Investigating the Effectiveness of Peer Teaching/ Learning in Language Classrooms: A Study at a Private University in Bangladesh

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Abstract: In language teaching, many techniques have been used by teachers for many years to make learning effective and interesting. Peer teaching is one of those teaching techniques adopted by teachers to foster a better learning environment. This study aims at finding out the effectiveness of peer learning and teaching both from the perspectives of peer-teacher and peer-tutee at the tertiary level of Bangladesh. Students were involved in taking classes of their classmates and later their opinion was collected through survey questionnaire and Focus Group Discussion. The participants appreciated peer teaching in language learning and they also reported improving many social skills along with better learning of the subject matter. The study concludes with the remark that peer teaching is an effective method of teaching language at the tertiary level and it should be applied extensively in the classroom by teachers.

Keywords: Peer teaching, tertiary level, social skills, language classrooms, subject matter

1. Introduction

Teachers sometimes intend to believe in two types of learning: superficial learning and deep learning. For years, English Language learners' performance in the exam is not up to the mark, they also have fear of public speaking. To solve these issues a teacher may advise them to give more focus on deep learning rather than superficial learning. Learners do not just learn any language by following the instruction of the teachers or by only reading the textbook. They learn through real-life practice, which builds up their self-confidence and eradicates their fear of speaking in the target language. The learners should be informed by the teacher that competence does not come with superficial learning, but it comes with deep learning which includes the active participation of the learners and critical thinking. To enhance the performance level of the learners,

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a teacher is always concerned and applies different strategies in the classroom, where each one of them has their learning style, completely different from others. According to McCarron, Sean and Robert both teaching techniques and learning strategies need modification to achieve social as well as cognitive results in the case of both high and low performing learners in a unique, individualized and effective way (McCarron & McCarron, 2011). Nowadays in Bangladesh, language teachers are using different teaching techniques like group discussion, role play, real-life activities, peer teaching, etc. and it has helped the learners to learn better than following traditional techniques, as they can share their ideas in an interactive class and the lesson becomes very interesting. This practice also leads to better academic results as well as personal development (Nagar & High, 2015). One of the most popular and accepted techniques to facilitate learners with good academic results in comparison to other traditional techniques is the use of 'peer teaching' (O'Shea & O'Shea, 2010). Peer teaching is a popular technique where a learner plays the role of a teacher and teaches other learners. It should be a correlative learning activity where both sides are benefitted equally by sharing their knowledge or experience (D Boud et al., 2008). Peer teaching involves two or more students' involvement in teaching one another a specific subject area and believing that "to teach is to learn twice" (Neal & Jonathan, 1988). Peer teaching benefits the learner who is going to teach in a very interesting way. A peer teacher needs to prepare himself/herself by organizing the materials and the concept before taking the class. Thus, the 'teacher' gains a better understanding of the topic. Studies show that preparing oneself for taking a class makes learning more effective than preparing oneself for a test (Rolf Ploetzner, Pierre Dillenbourg, 1999). And the learners learn better from a peer teacher because the 'teacher' understands their level of understanding and through their mutual relationship they can question each other and interact with the 'teacher' easily which leads towards educative and successful learning.

2. Literature review

Assessment is a basic need in any kind of teaching and learning. In the case of language teaching and learning assessment of learner's learning should be assessed at regular intervals. It is the most essential task of a teacher to ensure assessment practice in the classroom(Lim, 2014). Now, assessment is anything that refers to the activity and techniques used by the teachers for the learners to assess their learning(Black & Wiliam, 1998). There are many

types of assessment and peer teaching or learning is one of those. It has become very popular among language teachers in recent years. Peer teaching is a process monitored by the teacher in a formal situation like a classroom, where a student teaches another student or a group of students who are all at the same level (Gearhart et al., 1992).

According to Neal and Jonathan peer teaching used in mainly five ways. In their studies, they also said that the three types among all five types of peer teaching, the 'teacher-student' is more advanced than the learners. They are called "near-peers". These "near-peers" are undergraduate teaching assistants, tutors and counselors. Undergraduate teaching assistants are those who have done well before in that particular course. They help the students of lecture-based courses with small discussion groups where they can share ideas in groups. Tutors help an individual student who needs extra help and counselors help one to one basis but not for a specific course but for general purposes like subject selection or study habits. The other two types of peer teaching are partnership and workgroup. They are called "co-peers". In these two types, learners are at the same level. In partnership, the learners have a one-to-one relationship where two of them function as learner and teacher. And workgroup means students working as a group where they learn to do a job as a team and share a common task. In group work, the learners get to build up more friends or develop a relationship with old friends and learn to help and assist each other(Neal & Jonathan, 1988).

Peer teaching has already been researched as a very helpful way to involve students to get good academic results(Oloo, Mutsotso, & Masibo, 2016). After analyzing the findings of sixty-five different evaluations of tutoring programs conducted in schools it has been found out that the tutored students have done better than other students and they also had become successful in developing positive attitudes towards a lot of factors like the subject matter, their learning process, their friends, etc. They also understood the subject matter better than before. They also became very confident, disciplined, resourceful, cooperative and obedient. They also developed a great sense of responsibility (D Boud et al., 2008). Along with this, they become self-reflective which helps them to develop their teaching and evaluating skills(Kavanoz & Yüksel, 2010).

At first, it was believed that only the tutored learners are benefited from peer teaching but both the student-teacher as well as the recipients make a significant improvement (Goodlad and Hirst 1989). Along with this, the teacher is also

benefited. Charalampos Toumasis in his study has talked about the advantage of peer teaching from two perspectives; student's perspective and teacher's perspective. To talk about the student's perspective, a student learns before teaching other students because s/he needs to take preparation. To take preparation, a learner needs to investigate and gather all the information available whether in books or journals. It does not stop here, learners then need to think critically about the obscure point, because they need to clarify concept before teaching someone else. Thus, the learner is aware of surface learning and deep learning. A sense of responsibility also develops within a learner. As he is entrusted by the teacher with the subject matter that s/he is going to teach. S/he also learns the organizational skill before taking the class and managing the class while taking the class. Now from the teacher's perspective, peer teaching allows the teacher to observe the class without being at the center of the class, unlike regular days. A teacher also gets a chance to break the monotony of a regular class and create an interesting atmosphere for the students to learn(Toumasis, 1990).

A number of researches show that peer learning benefits 'the student' and 'the teacher' both cognitively and affectively. It is even more beneficial if they have a chance to enhance their learning by interacting with each other socially. This is only possible when they play both the role of a teacher and a student (Goldschmid & Goldschmid, 1976). And the interaction between the peer teacher and learners shapes their learning process in a positive way. And when a teacher teaches, s/he explains the topic repeatedly thus in-depth learning takes place(Mastropieri, Scruggs, Spencer, & Fontana, 2003). Peer teaching also has a psychological basis for its benefits. In the 1960s, the report began to appear about students teaching other students under the mentorship of their teachers(Goldschmid & Goldschmid, 1976). Students learn better from the student-teacher because of an existing comfort zone of being at the same level, age, and point of view. To implement peer teaching officially there should be a communication bridge between the course teacher and the academic planner (Neal & Jonathan, 1988). And it is also proved that the best way to learn is to teach first. And a learner learns best by participating in the class.

Many kinds of peer learning are being used nowadays in higher levels as a group activity or individually taking responsibility for deepening their understanding of that course(Boud, 2001). Along with this the learners are also found to have improved attitude, enhanced social and academic skills. They also have found to be developing leadership skills(Oloo et al., 2016).

3. Objectives of the Study

This study aims at determining the effectiveness of Peer Teaching in language classrooms in tertiary level of Bangladesh. To be more specific, the objectives of the study are:

- i. To find out whether peer teaching is helpful for the learners to learn the subject matter better
- ii. To determine the effectiveness of peer teaching in a language class room in Bangladeshi context
- iii. To identify the social skills induced in learners by peer teaching

4. Methodology

To conduct this study the sequential exploratory design was used. It is one of the designs of the mixed method. This is a two-phase design. In the first stage, the quantitative data is collected and analyzed. Then in the second stage, the qualitative data is collected and analyzed. The main purpose of this type of design is to develop an instrument such as a surveyor to identify variables (Creswell, 2013). Under the qualitative part, Focus Group Discussion (FGD) approach was followed and the quantitative part of the study includes a survey questionnaire provided to the sample population to get their opinion. Focus group discussion is a technique of collecting data where a group of people of the same background and experience is gathered to discuss over a topic or matter. It is used in qualitative research to know their beliefs, thoughts, opinion, ideas, etc. It is a great way to give them a chance to put their different ideas on the table and discuss their views logically. A survey questionnaire is a set of questions that are given to a particular group of people to collect their views and opinions. Researchers use a survey questionnaire to collect and analyze the data.

4.1 Subject of the Study

This study was conducted on one hundred and twenty-five students studying at Daffodil International University in Bangladesh. All of them are first-semester students and have a Basic Language Course in the first semester as one of the mandatory courses. All the students are of the age group from eighteen to twenty-two. Students from six different departments; English, Civil Engineering, Textile Engineering, Electrical & Electronics Engineering, Electronics & Telecommunication Engineering, and ICE participated in this study.

4.2 Instruments Used in the Study

This study focused on the feedback of the students and for this purpose few interview questions were prepared for FGD. There were eight members in each group and fifteen groups for FGD. After recording their opinion a survey questionnaire prepared in Google form was provided to them so that they could give their opinion.

4.3 Procedure

This study was conducted during two semesters in eight months. Students were divided into small groups consisting of five to six members. Each group took one class on Tense. In total, thirty classes were conducted by the students as peer teachers. Afterward, their points of view were discussed in FGD about the effectiveness of peer teaching. They also shared their experience and suggested a few things regarding its implication in the classroom. Later on, a survey questionnaire was facilitated to each of the participants where they recorded their individual opinion about their experience as a peer tutor as well as peer tutee.

5. Findings and Discussion

The course teacher provided rubrics of preparing a lesson plan and the peer tutors were properly trained by the course teacher before taking the class. Each peer tutor prepared a lesson plan according to the objectives of the lesson and the course teacher observed the classes to examine whether the objectives were fulfilled or not. The following tables discuss about the lesson plan of three peer teaching groups.

Course title: English I	Course code: ENG 111
Title: Present tense	Duration: 40 minutes

Aims/Rationale: To teach the students present tense (Simple, continuous, perfect, perfect continuous). Students will be taught both structures and functions of present tense.

Learning Outcomes:

- a) Students will know the structure of each type of present tense
- b) They will be able to identify different types of present tense
- c) They will be able to produce grammatically correct sentences in present tense
- d) Students will learn to translate sentences of present tense from English to Bangla

Content	Method or Technique	Resource	Time
Introduction:	Lecture		
Welcome address	Q/A		10 minutes
Rapport building			
Content outline			
Development:			
Section A: Introduction to Present tense	Lecture/Discussion		5 minutes
Section B: Structure of all four types of present tense	Lecture/Discussion		5 minutes
Section C: Activity1: Identify sentences of present tense from the given passage.		English as a foreign language for science students volume I and II by H F Brookes	
Activity 2: Translate the English sentences to Mother Tongue.	Engagement of the students	and H Ross	15 minutes
Conclusion:			

Table 1: Lesson plan for Present Tense using Grammar Translation Method (GTM)

Table 1 describes that the objectives of this class were to make students able to produce grammatically correct sentences in present tense. The class was conducted in the Grammar Translation Method. It has been observed by the course teacher that the students learned the structures of present tense and were able to translate the sentences from Bangla to English. Since the objectives of the lesson plan were fulfilled, students were very enthusiastic about learning from their friends. But students were observed not to speak much in the class.

Course title: English I		Course coo	Course code: ENG 111		
Title: Past tense Duration:			0 minutes		
Aims/Rationale: To teach the students past tense (Simple, continuous, perfect, perfect continuous). Students will be taught the functions of past tense					
Learning Outcomes:					
b) They will be ablec) They will be able	ow the function of each type e to use different types of pa e to interact with each other	st tense in their speech using grammatically co			
Content	Method or Technique	Resource	Time		
Introduction:					
Welcome address	Lecture		10 minutes		
Rapport building	Q/A				
Content outline					
Development:					
<u>Section A:</u> Introduction to Past tense	Lecture/Discussion		5 minutes		
<u>Section B:</u> Functions of all four types of present tense	Lecture/Discussion		5 minutes		
<u>Section C</u> : Activity1: Identify sentences of past tense from the given passage.		English as a foreign language for science students volume I and II by H F Brookes			
Activity 2:	Engagement of the	and H Ross			
Interacting with partners using past tense	students		15 minutes		
Conclusion:					

Table 2: Lesson plan for Past Tense using Communicative Language Teaching approach (CLT)

Table 2 reports that the peer teacher designed the lesson plan using the Communicative Language Teaching Approach. The objectives were to make the students able to use past tense while speaking. And the observation of course teacher affirms that the objectives were fulfilled and the class was very interactive. The students were speaking in English during the class. They learned how to use past tense in their speech and could communicate through it. The students were not shy to speak as they usually are when a teacher takes class. They seemed to be very flexible while talking to the 'peer teacher'. When they found one of their friends as teacher they were not scared anymore and participated willfully in the class.

Course title: English I	Course code: ENG 111
Title: Future tense	Duration: 40 minutes

Aims/Rationale: To teach the students Future tense (Simple, continuous, perfect, perfect continuous). Students will be taught the functions of future tense through tasks.

Learning Outcomes:

- a) Students will know the function of each type of future tense
- b) They will be able to use different types of future tense in their real life
- c) They will be able to interact with each other using grammatically correct future tense.

Content	Method or Technique	Resource	Time
Introduction:			
Welcome address	Lecture		10 minutes
Rapport building	Q/A		
Content outline			
Development:			
Section A: Introduction to future tense	Lecture/Discussion		5 minutes
Section B: Functions of all four types of future tense	Lecture/Discussion		5 minutes

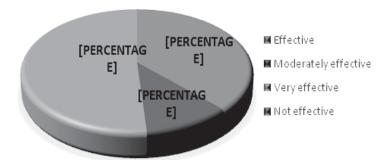
Section C: Activity1: Identify sentences of future tense from the given passage and fill in the gap exercise Activity 2:	Engagement of the students	English as a foreign language for science students volume I and II by H F Brookes and H Ross	15 minutes
Students interact with each other within the parameter set by the teacher to learn the use of future tense in real			

Table 3: Lesson plan for Future Tense using Task Based Language Teaching (TBLT)

Table 3 interprets that the peer teacher developed the lesson plan according to the Task Based Language Teaching method. Here the objectives of the lesson were to teach the students future tense and make them able to use it in real life situation. The course teacher observed that the students were given real life situations in the classroom and the students played different roles and spoke in English using future tense. The objectives were fulfilled as the students were speaking English in the classroom and very willing in playing the roles in the class.

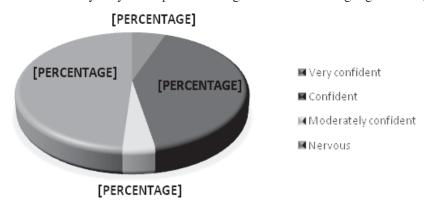
It has been observed that among these three types of methods CLT and TBLT works better than GTM as these two allow the students to speak more in the class and interaction with the peer teachers make learning interesting and spirited.

The analysis of the data collected from the questionnaire provided to each participants and the interview questions of focus group discussion defers for the following graphs:



Graph 1: Perception on effectiveness of peer teaching in language learning

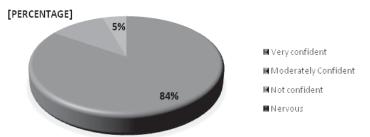
Graph 1 shows that the participants were asked to give their feedback on the effectiveness of peer teaching on language learning. All the participants opined that peer teaching was effective. Among them 38 percent of the participants found peer teaching effective, 11 percent found it moderately effective and 51 percent found it to be very effective in language learning. After conducting a focus group discussion with the same students it has been found that they found it effective because they learn anything better if their friends teach them instead of the teacher. Because they feel comfortable to ask any question without any fear during the class. And before taking the class as a peer tutor, all needed to take preparation and repeat the same thing during the class. So, they got more scope to revise the same subject matter. Thus, their learning improvised. These are the reasons why they think peer teaching is effective in language learning.



Graph 2: Confidence level of the participants before taking the class

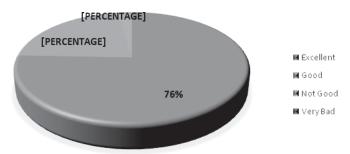
Graph 2 indicates that the participants were asked how confident they were before taking the class as a teacher. Only 5 percent of them felt very confident,

42 percent felt confident, 4 percent felt moderately confident and 49 percent of the participant felt very nervous before taking the class. In FGD the participants said that they felt nervous before taking the class and there were several reasons behind that. It was their first class as a teacher and most of them were not used to public speaking. So, they were not very confident. Some of them were nervous because they did not know how to manage the class and if they will forget during teaching. And a small percentage of them said they were very confident because the 'students' were at the same level as his. So, there was no fear of embarrassment if any mistakes were made.



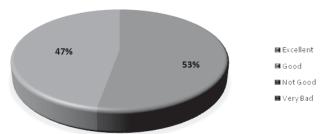
Graph 3: Confidence level of the participants after taking the class

Graph 3 reveals that the participants were again asked how they felt after taking the class. All of them responded that they felt confident. Before taking the class only 5 percent were very confident, but after taking the class the percentage has surprisingly gone up from 5 percent to 84 percent. 11 percent were feeling moderately confident and only 5 percent were not confident even after taking the class. In FGD they said very excitedly that after taking the class they were flooded with confidence that was missing before the class. They felt very proud to be at the center of the classroom. They all felt very influential and impressive that they also can play the role of a teacher and teach their classmates.



Graph 4: State of mind after receiving feedback from the teacher on the 'class lecture'

Graph 4 exhibits that the participants were asked how they felt when their teacher gave feedback on the 'class lecture' they had delivered. 76 percent of the participants said after getting their teacher's feedback they felt excellent. 22 percent felt good and 2 percent did not feel good. No participants felt bad after their teacher's feedback. In FGD the participants said, after the teacher's feedback they were inspired to improve their teaching quality and learn more to deliver class lectures in the future.



Graph 5: State of mind after receiving feedback from the learners on the 'class lecture'

Graph 5explains that after getting feedback from the learners during and after the class 53 percent of the participants felt excellent, 47 percent felt good and no one felt not or bad. During FGD they confessed that when the students asked questions during the class and if they had failed to answer they felt more inspired to study hard. They were determined to learn the topic which they failed to answer. A sense of embarrassment forced them to learn more.

	Response(in percentage)		
Questions	Yes	No	Probably
Do you feel comfortable in your role as a teacher?	55.9	11.8	32.3
Were the difficult points explained by the peer teacher?	64.6	4.7	30.7
Do you believe students benefitted from your teaching?	55.9	3.1	40.9
Did you learn any teaching techniques?	70.9	18.1	11
Did you learn anything about the subject matter while teaching?	86.6	5.5	7.9

Did the feedback of your classmates' feedback inspire you to learn more?	87.4	3.1	9.4
Do you want more classes like this?	85	2.4	12.6
Do you believe every student should learn how to teach?	91.3	2.4	6.3

Table 4: Perception on peer teaching/learning method based on their experience

In table 4 it is evident that 55.9 percent of the participants felt comfortable in their role as a teacher. According to them, they did not feel any pressure as the students were their friends who are of the same level. So, there was a comfort zone for them and 11.8 percent of the participants were not comfortable in a teacher's role. They believed their lack of experience was behind their discomfort. The rest 32.3 percent were not sure if they were comfortable or not.

64.6 percent of the participants said that their peer tutor explained all the difficult points, 4.7 percent disagreed with the idea and 30.7 percent was not sure. On asking the question about the peer tutor's explaining the difficult point they said that the peer tutor tried to explain as much as he could and he tried to solve any problem or give the answer to the questions asked by the students.

55.9 percent of the participants responded saying that the students benefitted from the lecture. 3.1 percent disagreed and 40.9 percent could not respond surly if the students benefitted or not. When they were asked about the benefit of the students, most of them believed that the students were benefitted because according to them, they were very friendly with the students and as they were friends in real life they knew each other well and also knew how they would learn well. Thus it was easy for them to design the lecture based on the need of the students.

70.9 percent of the 'teacher' learned many new teaching techniques and 18.1 did not, 11 percent was not sure. In FGD they said that they learned many teaching techniques like managing the students, seeking and holing their attention, managing the time. Some of them also learned how to write on the white-board for the first time.

86.6 percent of the participants learned that particular subject matter better through peer teaching, 5.5 percent did not and 7.9 percent was unsure. A surprising number of participants responded that they learned better while teaching than any other time when they just have to follow the class lecture. Teaching the students fostered a better understanding of the subject matter.

87.4 percent of the participants were inspired by the feedback given by the students on their lecture. 3.1 percent was not inspired and 9.4 percent was not sure. 85 percent of them want more peer classes like this. Because they believe it gives a chance to be active in their learning process. Active learning better than a passive one. 2.4 percent do not want peer classes. They think only the teacher can make them understand not their friends. 91.3 percent of them thinks that every student should know how to teach. It improves their learning as well as other social skills. But 2.4 percent think it is not necessary for every student to know how to teach.

Language learning requires the active participation of the learners. And in this study, we found that peer teaching is all about the active participation of the learners. The findings of this study can be discussed from two perspectives. From the peer teacher's perspective and the peer tutee's perspective. Apart from that, some other skills and experience gained by the participants also will be discussed. The findings of this study suggest that peer teachers were profited in many ways. Firstly, they mastered the topic before the class very well and explained it again in the class, then after the class, they looked for answers to the questions asked by the students in the class. Secondly, as peer teachers, they learned many teaching techniques and lastly, they learned to design the class keeping in mind the different levels of students. Findings also show the point of view of peer students. Peer students learned the topic better from their peer tutor and they felt more comfortable with the peer tutor than a teacher. According to them they feel hesitated before asking any question to the teacher, but as the peer tutor is their friend they feel comfortable. And also they can debate over a topic with the peer tutor which they cannot do with the teacher. All the benefits were found to be effective in this study. The observation of the course teacher also indicated that the students perform better when a peer tutor conduct the class and almost all the classes conducted but the peer tutors using different teaching techniques, methods and approaches were successful to fill up the objectives of the lesson plan and the students learned accordingly.

Along with these the participants mastered a lot of social skills as well as experienced a lot of new things such as:

- i. They were more confident after taking the class as a peer teacher.
- ii. Speaking skill improved
- iii. Became more communicative and fluent with others
- iv. Leadership quality was improved
- v. A sense of responsibility grew inside them as they were supposed to teach others
- vi. They were inspired to learn more after the feedback of both the teacher and the students.

Apart from all these advantages of peer teaching it has some disadvantages too. Nervousness and anxiety prevailed among a small number of participants. But almost all of them confessed in FGD that after taking the class they felt better and instead of being nervous they gained a lot of self-confidence and proud of themselves. So, it is evident that the students were reinforced with better learning of the subject matter and also with very extensive social skills like public speaking, leadership build-up, eradication of fear, etc.

6. Recommendations

Peer teaching should be used in language classrooms of Bangladesh extensively to promote students' advanced learning. But peer teachers should be trained properly before the class. Peer teaching method gives opportunity to be communicative in the class and that leads to the mastery of communicative skills. As it also has direct role in making the learners skillful in social behavior, peer teaching should be accepted by the teachers, educators and policy makers.

7. Conclusion

The findings obtained from the questionnaire supplied to each participant suggest that peer teaching enhances the learner's knowledge about the particular topic in language learning and their way of learning was refined. The findings from FGD gives clear indication towards the learners improved social skill. Peer teaching also helps the learners get rid of their anxiety and fear of public speaking. They also gain positive attitudes towards the subject

matter, their peer tutors, their learning style, etc. So, the application of peer teaching can be very useful in a language classroom. But peer teachers should not be used as a substitute for teachers. Teachers should play the role of a facilitator and monitor the whole process. If the students are guided properly peer teaching in a language class can be a very useful method to learn better.

References

- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. Assessment in Education: principles, policy & practice, 5(1), 7-74.
- Boud, D., &Falchikov, N. (2006). Aligning assessment with long-term learning. Assessment & Evaluation in Higher Education, 31(4), 399-413.
- Boud, D., Cohen, R., & Sampson, J. (2014). *Peer learning in higher education: Learning from and with each other.* London: Routledge.
- Gearheart, B. R., Weishahn, M. W., & Gearheart, C. J. (1988). *The exceptional student in the regular classroom*. Merrill Publishing Company.
- Goldschmid, B., & Goldschmid, M. L. (1976). Peer teaching in higher education: A review. *Higher education*, *5*(1), 9-33.
- Goodlad, S., & Hirst, B. (1989). *Peer Tutoring. A Guide to Learning by Teaching*. Nichols Publishing, PO Box 96, New York, NY 10024.
- KAVANOZ, S., & YÜKSEL, H. G. (2010). An investigation of peer-teaching technique in student teacher development. *The International Journal of Research in Teacher Education*, *1*(3), 10-19.
- Lim, L. L. (2014). A case study on peer-teaching. *Open Journal of Social Sciences*, 2(08), 35.
- Mastropieri, M. A., Scruggs, T. E., Spencer, V., & Fontana, J. (2003). Promoting success in high school world history: Peer tutoring versus guided notes. *Learning Disabilities Research & Practice*, 18(1), 52-65.
- McCarron, S. (2011). Reflective leadership: effects of peer mentoring on minority students within an urban school setting.
- Nagar, B., & High, G. G. (2015). Improved Teaching Methods Help Secondary Students in Bangladesh Learn Higher pass rates. 0–1.
- Whitman, N. A., & Fife, J. D. (1988). Peer Teaching: To Teach Is To Learn Twice. ASHE-ERIC Higher Education Report No. 4, 1988. ASHE-ERIC
- Higher Education Reports, The George Washington University, One Dupont Circle, Suite 630, Dept. RC, Washington, DC 20036-1183.
- O'Shea, L. J., & O'Shea, D. J. (2010). Peer-Tutoring. *International Encyclopedia of Education*, 802–807.

- Oloo, E. A., Mutsotso, S. N., & Masibo, E. N. (2016). Effect of peer teaching among students on their performance in mathematics. *International Journal of Scientific Research and Innovative Technology*, *3*(12), 10–24
- Ploetzner, R., Dillenbourg, P., Preier, M., & Traum, D. (1999). Learning by explaining to oneself and to others. Collaborative learning: *Cognitive and computational approaches*, 1, 103-121.
- Toumasis, C. (1990). Peer teaching in mathematics classrooms: A case study. *Learning of Mathematics*, 10, 31-36.