

THE EXAMINING PROBLEM SOLVING SKILLS AND PREFERENCES OF TURKISH UNIVERSITY STUDENTS IN RELATION TO SPORT AND SOCIAL ACTIVITY

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ABSTRACT

The purpose aimed to examine the problem solving skills and preferences of university students in relation to sport and social activity. The research population comprised of the English preparatory program which includes 500 students from 13 different departments of the university and all students in this program participated in the study voluntarily. No sample method was used. As data collection tools, inquiry form and Heppner Problem Solving Skill scale were used in order to determine the demographic variables and scores of problem solving skill in relation to participants respectively. The findings indicated that there was not a significant statistically different between man and female (, 851, $p>0.05$), sport and social activity in preferences (, 395, $p>0.05$), but a significant statistically relationship between problem solving skill and demographic variables was found. These findings were discussed in terms of the problem solving skills and preferences in relation to sport and social activity of university students.

Keywords: Problem solving skill, Sport, Social activity, Students

INTRODUCTION

In daily life, there are variety problems in the world and everybody can encounter these problems. Therefore, having good problem solving skill is important to cope with the problems. Problem solving skill is defined as a cognitive-affective behavioral process through which an individual or group identifies or discovers effective means of coping with problem encountered in everyday living. These skill components encompass cognitive-behavioral abilities in identifying problems, generating solutions, evaluating options, implementing a plan, monitoring progress and evaluating outcomes (D’Zurila and Nezu, 1982). Also, problem solving is an important factor in adjusting, and that problem-solving training is a promising method for improving a person’s adaptive functioning and, consequently, reducing and preventing psychological and behavior disorders. Previous studies have shown that social problem-solving are associated with interpersonal difficulties, behavioral problems, and mental health issues (Crick and Dodge, 1994; D’Zurilla and Goldfried, 1971). Moreover, present studies have shown that, social problem solving is effective in promoting social competence and mollifying emotional and behavioral difficulties (Chang, Downey and Salata, 2004; Webster-Stratton et al., 2001). Several studies have investigated the relations between problem-solving and individual differences. From physical activity standpoint for this situation, participation in physical activity or exercise is not only associated with physiological improvement, but it also provides psychological benefits in many parameters (Carusa and Gill, 1992; Aşçı, 2002). Problem solving is associated with self-esteem. Sport activities affect the self-esteem positively (Yiğiter, 2011) as well and self-esteem increases the self-confidence of person, thus it can positively influence aspects of a person for solving

problems (D’Zurilla and Maydeu-Olivares, 1995). Now that problem solving is the act of solving a problem, students can act short plays taken from real life situations (Wilkinson and Canter, 1982). In this context, sport is one of the real life situations which give responsibility and teaches how to solve the strategy in relation to rival in the match. Problem solving is defined as finding the best way in order to overcome obstacles (Morgan, 1999), like in the sport activities, athlete has to find the best way in order to defeat rival. Therefore, sport participation is an important factor to focus on problem solving skill. In this way, sport activities may help students make different links from university to life.

Nowadays, students need to learn how to solve the real problems in relation to the real world and students may improve problem solving skill by participating in sport activities. In the light of the comments, the purpose of present study was to examine the problem solving skills and preferences of university students in relation to sport and social activity. For that purpose, it was hypothesized that the participants, who prefer the sport, would have higher scores in problem solving skill compared to participants who prefer social activity. Also, it was hypothesized that the problem solving skill would differ with gender, age, and demographic variables.

METHOD

Participants

University students ($M_{age}=19,11\pm14,68$) were voluntarily participated in this study. Students were randomly selected from one of the universities in the Marmara region of Turkey. No sampling method was used, and all of the students in the English preparatory program in school of foreign languages were included in the research.

Problem Solving Skill Scale (PSI)

Problem Solving Inventory (PSI) was developed by Heppner and Petersen (1982). The purpose of the PSI is to assess individuals’ perceptions of their problem-solving behaviors and attitudes. The PSI consists of 32 statements to which participants respond on a 6-point Likert scale ranging from ‘strongly agree’ (1) to ‘strongly disagree’ (6). The total scores can range from 32 to 192. Lower scores on all scales and for the total PSI score represent positive appraisals of problem solving abilities. Concurrent validity of the PSI has been estimated for normal high school students. Concurrent validity have been demonstrated through significant correlation of scores with outcomes of student’s rating of their level of problem solving skills and their perceived level of satisfaction with their skills, all correlations were statistically significant ($p<0.001$). Comparing the PSI to other instruments such as Rotter Internal-External (I-E) Locus of Control Scale (Rotter, 1978; $n=33$) has showed construct validity. Correlations of PSI scores with the Rotter (I-E) Locus of Control Scale were statistically significant ($r=0.61$). Estimates of test-retest reliability were established by administering the inventory to 31 undergraduate students on two occasions approximately 2 weeks apart, revealing high reliability ($r=0.89$). Internal consistencies were computed for the total scale score based on a sample of 150 of undergraduate students, alpha coefficients were found to be 0.90 (Heppner and Petersen, 1982; Radi, 2006; Yiğiter, 2012).

Procedure

A descriptive cross-sectional design was used in the study. Problem solving skill scale were administered to participants in a group at classroom setting. Researcher provided verbal information on how to respond to items. Participation in the study was voluntary and inquiry form, problem solving skill scale responses were anonymous. An informed consent form was

obtained from the participants before the psychological measurement. Consent from Research and Ethics Committee of University was obtained for the research.

Data Analysis

The data was analyzed by SPSS 16.0 Package Program. Descriptive statistics, independent sample t-test, pearson correlation, one way ANOVA analysis were used to analyze the data. Level of significance was determined to be 0.05.

RESULTS

Table 1. Results of ANOVA

	<i>Kategori</i>	<i>n</i>	<i>PSI mean</i>	<i>f</i>		<i>p</i>
High School Type	general	297	116	2,250	,048	P<0.05
	science	9	116			
	anatolia	90	113			
	boarding school	5	109			
	teacher	15	114			
	profession	84	116			
School Department	numerical	351	115	,057	,811	P>0.05
	equally weighted	149	115			
Income	500 TL	75	114	4,984	,002	P<0.05
	501-1000 TL	49	111			
	1001-1500TL	262	116			
	1500 TL and over	114	115			
Mother's Education	university	83	115	10,141	,000	P<0.05
	high school	174	115			
	primary education	201	114			
	illiterate	42	122			
Father's Education	university	166	112	14,838	,000	P<0.05
	high school	196	117			
	primary education	73	116			
	illiterate	65	119			
Place of Residence	provincial	300	115	,228	,796	P>0.05
	district	154	115			
	village	46	116			

Anova test revealed that there was a significant statistically different in high school type (,048, $p<0.05$), income (,002, $p<0.05$), mother's education (,000, $p<0.05$) and father's education (,000, $p<0.05$). On the other hand, any significant statistically different was found in relation to high school department (, 811, $p<0.05$), and place of residence in last ten years (Table 1).

Table 2 (Part-I). Pearson correlation

	<i>n</i>	<i>Pearson correlation</i>	<i>Problem solving skill</i>
Age	500	r	,037
		p	,408
Gender	500	r	-,008
		p	,851
High School Type	500	r	-,024
		p	,594

Table 2 (Part-II). Pearson correlation

	<i>n</i>	<i>Pearson correlation</i>	<i>Problem solving skill</i>
School Department	500	<i>r</i>	-,011
		<i>p</i>	,811
Income	500	<i>r</i>	,085
		<i>p</i>	,057
Mother's Education	500	<i>r</i>	,087
		<i>p</i>	,053
Father's Education	500	<i>r</i>	,245**
		<i>p</i>	,000
Place of Residence	500	<i>r</i>	,023
		<i>p</i>	,614

As can be seen Table 2, father's education was positively associated with problem solving skills ($r=.245^{**}$, $p<0.05$), but other variables were not associated with problem solving skills ($p>0.05$).

Table 3. Differences in relation to gender, sport, social activity

		<i>n</i>	<i>PSI mean</i>	<i>SD</i>		<i>p</i>
Gender	Man	238	115	8,95	,851	$p>0.05$
	Female	262	115	9,13		
Preferences	Sport	162	116	9,19	,395	$p>0.05$
	Social activity	338	115	8,97		

As shown in Table 3 there was not a significant statistically relationship between man and female students (851, $p>0.05$) and also not a significant statistically relationship between sport and social activity preferences of students (395, $p>0.05$).

DISCUSSION

The purpose of this study was to examine the problem solving skills and preferences of university students in relation to sport and social activity and also to determine gender differences and demographic variables relationships in problem solving skills and preferences of university students in relation to sport and social activity.

The results of the present study failed to support the hypothesis of this study that the participants who prefer the sport, would have higher scores in problem solving skill compared to those who prefer social activity, and problem solving skill would differ with gender and age. From the results standpoint, the scores of problem solving skill did not differ among students, and there was not a significant statistically relationship between age and problem solving skill, and also between gender and problem solving skill. But the significant differences between problem solving skill scores and some demographic variables were found. From the literature studies standpoint, the results of the present study revealed that problem-solving skill was not associated with age, contrary to these results of some studies which revealed that age has been found to be a significant indicator of problem-solving skills (Wu, 1996; Cox, 1985; Zambo and Follman, 1997). In comparison, two cross-sectional studies support the results of the present study. According to these studies, problem-solving skill was not associated with age (Güçray, 2003; Demirtaş and Dönmez, 2008). In addition, previous studies revealed that gender has been found to be a significant indicator of problem-

solving skills. Cross-sectional studies described the relationship between problem-solving skills and gender among younger adults, middle-aged and older aged using large sample sizes (Brems and Johnson, 1988; D’Zurila et al., 1998; Corner, 2004). Also, some findings indicated that women have displayed better problem-solving skills than men. In this context, women had significantly higher mean problem-solving skills scores than men (Artinian et al., 2000; Toobert and Glasgow, 1991; Glanz et al., 1994; Serin, 2006).

According to Anova results of the present study, problem solving skill differs with the demographic variables. In this context, the present study showed that there was a significant statistically different between problem solving skill and high school type (.048, $p < 0.05$), problem solving skill and income (.002, $p < 0.05$), problem solving skill and mother’s education (.000, $p < 0.05$), problem solving skill and father’s education (.000, $p < 0.05$), but also there was not a significant statistically different between problem solving skill and high school department (.811, $p > 0.05$), problem solving skill and place of residence (.796, $p > 0.05$). These results generally support the hypothesis of this study that the problem solving skill would differ with demographic variables.

Limitation of this study should be noted for future studies. Firstly, the present study was conducted in English preparatory program in school of foreign languages, and was representative of only a small sample of university %9.33 (500 students). University which includes 9.335 students totally, have dispersed campuses, so the researcher failed to apply the scale more students within one week. Further research is needed to examine problem solving skill on more students, and should be applied more scales in relation to psychological parameters.

Regarding methodological considerations, the present study used cross-sectional design. In cross-sectional studies, a study collects data to make inferences about a population of interest at one point in time. After measurements have been completed, statistical analysis is used to determine the relationships between the variables in relation to subjects. Also, cross-sectional model can come new ideas out for future studies. In this way, the informations of various fields can be found by future researchers. Also, future studies should attempt to a different way which is experimental method, to determine the differences between the experimental and control groups.

In the light of the explanations, the present study aimed to examine the problem solving skills and preferences of university students in relation to sport and social activity. In conclusion, based on the data, problem-solving skill was not associated with age and gender, and did not differ with gender and preferences in relation to sport and social activity, but problem-solving skill was associated with some demographic variables.

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