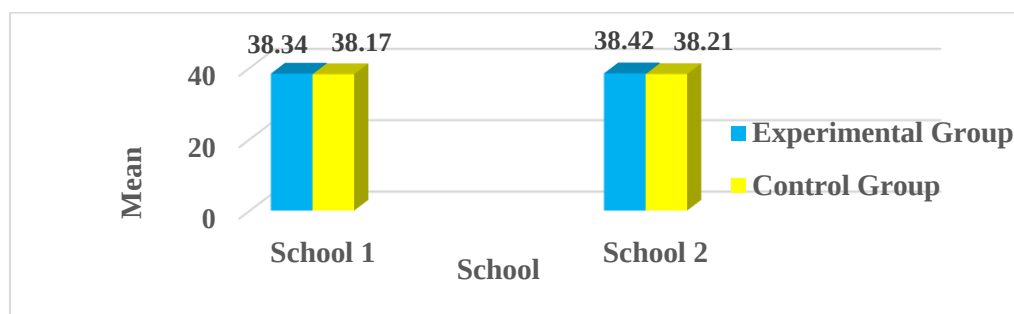


Figure 1. The comparison of mean for students' economics achievement on the pretest in the selected schools.

It can be interpreted that all students had the same level of basic economics knowledge in both groups. Table 3 shows that the result of posttest scores in two selected schools.

Table 3 *The Results of t Test on the Posttest Scores in Two Selected Schools*

School	Group	n	M	SD	MD	t	df	Sig (2-tailed)
S 1	Experimental	35	35.49	5.97	13.71	9.093	69	.000***
	Control	36	21.78	6.70				
S 2	Experimental	36	36.00	4.05	13.00	11.797	68	.000***
	Control	34	23.00	5.14				

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila.

*** $p < .001$.

In school 1, the mean of the experimental group was 35.49 and the control group was 21.78. According to the results of S 1, $t(69) = 9.093$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on posttest scores on economics achievement. In school 2, the mean of the experimental group was 36.00 and the control group was 23.00. According to the results of S 2, $t(68) = 11.797$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on posttest scores on economics achievement. The two groups from the selected schools showed different posttest scores, with experimental groups using peer tutoring having higher mean scores than control groups taught through formal instruction. This indicates a statistically significant difference in economics achievement, suggesting that peer tutoring method positively impacted economics teaching at the upper secondary level. The mean comparison of posttest scores is shown in Figure 2.

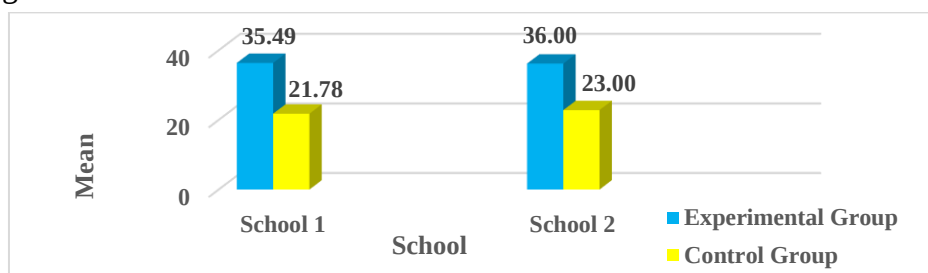


Figure 2. The comparison of mean on the posttest for students' economics achievement in the selected schools.

Table 4 shows that the result of remembering level questions in two selected schools.

Table 4 The Results of *t* Test on Remembering Level Questions in Two Selected Schools

School	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>Sig</i> (2-tailed)
S 1	Experimental	35	15.37	1.72	1.84	4.281	69	.000***
	Control	36	13.53	1.91				
S 2	Experimental	36	15.61	0.84	2.76	6.582	68	.000***
	Control	34	12.85	2.36				

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila.

*** $p < .001$.

In school 1, the mean of the experimental group was 15.37 and the control group was 13.53. According to the results of S 1, $t(69) = 4.281$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on posttest scores on economics achievement. In school 2, the mean of the experimental group was 15.61 and the control group was 12.85. According to the results of S 2, $t(68) = 6.582$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on remembering level questions in economics achievement. It can be interpreted that the students who were taught by using the peer tutoring method performed better on remembering level questions in economics achievement than the students who were taught by using formal instruction. The comparison of the mean for remembering level questions from each school is also presented in Figure 3.

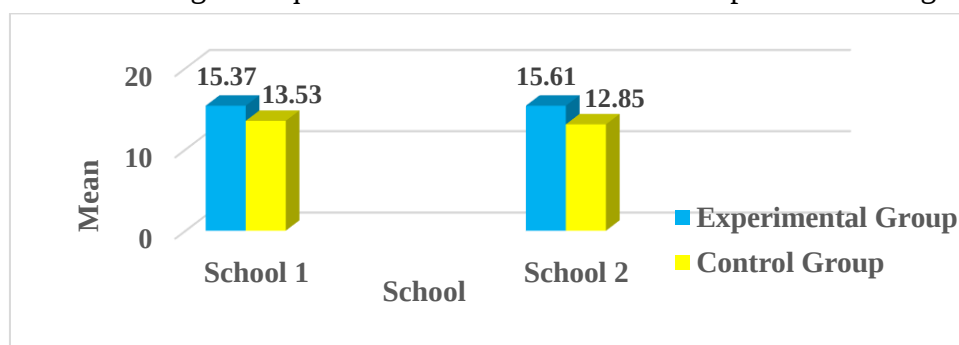


Figure 3. The comparison of mean on remembering level questions for students' economics achievement in selected schools.

Table 5 shows that the result of understanding level questions in two selected schools.

Table 5 The Results of *t* Test on Understanding Level Questions in Two Selected Schools

School	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>Sig</i> (2-tailed)
S 1	Experimental	35	8.51	1.40	1.82	2.520	69	.014*
	Control	36	6.69	4.04				
S 2	Experimental	36	8.36	1.46	2.83	6.191	68	.000***
	Control	34	5.53	2.30				

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila.

* $p < .05$, *** $p < .001$.

In school 1, the mean of the experimental group was 8.51 and the control group was 6.69. According to the results of S 1, $t(69) = 2.520$ and $p = .014$, there was a statistically significant

difference between the experimental and control groups on posttest scores on economics achievement. In school 2, the mean of the experimental group was 8.36 and the control group was 5.53. According to the results of S 2, $t(68) = 6.191$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on understanding level questions in economics achievement. It can be interpreted that the students who were taught by using the peer tutoring method performed better on understanding level questions in economics achievement than the students who were taught by using formal instruction. The comparison of the mean for understanding level questions from each school is also presented in Figure 4.

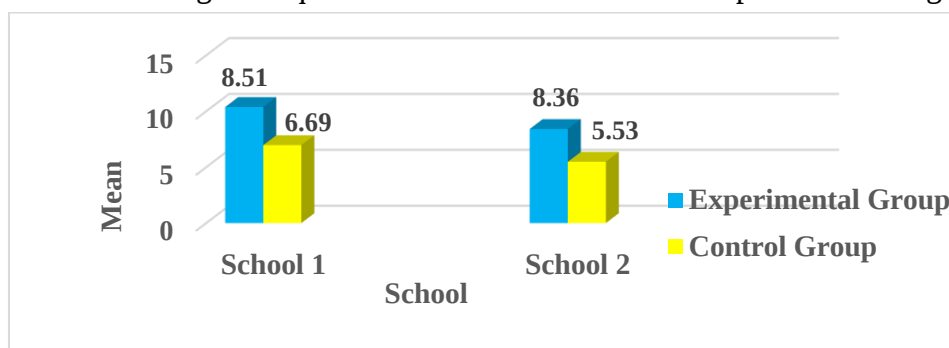


Figure 4. The comparison of mean on understanding level questions for students' economics achievement in selected schools.

Table 6 shows that the results of applying level questions in two selected schools.

Table 6 The Results of *t* Test on Applying Level Questions in Two Selected Schools

School	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>Sig</i> (2-tailed)
S 1	Experimental	35	6.83	3.85	6.22	9.620	69	.000***
	Control	36	0.61	0.49				
S 2	Experimental	36	8.19	3.02	5.45	21.446	68	.000***
	Control	34	2.74	2.19				

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila.

*** $p < .001$.

In school 1, the mean of the experimental group was 6.83 and the control group was 0.61. According to the results of S 1, $t(69) = 9.620$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on posttest scores on economics achievement. In school 2, the mean of the experimental group was 8.19 and the control group was 2.74. According to the results of S 2, $t(68) = 21.446$ and $p = .000$, there was a statistically significant difference between the experimental and control groups on applying level questions in economics achievement. From the above results, it can be interpreted that the students who were taught by using the peer tutoring method performed better on applying level questions in economics achievement than the students who were taught by using formal instruction. The comparison of the mean for the applying level questions are also presented in Figure 5.

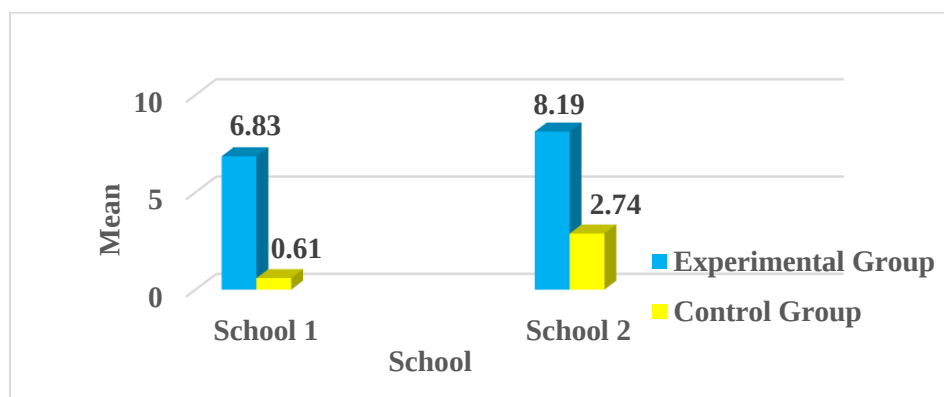


Figure 5. The comparison of mean on applying level questions for students' economics achievement in selected schools.

Table 7 shows that the result of analyzing questions in two selected schools.

Table 7 The Results of *t* Test on Analyzing Level Questions in Two Selected Schools

School	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>Sig</i> (2-tailed)
S 1	Experimental	35	3.94	2.77	3.41	6.610	69	.000***
	Control	36	0.53	1.38				
S 2	Experimental	36	4.06	2.93	2.21	3.688	68	.000***
	Control	34	1.85	1.94				

Note. S 1 = No. (1) Basic Education High School, Meiktila; S 2 = No. (4) Basic Education High School, Meiktila.

*** $p < .001$

In school 1 the mean of the experimental group was 3.94 and the control group was 0.53. According to the results of S 1, $t(69) = 6.610$, and $p = .000$, there was a statistically significant difference between the experimental and control groups on posttest scores on economics achievement. In school 2, the mean of the experimental group was 4.06 and the control group was 1.85. According to the results of S 2, $t(68) = 3.688$, and $p = .000$, there was a statistically significant difference between the experimental and control groups on analyzing level questions in economics achievement. It can be interpreted that the students who were taught by using the peer tutoring method performed better on analyzing level questions in economics achievement than the students who were taught by using formal instruction. The comparison of the mean for analyzing level questions are also presented in Figure 6.

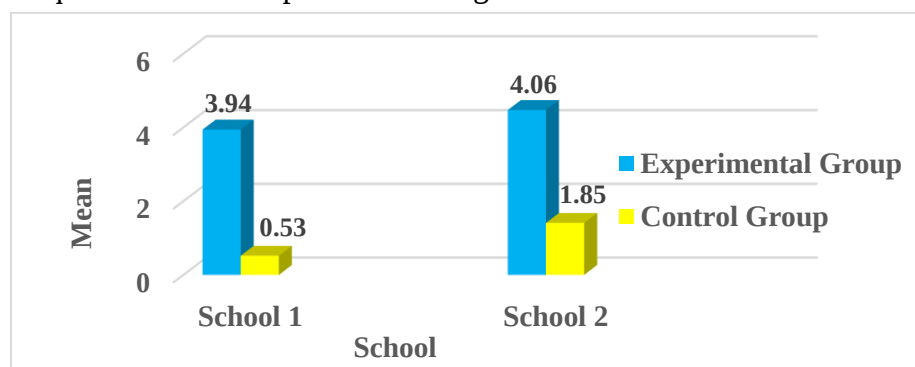


Figure 6. The comparison of mean on analyzing level questions for students' economics achievement in selected schools.

Discussion

Firstly, the mean scores of the experimental groups were significantly higher than those of the control groups in both schools. It indicated that there were statistically significant differences between the control and experimental groups on all posttest economics achievement scores. It can be interpreted that the use of peer tutoring method has a significant effect on the economics achievement of the students from each school.

Secondly, the results indicated that the mean scores on remembering level questions for the experimental group were statistically significantly higher than the scores for the control group in selected schools. The results showed that there were statistically significant differences between the control group and experimental group for scores on remembering level. It can be interpreted that the peer tutoring method could bring about the improvement of students' abilities to recall the concept of learning materials.

Thirdly, the results indicated that mean scores on the understanding level questions for the experimental group were statistically significantly higher than the scores for the control group in selected schools. The results showed that there were statistically significant differences between the control group and experimental group for scores on understanding level. Thus, the findings proved that peer tutoring method could bring about the improvement of students' ability to hold the meaning of learning materials by describing, discussing, comparing, and explaining.

Fourthly, the results indicated the mean scores on the applying level questions for the experimental group were statistically significantly higher than the scores for the control group in the selected school. The results showed that there were statistically significant differences between the control group and experimental group for scores on the applying level. As a result, students can utilize information in innovative ways by calculating, solving, and preparing.

Finally, the results indicated the mean scores on the analyzing level questions for the experimental group were statistically significantly higher than the scores for the control group in the selected school. The results showed that there were statistically significant differences between the control group and experimental group for scores on the analyzing level. Based on the results, students can distinguish parts, their relationships, and overall structure by comparing, separating, and organizing.

Based on the above outcomes and results, peer tutoring method can be used for effective teaching and learning. Peer tutoring method provides the opportunity to the students to interact directly with each other which is helpful in promoting learning activities among the students. According to the findings of this study, it can be concluded that using peer tutoring method was more effective than the formal instruction to helping students achieve better achievement in teaching economics. Thus, peer tutoring method can improve students' economics achievements at the upper secondary level.

Suggestions

Based on the findings of the research, the following recommendations are suggested for further studies.

- As peer tutoring method is an effective method to teach economics, it is suggested that further studies should focus on the teaching of other subjects.

- Since the size of the sample is small, this result may not be generalized to a larger population. Thus, similar research should be carried out in many schools from other Townships and other Regions.
- Due to time limitation, the treatment time is short. Therefore, period for the intervention and the content to be learned should be extended for further studies.
- Further research should be conducted to study the teacher's attitudes concern with using peer tutoring method.
- In this study, think-pair-share and three-step-interview techniques were used. The remaining techniques (such as co-operative note-taking pairs, peer coaching, peer monitoring and flashcard tutoring) should be used in further research.
- Further researches should investigate the action research using the various types of assessments (peer assessment and peer feedback) to promote the 21st century skills of the students who are taught by peer tutoring method.

Conclusion

To sum up, peer tutoring method is an effective method for students to learn from one another. It benefits the students not only academically, but also helps them to develop their communication and interpersonal skills. Peer tutoring method enhances the confidence of the students and motivates them to become self-sufficient. This two-way process is equally advantageous for both the tutors and the learners. Organized peer tutoring method is more effective and beneficial than unorganized peer tutoring activities. Therefore, it can be concluded that using peer tutoring method has positive effects on teaching economics at the upper secondary level.

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