

A Study of the Relationship between Problem Solving Skills Level and the Loneliness Level of the Elementary and High School Students

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ÖZET

Bu araştırmada ilköğretim ve orta öğretim kurumlarında öğrenim gören öğrencilerin problem çözme düzeyleri ile yalnızlık düzeyleri arasındaki ilişki incelenmiştir. Araştırmanın kapsamına 2009-2010 eğitim öğretim yılında Sakarya ili Adapazarı ve Arifiye ilçelerindeki çeşitli ilköğretim ve lisede öğrenim gören toplam 300 öğrenci dahil edilmiştir.

Araştırma kapsamına dahil edilen öğrencilerin problem çözme düzeyleri ile ilgili veriler; Heppner ve Peterson tarafından 1982 yılında geliştirilen ve Taylan tarafından 1990 yılında Türkçe'ye uyarlaması yapılan "Problem Çözme Envanteri" ile öğrencilerin yalnızlık düzeylerini ile ilgili verileri Russell, Peplau ve Cutrano tarafından 1980 yılında geliştirilen ve Türkçe'ye uyarlaması Demir tarafından 1989 yılında gerçekleştirilen "UCLA Yalnızlık Ölçeği" kullanılarak elde edilmiştir.

Araştırmada elde edilen veriler daha önce yapılmış olan tez, bilimsel makale ve diğer bilimsel çalışmalardan elde edilen verilerle birlikte analiz edilip yorumlanmış psikoloji, psikolojik danışma ve rehberlik alanıyla ilişkilendirilerek yorum yapılmış ve tartışılmıştır. Ayrıca çalışmanın sonunda araştırmacılara bilgi ve fikir vermesi açısından önerilere yer verilmiştir.

Anahtar Kelimeler: *problem çözme, yalnızlık*

ABSTRACT

In this study, the problem solving skills and loneliness level of the elementary and high school students was measured and their relationship was examined. Moreover whether there is a difference between boys and girls according to the problem solving skills and loneliness level was studied. The data of this study was obtained by 300 elementary and high school students in Sakarya at the 2009-2010 education year.

For collecting the data from teachers two measurement tools were used. One of these was "Problem Solving Inventory" which was developed by Heppner and Peterson (1982) and adapted to Turkish language by Taylan (1990) and the other was "UCLA Loneliness Scale" which was developed by Russell, Peplau and Cutrano (1980) and adapted to Turkish language by Demir (1989).

The results of the study were interpreted with the related previous researches. These results were tried to expound and discuss by associating psychology and counseling psychology area. Moreover, at the end of the study some suggestions were mentioned for giving idea and more information to the researchers.

Keywords: *problem solving skills, loneliness*

1. INTRODUCTION

In today's society individualism takes over and that causes people isolate themselves from the society. This isolation is then highlighting the phenomenon of loneliness. The person who became isolated has different points of view and also the meaning of the events. The concept of loneliness has been developed by modern industrial society and has a different dimension about the relations between people. Loneliness is a result of discrepancies between social relationships and is unpleasant subjective psychological state.

Social relations among people constitute the essence of life. The deteriorations in the social field affect the lives of individuals. In recent years, the ecote of individualism has become one of the main reasons bring about the phenomenon of loneliness and isolation.

Alienation is one of the causes of loneliness in the modern world. Alienation is the feeling of not being part of society or a group. According to Fromm, people are not active; actually they are passive in their own lives. The illusion of the taught that people determine their own lives there is a contrary taught that people's lives are determined. Tastes, interests, etc...are directed (Gün, 2006).

Another factor that is causing the phenomenon of loneliness is urbanization. Urbanization affects the relations between people negatively. The transition to modern society, people begin to lose their feelings and emotions of friendship, relationship in the village environment (Gün, 2006).

In researches related to loneliness, there is a correlation between the spending time alone every day and having few close friends and participating in social activities. The other results of these researches show us those people who are isolated themselves from other people are not satisfied enough from their friendship and the relations with their families (Saraçoğlu, 2000).

Freud's most basic view about this is that the child who can not have warm and friendly relation with its mother in the oral period will have (experience) similar problems with other people in his/her future life. At the same time Freud asserts that intolerant mothers will cause personality disorders and create a sense of loneliness as well (Demir, 1990). According to Ericson people who have not the sense of basic self-confidence will have the sense of loneliness at older ages (Kılıçcı, 1989).

As it is known, many new developments are being taken places in the century we are living. The situations we are facing may be positive or negative. People use multiple problem-solving techniques when they face a difficulty.

The problem solving skill which has an important place in human life contains more than one psychological factor in. The problem solving skill is a process that involves to eliminate the difficulties to reach a certain goal has a number of and psychological dimensions.

Schotte and Clum did a research on college student in 1987. It is researched that the correlation between the students problem solving skills and stress, hopelessness and suicide thoughts. The students who have low level of problem solving skills were observed that they have much more feelings of hopelessness and a re-inclined to suicidal (Basmaçlı, 1998). Heppner and Anderson (1985) were examined

the relationship between the problem solving skills and the psychological adjustment. 671 students took place in their survey and the results of the survey obtained that there was a significant difference between the two variables.

Spivak and Shure compared the compatible and incompatible children. They tried to find out their behavioral difference when they face to a problem. The significant differences were found among children who are compatible and incompatible and the result of the research is that although the compatible children generated alternative solutions when they face the problems, the incompatible children accepted the existing states when they face the problems (Basmaçı, 1998).

Although there have been several studies on problem solving skills so far, it is important to determine a study which has not been made especially in elementary and high school so far.

The aim of our research is to help the school counseling staff about the phenomenon of loneliness and the effects of increasing phenomenon of loneliness. The other aim of the study is that the correlation between the loneliness and the problem solving skills of the students who are in various elementary and high schools in İstanbul, Bolu, Sakarya and Kocaeli provinces is investigated.

2. METHOD

2.1. Research Group

The data of this study was obtained by 300 students who were selected from elementary and high schools in the cities of İstanbul, İzmit, Sakarya and Bolu at the 2009-2010 education year. Their frequencies according to gender, school level, and city are given at the following table.

Table 2.1 Frequencies of the Students related to Gender, School Level and City

		Frequency	Percentage
Gender	female	181	60.3
	male	119	39.7
School Level	elementary	95	31.7
	high	205	68.3
City	İstanbul	91	30.3
	İzmit	42	14
	Sakarya	60	20
	Bolu	107	35.7

As seen Table 2.1, almost 60% of the students are female and 40 % of them are male. There are 95 (32%) elementary school students, 205 (%68) high school students in this study. According to city where the students live 30% of the students are from İstanbul, 14% of the students are from İzmit, 20% of the students are from Sakarya and 36% of the students are from Bolu.

2.2. Measurement Tools

Problem Solving Inventory which was developed by Heppner and Peterson (1982) and adapted to Turkish language by Taylan (1990) was used for determining level of students' problem solving skill. This scale consists of 35 items. The items of 5,6,7,8,10,12,16,18,19,20, was rated on 6-point Likert type scale ranges from '1- never' to '6-always' Because 10 of the items are negative first they were reversed and then they were rated. So, the possible highest score is 180. Thus, the sum of the scores reflects the teachers' problem solving skill level. High scores indicate high level of problem solving skill. The reliability of the students scores obtained from problem solving inventory was found as 0.85 in this study.

UCLA Loneliness Scale which was developed by Russell, Peplau and Cutrano (1980) and adapted to Turkish language by Demir (1989) was applied to students for detecting their loneliness level. This scale consists of 20 items. Each item was rated on 4-point Likert type scale ranges from '1-never I live' to '4-usually I live'. Because 10 of the items are negative first they were reversed and then they were rated. The possible highest score is 80. Thus, the sum of the scores reflects the students' loneliness level. High scores indicate high level of loneliness. The reliability of the students scores obtained from UCLA loneliness scale was found as 0.86 in this study.

3. RESULTS

First, whether there is a difference between male and female students' problem solving skill level was examined. For this purpose, independent t test was used. The results of the independent t test can be seen at Table 1.

Table 3.1 Independent t test Results of Problem Solving Inventory Scores in terms of Gender

Gender	N	\bar{X}	S	df	t	p
Female	181	131.99	22.19	298	0.318	0.751
Male	119	131.21	18.30			

According to Table 3.1, there is not any statistically significant difference between female and male students' problem solving inventory scores ($t_{(298)}=0.318$, $p>0.05$). This result shows that problem solving skill level does not change according to gender.

Second, whether there is a difference between male and female students' loneliness level was determined. For this purpose, independent t test was used. The results of the independent t test are shown Table 3.2.

Table 3.2 Independent t test Results of Loneliness Scores in terms of Gender

Gender	N	\bar{X}	S	df	t	p
Female	181	36.06	10.70	298	-1.044	0.297
Male	119	37.37	10.50			

According to Table 3.2, there is a not statistically significant difference between female and male students' loneliness scores ($t_{(298)}=-1.044$, $p>0.05$). This result can be interpreted that loneliness level does not change according to gender.

It was examined whether there is a difference between elementary and high school students' problem solving skill level. For this purpose, independent t test was used. The results of the independent t test can be seen at Table 3.3.

Table 3.3 Independent t test Results of Problem Solving Inventory Scores in terms of School Level

School level	N	\bar{X}	S	df	t	p
Elementary	95	134.37	21.81	298	1.534	0.126
High	205	130.43	20.11			

According to Table 3.3, there is not any statistically significant difference between elementary and high school students' problem solving inventory scores ($t_{(298)}=1.534$, $p>0.05$). This result shows that students' problem solving skill level does not change according to school level..

It was tried to find that whether there is a difference between elementary and high school students' loneliness level. For this purpose, independent t test was used. The results of the independent t test are shown Table 3.4.

Table 3.4 Independent t test Results of Loneliness Scores in terms of School Level

School level	Gender	N	\bar{X}	S	df	t	p
Elementary	Female	95	36.54	10.13	298	-0.048	0.962
High	Male	205	36.60	10.87			

According to Table 3.4, there is a not statistically significant difference between elementary and high school students' loneliness scores ($t_{(298)}=-0.048$, $p>0.05$). This result can be interpreted that loneliness level does not change according to school level.

It was examined whether there is a difference students' problem solving skill level according to where they live. For this purpose, ANOVA test was used. The results of the independent t test can be seen at Table 3.5.

Table 3.5 ANOVA test Results of Problem Solving Inventory Scores in terms of City

	Sum of Squares	df	Mean Square	F	p
Between Groups	11240.926	3	3746.975	9.483	0.00
Within Groups	116960.4	296	395.136		
Total	128201.3	299			

According to Table 3.5, there is a statistically significant difference between students' problem solving inventory scores in terms of cities where they live ($F_{(296,3)}=9.483$, $p<0.05$). This result shows that students' problem solving skill level changes according to where they live. Because it was found that there is a significant difference, post hoc comparisons was applied. According to post hoc study, there is a significant difference between students who live in İzmit and all other students who live İstanbul, Sakarya and Bolu in terms of problem solving skill level. However, there is not any significant difference between the scores of the students in any other pairs of cities.

It was tried to find that whether there is a difference students' loneliness level according to where they live. For this purpose, ANOVA test was used. The results of the independent t test are shown Table 3.6.

Table 3.6 ANOVA test Results of Loneliness Scores in terms of City

	Sum of Squares	df	Mean Square	F	p
Between Groups	3001.273	3	1000.424		
Within Groups	30745.807	296	103.871	9.631	0.00
Total	33747.080	299			

According to Table 3.6, there is a statistically significant difference between students' loneliness scores in terms of cities where they live ($F_{(296,3)}=9.631, p<0.05$). This result shows that students' loneliness level changes according to where they live. Because it was found that there is a significant difference, post hoc comparisons was applied. According to post hoc study, there is a significant difference between students who live in İzmit and all other students who live İstanbul, Sakarya and Bolu in terms of loneliness level. However, there is not any significant difference between the loneliness levels of the students in any other pairs of cities.

The relationship between the students' problem solving skill level and the students' loneliness level was examined. Pearson moment product correlation coefficient was found as $-0.481 (p<0.01)$. This result showed that there is a statistically significant negative relationship between the scores obtained by problem solving inventory and loneliness scale. According to this finding it can be interpreted that the greater the students' problem solving skill level, the lower their loneliness score on the scale or the lower the students' problem solving skill level, the higher their loneliness score on the scale.

4. DISCUSSION

As a result of the study, there is a negative correlation between problem solving skills and loneliness level. It can be interpreted that psychological structures of individuals (positive or negative) affect viewpoints of events in our daily lives directly or indirectly. Individuals with higher level of loneliness inevitably feel helpless in the situation of a problem. Individuals with lower levels of loneliness can solve the problems easily and find have analytical thinking ability.

There is an important difference in this research. When we compared the four city we found that the students in İzmit had higher problem solving skills but lower level of loneliness. The results of the research is affected that the students in İzmit were students in vocational high schools and weren't concern with lack of employment. Because there is not any significant difference between elementary and high school students' problem solving skills level and also loneliness level it can be interpreted that the problem solving skills level and loneliness level does not change according to ages which is between elementary school level and high school level. Another important result in this study is that both the loneliness level and the problem solving skill level does not show any difference according to gender. Thus, it can be said that loneliness level or problem solving skills do not change in terms of the students' gender.

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