

Full Length Research Paper

Social problem solving levels of pre-service social studies teachers

Mustafa İcen^{1*} and Özlem Bektaş Öztaşkın²

¹Faculty of Education, Yıldız Technical University, Turkey.

²Faculty of Education Erzincan University, Turkey.

Received 31 October, 2016; Accepted 18 January, 2017

The purpose of this study is to examine pre-service Social Studies teachers' social problem solving levels based on different variables. A total of 247 preservice Social Studies teachers (103 females (41.7%) and 144 males (58.3%)) from Erzincan University, Faculty of Education, Department of Social Studies Teaching participated in the study. The descriptive model was used in the study. The Social Problem Solving Inventory (SPSI), developed by D'Zurilla and Maydeu-Olivares in 1995 and 1996, revised by D'Zurilla, Nezu and Maydeu-Olivares in 2002 (SPSI-R), and adapted into Turkish by Eskin and Aycan and the "Revised Social Problem Solving Inventory (Tr-SPSI-R)" were used in the study as the data collection instruments. According to the analyses, positive problem orientation (PPO) scores decrease as negative problem orientation (NPO) scores increase; NPO scores decrease as rational problem solving style (RPSS) scores increase; PPO scores decrease as impulsive-careless problem solving style (ICPSS) scores increase; RPSS scores decrease as ICPSS scores increase; PPO scores decrease as APSS scores increase. According to the classroom variable, there is a significant difference. According to this study, there is a significant difference between preservice teachers' NPO and Avoidant Problem Solving Style (APSS) scores based on gender.

Key words: social problem solving, social studies, preservice teacher, problem solving skills.

INTRODUCTION

The concept, "problem solving" is defined as "the self-directed cognitive-behavioral process by which an individual, couple or group attempts to identify or discover effective solutions for specific problems encountered in everyday living" (Chang et al., 2004).

Nezu et al. (1989) defined "problem solving" with regard to behavior as, a form of learning where the individual changes his current behavioral state as a response to a problematic event; with regards to social learning as the process of self-management; and with

regards to mental health as the primary coping strategies which facilitate exploring effective behaviors (Çam and Tümkaya, 2008).

According to Bingham (1998), it is a process which requires a set of effort to extinguish the problems encountered while achieving a target. Charness (1998) defines problem solving as an activity which enables an individual to go into a desired state from a premise state, in which problem solving concerning how to reach the desired results is clear.

*Corresponding author. E-mail: micen@yildiz.edu.tr.

“Social problem solving” is a cognitive, independent and behavioral process related to exploring or defining coping strategies which are coherent and effective with problematic events encountered in daily life. Problem solving focuses primarily on process measurements and result measurements. While process measurements evaluate cognitive and behavioral activities which prevent resolutions by facilitating the exploration of effective and coherent problem resolutions, results measurements evaluate the quality of resolutions related to the problems. While a strong relationship between the two measures are not always expected, variables apart from problem solving attitudes and skills can affect the quality of problem solving results under certain conditions (D’Zurilla and Magdeu-Olivares, 1995).

Social problem solving is generally discussed as “intrapersonal”, “interpersonal”, “impersonal” and “social problems” (D’Zurilla et al., 2004). The success of interpersonal problem solving is related to “the capacity of defining the problem that occurs interpersonally in a set of stressful states, generating a solution and making a logical selection among the solutions focusing on the objective (D’Zurilla and Chang, 1995). An effective problem solving skill also requires understanding the definition, formula and characteristics of a problem, describing realistic goals and perceiving the cause-effect relationship (Yunus et al., 2006). It is evident in studies that deficiencies in social problem solving skills is a predictor of psychological problems and difficulties such as depression, schizophrenia, anxiety and aggression (Eskin and Aycan, 2009).

“Problem orientation” and “problem solving style” are being developed with regards to problem solving training (Ciarrochi et al., 2009). Problem orientation focuses on metacognitive aspects of problem solving and the way of problem solving; and on the skills for finding and implementing the resolutions convenient with the problems (Heppner et al., 2004). According to Shure and Spivack (1982), interpersonal problem solving skills consist of the following elements;

1. Generalizing alternative resolutions (for example, the skill to generalize various resolutions in solving a problematic state).
2. Thinking of the outcomes of social behaviors (for example, the skill of considering the effects of the individuals’ behaviors on the individual and others).
3. The development of resolution-outcome couples (for example, using sequence steps in problem solving),
4. Development of the social-causal thought (for example, knowing that the behaviors and emotions of a person is related to the behaviors and emotions of others).
5. Being responsive to problems (being aware of types of problems that can occur under specific conditions).
6. Dynamic orientation (for example, accepting that

behaviors do not always reflect motivations that are hard to be noticed).

The three dimensions of the social problem solving model are;

1. Inclining towards the problem
2. Appropriate problem resolution and
3. Carrying out problem solving skills. Inclining towards the problem refers to becoming aware of the problem, causal contributions and the individual’s expectation from problem resolution and constitutes the motivational aspect in problem solving (Arslan et al., 2012).

Problem solving skills or problem solving styles; while problem solving is considered as different types of problems such as intra-personal, inter-personal, impersonal and social problems, the two independent processes related to problem solving of individuals are;

1. Problem orientation and
2. Problem solving styles. Problem orientation consists of two dimensions, positive problem orientation and negative problem orientation; problem solving styles consist of three dimensions, rational problem solving, impulsive-careless style and avoidant style (D’ Zurilla et al., 2004).

Problem orientation

1. Positive Problem Orientation: In this orientation, the individual has a tendency to see problems as challenging, believes in himself in successfully resolving the problem and it is stated that problem solving is time consuming and requires effort and patience. Individuals consider the problems and their personal competences for solving them in a positive way (Eskin and Aycan, 2009).
2. Negative Problem Orientation (NPO): In this orientation, problems are considered as threats for the individual’s well-being and there is a suspicion on solving the problem successfully. The individual feels limited and unhappy when he or she encounters a problem. There is a dysfunctional or frustrating cognitive-motivational construct (Eskin and Aycan, 2009).

Problem solving style

1. Rational problem solving style; four primary domains have been defined to rationally resolve the problems in this orientation;
 - (a) The problem should be defined and formulized
 - (b) Resolution options should be set
 - (c) The most effective solution should be chosen
 - (d) The solution should be implemented and evaluated (D’Zurilla and Goldfried, 1971).

2. Careless/Impulsive Style; While the attempts in solving problems in this orientation are limited, impulsive, careless, hasty or deficient, it is also common to produce a limited level of solution options and to take steps according to the first solution that comes to mind (D'Zurilla et al. 2004; Nezu, 2004; Demirbağ, 2013).

3. Avoidant Style; problem solving in this orientation is usually referred to as delaying, being passive or failing to take action, being addictive, dysfunctional and at the same time deficient. The reason for deficiency is due to addictiveness, inactivity, passiveness and delaying (Eskin and Aycan 2009; Bayani et al., 2013).

The fact that the social life embodies many problems and that the individual generates approaches to cope with and resolve these problems has brought the problem solving skills to the agenda. The personal approach of the individual affects being a social individual through a cognitive, affective and behavioral process. In order for the individual to solve social problems effectively, he needs to be guided, a setting for practice needs to be prepared and needs to be familiar with problem solving stages. Hence, it is crucial to increase awareness related to problem solving skills during the socialization process (Ayvaz and Demirel, 2010). When the literature is considered, it is evident that there are many studies on problem solving and that they have been discussed under the title "issue/problem solving". Studies on social problem solving are limited. No studies related to Social Studies preservice teachers' social problem solving skills were detected.

The Social Studies program aims at furnishing primary school year 4 to 8 students with the first 9 skills along with 6 other unique skills. One of these skills is the "problem solving" skill. In addition, in the primary approach of the program it is underlined that "rather than a fully behavioristic approach, it takes into consideration the value of information and the individual's experiences and develops by supporting a structure based on supporting and improving the individual's active participation in life, making right decisions and problem solving".

It is also stated that "methods and techniques, which support re-structuring of the information and performing of the skills they acquire and problem solving" (MEB, 2005a) and the roles of the teachers during the educational process were defined as; taking measures in cases where problems are encountered in student development. In the general purposes section of the Social Studies program, with regards to the term social problem it was underlined that; "they express unique opinions for the resolution of personal and social problems" (MEB, 2005b).

In the new Social Studies Course Teaching Program (Draft) for year 4, 5, 6 and 7 students, it was stated that "the events and problems that students encounter in their

daily lives are taken into consideration while preparing Social Studies Teaching Program". When the general purposes are considered, it is emphasized that; "as citizens of the Republic of Turkey, they are individuals who are aware of rights, freedom and responsibilities, who create peaceful settlements to problems encountered in the democratic life they actively participate in and who contribute to creating and developing a culture of tolerance and compromise".

In the field of Individual and Society Learning, it is stated that; "Based on the fact that, as social beings, individuals influence and get influenced by their environment, it is crucial that they can realize themselves and create solutions for the problems they encounter according to their interests, desires and skills". In the field of Effective Citizenship Learning, it is underlined that; "...acquisitions, which aim at raising participating citizens who are aware of their rights and responsibilities, who take initiatives and who create peaceful solutions for their problems, have been created". Under the same learning section, it is also stated that "they study the roles of the groups in solving social problems encountered in the social setting". The term "social problem" is given under the concepts section (MEB, 2015).

With regards to this approach, it can be said that the Social Studies course has a crucial role in furnishing with social problem skills. Thus, the purpose of this study is to evaluate social problem solving levels of preservice teachers who will give the Social Studies course in the future and their approaches related to problem solving. Thus, answers for the following questions were sought;

1. Are there any differences among the sub-dimensions of the Social Studies preservice teachers' social problem solving skills scale with regards to various variables (age, gender, classroom level)?
2. What is the level of Social Studies preservice teachers' social problem solving skills?

METHODOLOGY

Design of study

This study is a descriptive study designed with the screening model and which has been planned to evaluate preservice Social Studies teachers' "Social Problem Solving Levels" with regards to various variables. The screening model is a formation of scanning conducted on a population or a group, example or sample from that population so as to come to a general judgment on the population which consists of many elements. The screening model is based on discussing a situation in its current state through an objective approach (Karasar, 1999).

Study group

The study group consisted of a total of 247 preservice Social

Table 1. Demographical distributions of participant preservice teachers based on the types of the variables.

Type	Variable	F	Percentage (%)
Gender	Female	103	41.7
	Male	144	58.3
	Total	247	100.0
Grade	Year 2	38	15.4
	Year 3	81	32.8
	Year 4	128	51.8
	Total	247	100.0

Studies teachers, 103 female (41.7%) and 144 male (58.3%) and, selected randomly from Erzincan University, Faculty of Education, Department of Social Studies Teaching. Based on the grade variable, 38 (15.4%) students were in year 2; 81 (32.8%) students in year 3; and 128 (51.8%) students were in year 4 Table 1 shows the demographic information about the participants.

Assessment instrument and data collection

Preservice teachers' information form

In this form consisting of three questions, there are demographic questions related to grade, gender and age.

Revised Social Problem Solving Inventory (Tr-SPSI-R)

The Social Problem Solving Inventory (SPSI), which was developed by D'Zurilla and Maydeu-Olivares (1995,1996) and revised by D'Zurilla et al. (2002) (SPSI-R), consists of 5 point Likert type 52 items (Eskin and Aycan, 2009). The inventory consists of five sub-scales which evaluate the domains of the social problem solving process:

1. Positive problem orientation (PPO, 5 items)
2. Negative problem orientation (NPO, 10 items)
3. Rational problem solving style (RPSS, 20 items)
4. Impulsive-careless problem solving style (ICPSS, 10 items)
5. Avoidant problem solving style (APSS, 7 items).

The short form (SPSI-R-S) of the twenty-five item SPSI-R was developed by decreasing the number of each sub-scales' items to five. While item scores of the SPSI-R long form range between 0 and 4 times the number of items, they range between 0 and 20 for the short form. High scores indicate well problem solving skills. It has been observed that the original form of SPSI-R, developed by D'Zurilla et al. () is at a high level for evaluating the social problem solving structure and that it has sufficient level of psychometric features (Eskin and Aycan, 2009).

The long form of the inventory was used in this study. Internal consistency coefficients of the scale, whose both short and long forms were adapted into Turkish by Eskin and Aycan (2009), were observed to be between 0.62 and 0.92 and the test-retest reliability coefficients were observed to be between 0.60 and 0.84. Long and short SPSI-R scale scores were observed to be statistically and

theoretically correlated to each other. When the correlation coefficients between the SPSI-R scales and Problem Solving Inventory (PSI) dimensions are considered, it is evident that both short and long SPSI-R scales have significant and desired correlation coefficients with the PSI scores.

Correlation coefficients between the long and short SPSI-R scales and the Rosenberg self-esteem scale (RSES), interpersonal behavior scale (IPBS), beck depression inventory (BDI), Beck hopelessness scale (BHS) and suicide probability scale (SPS) were calculated. While the positive dimensions of SPSI-R "Positive Problem orientation and Rational Problem Solving Style" scale scores have negative correlations with BDI, BHI and SPS, they are positively correlated with IPBS, RSES and grade point average. While the three negative dimensions of SPSI-R "NPO, ICPSS and APSS" scale scores have positive correlations with BDI, BHI and SPS, they are negatively correlated with IPBS, RSES and grade point average (Eskin and Aycan, 2009; Demirbağ, 2013). The form consisting of 52 items and 5 sub-dimensions were used in this study. The reliability coefficient of the scale was observed to be 0.817 in this study.

Data analysis

Study data were analyzed through the Statistical Package for Social Sciences (SPSS) for Windows 22.0 software. Number, percentage, average and standard deviation were used as the definitive statistical methods in evaluating the data. The t-test was conducted in comparing the continuous quantitative data between two independent groups; the One Way ANOVA test was conducted comparing the continuous quantitative data between more than independent groups. The Scheffe test was conducted as the complementary post-hoc analysis so as to determine the differences at the end of the ANOVA test. The Pearson correlation analysis was conducted on the continuous variables of the study. Findings were evaluated at 95% reliability range and 5% significance level.

FINDINGS

Findings resulting from the analysis of the data which were collected from the preservice teachers through the scales are given in this section to settle the study problem. Explanations and comments were made based on the findings.

In Table 2, results of the one way variance analysis (ANOVA), which was conducted to determine whether or not the NPO score averages of preservice teachers significantly differed with regards to the grade level variable, show that there is a statistical significant difference between the group averages ($F=5.286$; $p=0.006<0.05$). A complementary post-hoc analysis was conducted to determine the source of the differences. NPO scores of year 3 students (14.654 ± 7.135) were observed to be higher than the NPO scores of year 4 students (11.484 ± 6.647).

According to the ANOVA, which was conducted to determine whether or not there is a significant difference between preservice teachers' PPO, RPSS, Impulsive-Careless Problem Solving Style (ICPSS), Avoidant Problem Solving Style (APSS) and SPSI-R total score

Table 2. Averages of the revised social problem solving inventory (SPSI-R) levels based on the grade level (ANOVA).

Variable	Group	N	Ave.	Ss	F	p	Difference
Positive problem orientation (PPO)	Year 2	38	13.605	3.538	1.054	0.350	-
	Year 3	81	14.235	3.941			
	Year 4	128	13.445	3.920			
Negative problem orientation (NPO)	Year 2	38	13.579	8.016	5.286	0.006	-
	Year 3	81	14.654	7.135			
	Year 4	128	11.484	6.647			
Rational problem solving style (RPSS)	Year 2	38	52.079	11.783	0.559	0.572	-
	Year 3	81	54.988	14.446			
	Year 4	128	53.961	14.317			
Impulsive-careless problem solving style (ICPSS)	Year 2	38	9.553	4.631	1.607	0.203	-
	Year 3	81	11.321	6.066			
	Year 4	128	10.258	5.299			
Avoidant problem solving style (APSS)	Year 2	38	6.790	5.189	1.857	0.158	-
	Year 3	81	8.210	4.676			
	Year 4	128	7.109	4.328			
Total score	Year 2	38	14.042	2.064	0.655	0.520	-
	Year 3	81	13.826	2.394			
	Year 4	128	14.197	2.278			

averages with regards to the grade level variable, the difference between the group scores is not statistically significant ($p>0.05$).

In Table 3, results of the t-test, which was conducted to determine whether or not NPO scores of preservice teachers significantly differed with regards to the gender variable, show that the difference between the group averages is statistically significant ($t=2.683$; $p=0.008<0.05$). NPO scores of females ($x=14.272$) were observed to be higher than the NPO scores of males ($x=11.826$).

According to the t-test, which was conducted to determine whether or not the avoidant problem solving scale score averages of preservice teachers significantly differed with regards to the gender variable, the difference between the group averages is statistically significant ($t=-3.785$; $p=0.000<0.05$). APSS scores of males ($x=8.333$) were observed to be higher than the APSS scores of females ($x=6.146$).

According to the t-test, which was conducted to determine whether or not there is a significant difference between preservice teachers' PPO, Rational Problem

Solving Style (RPSS), Impulsive-Careless Problem Solving Style (ICPSS) and SPSI-R total score averages with regards to the gender variable, the difference between the group scores is not statistically significant ($p>0.05$).

Table 4 shows the correlations between the sub-dimensions of the revised social problem solving inventory. There is a weak, negative and significant relationship between NPO and PPO ($r=-0.262$; $p=0.000<0.05$). Based on this result, it can be asserted that PPO scores of students decrease as their NPO scores increase. There is a moderate, positive and significant relationship between Rational Problem Solving Style (RPSS) and PPO ($r=0.674$; $p=0.000<0.05$). Based on this result, it can be asserted that RPSS scores of students increase as their PPO scores increase. There is a highly weak, negative and significant relationship between RPSS and NPO ($r=-0.222$; $p=0.000<0.05$).

Based on this result, it can be asserted that NPO scores of students decrease as their RPSS scores increase. There is a highly weak, negative and significant relationship between Impulsive-Careless Problem Solving

Table 3. Averages of the revised social problem solving inventory (SPSI-R) level based on gender.

	Group	N	Ave	Ss	t	p
Positive problem orientation (PPO)	Female	103	13.175	4.433	-1.912	0.069
	Male	144	14.125	3.376		
Negative problem orientation (NPO)	Female	103	14.272	6.850	2.683	0.008
	Male	144	11.826	7.212		
Rational problem solving style (RPSS)	Female	103	53.408	15.655	-0.570	0.583
	Male	144	54.438	12.688		
Impulsive-careless problem solving style (ICPSS)	Female	103	9.777	5.662	-1.755	0.080
	Male	144	11.014	5.314		
Avoidant problem solving style (APSS)	Female	103	6.146	4.040	-3.785	0.000
	Male	144	8.333	4.767		
SPSI-R total score	Female	103	14.023	2.354	-0.169	0.866
	Male	144	14.072	2.238		

Style (ICPSS) and PPO ($r=-0.247$; $p=0.000<0.05$). Based on this result, it can be asserted that PPO scores of students decrease as their NPO scores increase. There is a weak, positive and significant relationship between ICPSS and NPO ($r=0.405$; $p=0.000<0.05$).

Based on this result, it can be asserted that NPO scores increase as ICPSS scores increase. There is a highly weak, negative and significant relationship between Impulsive-Careless Problem Solving Style (ICPSS) and Rational Problem Solving Style (RPSS) ($r=-0.227$; $p=0.000<0.05$). Based on this result, it can be asserted that RPSS scores of students decrease as their ICPSS scores increase. There is a highly weak, negative and significant relationship between APSS and PPO ($r=-0.166$; $p=0.009<0.05$).

Based on this result, it can be asserted that PPO scores of students decrease as their APSS scores increase. There is a weak, positive and significant relationship between APSS and NPO ($r=0.333$; $p=0.000<0.05$). Based on this result, it can be asserted that NPO scores increase as APSS scores increase. There is a moderate, positive and significant relationship between APSS and ICPSS ($r=0.515$; $p=0.000<0.05$).

Based on this result, it can be asserted that ICPSS scores increase as APSS scores increase. There is a high, positive and significant relationship between SPSI-R Total Score and PPO ($r=0.735$; $p=0.000<0.05$). There is a moderate, negative and significant relationship between SPSI-R Total Score and NPO ($r=-0.663$;

$p=0.000<0.05$). There is a moderate, positive and significant relationship between SPSI-R Total Score and Rational Problem Solving Style (RPSS) ($r=0.685$; $p=0.000<0.05$). There is a moderate, negative and significant relationship between SPSI-R Total Score and ICPSS ($r=-0.669$; $p=0.000<0.05$). There is a moderate, negative and significant relationship between SPSI-R Total Score and Avoidant Problem Solving Style (APSS) ($r=-0.599$; $p=0.000<0.05$). The relationships between the other variables are not statistically significant ($p>0.05$).

According to this result, it is evident that as the R total scores of students increase, the PPO and RPSS sub-dimension scores of R increase; but the NPO, ICPSS and APSS scores decrease (Table 4).

DISCUSSION

Problem solving is a process which requires logic and effort and also is an integrative part of daily life (Malik et al., 2010). In order to decrease illogical thought during the problem solving process, problem overcoming mechanisms should be introduced and activities and practices which emphasize positive thought considering these acquisitions should be offered to individuals (Bedel, 2014). While positive problem orientation is constructive problem solving, negative orientation is a dysfunctional orientation. In negative orientation, there is a tendency of "threat, distrust in the solution, being disappointed, anger,

Table 4. Correlations between the sub-dimensions of the revised social problem solving inventory (SPSI-R).

Variable	Average	Standard deviation	Positive problem orientation (PPO)	Negative problem orientation (NPO)	Rational Problem solving style (RPSS)	Impulsive-careless problem solving style (ICPSS)	Avoidant problem solving style (APSS)	SPSI-R total score
Positive problem orientation (PPO)	13.729	3.872	1.000	-	-	-	-	-
Negative problem orientation (NPO)	12.846	7.152	-0.262**	1.000	-	-	-	-
Rational problem solving style (RPSS)	54.008	13.981	0.674**	-0.222**	1.000	-	-	-
Impulsive-careless problem solving style (ICPSS)	10.498	5.485	-0.247**	0.405**	-0.227**	1.000	-	-
Avoidant problem solving style (APSS)	7.421	4.599	-0.166**	0.333**	-0.088	0.515**	1.000	-
SPSI-R total score	14.052	2.283	0.735**	-0.663**	0.685**	-0.669**	-0.599**	1.000

aggression, social anxiety, perfectionism” towards the problem (Bedel and Hamarta, 2014).

According to the study results, social problem solving levels of preservice Social Studies teachers who participated in the study were evaluated based on the total and sub-scores. It is evident that there is a weak, negative and significant relationship between NPO and PPO; between RPSS and NPO; between ICPSS and PPO; between ICPSS and RPSS and between APSS and PPO. According to this result, it is evident that; PPO scores decrease as NPO scores increase; NPO scores decrease as RPSS scores increase; PPO scores decrease as ICPSS scores increase; RPSS scores decrease as ICPSS scores increase; PPO scores decrease as APSS scores increase.

According to the study conducted by Yıldız et al. (2011), there is a moderate, negative and significant relationship between RPSS and PPO;

between APSS and ICPSS; there is a weak, positive and significant relationship between ICPSS and NPO; between APSS and NPO. Based on this result, it can be asserted that RPSS scores of students increase as their PPO scores increase; ICPSS scores increase as APSS scores increase and NPO scores increase as APSS scores increase.

The study also suggested that preservice teachers applied the avoidant approach most frequently; and as a result they failed to think of collecting information on the problem they encounter, they failed to put sufficient amount of effort in overcoming the problem when their solution failed and that they did not think of what is useful and what is not regarding the path they follow after solving the problem. Similarly, Bayrak (2015) also found that preservice teachers' problem solving levels were low and stated that preservice teachers preferred to let things aside

rather than overcoming the problems and seeking effective solutions.

With regards to negative problem orientation, it is observed that adolescents with single parents have higher levels of approaching the problem negatively than adolescents with two parents and that their life satisfaction levels are significantly lower (Bedel and Işık, 2015). On the other hand, constant anger, anger repression and anger expression behaviors increase as the negative problem approaches of the student increases (Arslan, 2010).

Studies on social problem solving emphasize the importance of social problem solving skills education. For example, according to Cartilli and Bedel (2015), social problem solving skill education has a significant effect on the increase in the level of mothers' constructive and functional problem solving skills. In the study conducted by Çekici and Güçray (2012), it is stated that a

positive effect is observed in “social problem solving skills” and “anger thoughts towards the world” variables through social problem solving skills education and that this effect is a long-term permanent effect.

In another similar study, it is underlined that family, peer and teacher support provided to university students who receive “social support and problem solving support” increase positive problem orientation and rational problem solving approaches, which are among the functional problem solving approaches (Traş, 2013). There are various studies which support problem solving such as social problem solving education. These studies also state that various educational practices have a positive effect on social problem solving skills. Bedel and Arı (2011) stated that interpersonal social problem solving skills education has a significant effect in increasing the constructive problem solving skills of adolescents living in orphanages; Güneş et al. (2014) underlined that assertiveness training positively affects interpersonal problem solving skills during student communication; Altuntaş and Altınova (2015) emphasized that creative drama education has a positive effect on social problem solving skills.

The deficiency in social problem solving skills affects the individual’s mental, cognitive and behavioral approaches. For example, in the study conducted by Öksüz and Bilge (2014), it was underlined that social problem solving and interpersonal anger variables predict suicide probability; negative orientation towards the problem is the primary predictor of suicide probability; one other factor was identified as an inner-impulsive approach stating that a deficiency in social problem solving skills is related to the individual confronting unresolved problems and that it can increase the probability of suicide when considered together with anger.

According to Erozkan (2013), there is a positive relationship between constructive problem solving and persistent-ambitious problem solving skills and social self-efficacy. In the study conducted by Yiğit (2013), it was observed that preservice teachers with high subjective well-being levels, high life satisfaction levels and who are effective in attaining their goals approached the problems encountered in daily life positively and realistically, they did not ignore problems and they tackled them carefully. Subjective well-being positively increases the rational sub-dimension of social problem solving and this is considered to be a positive outcome.

Conclusion

In the study conducted by Baltacı and Hamarta (2013), it was observed that when the relationship between “social avoidance, concern for being criticized, feeling valueless, social anxiety and problem solving” and “problem solving

approaches” are considered, there is a positive relationship between the sub-dimensions of social anxiety and problem solving approaches. In the study, it was stated that distrustful individuals who do not receive social support experience social avoidance; impatient and distrustful individuals who act without thinking experience a concern for being criticized and impatient, shy, distrustful and unplanned individuals experience the feeling of self-depreciation. On the other hand, according to Bedel and Hamarta (2014), in the relationship between interpersonal problem solving and academic motivation; the constructive problem solving and persistent-patient problem solving approaches are significantly related to academic motivation.

With regards to the grade level variable; the score averages between NPO are significant in this study. NPO scores of year 3 preservice teachers are higher than the scores of year 4 preservice teachers. This result is parallel with the study conducted by Samancı and Uçan (2015). According to the study, social problem solving levels of preservice form teachers are above average and social problem solving levels differ when the year 3 and 4 variables are considered. This result of our study is parallel with the study results of Katkat and Mızrak (2003) underlining that problem solving skill improves as the grade level increases; problem solving skills of lower grade students are lower than those of the students in higher grades. However, in the study conducted by Saracaloğlu, Yenice and Karasakaloğlu (2009), it is stated that there are no significant differences among the parameters of sub-dimensions of problem solving skills.

According to this study, there is a significant difference between participant preservice teachers’ both NPO and APSS scores with regards to the gender variable. NPO NPSS scores of males are higher than females. However, there are no significant differences between preservice teachers’ PPO, RPSS and ICPSS scores based on the gender variable. According to Işık and Yıldız (2014), negative problem orientation differs significantly in interpersonal problem solving with regards to gender; studies conducted by Yenice and Karasakaloğlu (2009), Bayrak (2015), Genç and Kalafat (2010) state that there are no differences with regards to gender. Suggestions can be made based on the study findings:

1. With regards to teacher training policies of the faculties of education and the primary objectives of Turkish National Education, raising individuals; with healthy and stable physical, mental, moral, spiritual and emotional personalities, with free and scientific power of thinking, with an extended vision of the world; who respect human rights; who value personalities and enterprises; who have a sense of social responsibility; who are constructive, creative and productive is the primary aim. Social problem solving levels of preservice teachers are

expected to increase as their grade levels increase. Thus, the skills and acquisitions of preservice teachers should be predicted based on the grade level.

2. The fact that social problem solving levels of faculty of education students studying in the same educational program do not significantly differ with regards to the gender variables was among the expected results. If there is a significant difference considering the gender variable, then the reasons for this can be a research subject for other studies.

3. Social problem solving levels of teachers working in disadvantaged schools or regions should be examined and educational programs of the faculty of education should be improved accordingly.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

ACKNOWLEDGEMENT

This study was also presented at the 5th International Symposium on Social Studies Education, which was held between 28-30 April, 2016 at Pamukkale University, Turkey.

REFERENCES

- Altıntaş O, Altınova HH (2015). The effect of the creative drama method on the social problem solving skills of University Students Turk. Stud. 10(4):49-62.
- Arslan C (2010). An investigation of anger and anger expression in terms of coping with stress and interpersonal problem-solving. educational sciences: Theory Practice 10(1):7-43.
- Arslan E, Arslan C, Arı R (2012). An investigation of interpersonal problem solving approaches with respect to attachment styles. Educational Sciences: Theory and Practice 12(1):15-23.
- Ayvaz TZ, Demirel M (2010). A Study on Development of Elementary Education Students' Social Problem Solving Skills. Society Soc. Work 1(21):25-44.
- Baltacı Ö, Hamarta E (2013). Analyzing the relationship between social anxiety, social support and problem solving approach of university students. Educ. Sci. 38(167):226-240.
- Bayani AA, Ganji G, Bayani A (2013). Psychometric properties of the Farsi Version of the Social Problem Solving Inventory-Revised (F-SPSI-R): Preliminary Evidence. J. Basic. Appl. Sci. Res. 3(4):241-245.
- Bayrak S (2015). Examining Problem Solving Levels of Preschool Teacher Candidates The Journal of Academic Social Science Studies, 31, 515-521.
- Bedel A, Arı R (2011). Interpersonal Problem Solving Skills Training's Effect on the Adolescents' Living in Orphanages Constructive Problem-Solving and the Level of Trait Anger. Pegem J. Educ. Instr. 1(4):1-10.
- Bedel A, Hamarta E (2014). The Relationship between Interpersonal Problem Solving and Academic Motivation. Elementary Educ. Online 13(2):674-681.
- Bedel A, Işık E (2015). A Comparison of Interpersonal Problem Solving and Life Satisfaction Level between Students with Single Parents and Two Parents. J. Theoretical Educ. Sci. 8(1):70-85.
- Bedel A (2014). Coping Strategies as the Predictor of Irrational Beliefs among Adolescents. Educ. Sci. 39(176):237-246.
- Bingham A (1998). Çocuklarda problem çözme yeteneklerinin geliştirilmesi- Development of children's problem-solving ability (Çev. A. Ferhan Oğuzkan). İstanbul: National Education Press.
- Cartılı K, Bedel A (2015). The Effect of Social Problem Solving Skills Training on the Mothers' Social Problem-Solving and Child Relation. Turk. Psychol. Counsel. Guidance J. 5(43):95-105.
- Charness N (1998). Aging and problem-solving performance. In: N. Charness (Ed.), Aging and human performance pp. 225-259. Chichester, U.K: John Wiley and Sons.
- Chang EC, D'Zurilla TJ, Sanna LJ (Eds.). (2004). Social problem solving: Theory, research, and training. Washington, D.C.: American Psychological Association.
- Ciarrochi J, Leeson P, Heaven PCL (2009). Longitudinal study into the interplay between problem orientation and adolescent well-being. J. Counsel. Psychol. 56(3):441-449.
- Çam S, Tümkaya S (2008). Development of interpersonal problem solving inventory for high school students: The validity and reliability process. Int. J. Hum. Sci. 5(2):1-17.
- Çam S, Tümkaya S, Yerlikaya E (2011). The validity and reliability process of interpersonal problem solving inventory for adults. Int. J. Hum. Sci. 8:1703-1724.
- Çekici F, Güçray SS (2012). The Effects of Skills Enhancement Group Program Which is Based on Problem Solving Therapy on College Students' Social Problem Solving Skills, Anger Related Behaviors And Cognitions, Trait-Anxiety Levels, Çukurova University J. Institute Soc. Sci. 21(2):103-128
- D'Zurilla TJ, Nezu AM (2005). Problem-solving therapy-general, Freeman A, Felgoise SH, Nezu CM, Nezu AM, Reinecke MA (Eds). Encyclopedia of cognitive behavior therapy. New York: Springer Science+Business Media, Inc.
- D'Zurilla TJ, Chang EC (1995). The relations between social problem solving and coping. Cognitive Therapy and Res. 19:547-562.
- D'Zurilla TJ, Maydeu-Olivares A (1995). Conceptual and methodological issues in social problem-solving assessment. Behavior Therapy, 26:409-432.
- D'Zurilla TJ, Nezu AM, Maydeu-Olivares A (2004). What is social problem solving?: Meaning, models, and measures. In: E.C. Chang, T.J. D'Zurilla and L.J. Sanna (Eds.), Social problem solving: Theory, research, and training. Washington, DC: American Psychological Association. pp. 11-27.
- Heppner PP, Witty TE, Dixon WA (2004). Problem-solving appraisal and human adjustment: A review of 20 years of research using the Problem Solving Inventory. Counsel. Psychol. 32(3):344-428.
- Demirbağ E (2013). Efficacy of problem solving training in treatment of depression. Adnan Menderes University Graduate School of Health Sciences Department of Psychiatry, Aydın.
- Erozkan A (2013). The effect of communication skills and interpersonal problem solving skills on social self-efficacy. Educational Sciences: Theory and Practice, 13(2):739-745.
- Eskin M, Ayçan Z (2009). The Adaptation of the Revised Social Problem Solving Inventory into Turkish (Tr-SPSI-R): A Reliability and Validity Analysis. Turk. Psychological Articles 12:1-10.
- Genç, SZ, Kalafat T (2010). Prospective Teachers' Problem Solving Skills and Emphatic Skills. J. Theoretical Educ. Sci. 3(2):135-147.
- Güneş F, Arslan C, Eliüşük A (2014). The Impact of Assertiveness Training on Interpersonal Problem Solving Perceived Social Support and Assertiveness of University Students. Bartın University J. Faculty Educ. 3(1):456-474.
- Işık N, Yıldız N (2014). The Evaluating the Relationship Between Interpersonal Problem Solving Skills with the Value Perceptions of Primary School Teachers. Researcher: Soc. Sci. Stud. 2(3):11-16.
- Karasar N (1999). Scientific Method of Research: Ankara: 3-A Araştırma Eğitim Danışmanlık Ltd.
- Katkat D, Mızrak O (2003). Effectiveness of problem solving skills of pedagogical training of teacher candidates http://dhgm.meb.gov.tr/yayimlar/dergiler/Milli_Egitim_Dergisi/158/katkat.htm 24/12/2015

- Malik S, Balda S, Punia S, Duhan K (2010). Educating Aberrant Children for Social Problem-Solving. *Int. J. Educ. Sci.* 2(2):75-79.
- Md.Yunus AS, Hamzah R, Ahmad Tarmizi R, Abu R, Md.Nor S, Ismail H, Wan Ali WZ, Abu Bakar K (2006). Problem Solving Abilities of Malaysian University Students *Int. J. Teach. Learn. Higher Educ.* 17(2):86-96.
- MEB (Ministry of National Education) (2005a). Social Studies Education- Curriculum (4 and 5. Class). TTKB, Ankara.
- MEB (Ministry of National Education) (2005b). Social Studies Education - Curriculum (6 and 7. Class).TTKB, Ankara.
- MEB (Ministry of National Education) (2015). Social Studies Education (4, 5, 6, 7. class) Curriculum (Draft). TTKB, Ankara.
- Samancı O, Uçan Z (2015). A Research on Classroom Teacher Candidate's Abilities about Solving Social Problems. *Bartın University J. Faculty Educ.* 152-162.
- Saracaloğlu AS, Yenice N, Karasakaloğlu N (2009). The Relationship Between Communication and Problem Solving Skills and Reading Interest and Habits of Candidate Teachers'. *Yüzüncü Yıl University J. Faculty of Educ.* 6(2):187-206.
- Traş Z (2013). The investigation of social problem solving abilities of university students in terms of perceived social support. *Educ. Res. Rev.* 8(14):1076-1081.
- Yıldız L, Zırhıoğlu G, Yalçınkaya M, Güven Ş (2011). Creativity and problem solving skills of physical education teacher candidates. *Yüzüncü Yıl University J. Faculty Educ. (Special Issue)*, 18-36.
- Yiğit R (2013). Examination of Relationship between Well-being of Teacher candidates and Levels of Social Problem Solving Skill. *Elementary Educ. Online*, 12(2):550-560 [Online]: http://ilkogretim-online.org.tr_