

DETERMINING THE RELATIONSHIP BETWEEN
COOPERATIVE LEARNING AND DECREASED SCHOOL
ANXIETY (CASE STUDY: ELEMENTARY SCHOOL
STUDENTS OF SHAHINSHAHR, ISFAHAN)

TaherehBaharian¹

Abstract

The present study is an attempt to determine the relationship between cooperative learning and decreased school anxiety. The study is a descriptive-correlational one. The population comprises all elementary school students of ShahinShahr, Isfahan, of whom 100 were randomly selected as sample. The research tools comprised two questionnaires: (1) the researcher-made questionnaire of cooperative learning consisting of 10 items ($\alpha=0.94$) and (2) Sarason's school anxiety scale questionnaire. Data were analyzed using Pearson's correlation coefficient. In general, the findings revealed that there is a strong, significant relationship between the use of cooperative learning in the three aspects (preparation, process design, and process direction) and decreased school anxiety at $P<0.05$ level.

Keywords: cooperative learning, decreased school anxiety, elementary school students

¹-Department of Primary education, Najaf Abad Branch, Islamic Azad University, Najaf Abad ,
Iran

Introduction

In this new world, with the emergence of new phenomena such as ‘inversion of teacher-student relationship’ and ‘diverse training’, the cooperative methods are the best solution for decreasing the effects of the crises. Group work can create synergy in the students and increase their learning output (Ghourchian, 2000). Use of cooperation of learning groups in the learning process increases students’ progress and reduces their negative competition, hence preventing their school anxiety. School anxiety results from negative competition among children and their individual learning. In the individual learning process, the students are in a situation where they might even begin to hate one another and face psychological problems such as anxiety and stress. School anxiety which occurs during a student’s education is the most critical type of anxiety in adolescence. It threatens the students’ sanity, and impinges upon their proficiency and realization of their talents and formation of their character and social identity. School anxiety is an umbrella term referring to a specific social anxiety or fear which makes the individual uncertain about his/her own abilities and diminishes his/her ability in the face of situations such as exams and situations in which the individual is being evaluated. Different investigations have shown that this anxiety, which is a common type of performance anxiety, has afflicted 10-30 % of school and university students. In fact, school anxiety is a type is self-engagement the symptoms of which include the sense of inferiority and uncertainty about one’s ability and often leads to negative cognitive evaluation, lack of concentration and educational failure. This anxiety is associated with students’ competition with their classmates and their negative evaluations of them, particularly of those who have greater aptitude; teacher’s performance; tasks, tests and inappropriate strictness; educational condition; and worries for the future.

Theoretical framework

The findings made by Ge, Yamashiro, and Lee (2000) have demonstrated that students’ participation and their involvement in group activities leads to their cognitive progress. Investigation of the results of the previous research (Godwin, 1999) has shown that the use of cooperative learning groups lays the foundation for learning and enhanced the quality of learning and educational involvement. Morgan (2010) regards group learning as a way to identify educational problems

which is applied by the teacher and it increases happiness and joy. Steel and Konig (2007) believe that the teacher must follow a consistent pattern in the learning process. By incorporating group behavior in the syllabus and providing the students with an opportunity to discuss, the teacher eliminates their potential learning anxiety. Studies by Sarason (1980) have revealed that an appropriate learning condition is effective in diminishing students' school anxiety. Results of educational researches (Putnam et al. 1996; Godwin, 1999) have revealed that, through active teaching, the students will reach a higher level of understanding and thus their worries for learning will decrease. The studies by E'temadi and Toudoshki (1995) have demonstrated that students who have attended group counseling have significantly lower anxiety than those who have not attended such counseling. Absence of group cooperation in the learning process leads to a weak self-image. Self-image is strongly dependent upon relative social information and one's comparison to others (Feral, 2009). By incorporating group behavior as a pattern in the syllabus and providing the students with an opportunity for discussion, their potential learning anxiety will be eliminated. The findings made by Bonaccio and Reeve (2010) have revealed that the group learning strategy diminishes students' school anxiety. The studies by Tarazi and Khademi (2013) have demonstrated that group learning strengthens students' self-image and reduces their worries regarding learning. The findings made by Thurston et al. (2010) and Kohn (1991) have shown that students who have learned the science subject in a cooperative fashion are more successful in understanding science. Studies by Oludipe and Awokoy (2010) have indicated that cooperative learning is effective in decreasing test anxiety. The results of the studies conducted by Gokce and Derin have revealed that students in cooperative group have significantly lower writing anxiety. Studies by Vaughn (2001) have revealed that group learning increases students' self-esteem and reduces their learning anxiety. The findings made by Keramati et al. (2012) are indicative of effectiveness of cooperative learning in students' progress in the science subject and the reduction of test anxiety in the experiment group. Those findings revealed are indicative of the success of cooperative learning as opposed to the common teaching method. Muir and Tracy (1999) concluded that when students are evaluated cooperatively, their test anxiety is diminished. The studies by Sharifi Rad et al. (2011) have demonstrated that there is a significant relationship between teaching method and the amount of students' anxiety. The

findings made by Hanshaw have revealed that when students are working cooperatively, they have less anxiety.

Hypotheses

- Group learning in the preparation aspect is significantly related to decreased anxiety.
- Group learning in the process design aspect is significantly related to decreased anxiety.
- Group learning in the process direction aspect is significantly related to decreased anxiety.

Method

This study is a descriptive-correlational one. The population comprises all elementary school students of ShahinShahr, Isfahan, of whom 100 were randomly selected as sample. The research tools used in this study comprised two questionnaires: (1) the researcher-made questionnaire of cooperative learning consisting of 10 items ($\alpha=0.94$) of which the content validity has been determined by expert judgment and the reliability by Cronbach's alpha, and (2) Sarason's school anxiety scale questionnaire the validity of which has been determined by the researchers at Iran University of Medical Sciences. This questionnaire consists of 30 items with yes/no answers. The maximum score is 30 and the minimum is zero. The scores are divided into three categories of weak (90-10), moderate (10-21) and strong (21-30). Data were analyzed using Pearson correlation coefficient.

Table 1. Reliability coefficient of the questionnaires

No.	Questionnaire	Number of items	Reliability coefficient
1	Sarason's school anxiety scale questionnaire	30	0.92
2	Researcher-made questionnaire of cooperative learning	10	0.94

Hypotheses

Hypothesis 1: Group learning in the preparation aspect is significantly related to decreased anxiety.

Table 2. Correlation between cooperative learning in the preparation aspect and decreased school anxiety

Correlation coefficient	Cooperative learning in the preparation aspect	
	r	p
Decreased school anxiety	0.7452	0.000

Based on the findings presented in Table 2, the correlation coefficient between cooperative learning in the preparation aspect and decreased school anxiety is significant and strong at $P < 0.05$ level.

Hypothesis 2. Group learning in the process design aspect is significantly related to decreased anxiety.

Table 2. Correlation between cooperative learning in the process design aspect and decreased school anxiety

Correlation coefficient	Cooperative learning in the process design aspect	
	r	p
Decreased school anxiety	0.584	0.000

Based on the findings presented in Table 3, the correlation coefficient between cooperative learning in the process design aspect and decreased school anxiety is significant and strong at $P < 0.05$ level.

Hypothesis 3. Group learning in the process direction aspect is significantly related to decreased anxiety.

Table 4. Correlation between cooperative learning in the process direction aspect and decreased school anxiety

Correlation coefficient	Cooperative learning in the process direction aspect	
	r	p
Decreased school anxiety	0.629	0.000

Based on the findings presented in Table 4, the correlation coefficient between cooperative learning in the process direction aspect and decreased school anxiety is significant and strong at $P < 0.05$ level.

Discussion and conclusion

School anxiety is one of the students' problems in the learning process. It prevents students from making educational progress. The use of cooperation of learning groups in the learning process increases students' progress and reduces their negative competition, hence preventing their school anxiety. Morgan (2010) regards group learning as a way to identify educational problems which is applied by the teacher and it increases happiness and joy. The findings made by Hanshaw have revealed that when students are working cooperatively, they have less anxiety. Regarding the first hypothesis, the findings revealed that the correlation coefficient between cooperative learning in the preparation aspect and decreased school anxiety is significant and strong at $P < 0.05$ level. Studies by Sarason (1980) have revealed that an appropriate learning condition prepares the student for learning and is effective in diminishing their school anxiety. Investigation of the results of the previous research (Godwin, 1999) has shown that the use of cooperative learning groups lays the foundation for learning and enhanced the quality of learning and educational involvement. With regard to the second hypothesis, the findings demonstrated that the correlation coefficient between cooperative learning in the process design aspect and decreased school anxiety is significant and strong at $P < 0.05$ level. Steel and

Konig (2007) believe that the teacher must follow a consistent pattern in the learning process. By incorporating group behavior in the syllabus and providing the students with an opportunity to discuss, the teacher eliminates their potential learning anxiety. The findings made by Bonaccio and Reeve (2010) have revealed that the group learning strategy diminishes students' school anxiety. The findings made by Thurston et al. (2010) and Kohn (1991) have shown that students who have learned the science subject in a cooperative fashion are more successful in understanding science. With respect to the third hypothesis, the findings demonstrated that group learning in the process direction aspect is significantly related to decreased anxiety. Results of educational researches (Putnam et al. 1996; Godwin, 1999) have revealed that through active teaching, the students will reach a higher level of understanding and thus their worries for learning will decrease.

References:

Asadzadeh, H., & Eskandari, H. (2006). *Educational Psychology: Research, Teaching, Learning*, Compiled by Richard Parsons, Translated, Tehran: Abed Publication.

Bonaccio, S., & Reeve, C. L. (2010). The nature and relative importance of students' perceptions of the sources of test anxiety. *Learning and Individual Difference*, 20, 617-625.

Cohen, E. G. (1991). Finding out/discovery: Complex instruction in science. *Cooperative Learning*, 11(3), 30-31

E'temadi Toudoshki, O. (1995). Role of Group Counseling in Decreasing Test Anxiety, unpublished MA thesis, Allameh Tabataba'i University of Tehran.

Feral, J., Valcke, M. & Cai, Y. (2009). Academic self-efficacy and Academic self-concept:

Reconsidering structural Relationships. *Learning and Individual Differences*, 19, 499-505

Ge, X., Yamshiro, K. A., & Lee, J. (2000). Pre-class planning to scaffold students for online collaborative learning activities. *Educational Technology & Society*, 3(3), 159-168.

Ghourchian, N. A. (2000). *Teaching Method Details*, Tehran: FarashenakhtiAndisheh.

Gokce, Kurt, & Derin, Atay (2007). The effect of peer feedback on the writing anxiety of the prospective Turkish teachers of EFL. *Journal of Theory and Practice in Education*, 3(1), 12-23.

Godwin, C. D. (1999). Difficulties in reforming education policy: The Hong Kong Case. *Management learning*, 30(1), 63-81.

Hanshaw, L. (1982). Test Anxiety, Self-concept, and the Test Performance of Students Paired for the Same Students Working Alone. *Science Education*. 66, 15-24

Keramati, M. R., Heidari Ra'fat, A., Enayari Novinfar, A. (2012). "Effect of cooperative learning on educational attainment in the science course and test anxiety," *Journal of Educational Innovation*, 44 (11), winter, pp. 83-98.

Morgan J. (2010). "Use of the Team in Class", Available from <http://lower.tamu.edu/teamu/teaming/Morgan/index.htm>.

Muir, S. and D. Tracy. (1999). Collaborative Essay Testing. *College Teaching*, 47, 33-36.

Oludipe, Daniel. & Awokoy, Joanthan. O. (2010). Effect of Cooperative Learning Teaching Strategy on the Reduction of Students Anxiety for Learning Chemistry. *Journal of Turkish Science Education*, 7(1), 30-36.

Putnam, J., Markovchick, K., Johnson, D. W., & Johnson, R.T. (1996). Cooperative learning and peer acceptance of students with learning disabilities. *The Journal of Social Psychology*, 136, 741-752.

Sarason, I. G. (1980). Introduction to the study of test anxiety. In Sarason, I. G. (Ed.), *Test Anxiety: Theory, Research, and Applications*, (pp:3-14). New Jersey: Lawrence Erlbaum

Sharifirad, G., Mohebbi, S., Matlabi, M., Shahsiah, M., Tiraei, Y. (2011). "Effect of teaching of certainty on the amount of students' school anxiety," *Journal of University of Medical Science and Healthcare of Sabzevar University*, 18 (2), summer, 2003-2011.

Steel, P. & Konig, C. J. (2007). Integrating theories of motivation. *Academy of Management Review*, 31, 889-913.

Tarazi, Z. & Khademi, M. (2013). "Effectiveness of teaching of study and learning strategies in promoting the self-image of students suffering from test anxiety," *Journal of School Psychology*, 2, (1.80), 98.

Thurston, Allen., et al. (2010). Cooperative Learning in Science: Follow-up from Primary to High School. *International Journal of Science Education*, 32(4), 501-522

Vaughn, S., Elbaum, B. & Boardman, A. (2001). The social functioning of student with test anxiety disorders: implications for inclusion. *Except: speEduc J*, 9(1-2), 47-65.