Research Paper

The Relationship between Social Intelligence and Self-Regulation among Sixth Grade Students in Tehran

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Abstract
This study aimed to investigate the relationship between social intelligence and self-regulation among sixth grade students in District 4 in Tehran. This was descriptive –correlational study. The population consisted of all male and female sixth grade students in Tehran, district 4 in 2014-2015. Using stratified random sampling method, 368 students were selected as sample. The Tromso's Social Intelligence Questionnaire with 21 questions and Pintrich and De Groot's Self- regulation Questionnaire with 22 questions were used for collecting the data; using Cronbach's alpha coefficient, their reliability was determined to be 0.79 and 0.82, respectively. The collected data were analyzed using descriptive (central tendency and dispersion indices) and inferential (Pearson correlation, independent t test, and multivariate stepwise regression analysis) statistics. The findings showed that there was significant and positive correlation between social intelligence ($p \leq 0.001$), social information processing ($p \leq 0.001$), social skills ($p \leq 0.005$), and social awareness ($p \leq 0.05$) and self-regulation of students. Among the dimensions of social intelligence, the social information processing (beta coefficient= 1.326) could significantly predict the students' self-regulation ($p \leq 0.001$). Also, the social intelligence of female students was significantly higher than male students ($p \leq 0.05$). However, there was no significant difference between male and female students in terms of self-regulation ($p \geq 0.05$).

Keywords: Social Intelligence, Social Information Processing, Social Skills, Social Awareness, Self-regulation.

Introduction
Deciding to write about intelligence, the psychologists focused more on cognitive aspects (problem- solving and memory). However, some believed that the non-cognitive aspects are also important (Gelnn Translated by Nikoogoftar, 2009). The social intelligence is a component which may help people in many situations to choose the right path; the self-regulation is probably one of these situations, especially among the students.
The self-regulation refers to a process in which students systematically direct their thoughts, feelings, and behaviors to achieve their desired goals (Zimmerman & Schunk , 2008). Zimmerman (1998) believed that the learning of self-regulation is an important issue in education and has attracted the attention of policy makers, teachers,

educators, and parents. This issue raised discussions on reformation of schools around the world. The students may use self-regulation process to study more effectively and control their academic study (Razmifar, 2010).
The Education and Training System is one of the largest and most extensive systems within each community that determine their fate in long-term. In fact, the happiness or misery of any society depends on its education system. If the education system has proper objectives, structure, and resources, it will guarantee the development of society and will make it efficient in long-term (Imani, 2007). The primary school is the most important educational period in all Education Systems in the world; the development and growth of individuals' personality and body occurs more in this period. The primary school plays an important role in development of concepts and meanings

which children deal with in their daily life. The cognitive, biological, and social development of children continues during this period. During this period, also, there are opportunities for education, training, and learning; they learn how to communicate properly with others and their talents gradually flourish. Therefore, more attention should be paid to specific characteristics of these children, their talents should be identified, and they should be helped to use their talents appropriately. The social intelligence and self-regulation are two important characteristics.

According to above, this study aims to answer these questions: Is there relationship between social intelligence and self-regulation learning among sixth grade students? Whether the self-regulation and its components may predict the social intelligence of male and female sixth grade students?

However, the research hypotheses are as following:

Main hypothesis: There is a relationship between social intelligence and self-regulation among students.

Sub-hypotheses:

There is a relationship between social information processing and self-regulation among students.

There is a relationship between social skills and self-regulation among students.

There is a relationship between social awareness and self-regulation among students.

There is a difference between male and female six grade students in terms of social intelligence.

There is a difference between male and female six grade students in terms of self-regulation.

The components of social intelligence may predict the self-regulation of sixth grade students.

Methodology

This was descriptive –correlational field study. The population consisted of all male and female sixth grade students in Tehran, district 4 in 2014-2015 (N= 8748). Using stratified random sampling method, 368 students were selected as sample. The Tromso's Social Intelligence Questionnaire with 21 questions and Pintrich and De Groot's Self-regulation Questionnaire with 22 questions were used for collecting the data; using Cronbach's alpha coefficient, their reliability was determined to be 0.79 and 0.82, respectively. Using SPSS software, the collected data were analyzed by descriptive (central tendency and dispersion indices) and inferential (Pearson correlation, independent t test, and multivariate stepwise regression analysis) statistics.

Findings

Main hypothesis: There is a relationship between social intelligence and self-regulation among students.

Table 1: Pearson correlation matrix between social intelligence and self-regulation (n= 368)

Self-regulation	Social intelligence	
$r = ./۴۱۳$	۱	Social intelligence
$p = ·/··۱$		
۱	$r = ./۴۱۳$	Self-regulation
	$p = ·/··۱$	

Table 1 shows the correlation coefficient of social intelligence and self-regulation. As it can be seen, the correlation coefficient is equal to (R= 0.413). Since the obtained significance level (0.001) is less than 0.05, the null hypothesis is rejected. Therefore, the research hypothesis is confirmed; there is a significant correlation between social intelligence and self-regulation. Given that the correlation coefficient (r= 0.413) is positive, there is a direct relationship between these two variables; the increase in one variable leads to increase of other variable.

First hypothesis: There is a relationship between social information processing and self-regulation among students.

Table 2: Pearson correlation matrix between social information processing and self-regulation (n= 368)

Self-regulation	Information processing	
$r = ۰/۵۹۳$	۱	Information processing
$p = ۰/۰۰۱$		
۱	$r = ۰/۵۹۳$	Self-regulation
	$p = ۰/۰۰۱$	

Table 2 shows the correlation coefficient of social information processing and self-regulation. As it can be seen, the correlation coefficient is equal to (R= 0.593). Since the obtained significance level (0.001) is less than 0.05, the null hypothesis is rejected. Therefore, the research hypothesis is confirmed; there is a significant correlation between social information processing and self-regulation.

Given that the correlation coefficient (r= 0.593) is positive, there is a direct relationship between these two variables; the increase in one variable leads to increase of other variable.

Second hypothesis: There is a relationship between social skills and self-regulation among students.

Table 3: Pearson correlation matrix between social skills and self-regulation (n= 368)

Self-regulation	Social skill	
$r = ۰/۱۴۴$	۱	Social skill
$p = ۰/۰۰۶$		
۱	$r = ۰/۱۴۴$	Self-regulation
	$p = ۰/۰۰۶$	

Table 3 shows the correlation coefficient of social skills and self-regulation. As it can be seen, the correlation coefficient is equal to (R= 0.144). Since the obtained significance level (0.006) is less than 0.05, the null hypothesis is rejected. Therefore, the research hypothesis is confirmed; there is a significant correlation between social skills and self-regulation. Given that the correlation coefficient (r= 0.144) is positive, there is a direct relationship between these two variables; the increase in one variable leads to increase of other variable.

Third hypothesis: There is a relationship between social awareness and self-regulation among students.

Table 4: Pearson correlation matrix between social awareness and self-regulation (n= 368)

Self-regulation	Social awareness	
$r = ۰/۱۰۳$	۱	Social awareness
$p = ۰/۰۴۹$		
۱	$r = ۰/۱۰۳$	Elf-regulation
	$p = ۰/۰۴۹$	

Table 4 shows the correlation coefficient of social awareness and self-regulation. As it can be seen, the correlation coefficient is equal to (R= 0.103).

Since the obtained significance level (0.049) is less than 0.05, the null hypothesis is rejected. Therefore, the research hypothesis is confirmed;

there is a significant correlation between social awareness and self-regulation. Given that the correlation coefficient (r= 0.103) is positive, there is a direct relationship between these two variables; the increase in one variable leads to increase of other variable.

Fourth hypothesis: There is a difference between male and female six grade students in terms of social intelligence.
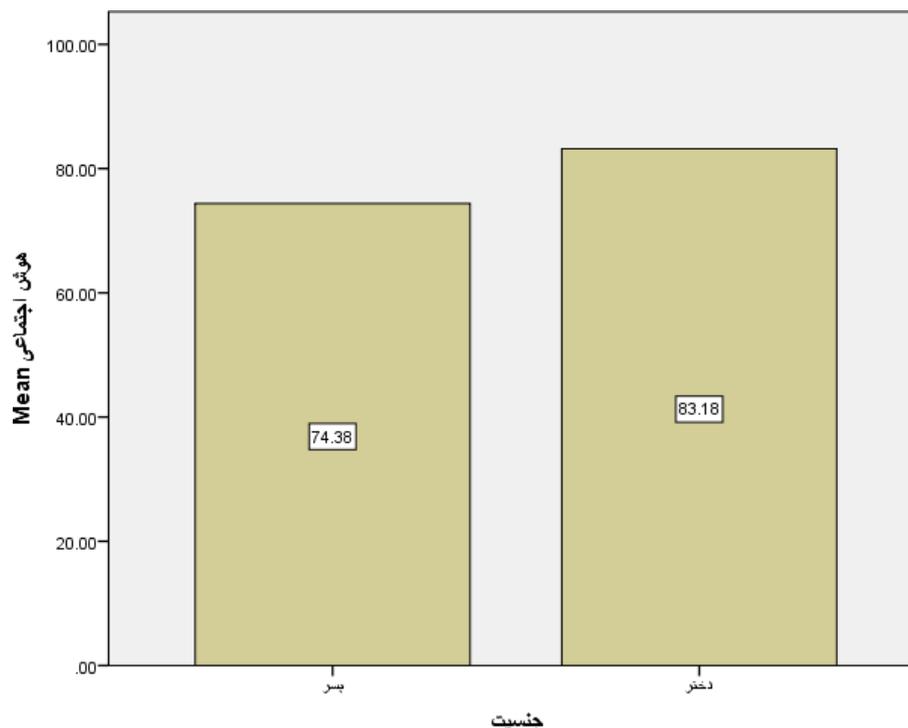The independent t-test was used to investigate the difference of social Intelligence mean scores among boys and girls.

Table 5: Results of independent t-test to compare students' social intelligence scores according to their gender

t Sig. level	t-value	Degree of freedom	f Sig. level	f-value	Mean	Number	Group	Variable
					٧٤,٣٨	١٧٧	Boy	
٠,٠٠١	٥,٠٠٤	٣٣٢,٢٢	٠,٠٠١	٢٩,٤٣١				Social intelligence
					٨٣,١٨	١٩١	Girl	

According to table 5, the social intelligence mean scores of male and female students are equal to 74.38 and 83.18, respectively. Since the variance of two groups is not the same (p<0.05, F= 29.431), the independent t-value, degree of freedom, and significance level are equal to 5.004, 332.22, and 0.001, respectively. As it can be seen, the estimated

significance level is less than 0.05; therefore, the social intelligence mean among girls is significantly more than boys. However, the null hypothesis is rejected; there is a significant difference between male and female students in terms of social intelligence. The results are provided in table 6.

Figure 6: Comparison of social intelligence mean scores among male and female students

Fifth hypothesis: There is a difference between male and female six grade students in terms of self-regulation.

The independent t-test was used to investigate the difference of self-regulation mean scores among boys and girls.

Table 7: Results of independent t-test to compare students' self-regulation scores according to their gender

t sig. level	t-value	Degree of freedom	f Sig. level	f-value	Mean	Number	Group	Variable
					۶۱،۹۴	۱۷۷	Boy	
۰،۰۶۱	۱،۸۷۷	۳۶۶	۰،۱۲۱	۲،۴۰۹				Self-regulation
					۵۸،۱۸	۱۹۱	Girl	

According to table 7, the self-regulation mean scores of male and female students are equal to 61.94 and 58.18, respectively. Since the variance of two groups is not the same (p>0.05, F= 2.409), the independent t-value, degree of freedom, and significance level are equal to 1.877, 366, and 0.061, respectively. As it can be seen, the estimated significance level is more than 0.05; therefore, there is no significant difference in self-regulation mean scores among girls and boys. However, the null hypothesis is confirmed; there is no significant difference between male and female students in terms of self-regulation. The results are provided in table 8.
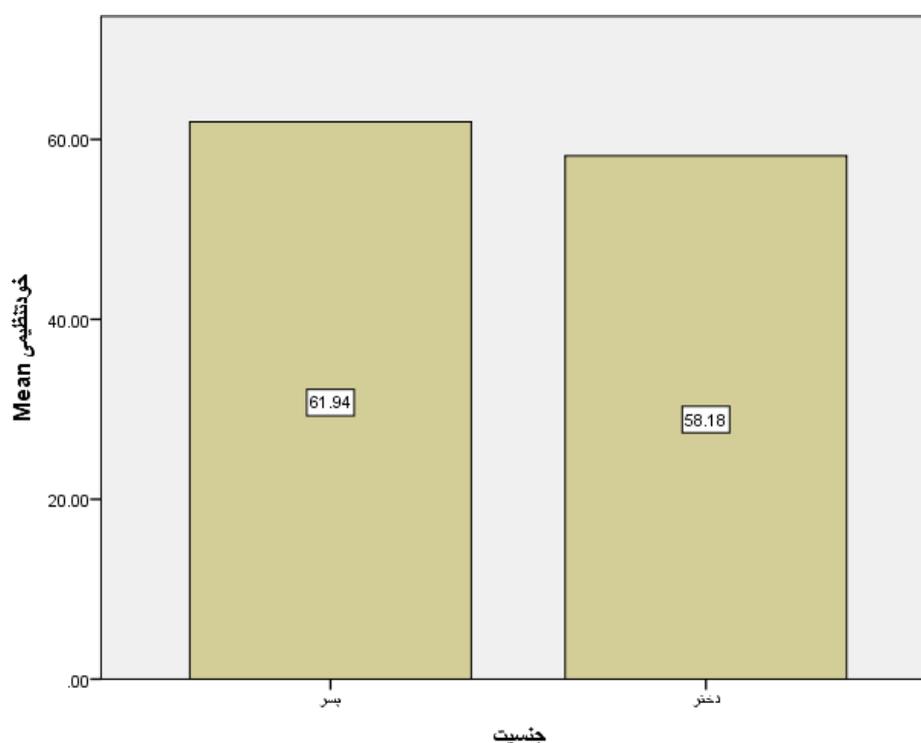
Figure 8: Comparison of self-regulation mean scores among male and female students

Sixth hypothesis: The components of social intelligence may predict the self-regulation of sixth grade students.

The stepwise multiple regression analysis method was used to determine whether the components of social intelligence may predict self-regulation.

Table 9: Stepwise multiple regression to predict self-regulation based on social intelligence components

Sig. level	T	Standardized coefficients		Non-standardized coefficients		Model
		Beta	Standard	deviation error	B	
·/··۱	۸/۶۶۳			۲/۷۱۴	۲۳/۵۱۰	Constant value
·/··۱	۱۴/·۸۵	·/۵۹۳		·/·۹۴	۱/۳۲۶	Information processing

According to table 9, among the components of social intelligence, the social information processing (beta coefficient= 1.326) could significantly predict the students' self-regulation (p≤0.001). In this model, other research variables (social skills and social awareness) could not significantly predict the self-regulation.

Discussion and conclusion
The education system is one of the major social institutions which is responsible for education of people at different levels and stages. It helps to reinforce the talents, abilities, and capabilities. Despite the efforts to provide the conditions for development of students, there are always some barriers to it. The lack of self-regulation among students is one of the factors which interferes in internal efficiency of education system. This factor is associated with several factors including social intelligence and intrapersonal communication. This was investigated in present study and the findings were provided. In explaining the significant relationship between social intelligence and its components (social information processing, social skills, and social awareness), it can be said that people use adaptive defense mechanisms when facing problems, have higher psychological adjustment and higher social knowledge and awareness, and process well the social information. Therefore, they have higher social intelligence and automatically adjust their performance. Since the experienced emotions are affected by social environments, they may control the external effects, interactions, emotions, and expressions and achieve to higher self-regulation.

They are aware of their behavior and relationships with other, have high skills in dealing with their problems, and have good interpersonal relationships; this helps them to be more successful in planning and regulation of personal affairs and education duties and have less difficulty.

According to above, there is a significant difference between boys and girls in terms of social intelligence; the girls have higher social intelligence than boys. In explaining this finding, it can be said that the sixth grade students are in 12-13 age range. The psychology experts believe that the girls mature intellectually, sexually, and mentally earlier than boys. Most of female students mature in this period, but boys still have not experienced this stage. Therefore, this may one of the reasons that the girls have better social relationships and interactions than boys and obtained higher mean in Social Intelligence Questionnaire.

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