Investigation of Relationship between Metacognitive Strategies and Self-Concept with Social Compatibility of High School Student in the City Of Karaj.

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ABSTRACT

The present research was aimed at investigating the relationship between metacognitive strategies and self-concept with social compatibility of high school student in the city of Karaj. The statistical population of the study included all male and female high school students of the city of Karaj in the educational year of 2014-2015. The sample size was 100 people which were selected through simple random method. Tools for collecting data included the metacognitive test (MSLQ), Wilson self-concept and the California personality assessment. The research falls under the correlation researches. Results from the analysis of data implicated that there was a meaningful relation between social compatibility and self-concept while no such meaningful relation did exist between social compatibility and metacognitive strategies. Meantime, self-concept was only capable of predicting social compatibility whereas metacognitive strategies were not predicting social compatibility.

Keywords: Metacognitive strategies, Self-concept, Social compatibility, High school.

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INTRODUCTION

Metacognition can be defined as any type of knowledge or cognitive process wherein there are assessment, monitoring or social controls. For the first time, Piaget used the concept of metacognition implicitly, because the Piaget's nominal thinking has clearly a metacognitive nature, because it entails thinking about propositions, hypotheses and perception likelihoods which have a cognitive nature. However, Piaget did not apply the term metacognition. Maybe, the first psychologist who broughtthis term into the cognitive psychology realm explicitly was Flavell (Teymoori, 2010). Put it simply, metacognition refers to knowledge of cognition or knowing (Seif, 2010). A metacognitive activity once happens when the learner consciously monitors and navigates his learning strategies while solving problems and purposive thinking (Santroc, 2004). In other words, the metacognition of knowledge is the individual's awareness of his own cognitive system or knowledge about knowledge. Metacognitiveknowledge helps us consider our own progress by the time of learning and knowing affairs. Also, this body of knowledge helps us assess our effort results and measure our own dominance level over some material we read.

Metacognitive strategies are tactics for monitoring over cognitivestrategies and controlling andnavigating them where they can be divided into three classes of planning strategies, monitoring and assessment strategies and regulation strategies (Seif, 2010). Social conformity or compatibility whichgenerallybecomesadjusted with the collective life is among the most importantprinciples in investigating the human social behavior. Socialcompatibility is concerned with accepting and doing appropriateconducts being in line with the environment and environmental changes and the antonym concept of it is incompatibility, meaning showing inappropriatereaction to environmental stimuli and situations, such that it proves harmful for the person or others or both of them, thereby, resulting the individual not to meet his own expectations. When we say someone is adjusted with others, it mens he collaborates with them and adapts with the environment. Compatibility assumes importance when we judge the human relation with his society. Compatibility concerns the fact the individual behaves others such that no problem arises. We consider a human as compatible who accepts logical issues and behaviors of others and if he cannot be compatible in an environment, there is another environment for him (Nafisi Aziz, 2012). Adler states when a conflicts erupts between beliefs relating to the actual self and the ideal self, feeling of humility emerges. Karen Horny states a solution for conflict could be creating an ideal self-imagination which is partly but not fully fantasy and delusional. Self-concept is a clear definition of personal characteristics and one's values on the public and economic grounds. In another definition, self-concept is the totality of perceptions we have about ourselves, i.e. our own perceptions and feedbacks about ourselves; self-concept is a language we apply when characterizing ourselves.

Shilling (1984) maintains: self, self-concept and self structure are an organized group of perceptions of the "ego" characteristics and perceptions relating to "ego" relations with others and various life aspects. These perceptions are followed with values. Hejari (2005), having a contradictory impression defines self-concept as the individual's theory of self as an experiential person with functional properties. He states people use this theory for organizing their own experiences and attempt to maximize the level of satisfaction they experience of themselves and minimize the level of inconvenience (Hejari, 2005). Results by Bahrami and Rezavan's study (2008) indicate that girls more than boys have positive metacognitive strategies (including, positive beliefs about worries) and they make use of them as confrontation against pressure and stressful and maladjusted factors and conditions. They also have more negative metacognitive strategies (including, uncontrollability and risk of thoughts) than boys. Research findings by Toozande Jani et al (2008) implicate the effectiveness of behavioral-cognitive training on social compatibility and self-esteem of students. However, this training in accordance with demographic properties of subjects was not found to be significantly related with their self-esteem and social compatibility. In other words, training self-esteem given the individual characteristics of subjects did not have a different impact. In accordance with the mentioned material, the research aimed toinvestigate the relationship between metacognitive strategies and self-concept with social compatibility of high school student in the city of Karaj.

METHODOLOGY

The present research was aimed at investigating the relationship between metacognitive strategies and self-concept with social compatibility of high school student in the city of Karaj. The statistical population of the study included all male and female high school students of the city of Karaj in the educational year of

20142015. The sample size was 100 people which were selected through simple random method. The reason why this sampling method was applied was because of the disparity of students at various schools of the city of Karaj. Tools for collecting data included the metacognitive test (MSLQ), Wilson self-concept and the California personality assessment.

a) ***Metacognition questionnaire (MSLQ):*** Spontaneous strategic questionnaire for learning is a spontaneous tool which is mostly used for assessment of the students' study orientation and the way they use learning strategies. This questionnaire consists of three parts: the first part is related with motivation. The second part measures cognitive and metacognitive strategies and the third part explores learning strategies relating to managing resources. The cognitive and metacognitive strategies part involves four components, including extension, organizing, critical thinking and metacognitive self-adjustment. Research findings revealed that this questionnaire enjoys good validity and reliability (Yaghoobi, 2005).

b) ***Wilson self-concept questionnaire:*** This scale was prepared by Caroll-Wilson in 2007 and has 19 items which is designed for measuring the educational self-concept and perceived difficulty of assignment in the classroom. This tool has three subscales which are: student's self-concept, learner's self-concept and perceived difficulty of assignment. As stated, this questionnaire has 19 items on a seven-value scale varying from totally disagree (1) to totally agree (7). The reliability reported by Caroll-Wilson (2007) for the subscales of student's self-concept, learner's self-concept and perceived difficulty of assignmentwere 0/86, 0/87 and 0/91 and it was 0/88 for the whole scale.

c) ***California perosnlity assessment questionnaire (CTP):*** California personality assessment questionnaire is on the ground of social compatibility which include yes and no and has 90 questions where the scoring method of this test is in form of 0 and 1 (no and yes). The reliability and validity of this questionnaire have been assessed in various researches. Naderi (2003) reported the reliability coefficient of this test as 0/78 for social compatibility. The reliability of the questionnaire through Cronbach's alpha was 0/64.

Data analysis: After collecting the questionnaires, data analysis was done by the SPSS software. Statistical methods applied for analyzing hypotheses were conducted in two descriptive and inferential parts. In the descriptive statistical part methods such as frequency, frequency percentage, mean, standard deviation, the minimum and maximum scores were applied. In the inferential statistical part the Pearson correlation coefficient for the relation of coordination between metacognitive strategies and self-concept with social compatibility and its components was used and also regression method was applied for predicting social compatibility by metacognitive strategies and self-concept.

Findings

First hypothesis: there is a meaningful relationship between metacognitive strategies and social compatibility of high school students. The Pearson correlation coefficient was used for analyzing the first hypothesis.

Table 1. The Pearson correlation coefficient test for the level of coordination between metacognitive strategies and social compatibility

	Frequency	Mean	SD	Pearson correlation coefficient	Sig.
Metacognitive strategies	30	48/53	10/67	0/22	0/245
Social compatibility	30	48/57	13/27		

In line with table (1) the Pearson correlation coefficient obtained from the analysis was 0/22 which is not statistically meaningful at the level of P<0/01. This means there is no significant relationship between metacognitive strategies and social compatibility. Therefore, the research hypothesis stating existence of metacognitive strategies and social compatibility of the high school students is not supported.

Second hypothesis: there is a meaningful relationship between self-concept and social compatibility of high school students. The Pearson correlation coefficient was used for analyzing the first hypothesis.

Table 2. The Pearson correlation coefficient test for the level of coordination between metacognitive strategies and self-concept

	Frequency	Mean	SD	Pearson correlation coefficient	Sig.
Self-concept	30	124/80	14/69	0/46	0/011
Social compatibility	30	48/57	13/27		

In line with table (2) the Pearson correlation coefficient obtained from the analysis was 0/46 which is not statistically meaningful at the level of P<0/05.The positive sign of the correlation coefficient implicates a direct and significant relationship. This means there is a significant relationship between self-concept and social compatibility. Therefore, self-concept will improve social compatibility among the high school students. Hence, the research hypothesis stating existence of self-concept and social compatibility of the high school *students is supported.*

Third hypothesis: Metacognitive strategies and self-concept predict social compatibility. To investigate the mentioned question regression was applied.

Table 3. Regression results for determining the predictive power of social compatibility by metacognitive strategies an self-concept

Criterion variable	R	R2	F	P	B	B	t	P
Metacognitive strategies	0/46	0/21	3/631	0/040	-0/05	-0/04	-0/201	0/843
Self-concept					-0/40	-0/44	-2/371	0/025

According to table (3) results, the F test value for investigating the impacts of social compatibility on metacognitive strategies and self-concept has been 3/631 at the P<0/05 being significant. The R2 indicates that 0/21 of metacognitive strategies variance and self-concept is explained by social compatibility. In this line, it should be added that only self-concept with β=-0/44 is able to predict social compatibility and metacognitive strategies cannot predict social compatibility.

CONCLUSION

The present research was aimed at investigating the relationship between metacognitive strategies and self-concept with social compatibility of high school student in the city of Karaj. In this research three hypotheses were investigated: *First hypothesis:* there is a meaningful relationship between metacognitive strategies and social compatibility of high school students. The Pearson correlation coefficient was used for analyzing the first hypothesis. In line with table, 1, the Pearson correlation coefficient obtained from the analysis was 0/22 which is not statistically meaningful at the level of P<0/01. This means there is no significant relationship between metacognitive strategies and social compatibility. Therefore, the research hypothesis stating existence of metacognitive strategies and social compatibility of the high school students is not supported. This finding is in conformity with research finding by Toozande Jani et al (2008), and Bahrami and Rezvan (2008). To account for this finding we can say that processing of social information is subsequent step performance of processing. Adept processing in each step will result in a meritorious performance in a special situation and a reciprocal or incomplete processing, thereby leading to social incompatibility. To Wells and Mathius (1994; quoted by Wells, 2001) we can say some of the special aspects of metacognitive strategies are related with social compatibility (Sharifi, 2009).

Second hypothesis: there is a meaningful relationship between self-concept and social compatibility of high school students. The Pearson correlation coefficient was used for analyzing the first hypothesis. In line with table, 2, the Pearson correlation coefficient obtained from the analysis was 0/46 which is not statistically meaningful at the level of P<0/05.The positive sign of the correlation coefficient implicates a direct and significant relationship. This means there is a significant relationship between self-concept and social compatibility. Therefore, self-concept will improve social compatibility among the high school students. Hence, the research hypothesis stating existence of self-concept and social compatibility of the high school students is supported. This finding is in coordination with research results by Kazemi et al (2003), and Fonooni, (2000). To account for this, we can say that people act based on perception they have about themselves (Parvin, 1996). In fact, human social compatibility is a reflection of his self-concept. Undoubtedly, the adults' success in

compatibility with different life and personal and collective issues is largely affected by their self-concept (Yaghoobi, 2005). Those who have positive self-concept expose more special compatibility. Therefore, self-concept is the core of all personal and social behaviors. If the individual's self-concept is positively formed, it will lay the ground for the capacity of compatibility for dealing with various situations an if that self-concept is found to be negative, compatibility will be the same affected.

Third hypothesis: Metacognitive strategies and self-concept predict social compatibility. To investigate the mentioned question regression was applied. R indicates a relation between variables. R2 explains variables. According to table 3 results, the F test value for investigating the impacts of social compatibility on metacognitive strategies and self-concept has been 3/631 at the P<0/05 being significant. The R2 indicates that 0/21 of metacognitive strategies variance and self-concept is explained by social compatibility. In this line, it should be added that only self-concept with β=-0/44 is able to predict social compatibility and metacognitive strategies cannot predict social compatibility. This finding corresponds with Bahrami and Rezvan's research (2008). Cubukcu (2009) states self-perception is a cognitive and social concept and is taught in line with social development and receiving behavioral norms in children era.

Man in interaction with the society attains an image which will take the shape of self-concept in adulthood. If the individual has a positive image of his own entirety, he will try to maintain that image in his social behavior. Also, in reciprocal realrrions receiving a positive feedback from the environment will reinforce the individual's self-concept and lead him to more social compatibility. An individual who has negative perceptions to his own abilities will reflect these images variously in his own acts, thereby rendering his rejection by the society.

REFERENCES

[1]   Bahrami F & Rezvan S. (2008). Relation of anxious thoughts with metacognitive beliefs among high school students suffering from comprehensive anxiety disorder. Journal of psychiatry and clinical psychology, 13(3): 249-255.
[2]   Parvin L, (1996). Psychology of personality. translated by Mohamad Jafar Javadi and Parvin Kadivar. Tehran: Rasa publication.
[3]   Toozande Jani H, Sedighi K, Nejat H & Kamalpoor N. (2008). Relative effectiveness of cognitive-behavioral training of self-esteem on social compatibility of students. Journal of knowledge and research in Educational Sciences, 21(16): 41-56.
[4]   Teymoori, M. (2010). Exploring relation of metacognition dimensions wand anxiety and comparing metacognition dimensions among people suffering from action-thinking obsession disorder and normal people in Shiraz, M.A thesis, in general psychology, Islamic Azad University of Marvdasht.
[5]   Hejari S. (2005). Do you know what role "self-concept" plays in your children's social compatibility? Journal of Payvand, 294 and 295.
[6]   Seif AA. (2010). Modern educational psychology: Psychology of learning and education (8th edition). Tehran: Doran publication.
[7]   Sharifi R. (2009). Prediction of students' mental health based on stress and their coping methods. Quarterly of Medicine and purification, 53: 89-98.
[8]   Shilling, L. (1994). Tories of counseling. translated by Khadija Aryan. Tehran: Tehran University publication.
[9]   Fonooni, TS. (2000). Exploring self-concept and social compatibility with academic achievement of first year high school girls, district 10 of Tehran's Education, M.A thesis University of Tarbyat Moalem, Faculty of psychology and Educational Sciences.
[10]   Kazemi E, Noori, A., & Gholizade, A. (2003). Exploring self-concept and social compatibility of staff working at the general bureau of culture and Islamic guidance, Journal of knowledge and research in psychology, 17: 21-35.
[11]   Naderi KN. (2003). A comparative investigation of self-concept, personality type and professional desires among boy and girl students studying in pre university level of Shahre Kurd, M.A. thesis in psychology, Alzahra University.
[12]   Nafisi Aziz AA. (2012). Importance of social of compatibility. Sports medical federation.
[13]   Yaghoobi A. (2005). Effects of training metacognitive strategies on improvement of reading performance of dyslexic students of fort and fifth grade level of Hamedan. Institute for research affiliate to the Ministry of Education publication.

[14]   Cubukcu F. (2009). Metacognition in the classroom. World Conference on Educational sciences, Procedia Social and Behavioral Sciences, 1(1): 559-563.
[15]   Santroc JW. (2004). Educational Psychology, (0nd edition), New York, Mc Grow- Hill.
[16]   Wells A. (2001). Further tests of cognitive model of GAD and PhD. Behavioral therapy,   34: 881-888.
[17]   Caroll-Wilson, M. (2007). Journal of counseling and clinical psychology, 54(4):   528-536.