



RESEARCH ARTICLE

Effectiveness of the Peer Tutoring Program in Improving Academic Performance among Low-Achievement Female Basic Stage Students in Mathematics and Arabic Language Subjects

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ARTICLE INFO	ABSTRACT
Received: Apr 2, 2024	The current study aimed to investigate the effectiveness of the peer tutoring program in improving academic performance for low-achievement female basic-stage students in mathematics and the Arabic language. The pre-experimental approach was adopted with a single-group design for a pre-and post-measurement to achieve the study objectives. An educational program consisting of (24) class periods was developed. The results of the female students' achievement in the mathematics and the Arabic language subjects were used. These results indicate the improvement in academic performance achieved due to the program. The study sample consisted of (88) female students from the ninth grade, selected by the intentional method from high-achieving and low-achieving female students, equally distributed one-for-one. The study's results showed the peer tutoring program's effectiveness in improving academic achievement in Arabic language and mathematics subjects. Several recommendations were drawn, the most important of which is the need to train teachers to employ the peer tutoring program because of its academic, psychological, and social benefits for students.
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1. INTRODUCTION

We are witnessing rapid changes in education today, with major developments in school curricula and textbooks. There have also been tremendous developments in education methods and strategies, taking into account individual differences and ensuring equality among all. That has led to there being a clear direction to integrate methods that have proven effective in improving students' performance. One of these methods is peer education, which contributes to providing a distinctive educational experience, and enhances the participation of students themselves in helping their peers develop their skills. Also, it increases their learning opportunities in unconventional ways that ensure that the time allocated for learning is invested more effectively and with higher motivation.

Peer tutoring is an example of cooperative learning, which is based on the formation of educational groups that cooperate during class periods to achieve specific educational goals with follow-up by the teacher (Abdel Karim, 2007).

It has been described as a cooperative learning system based on the principle of cooperation between learners, where the peer tutor teaches the peer tutee under the supervision of the teacher. It is also an educational method that is implemented in classroom lessons and students are provided directly with appropriate and timely feedback (Othman, 2007; Shaaban, 2011).

Ibrahim (2004) defined it as an educational method in which students teach their peers who are less accomplished or younger. Al-Khatib and Al-Hadidi (2021) believe that it is a method that enables a capable student to teach another student under the teacher's supervision. That helps contribute to

increasing the benefit for the student teacher in terms of developing positive attitudes. On the other hand, benefiting the student learner by providing sufficient and individual opportunities for learning.

The theoretical literature has pointed to another set of benefits that can be achieved from employing peer tutoring in the teaching process. Such as increasing the motivation and self-confidence of both the peer tutor and the tutee, increasing the spirit of cooperation and interaction between students, and breaking the routine methods used by teachers (Faraj, 2005).

The importance of employing peer tutoring is also summarized by the fact that it is an effective method of teaching in regular classes. It contributes to reducing the burden on the classroom teacher on the other hand. His role is limited to guiding and following up with students during the implementation of the program, which allows him to develop effective communication skills among students within the class. Thus, it makes students more participatory and cooperative among themselves, spreads the spirit of participation and positivity, increases self-confidence, and enhances the self-concept of both the student teacher and the peer tutee (Al-Qurashi, 2012).

The implementation of the peer tutoring program involves several steps. It starts with training teachers, preparing the educational environment, and increasing the motivation of peers to start the program. Then, distributing peers in pairs and setting meeting dates under the supervision of teachers. Finally, distributing roles, analyzing tasks and skills, and determining the appropriate time to implement the sessions (Al-Jawalda, 2015).

The previous steps can be limited to three basic stages. The first stage begins with preparing for the program by identifying learners and peer tutors, training peers to employ the program, defining responsibilities, and preparing educational content and learning tools. Then the second stage, which aims to implement the actual program, may take several forms, including the teaching of the tutor peer to the tutee peer. Then we move to the third stage, which is the formative and final evaluation process of the program outcomes (Shaaban, 2011; Al-Sartawi et al., 2007).

The academic subjects, specifically the Arabic language and mathematics, have received great attention from teachers and researchers. Mathematics is one of the difficult subjects that require teaching methods that go outside the framework of traditional education followed in most schools. McCarron, and coauthors, pointed out as they stressed the need to change teaching methods to facilitate acquiring mathematical concepts by low-achieving students. They considered peer tutoring to be one of the effective methods that help students improve their academic performance. (McCarron, Sean & Robert, 2011).

O'Shea & O'Shea (2010) pointed out the importance of peer tutoring in improving the reading level and sub-Arabic language skills. It also enhances higher levels of education, and critical and creative thinking, and achieves social, behavioral, and academic gains. It contributes to achieving an atmosphere of familiarity and improves students' self-concept, which generates a positive feeling of control and responsibility.

Study problem and questions:

Interest in the quality of educational outcomes has recently increased. Take into account appropriate teaching strategies that consider individual differences among students. These strategies contribute to the development of students' abilities, creativity, and skills. Many studies and research have emphasized the importance of moving away from traditional methods of teaching students and turning to methods that have been proven by evidence. Among these methods that help to improve student performance effectively is the peer tutoring strategy. Hence, the researchers wanted to verify the effectiveness of this strategy in improving the level of academic performance, specifically in the basic subjects of Arabic language and mathematics, which prompted the researchers to conduct this study.

The current study sought to answer the following questions:

Q1: What is the effectiveness of the peer tutoring program in improving the academic performance of low-achieving female basic school students in mathematics and the Arabic language?

Q2: Are there statistically significant differences at the level ($\alpha = 0.05$) in the average achievement scores of low-achieving female students in mathematics due to the peer tutoring program?

Q3: Are there statistically significant differences at the level ($\alpha = 0.05$) in the average achievement scores of low-achieving female students in the Arabic language subject due to the peer tutoring program?

Study Objective:

The main study objective is to investigate the effectiveness of peer tutoring in improving the level of academic performance of female students in the basic stage – specifically ninth-grade female students – with low achievement in mathematics and the Arabic language.

Study Importance

It is hoped that this study will shed light on one of the effective teaching methods that has been proven effective in previous studies, which is peer tutoring. That will contribute to enriching the library with part of the theoretical literature on peer tutoring. This is through what was presented in the summary of previous studies. That may direct those interested in further studies and direct decision-makers to pay attention to methods and strategies for teaching students, especially students with low achievement. It is also hoped that this study will present a practical program that can be employed and applied in a number of schools at all levels of primary and secondary education and in numerous of research studies. The study will also work to provide objective results about the effectiveness of the peer tutoring program.

Study terminology:

- **Peer tutoring:** It is defined procedurally as the basic stage female students who excel in mathematics and the Arabic language teach their female peers who have low academic achievement in both subjects. It is represented as a bilateral educational process between two female students, the tutor peer and the tutee peer.
- **Academic performance:** It is defined procedurally as the grades obtained by female students on school tests based on the curriculum prepared for the Arabic language and mathematics by teachers of the two subjects.

Limits and limitations of the study:

This study was conducted in light of several limits, the human limits of which were represented by female basic school students from the ninth grade. Its spatial limit was limited to Umm Kathir Secondary School for Girls in Ain Al Basha District. It was conducted in the first and second semesters of the 2022/2023 year. The study results are determined by the validity and stability of the study instrument, the extent of study validity of the sample's response to the instrument, and the possibility of generalizing the results to similar communities.

Previous studies:

The researchers reviewed several previous studies related to the study subject and its variables, and the following studies were found, arranged from newest to oldest:

The study by Alegre, Moliner, Maroto, and Lorenzo-Valentin (2020), aimed to examine the effect of using peer tutoring in improving the level of mathematics achievement for basic and secondary school students. A quasi-experimental approach with a single group design was used, and all extraneous factors were controlled with a pre-and post-test. The study sample consisted of (89) students from the first, fourth, seventh, and ninth grades. The results showed clear progress and improvement in students' academic performance and achievement at both levels. The study recommended conducting further studies due to the benefits and positive aspects of peer tutoring in the academic aspect.

Another study by Che & Chu (2020), aimed to analyze the relevance of peer relationships, learning motivation, and learning effectiveness. This study was conducted in Taiwan. The study adopted a mixed approach by distributing questionnaires, analyzing them, and reviewing the literature on the subject. The study sample consisted of student groups of both genders. The results showed the positive impact of peer tutoring in three areas: social relationships among peers, learning motivation, and learning effect. The results also showed statistically significant differences in the interest in peers attributed to the gender variable and in favor of female students.

A study by Ullah, Tabassum & Kaleem (2018), aimed at identifying the effectiveness of peer tutoring on the academic achievement of students in biology at the secondary level. Specifically, regarding comprehension, knowledge, and application levels in the cognitive domain of Bloom Taxonomy. The study sample consisted of (40) high school students from Khyber Pakhtunkhwa city. The experimental method was followed and the sample was distributed into two groups (control and the other experimental). The outcomes showed remarkable progress among the pilot study sample. The study recommended that peer tutoring may be incorporated along with other teaching methodologies in schools and training teachers on it because of its many benefits.

The study by Campit, Cayabyab & Galas (2015), aimed to employ a peer tutoring strategy according to the experimental method on second-year students at Pangasinan State University in the Philippines to enhance mathematics learning. To achieve the study objectives, the sample used was distributed into a control sample taught conventionally and an experimental sample in which peer tutoring was used. The results revealed significant differences regarding students' levels in mathematics in favor of the experimental group.

Al-Khawaldeh (2012) also conducted a study that aimed to recognize the effectiveness of the peer tutoring program in developing both creative thinking and the motivation of gifted students to learn. The study was conducted on a sample of (60) students (male and female). They were distributed into two experimental and control groups from the King Abdullah II Schools for Excellence in Zarqa and Salt Cities. The results showed that there were statistically significant differences regarding creative thinking skills, while the results did not indicate the same effectiveness regarding the level of motivation to learn.

Al-Hayali and Al- Hindi (2011), the study aimed to investigate the efficiency of the peer tutoring strategy in improvement and retention of verbal reading skills. The study sample consisted of (20) students (male and female) from the basic stage. The experimental design of equated groups design was used where the sample was distributed into a control and experimental group. The outcomes displayed that there were statistically significant differences in favor of the experimental group in improving reading skills related to speed. While there were no statistically significant differences regarding the accuracy of reading. On the other hand, the differences were statistically significant regarding retention and in favor of the experimental group.

Witvliet's (2004) study, aimed to develop and implement a peer tutoring program in middle schools. He was able to prove the effectiveness of peer tutoring by reviewing previous literature on the subject and reviewing a large number of studies that confirmed the effectiveness of peer tutoring. Then, peer tutoring was applied to a sample of students from the seventh and eighth grades for 35 minutes a day over 9 weeks in 5 days a week. The results showed a clear improvement in the student's academic level, which was also reflected in the submission of homework assignments with higher accuracy. In addition to teachers' positive attitudes towards the implementation of this teaching method.

Comment on previous studies:

Based on the review of previous studies, researchers found that the majority of these studies showed the effectiveness of using peer tutoring to enhance student's educational and academic performance. This was especially true for subjects like biology, mathematics, and languages. Such studies include the studies of Alegre, Moliner, Maroto, and Lorenzo-Valentin (2020); Al-Hayali and Al-Hindi (2011); Campit, Cayabyab & Galas (2015), and others studies. On the other hand, studies have indicated the effectiveness of peer tutoring in developing other aspects such as creative thinking and motivation to learn. This is like as the studies of Al-Khawaldeh (2012) and Chu & Chu (2020). The researchers benefited from these studies in selecting the curriculum, designing the program, and enriching the discussion. The current study was unique in employing the program at a very important stage of study. The choice of class is a transitional start to a stage of study that may be decisive for the students. Since, the division of students according to their academic or vocational inclinations begins at the end of the ninth grade. Thus, students may overcome their weaknesses and thus help them to self-determine and choose the educational path that is suitable for them and in line with their abilities.

Study Methodology:

The study followed the pre-experimental approach, a single-group design, because of its suitability for the study purposes.

Study population and sample:

It consists of all female students in the basic stage, specifically ninth-grade students at Umm Kathir Secondary School for Girls for the academic year 2022/2023. They were selected by nonprobability method from high-achieving and low-achieving female students in the Arabic language and mathematics subjects, with a total of (88) female students.

Study instruments:

To answer the study questions and collect data from the respondents, the researchers developed a peer tutoring program that included a number of 24 sessions related to the method of employing the program. Likewise, school achievement results were relied upon as a pre-and post-measurement to monitor the progress achieved at the level of achievement. The teacher-made tests were used in mathematics and the Arabic language based on the curriculum.

Study procedures and instruments used:

Subjects and materials: Students worked on the same subjects before, during, and after the peer tutoring sessions. They used worksheets and textbooks for ninth-grade mathematics and Arabic language. Each student received a worksheet containing exercises for both subjects at the start of each peer tutoring session.

Mathematics Content: The mathematics (M) content that female students worked on during peer intervention was taught during the 2nd semester of ninth-grade mathematics levels. During the second semester: ninth-grade students performed basic exercises in addition and subtraction. The students' worksheets were complex and difficult for most of them because they had to read and understand the problem statement, define the question, create the procedure, and solve it. On the other hand, the level of difficulty of the exercises and problems differed depending on the worksheet. If the two students completed the task in a shorter time, they were given additional exercises to do it. The supporting worksheets for mathematics for students in the ninth grade were provided by the National Center for Curriculum Development (Ministry of Education 2023/2024).

Arabic language content: Arabic (A) language content consists of silent and oral reading, reading comprehension, analyzing and criticism, and easily learning the necessary writing skills. Each study unit concluded with the skill of self-evaluation and reflective thinking, the application of supportive worksheets, group learning and stimulating psychosocial learning. The degree of difficulty of the exercises and problems varied depending on the worksheet. All worksheets supporting the Arabic language for the ninth grade are provided by the National Center for Curriculum Development (Ministry of Education 2023/2024).

Classroom mechanism: At the start of each session, all students in the same grade received identical worksheets. Initially, they worked individually for 6 minutes on the first exercise. This was followed by 8 minutes of peer tutoring in pairs. Subsequently, they had 10 minutes to complete the second exercise or problem. Lastly, an extra 8 minutes were provided for the final peer interaction.

Instruments used: To collect information, the participants' grades in the first semester and second semester in mathematics and the Arabic language were used to measure the academic achievement of female students. Therefore, their grades in the first semester (conventional teaching) were used as a pre-test, and their grades in the second semester (implementation of peer tutoring) were used as a post-test. Students in all courses were taking the exams and their final grades in the final exam for the second semester were their grades in the post-test.

Organization and Scheduling: The peer tutoring intervention is designed to last 24 class periods for the entire program. All of these classes were held during the second semester of the academic year (2023/2024). During 12 weeks, peer tutoring sessions were held twice a week. Peer interactions lasted approximately 26 minutes. The entire program was implemented during school hours.

Peer selection: Peers were selected and each student was assigned the role of “peer tutor” from students who excelled in Arabic language and mathematics. The learners were selected “peer tutees” from low-achieving female students in Arabic language and mathematics, taking into account their previous grades in these subjects. For this purpose, the list of high-achieving female students in each subject was divided to be met with a low-achieving female student in the same subject. Consequently, for every high-achieving student, there was a low-achieving student, and the meeting was held twice a week.

Peer tutoring program development: Before the implementation of the peer tutoring program, the teachers in each class used conventional teaching methods. In the second semester, the teachers’ lessons were supplemented by peer teaching. To achieve the objectives of the study, an educational program based on peer tutoring was developed in the classroom. The program is based on the principle of cooperative learning and its foundations. The final version of the program consisted of 24 classroom periods, applied over 12 weeks.

Content validity: To verify the program’s validity, it was presented to a group of arbitrators in curriculum and teaching methods, measurement and evaluation, and special education from Jordanian universities. Also, it presented to a group of teachers with more than 10 years of teaching experience in some schools. The number of arbitrators was 10 to express their opinions on the clarity of the program sessions and the soundness of the language in formulating the procedures, their validity, and the number of sessions.

Study variables:

Independent variable: peer tutoring program.

Dependent variable: the achievement level of low-achieving female students in the Arabic language and mathematics subjects.

Data analysis:

All quantitative data in this research were analyzed using SPSS 25.0. Comparison sample statistics were used to extract arithmetic means (AM), standard deviations (SD), and a t-test. to show the significance of differences in peer tutoring between ninth-grade female students with low achievement in Arabic and mathematics.

Results and Discussion:

The study questions were answered as follows:

- What is the effectiveness of the peer tutoring program in improving the academic performance of low-achieving female basic school students in mathematics and the Arabic language?

To answer the 1st question, AM & SD were extracted. The number of participants reached: (44) female students, (22) female students in the mathematics subject, and (22) female students in the Arabic language subject. All of them have low academic achievement and Table 1 shows this.

Table 1. AM and SD for the grades of ninth-grade female students with low academic achievement in mathematics and the Arabic language (pre-and post-measurements).

Measurements	N	Mean	Std. Deviation
Pre-Mathematics group	22	106.8182	9.67390
Post Mathematics group	22	192.9545	5.63558
Pre-Arabic language group	22	269.0000	25.87148
Post-Arabic language group	22	279.5909	16.09099

The results show in Table (1) the AM and SD for the study sample (44) female students. 22 female students for each subject group with low achievers and the differences in the measurements of pre and post-test. The differences were clear in favor of the post-measurement, which indicates the

effectiveness of teaching through peers. This indicates an increase in the level of academic achievement after the peer tutoring intervention.

The researchers attribute the effectiveness of the peer education program in improving academic performance represented in the acquisition of the Arabic language, its skills, and mathematics. Also, there are statistically significant differences between the arithmetic averages of the female students' scores in the pre-and post-measurements to the organized and studied sessions. On the other hand, the continuous follow-up from researchers and teachers of Arabic language and mathematics subjects to implement the sessions and train the outstanding students positively impacted the success of applying the sessions correctly. This finding aligns with the results of the study of Campit, Cayabyab & Galas (2015), Al-Khawaldeh (2012), and Witvliet (2004).

The 2nd question: Are there statistically significant differences at the level ($\alpha = 0.05$) in the average achievement scores of low-achieving female students in mathematics due to the peer tutoring program?

To answer the second question, a t-test was conducted to detect statistically significant differences between the groups. The results of the AM, and the t-test, showed statistically significant differences at ($\alpha = 0.05$) as shown in Table 2.

Table 2. AM and SD between pre-and post-test scores among ninth-grade female students with low academic achievement in mathematics

Variables		AM	SD	t	df	Sig
Pair 1	Post Mathematics group - Pre-Mathematics group	86.13636	11.06817	36.502	21	.000

Table (2) shows that the t-test was used to examine the differences, and the (t) value (36.502) shows that there is a significant difference between the pre-test scores and the post-test scores. The results of the post-test in mathematics for ninth-grade female students with low academic achievement showed statistically significant differences in the post-test and pre-test at the level ($\alpha = 0.05$).

The researchers attribute this result to the fact that peer tutoring has proven its ability to stimulate students' higher-order thinking skills. Employing previously planned and prepared sessions according to specific models gradually brings students to mastery in a desirable manner. This stimulates the motivation to learn by a peer who is close to the age of her fellow learner. This created a greater atmosphere of familiarity and created a positive relationship that would achieve the desired goals. This is confirmed by several previous studies, such as the study of Alegre, Moliner, Maroto, and Lorenzo-Valentin (2020). Peer tutoring is considered an evidence-based practice, as the results of these studies indicate the program's effectiveness in developing and improving the level of education and achievement, such as the study of Che & Chu (2020).

The 3rd question: Are there statistically significant differences at the level ($\alpha = 0.05$) in the average achievement scores of low-achieving female students in the Arabic language subject due to the peer tutoring program?

To answer the third question, a t-test was conducted to detect statistically significant differences between the averages of female students' scores in the Arabic language subject. As, the results shown significant differences, and Table 3 shows this.

Table 3: AM and SD of female students' scores in the pre-and post-measurements of the level of achievement in the Arabic language subject

Variables	AM	SD	t	df	Sig.
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Pair 1	Post A group - Pre A group	10.59091	18.41495	2.698	21	.013

Table 3 shows the t-test value, as it reached (t) 2.698, which indicates a difference between the pre-test and the post-test scores. It is a statistically significant difference at the level ($\alpha = 0.05$) for the scores of the study sample in the Arabic language and favor of the post-measurement.

The researchers attribute this result to the fact that the peer education program has proven its ability to stimulate learning due to its consideration of the learner in allocating additional time for learning. The preparation process by the trainers and peers focused on addressing the academic content with some simplification, adequate explanation, and repetition, bringing the low-achieving students to the mastery stage. On the other hand, the program sessions were characterized by an element of suspense and fun. This is what was indicated by previous literature on the subject, such as the study of Al-Hayali and Al-Hindi (2011), the study of Al-Khawaldeh (2012), and the study of both (2018) Ullah, Tabassum & Kaleem.

Recommendations:

In light of the previous results, the researchers recommend the following:

- Various teaching methods and strategies must be integrated when teaching both high-achieving and low-achieving students, as this has an effective impact on improving their academic and personal performance.
- A clear pedagogical guide for employing peer tutoring that teachers can quickly follow and apply to train students is needed.
- The results of many previous studies demonstrate the need to train pre-service and in-service teachers on using the peer tutoring program because of its benefits.
- More research studies are needed to examine the effectiveness of peer tutoring and track students' learning outcomes at different stages and levels.

REFERENCES:

- Abdel Karim, Dalia, (2007), The effectiveness of using the peer tutoring strategy in developing self-concept among students of the Geography Department in the College of Basic Education, College of Basic Education Research Journal, 7 (1), 2008, pp. 22-42.
- Alegre, F., Moliner, L., Maroto, A., & Lorenzo-Valentin, G. (2020). Academic Achievement and Peer Tutoring in Mathematics: A Comparison Between Primary and Secondary Education. Journal of Sage. <https://doi.org/10.1177/2158244020929295>
- Al-Hayali, Ahmed and Al-Hindi, Ammar (2011 AD) The effect of the peer tutoring strategy in improvement and retention of verbal reading skills among special education students in the reading subject, Journal of Research of the College of Basic Education, Vol. 11 (2), pp. 36-2.
- Al-Jawalda, Fouad (2015), Modern Issues and Trends in Special Education, Dar Al-Assar for Publishing and Distribution.
- Al-Khatib, Jamal, Al-Hadidi, Mona (2021), Curricula and Teaching Methods in Special Education, Dar Al-Fikr, Amman.
- Al-Khawaldeh, Malik (2012), The effectiveness of an educational program based on the peer tutoring strategy in developing creative thinking skills and improving the level of motivation to learn, unpublished doctoral dissertation, University of Jordan, Jordan.
- Al-Qurashi, Amira (2012), Teaching for People with Special Needs between Design and Implementation, Alam Al-ketab, Cairo.
- Al-Sartawi, Zidane, and others, (2000), Comprehensive Integration of People with Special Needs and Its Educational Applications, University Book House, Al Ain, UAE.
- Campit, J, Cayabyab, J, Galas, E (2015), The Effect of Peer Tutoring on Students Achievement in Discrete Structures, Asia Pacific Journal of Multidisciplinary Research, Vol. 3, No. 5.

- Che Tu, J & Chu, K., (2020). Analyzing the Relevance of Peer Relationship, Learning Motivation, and Learning Effectiveness—Design Students as an Example Analyzing the Relevance of Peer Relationship, Learning Motivation, and Learning Effectiveness—Design Students as an Example. *Journal of Sustainability*, 12, 4061; doi:10.3390/su12104061.
- Ibrahim, Magdy (2004), *Educational Strategies and Learning Methods*, Anglo Library, Cairo.
- McCarron, Sean, Robert (2011). *Reflexive Leadership: Effects of Peer Mentoring on Minority Students within an Urban School Setting*. Rowan University. Retrieved from <http://www.dspace.rowan.edu/bitstream/handle/10927/151/mccarrons-d.pdf>.
- O'Shea, L. J., O'Shea, D.J. (2010). Peer Tutoring. *International Encyclopedia of Education* (Third Edition). Pages 802 – 807 Retrieved from <http://www.sciencedirect.com>.
- Othman, Abeer (2007 AD) *The effectiveness of using the peer tutoring strategy in developing the skill performances of students in the ready-to-wear division*, unpublished research for a master's degree, Faculty of Education, Helwan University.
- Shaaban, Nader (2001 AD). *The effect of using the peer tutoring strategy on developing critical thinking skills in mathematics among eleventh-grade female students in the Humanities (Literary) Department in Gaza*. Unpublished master's thesis: Gaza Islamic University.
- Ullah, I Tabassum, R & Kaleem, M. (2018), *Effects of Peer Tutoring on the Academic Achievement of Students in the Subject of Biology at Secondary Level*, *Education Sciences*, 8, 112; doi:10.3390/educsci8030112
- Witvliet, M. (2004). *Developing and implementing a peer tutoring program at the middle school level*, *Theses Digitization Project*. 2636. <https://scholarworks.lib.csusb.edu/etd-project/2636>