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AN ANALYTICAL STUDY ON VIEWS OF TEACHER CANDIDATES ABOUT COOPERATIVE LEARNING APPROACH

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Abstract

Cooperative learning is an active learning approach, model or method based on students' working in groups towards academic and cooperative goals, enhancing self-confidence, improving communication skills and providing active participation in class. The aim of this research is to try to determine the ideas of prospective teachers about cooperative learning approach considering some demographic variables. Participants were 382 prospective students studying at Akdeniz University Faculty of Education in 2016-2017 academic year. The validity and reliability analysis of the Cooperative Learning Scale consisted of 22 items were made and internal reliability coefficient Cronbach's Alpha was calculated as 0.87. It was found that cooperative learning would raise students' academic achievement, improve communication skills and feelings of cooperation, and socialize the students at the desired level, but the students will not be able to develop their leadership skills to the desired level.

Keywords: Cooperative Learning, Group Work, Clustering, Active Learning.

1. INTRODUCTION

There are many learning methods developed for the active participation of the student in the course. The main purpose of these methods is to activate the student and provide the student to participate in the lesson. Since the cooperative learning treated students as a group and the success of both the individual and the group is concerned, each student is particularly responsible for the group and has to actively participate in the class by keeping his motivation high. According to Sezer and Tokcan (2003), cooperative learning is one of the most important methods that enable students to participate actively in lesson and increase the success of students.

Cooperative learning is a learning method which is based on students working in groups. According to Öztürk and Karakuş (2016), cooperative learning is the learning process by helping the learners to work in small groups and learn each other. According to Lin (2006), cooperative learning is a way in which learners work with small groups to come together to achieve a common purpose through teacher guidance. According to Şahin (2011), cooperative learning is a teaching method that attract students' interest, increase their desire for study, enable them to learn with fondness and amusement, bringing the understanding of education that responds to the needs of the age to the educational environment and show the effectiveness of succeeding through group working. Cooperative learning is a learning approach in which group performance and achievement are rewarded in different ways and helping each other learn in a common way and in an academic context by creating small mixed clusters in a classroom environment (Avşar and Alkış, 2007).

Cooperative learning means that students with different abilities can work in small groups to achieve a common goal to achieve learning at the highest level (Açıkgöz, 1992-2003-2009; Johnson and Johnson, 1992-1994-2002). According to Slavin (1987), cooperative learning includes teaching methods in which the group adequacy of students usually working with small groups of 4-6 students are rewarded in different ways. According to Açıkgöz (2009), cooperative classes are places where students gather in small groups and interact each other and the teacher guides them who need help through strolling among students. According to Doymuş, Şimşek and Şimşek (2005), cooperative learning is an active learning model which learners help each other learn in an academic topic towards a common goal by creating small mixed groups both in the classroom environment and in other settings, increase self confidence, improve communication skills, and participate lessons actively.

According to Johnson and Johnson (2002), a cooperative learning approach was introduced in the mid-1960s towards Social Darwinism and Individualism, accepted at the end of the 1970's and was preferred at all levels of education as a teaching method. According to Yılar (2015), cooperative learning first started to be implemented in the United States since the late 1970s and has taken place in the literature as one of the

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active learning methods. According to Kırbaş (2010), cooperative learning is a method that has been started to be extremely researched on it especially after 1970's and began to be applied in the countries with successful education system especially in USA.

The cooperative learning model contributes to the academic, social and psychological development of the students and also allows the teachers to use alternative assessment and evaluation techniques (Alyar and Doymuş, 2015). In the researches in which the cooperative learning model is applied, it appears that students were triggered for gaining higher academic and social skills by actively participating in the teaching process (Lord, 2001; Saban and Yüce, 2012; Tlusty, 1993). According to Erdem (2009), one of the main characteristics of cooperative learning is to assist students to learn each other in small groups with a common goal, solve problems together, and have the right to speak and use the time effectively.

Since the students in the group are working in harmony, it increases the motivation and the confidence towards the lesson of the student as well as increases the academic success (Genç and Şahin, 2015; Bolat, 2014). According to Johnson, Johnson and Smith (2007), cooperation provides students to recall the learned information better in the long run, better in critical thinking, more creative problem solving, greater volunteerism in spite of difficulties and transfer learning from one discipline to another and to be more successful using it. Millis (1996), stated that cooperative learning creates a ground for sharing among learners, motivates learners to learn, provides learners with their own learning, provides feedback, and acquires social and group skills necessary for success outside the classroom.

Cooperative learning practices provide students to improve their leadership skills, develop good communication skills and build academic relationships, help them to develop social skills and encourage their courage for these skills, play an active role in facilitating student-teacher interactions and this process. The administrators, school staff and parents form complementary parts of the cooperative learning process develop an environment that allows a positive understanding in resolution of the problems. Various tasks undertaken in the cooperative learning environment allow students to develop social skills such as working together, listening to each other, debating and reaching a common decision on topic and teacher plays a regulator role in this method (Bean, 1996; Hanze and Berger, 2007; Demir and Kaya, 2008; Shachar and Fischer, 2004; Hali and Bolat, 2016; Carpenter and McMillan, 2003; Koçak, 2008; Korkmaz, 2002).

In cooperative learning, students have to work cooperatively because they work with the group. Therefore, students often show behavior of helping and socializing. Students make explanations such as rearranging the problem, describing the problem in detail, and defining in a step-by-step how the problem will be solved in order to transfer their ideas to their friends during this cooperative process (Zimmerman and Gallagher, 2006; Evans, Gatewood and Green, 1993).

Each group work is not considered as cooperative learning. To call group work as cooperative learning, it is necessary to have some basic skills. These basic characteristics are; Positive dependence, face-to-face supportive interaction, individual and group evaluability, appropriate use of social skills, and group process (Stahl, 1994; Johnson and Johnson, 1999).

According to Allal (2007), cooperative organization of the learning also implies that some sources have the common effect of self-regulation skills that some learners have, such as teachers, classmates, educational programs and measurement tools. Teachers have some tasks that they have to deal with in cooperative learning practices especially from these sources. According to Flowers and Ritz (1994), these tasks are to plan the lessons, activities and evaluation, group the students, organize the physical settlement of the students, present and explain the tasks to the students, supervise the group activities and intervene when necessary, help the students with social skills and evaluate the students.

2. METHOD

2.1. Problem Statement

At what level are the views about the Cooperative Learning Approach of the prospective teachers studying at the faculty of education?

2.2. The purpose of the study

The purpose of this research is to determine the ideas of teacher candidates studying at the faculty of education about Cooperative Learning Approach from the arithmetic mean of responses to gender and program type demographic variables and scale items. Some suggestions about the Cooperative Learning Approach will be tried to be introduced based on the data obtained in the research.

2.3. Population and Sample

The population of this research contains the all students who study at the programs affiliated to the Akdeniz University Faculty of Education, and the sample of the research contains a total of 382 teacher candidates studying in Pre-school Teacher Education, Science Teacher Education, Elementary Mathematics

Teacher Education, Turkish Education and Classroom Teaching programs belong to the Akdeniz University Faculty of Education.

2.4. Research Model

The purpose of this research is to determine the ideas of teacher candidates studying at the faculty of education about Cooperative Learning Approach from the arithmetic mean of responses to gender and program type demographic variables and scale items. For this purpose, questionnaires and scales used in researches related to cooperative learning topic were reviewed and a new cooperative learning scale was developed by the researcher and the developed one dimensional scale was used in the research. prospective teachers were asked open-ended questions about cooperative learning for the scale to be used in the research and a 30-item draft questionnaire was created on the basis of responses given by the students. After the necessary analytical studies, 8 items were removed from the questionnaire and a 20-item one-dimensional questionnaire was created. After the opinions of the three instructors about the scale were taken and the scale items were checked in terms of meaning by the academicians in the Turkish Language and Literature department, the scale has taken final form.

The validity and reliability studies of the cooperative learning scale to be used in the study were also calculated and the Cronbach Alpha internal reliability coefficient of the questionnaire consisting of 22 items was determined as 0.87. The responses of the participants to the questionnaire depending demographic variables were calculated using the SPSS 20 statistical package program, the F test, t-test, and the ANOVA test which is a one-way analysis of variance. The questionnaire used in the study consists of 20 items in the form of five likert scale: (1) Strongly Disagree, (2) Disagree, (3) Undecided, (4) Agree and (5) Strongly Agree. The general evaluation of the survey used in the research is as follows (Özkartal, 2016a-2016b; Dönger, 2015a-2015b):

$OR = \frac{HV - LV}{NO} = \frac{5 - 1}{5} = 0.8$	1.00 - 1.80: Strongly Disagree
OR: Option Range	1.81 - 2.60: Disagree
HV: Highest Value	2.61 - 3.40: Undecided
LV: Lowest Value	3.41 - 4.20: Agree
NO: Number of Options	4.21-5.00: Strongly Agree

The opinions of teacher candidates about cooperative learning depending on the demographic variables were tried to be determined by the developed scale. The *general scanning model* and the *mixed model* which are one of the descriptive survey methods have been used in the research. The general scanning model is a scanning procedure on a group or sample to be taken from the population in order to arrive at a judgment about the population consisting of a large number of elements (Karasar, 2010: 79). The mixed model involves quantitative and qualitative data collection related the same basic phenomenon in a study or series of studies, analyzing and interpreting collected data (Leech and Onwuegbuzie, 2007).

3. FINDINGS

In this section, the views of prospective teachers studying at the faculty of education on Cooperative Learning are included. ‘Cooperative Learning Scale’ was applied to the students and the responses given by teacher candidates to scale items were tabled and interpreted for the purpose of the research.

Table 1: Results of the t-test analysis of the answers given by the students to the Cooperative Learning Scale depending gender variable

	Gender	N	\bar{X}	Ss	Sd	-t	p
Cooperative Learning	1.Female	280	87.94	10.97	380	.020	.984
	2.Male	102	87.96	10.21			
	<i>Total</i>	382					p>0.05

As the data in Table 1 is examined, depending on the answers given to the Cooperative Learning Scale by the teacher candidates participating in the research; it was determined that there was no statistically significant difference between male and female teacher candidates (p> .05).

Table 2: Results of ANOVA test analysis of the answers given by the students to the Cooperative Learning Scale according to the program type variable

Type of	N	\bar{Y}	Ss	Source of	Sum of	Sd	Av. of	F	p
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Program	variance			squares	squares				
1.CT	97	89.55	10.68	Between group	734.84	4	183.71	1.594	.175
2.ESE	71	86.10	10.61	Intra-group	43401.89	377	115.12		
3.PE	90	87.78	12.35	Total	44136.73	381			
4.TE	73	89.03	9.50						
5.ME	51	86.20	9.48						
Total	382	87.94	10.76						

p>0.05

As the data in Table 2 are examined, it was determined that there is no statistically significant difference in opinion among the studying teacher candidates in the programs of Classroom teaching (CT), Science Teacher Education (ESE), Preschool Teacher Education (PE), Turkish Teaching (TE) and Mathematics Teaching (ME) according to the answers given to the Cooperative Learning Scale by the teacher candidates participating in the research. [$F_{(1.594)}$, $P_{(.175)}$; $p > .05$].

Table 3: The arithmetic mean and skill levels of the responses given by the students to the Cooperative Learning Scale

COOPERATIVE LEARNING SCALE ITEMS	\bar{X}	Level of Skill
2. Cooperative learning increases the academic success of the student.	4.24	St. agree
1. Cooperative learning strengthens communication skills of the student.	4.18	Agree
4. Cooperative learning socializes the student.	4.16	Agree
18. Develop a sense of cooperation of the learner.	4.14	Agree
3. Cooperative learning is more permanent.	4.14	Agree
6. Provides active participation of student in the lecture.	4.12	Agree
8. The goal of the group in cooperative learning is common.	4.10	Agree
9. It increases the self-confidence.	4.09	Agree
12. Develop the problem-solving skill of student.	4.04	Agree
21. Develops the ability of student to conduct research.	4.03	Agree
10. Teacher evaluates the groups in cooperative learning.	4.01	Agree
19. Makes the student more sensitive.	4.00	Agree
7. Make the student more organized.	3.99	Agree
5. The teacher makes a statement to the students in the group.	3.97	Agree
20. Competitiveness among groups in cooperative learning increase success.	3.94	Agree
17. Develop task consciousness of student.	3.94	Agree
11. Teachers group the students in cooperative learning.	3.89	Agree
15. The performance of the group is important in cooperative learning.	3.89	Agree
22. The teacher determines the physical conditions of the environment in cooperative learning.	3.82	Agree
13. Teacher just guide students in cooperative learning.	3.81	Agree
14. Develops the leadership ability of student.	3.80	Agree
16. Teacher supervise the groups in cooperative learning.	3.65	Agree

General arithmetic mean: 3.99 (Agree)

Table 3 shows the arithmetic mean of the responses to the Cooperative Learning Scale given by the prospective teachers studying at the Faculty of Education. When the arithmetic averages of the answers given to the scale items are examined; it was determined that item 2. 'Cooperative learning increases the academic success of the student.' (\bar{X} =4.24); item 1. 'Cooperative learning strengthens communication skills of the student.' (\bar{X} =4.18); item 4. 'Cooperative learning socializes the student.' (\bar{X} =4.16); item 18. 'Develop a sense of cooperation of the learner.' (\bar{X} =4.14); and item 3. 'Cooperative learning is more permanent.' (\bar{X} =4,14) are the items with highest arithmetic mean in the scale.

According to the answers given by the teacher candidates to the scale items; it can be said that the expectations of teacher candidates to cooperative learning are high about students' academic achievement will rise, the communication skills will improve, the students will become more social, the feelings of cooperation will develop, the learning will be more permanent and the forgetfulness will decrease with cooperative learning.

Again, according to the data in table 3. with the arithmetic averages of the answers given to the scale items are examined; it was determined that item 16. *'Teacher supervise the groups in cooperative learning'* (\bar{X} =3.65), item 14. *'Develops the leadership ability of student'* (\bar{X} =3.80), item 13. *'Teacher just guide students in cooperative learning.'* (\bar{X} =3.81), item 22. *'The teacher determines the physical conditions of the environment in cooperative learning'* (\bar{X} =3.82) are the items have lowest arithmetic average in scale.

According to the answers given by the teacher candidates to the scale items; it can be said that the cooperative learning expectations of the teacher candidates are low about about the supervision of the groups of teachers in cooperative learning, the development of the leadership characteristics of the students, the only guidance of the teacher and the determination of the physical conditions of the environment.

4. RESULTS AND RECOMMENDATIONS

4.1. Results

There was no statistically significant difference between male and female teacher candidates depending on the answers given to the items of the Cooperative Learning Scale by the teacher candidates participating in the research. This suggests that female teacher candidates and male teacher candidates have similar views on the cooperative learning approach. In some previous researches related to the subject, there was no statistically significant relationship between men and women due to gender (Lampe and Roze, 1996; Şeker-Özkal, 2001; Açıkgöz, 1990; Tonbul, 2001; Lindquist and Abraham, 1996).

There was no statistically significant difference between the prospective teachers studying in different programs depending on the type of program variable, from the answers given to the items of the Cooperative Learning Scale by the teacher candidates participating in the research. Therefore, it can be said that the students who study in Classroom Teaching (CT), Science Education (ESE), Pre-School Education (PE), Turkish Education (TE) and Mathematics Education (ME) programs have similar views about cooperative learning.

In some researches, it was found that cooperative learning increases the academic success of the individual (Ghaith and Malak, 2001; Erçelebi, 1995; Walker and Crogan, 1998; Tarhan and Acar-Şeşen, 2008; Baird, Lazarowitz and Lazarowitz, 1992), promotes socialization of individual (Parrenas and Parrenas, 1993) and develop attitudes and values of individual positively (Bilen, 1995). Therefore, as can be understood from the researches, cooperative learning supports the individual positively as both cognitively and affectively.

According to the arithmetic means of the answers to the scale items given by the teacher candidates participated to the research; it can be said that the expectations of teacher candidates to cooperative learning are high about students' academic achievement will rise, the communication skills will improve, the students will become more social, the feelings of cooperation will develop, the learning will be more permanent and the forgetfulness will decrease with cooperative learning.

According to the arithmetic means of the answers given by the teacher candidates to the scale items; it can be said that the cooperative learning expectations of the teacher candidates are low about the topics such as supervision of the groups of teachers in cooperative learning, the development of the leadership characteristics of the students, the only guidance of the teacher and the determination of the physical conditions of the environment.

It was determined that the teacher candidates gave high scores to the items related to the students, but they gave low scores to the items related to the teachers when the items with the highest and lowest arithmetic mean in the study were examined. In interviews with prospective teachers regarding the reasons for this, it has been determined that the courses are not taught as student-centered in all schools or educational institutions and student-centered approaches are mostly discussed in the educational sciences courses in universities. Therefore, it was determined that they gave high scores to the items related students.

It has been determined that the arithmetic mean of answers given to the cooperative learning scales by the teacher candidates participating in the research was at a lower level (4.21-5.00; Strongly agree) than the expected level of skill (3.99; Agree). It has been determined that the teacher candidates have basic knowledge about the cooperative learning approach but knowledge of the teacher candidates about all characteristics of the cooperative learning have lower than the expected level from the analysis of the responses given to the scale items or from the interviews with the teacher candidates.

4.2. Recommendations

The skills of students can be further improved by supporting students' academic achievements, motivation, socialization, skills of cooperation by supporting with learning models based on cooperation.

Cooperative learning is an approach that benefits students in many ways. For this reason, cooperative learning can be used in many levels of education and teaching. Therefore, teachers should be

supported to teach their lessons according to cooperative learning and physical environment of classes should be arranged according to cooperative learning.

Seminars, conferences or in-service trainings about cooperative learning should be given to all educators, administrators and teachers who are interested in cooperative learning and also all institutions and organizations should support each other.

Cooperative learning can partially prevent ambiguity and unnecessary competition among students thanks to collaboration and task sharing. Therefore, cooperative learning should be applied at least where necessary in order to eliminate such negative behaviors especially among students.

Moreover, responsibilities of students develop and students do their tasks more carefully through cooperative learning. Thus, consciousness of the students open and their awareness raise. For this reason, cooperative learning model should be used effectively especially in numeric lessons.

After that, researches about cooperative learning should be done by taking the opinions of teachers and different researches should be done intended for opinions and suggestions of them related topics teachers wonder about cooperative learning.

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