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Structure Relationship between Self-Imaginary and Meta-Cognition Beliefs with Self-Regulatory Learning in Pre-University Girl Students in Rasht City

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Abstract

In this study the relationship between self-imaginary structure and meta-cognition beliefs with self-regulatory learning variable in pre-university girl students is investigated. 300 girl students have been selected with bunch random method from Rasht schools for this correlative study. Some devices like schooling self-imaginary questionnaire, meta-cognition questionnaire and self-regulatory learning questionnaire are used to collect the students Data. Data are analyzed with Pearson correlation, regression and one-way ANOVA methods. The analysis shows negative and significant correlation between meta-cognition beliefs variable and self-regulatory learning. This means that reduction of meta-cognition beliefs increases the students learning ability. Also, it is concluded that there is considerable positive correlation between self-imaginary and self-regulatory learning and significant negative association between self-imaginary variable and meta-cognition beliefs. Furthermore, the regression and ANOVA analysis show that self-imaginary and meta-cognition beliefs which are independent variables are not suitable anticipants for self-regulatory learning. Results show that meta-cognition beliefs lead to objective thinking and psychological traumas and play inhibitory role in self-regulatory process. Indeed, people with inner control and positive self-imaginary, have better control on the learning facts and their results. These people have more effective role in the self-regulatory process.

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1. Introduction

Every man has harvesting and conception of the self that can be named it entity. The turning point in human knowledge was introduced about the inner self in 1944 by Descartes. He argued that identity depended on perception (Porky, 1988). The second turning point in the theoretical development of the self-imaginary was in Freud's notes that created the new understanding of the importance of the psychological processes. He argued that self-imaginary created in the person's primary system's of psychological (Porky, 1988). The importance revolution in self-imaginary was based on the concept of Rogers's theory. He described himself as a social product that grew out of interpersonal relationships and tried the stability (Porky, 1988). Self-imaginary is belief and imaginary of person about himself. This belief and imaginary, related to all aspects of self, for example social, physical, intellectual, and psychological. Person's imaginary of his personality, determines his thought about the environment to a large extent. If imaginary of self is positive and balance, the person has mental health. Conversely, if self-imaginary is negative and unbalanced, the person deem mentally ill. Self-imaginary is acquired and this note is for people especially parents and family that responsible for nurturing person or children (Rickards, 2001). Every person has meta-cognitive knowledge about self recognition and learning strategies of necessity and meta-cognitive monitoring refers to a range of administrative functions, such as attention, control, planning, and diagnosis of faults in the function (Wells, 2010). Meta-cognitive knowledge, is a multidimensional concept that means thinking about thinking, knowledge and processing of self, and related to self-understanding, understanding, control, coordination, selection, and evaluation during of learning, and reevaluate through evolving with learning works and experimenting (Rid, 2003). Wells (2010) knows meta-cognition, aspect of information processing system that deals to regulate, evaluate and manage contents and processes of your organization. Knowledge and understanding of cognitive processes, have led to its use during problem solving, and it takes place through self-regulation. Auto-regulation is individual capacity for modify behaviors, and change it according to terms of the internal and external environments. In other words, the person capacity for organize behavior is the goal (Lemos, 1999). Although a wide variety of literature exists on self-regulation but on the whole it can be said older definitions emphasize to the cognitive aspects of self-regulated learning, regardless of the emotional aspects, emotional, and motivation, but the definitions and new literature attempts to integrate hot and cold aspects of learning, such as cognitions, emotions, and motives (Pintrich, 1999). Accordingly, we can say self-regulated learning includes cognitive and motivational processes that a person plans towards his learning activities. According to Pintrich (1999) importance strategies of self-regulation learning are include: cognitive strategies, meta-cognition strategies and resource management strategies. In this regards, studies show that people with positive self-imaginary in social, scientist and job fields acquire more success (Pintrich & Degroot, 1990). Sink, Barnet and Hixson (Sink, Barnet & Hixon, 1991) did research with this suppose that self-regulated learning was related to some affective variables such as self-regulated learning and nuclear control that prove students with positive self-regulation and inner control resource, had more control on learning events and their results and were more successful (with external control resource). Studies of Craven et al. (2000) on his students showed that their academic achievements were related with cognitive components of self-imaginary. The researches of Zokaei (2013), Hooshmand (2014), Asemiyan (2013), Molaghanbari (2013), Safairyan (2012), Nurius and Markus (1998), Learner and Kruger (1997), Paris and Newman (1990) and Higgins et al. (1994) verified the relation of self-imaginary, self-regulation learning and academic successful. Also these researches show that good self-imaginary, leads to better adoption of adolescents with social. Doman (2000) showed that self-imaginary of adolescents came from families and any uncertainty in the family, makes the feeling of insecurity, low self-esteem and irrational beliefs. Dunlop (2001) checked out the relation of self-imaginary, family structure, and related between parent-child in a period of two years in juvenile and showed father who had been separated from his wife, had a weak connection with their family and shortening in the care of their children. Frances, Martin and Dray (2000) knew self-imaginary led to more success in the field of social and individual, in addition they expressed women had more negative self-imaginary than men and for this reason had more academic stress. Bouffard and Bouchard (2002) in their research "Self-regulation on a concept-formation task among average and gifted students" showed that average students often used cognitive strategies and had a lower propensity for experiences with the use of meta-cognitive strategies, but gifted students more tried to solve the problems and in the most cases seemed the problems as a challenge and used it as a chance for learning. Chang (1991) in research "relationship of cognitive style, meta-cognitive, motivational and self-regulation strategies with

academic function of students” showed that motivational components (Self-Efficacy beliefs and inner values) and self-regulation strategies had a significant relation with academic performance. It seems the learner who is self-regulated learning processes, before others recognize their value and believe their ability, less compare themselves with others, but with reference to their capabilities and criteria judge their learning process. In other words, are internal performance standards, therefore devaluation of self are less in them and gain a more positive self-imaginary (Talebzade et al., 1990). According to past researches that review relationship between self-imaginary and self-regulation learning, and relationship between meta-cognitive and self-regulation learning separately, this study wants to concurrent review relationship between self-imaginary and meta-cognitive beliefs with self-regulation learning in girl students of Rasht City. For this purpose we review relationship between self-imaginary, meta-cognitive beliefs and self-regulation learning of girl student with using various tools.

2. Hypotheses

- A. There is relationship between self-imaginary and meta-cognitive with self-regulation learning in pre-university girl students in Rasht City.
- B. Meta-cognitive beliefs and self-imaginary can be a good predictor for self-regulation learning.

3. Methods

This study is correlation. In this study uses random cluster due to the unavailability of the entire people, population were include 3000 pre-university girl students of Rasht city that 300 girls are selected accordingly Krejci and Morgan table as cluster randomly. The first stage was selected purposeful two areas as an example and in the next stage randomly selected four high schools.

3.1 Assessment Tools

In this study was used 1. Meta-cognitive believe Questionnaire (T-MCQ-30), 2. Self imaginary about school Questionnaire and 3. Self-regulation learning Scale.

3.1.1 Meta-Cognitive Beliefs Questionnaire (T-MCQ-30)

This questionnaire had been made by Wells and Cartwright (2004) for measurement of some meta-cognitive components, adjective that some of them had a central role in meta-cognitive model of psychological disorders. This questionnaire has 30 self-report questions. Each test scores accordingly four-point Likert scale (1-4) and range of score fluctuate as 30 -120. This questionnaire, the following meta-cognitive domains measure in 5 separate scales as positive beliefs about worry, negative beliefs, cognitive reliability, the need to control thoughts, cognitive consciousness (Talebzade et al., 1990). Shirinzade Dastgiri, Goodarzi, Rahimi and Naziri (1987), reviewed reliability and validity of this questionnaire in a 258 Iranian people as an example. Exploratory factor analysis confirms 5 factors and reliability of questionnaire is reported 0.91 for internal consistency coefficient for the total scale practices, between 0.71 - 0.78 for subscales, 0.90 credit split method for the total scale and 0.69 – 0.89 for subscale and 0.73 for the test-retest method for the total scale and 0.59 – 0.81 for subscales. Kronbach's alpha coefficient is reported 0.51 – 0.69 for subscales and 0.88 for all scale and 0.87 for the split method for the total scale.

3.1.2 Self-Imaginary About School Questionnaire

This test had been made by Teensy in 1989 for measurement of student's self-imaginary. This test has 84 sentences about characteristics of the physical, emotional, moral. Hyens (1989) studied about self-imaginary of students, he expressed 0.92 validity. Hooshmand (2014) obtained 0.80 validity with using the even and odd questions. And Mahmoodi (Mahmoodi, 2007) in his study "investigation of relationship between self-imaginary, self-regulation learning and academic achievement in guide school girl students" calculated its validity by two split-half and Kronbach's alpha methods that results show 0.74 with split- half method and 0.79 with Kronbach's Alpha method. Validity coefficient of this test is 0.84

3.1.3 Self-Regulation Learning Questionnaire

SRQ scale had been made by Bouffard et al in 1995 with using of different scales [Pintrich & Degroot, 1990; Ames & Archer, 1988). This questionnaire has 19 test and 3 categories. 7 items are about meta-cognitive dimensions, 9 items are about cognitive dimensions, 3 items are about motivation dimensions. Each items have 5 options (doesn't correspond with me, very low correspond, sometimes correspond, relatively correspond, correspond with me correctly). Questions analyze with using the method of principal component factors, that results show 13 test are appropriate, 6 tests in meta-cognitive dimension, 4 tests in cognitive dimension and 3 tests in motivation dimension. Kronbach's alpha is used to determine the validity of questionnaire that resulting coefficient's for meta-cognitive, cognitive and motivation dimensions are 0.71, 0.55, and 0.50. Bouffard and et al (1995) reported these coefficients 0.72, 0.78, 0.68. Since the reduction of questions and their movement affects the alpha coefficient, such a different was expected. So these results are average in validity of cognition and motivation dimension. Total coefficient validity of this questionnaire obtain accordingly Kronbach's Alpha is equal to 0.76.

4. Analysis of Findings:

Data analysis was performed using SPSS software. Table 1, shows descriptive information include the mean and standard deviation values of self-imaginary and meta-cognition and self-regulation learning variables on 300 girl students.

Table 1- the mean and standard deviation of demographic characteristics of study groups

Variable	Mean	Standard deviation
Self-regulation learning	37.88	12.16
Meta-cognition belief	67.74	22.49
Self-imaginary	51.43	12.93

As seen in table 1. The highest mean is related to meta-cognition variable (67.74) and standard deviation (22.49) and the lowest mean is related to self-regulation learning variable (37.88) and standard deviation (12.16). In regard to first hypothesis of study, data has been showed correlation between meta-cognitive beliefs and self-imaginary with self-regulation learning in table 2. Pearson correlation coefficient is used to assess the correlation between variables.

Table 2. Correlation between meta-cognitive beliefs and self-imaginary with self-regulation learning

	Self-regulation learning	Meta-cognitive belief	Self-imaginary
Self-regulation learning	1		
Meta-cognitive belief	-0.45	1	
Self-imaginary	0.574	-0.011	1

The results show, there is negative and significant correlation between meta-cognitive beliefs variable and self-regulation learning ($r=-0.45$), Intensity correlation is close to the average but correlation is negative and significant and this means that reduction of meta-cognitive beliefs increase self-regulation learning ability. There is positive and significant correlation between self-imaginary and self-regulation learning in students ($r = 0.574$), and there is negative and significant correlation between self-imaginary and meta-cognitive beliefs ($r = -0.011$). In regard to second hypothesis of this study there is significant correlation between self-imaginary variables and meta-cognitive beliefs with self-regulation learning, and the amount of this correlation is not perfect, groups scores in first variable (self-imaginary) is close to second variable (meta-cognitive beliefs). So we can determine the best predictor of self-regulation learning among the predictor variables with step by step Regression.

Table 3. Summary of step by step Regression analysis, self-imaginary, meta-cognitive beliefs with self-regulation learning variables

Step	Forecast component	R	R ²	Modified R	Standard error
1	Self-imaginary	0.74	0.005	0.002	12.1555
2	Self-imaginary, Meta-cognition belief	0.90	0.008	0.001	12.1602

The above table shows summary of Regression model. In step 1 the score of self-imaginary logged and this variable can explain 0.5% of the variance ($R^2 = 0.005$), in step 2 meta-cognitive beliefs added to self-imaginary variable that caused added 0.3 of the variance ($R^2 = 0.008$). The result of variance analysis shows in table 4.

Table 4. The results of variance analysis of the regression of 2 models.

Model	Source of change	Sum of squares	Degree of freedom	Mean of squares	F	Sig
1	Regression	242.213	1	242.213	1.639	0.00
	Remaining	44031.934	298	147.758		
	Total	44274.147	299			
2	Regression	355.951	2	177.975	1.204	0.001
	Remaining	43918.196	297	147.873		
	Total	44274.147	299			

In 1 model according to table 4, the resulting F is significant at 0.001 level ($F=1.639$, $P=0.000$) (1.298) So we can conclude with 99% confidence that there is relationship between self-imaginary variable and self-regulation learning and self-imaginary variable can predict criterion variable (self-regulation learning). In 2 model, the resulting F is significant at 0.001 level ($F=1.204$, $P=0.000$) (2.297) So we can conclude with 99% confidence that there is relationship between meta-cognitive beliefs variable and self-regulation learning and meta-cognitive beliefs variable can predict criterion variable (self-regulation learning). Information of table 4, shows the summary of one way-ANOVA related to compare of the self-imaginary and meta-cognitive beliefs mean. This information show that there is significant different at $p<0.001$ level, between the mean of scores.

Table 5. Coefficients of the step by step Regression analysis

model	Without standard		Standard coefficient	T	P
	coefficient B	Standard error	Beta		
1. Constant	34.309	2.881	0.074	11.907	0.001
Self-imaginary	0.070	0.054		1.280	0.001
2. Constant	36.138	3.558	0.075	10.157	0.001
Self-imaginary	0.070	0.054	-0.051	1.290	0.001
Meta-cognitive beliefs	-0.27	0.031		-0.877	0.001

In regard to slope value, 0.070 increase the value of self-imaginary increase, because increase the value of self-regulation learning and t value, (1.280) is not significant at 0.01. And so slope value of meta-cognitive beliefs variable is -0.27. This mean that increase the value of meta-cognitive beliefs decrease the value of self-regulation learning. And t value, -0.877 is not significant at 0.01 level so we can say self-imaginary and meta-cognitive belief variables are not the best predictor of self-regulation learning.

5. Discuss and Resumption

The aim of this study is investigation of relationship between self-imaginary variables and meta-cognitive beliefs with self-regulation learning. The first hypothesis shows that there is relationship between meta-cognitive beliefs and self-regulation and in generally this beliefs have two points. One of them is positive cognitive beliefs that are related to advantages of involving in cognitive activities that make cognitive-attention syndromes. The next is negative beliefs that are related to uncontrollable, dangerous thoughts and experiences cognitive (Wells, 2009). Accordingly executive Function-self-regulation model, positive and negative meta-cognitive beliefs have bias self-regulation process by enabling of cognitive-attention syndromes and predispose psychological trauma (Wells, 2010). Cognitive-attention syndromes are in second level of process or think. When this syndrome actives, in the primary, person focuses his attention to himself and his mind's subjects. Biases in attention lead to misunderstanding. Then review process active, Review of the identifying faulty, calls third level processing or meta-cognition beliefs. Meta-cognition beliefs, enable control processing and activating this mechanism, create avoid situation, thought suppression, and other incompatible mechanisms (Wells, 2010). So we can say: activating cognitive-attention syndrome, cause bias person's self-regulation. Self-regulation is a valuable concept in education and is an important research and experimental approach in educational, cognitional and clinical psychology. In regard to results that come from table 2. There is negative correlation between meta-cognitive beliefs and self-regulation. Accordingly executive function-self-regulation model, negative and positive meta-cognitive beliefs cause bias self-regulation process by enabling cognitive-attention syndrome. Thus, this finding (relationship between meta-cognitive beliefs with self-regulation) is aligned and congruent with result's of Wells (Wells, 2010; Wells, 2009; Wells, 2010), Tan, et. al (2010). But Salarifar, Pooretamad, Heidary, Asgharnejad and Farid (1990) showed in their research that control mechanism and reviewed meta-cognitive helped the person till adjusting timely to change in strategy or regulation of cognitive activity. Thus accordingly self-regulation executive function model of Wells (Wells, 2010) seemed that meta-cognitive modes inhibits of enabling cognitive-attention syndrome and at the same time with preventing bias in the self-regulation process, helps the recovery process. The researches results of Salarifar and Pakdaman (1988), Salarifar and Mazaheri (1989), Perfect and Schwartz (2004), Korial, Maayan and Nussinson (2006), Artino (2008), Valle et al (2008), Hongyan, Guixia, and Huiqing (2009), Panaoura, Gugatsis, and Demetriou (2009), Metcalf (2009), Jacobson and Viko (2020), Jantz (2010), Mango (2010), Mih and Mih (2010),

Duckworth, Grant, Loew, Oettingen, and Gollwitzer (2011) based on positive relationship between meta-cognitive and its component (review, cognitive strategy, meta-cognitive awareness, meta-cognitive control) is not aligned and congruent with result's of this study. In regard to this study, theoretical principles and findings of other research on meta-cognition, we can say: Strengthening meta-cognitive cause to formation of meta-cognitive thinking style. Meta-cognitive thinking style has the facilitator's role in educational self-regulation process. Conversely, if the meta-cognition beliefs about concern increase, leads to the formation of a concrete thinking style and will follow psychological trauma. So we can say: meta-cognitive beliefs have the role of inhibitor in academic self-regulation process. Nabshima (2014) did his research between Southeast Asian countries and this result was students had positive self-imaginary and attitude about science lesson compared to their classmate had higher educational attainment. So their positive self-imaginary predicted their educational attainment significantly. Zimmerman (1990) showed by their research that successful learners used self-regulation learning strategy more than others and generate these strategies to new works (Mollaghanbari, 2013). Mollaghanbari (2013) checked out the usage of students at self-regulation learning strategy by Bouffard self-regulation Questionnaire. The results showed that usage of self-regulation learning strategies and academic function had positive correlation. Self-imaginary had relationship with academic successful directly and indirectly. We could be said in the possible explanation when students gained a stable sense of positive self-imaginary. Relying on his ability to do self-regulate learning activities and Organizing, planning, and self-learning processes, improve their academic performance. Positive self-imaginary encourage them to use the self-regulation methods. The importance of perceptions because of the predictive ability is motivational elements for them. Finally we can say learners who are self-regulated, before others recognized their values and belief their abilities. Lower compared themselves with others but with reference to the capabilities and criteria to judge their learning process. In other words, they have internal performance standards so they are inferior and to achieve a more positive self-imaginary. The findings of Mohamadamini (1987) showed that there was a significant relationship between self-regulation learning strategies. These findings have aligned with research results of Charlotte et al (2008), Ao Man-Chih (2006), Mousoulides and Philippou (2005), Mohsenpoor, Hejazi and Kiyamanesh (1986), Kajbaf et al (1982), Alborzi and Seif (1981). And the results showed that self-regulation learning strategies components enable to predict academic achievement. These findings have aligned with research results of Charlotte et al (2008), Mohsenpoor et al (1986), Kajbaf et al. (1982). Most of students can regulate and control their academic function of cognitive, motivational and behavioural aspects, and have been very successful as a learner and this show that self-regulated learning is a predictor of academic performance (Faye, 2006) and this research is aligned with Marsh (1992), Knouse (2008), Nota et al (2004) studies. Lau, Kwokleung (1992) has a same research results. So, general self imaginary affects on academic achievement as a total attitude of person (Mangal, 2002). Given that this study was conducted on a limited number of female students, it's better to have external validity and test power increases, the number of participants increased and more school districts are also under investigation, this test should also be done on male students.

References

- Alborzi, S., Seif, D. The relationship between motivation beliefs and ways of learning and other popularity factors with educational progress of students in Isfahan high-schools with their educational function in mathematic lesson. *Journal of Science-Research of Tabriz university*, 1381, 1, (1), [Persian].
- Ames, C. & Archer, J., (1988). Achievement goals in the classroom: students learning strategies and motivational process, *Journal of Educational psychology*, 80, (3), 260-267.
- Artino, J. A. R., (2008). *Learning online: understanding academic success from a self-Regulated learning perspective*. Unpublished Doctoral Dissertation, Connecticut University.
- Asemiyan, F., (2013). Investigation of relationship between cognition methods, self regulatory learning parameters and educational development in boy students of 2 high schools in Tabriz. Master thesis, Tabriz University, 1384, [Persian].
- Bouffard-Bouchard, T., Serge, L. & Serge, S., (2002). Self-regulation on a concept-formation task among average and gifted students, *Experimental Child Psychology*, 56, (1), 115-134.
- Bouffard, T., Boisvert, J., Vezeau, C. & Larouche, C., (1995). The impact of goal orientation on self regulation and performance among college students, *British Journal of Educational Psychology*, 65, 317-329.
- Chang, C. Y., (1991). A study of the relationship between college students' academic performance and cognitive style, meta-cognition, motivational and self regulated factors, *Educational Psychology*, 24, 145-161.

- Charlotte, D., Buettner, G. & Langfeldt, H., (2008). How can primary school students learn self-regulated learning strategies most effectively? a meta-analysis on self-regulated training programmers, *Educational Research Review*, In Press, Corrected Proof.
- Craven, R., McInerney, V. & Marsh, H., (2000). The structure and development of young children's self-concepts and relation to academic achievement, *Educational Information with the Personal Touch*, Eric, No, ED 443522. Publication Type.
- Doman, A. F., (2000). Predictors of adolescent run away behaviour. *Social Behaviour and Personality*, 28, (3), 261-268.
- Duckworth, A. L., Grant, H., Loew, B., Oettingen, G. & Gollwitzer, P. M., (2011). Self-regulation strategies and improve self-discipline in adolescents: benefits of mental contrasting and implementation intentions. *Educational Psychology*, 31, (1), 17-26.
- Dunlop, R., Burns, A. & Bermingham, S., (2001). Parents-child relations and adolescent self-image following divorce, A 10 year study, *Journal of Youth and Adolescence*, 30, (20), 117-134.
- Faye, M. C. G., (2006). Effects of self-regulated learning on mathematics achievement of selected Southeast Asian children, *Journal of Instructional Psychology*, 33, (3) 194-205.
- Frances, M., Martin, G., Dray, D., (2000). An evaluation of factors influencing the academic self-concept, self-esteem and academic stress for direct and re-entry student in higher education, *Journal of Educational Psychology*, 21, 4-22.
- Higgins, E. T., Crowe, E. & Hymes, C., (1994). Ideal versus ought predilections for approach and avoidance distinct self-regulatory systems, *Journal of Personality and Social Psychology*, 66, (2), 276-286 .
- Hongyan, Z., Guixia, N., & Huiqing, T, (2009). The research of meta cognitive theory training on English self-efficacy, International Conference on computer technology and development.
- Hooshmand, A., (2014). *Investigation of relationship between general self imaginary and educational function of genius and ordinary students of guidance schools in Gorgan*, Master thesis, Educational science and Psychology Faculty, Tarbiyat Moalem University, 1378, [Persian].
- Hyens, N. M., (1989). Differences in self-concept among high average and low achieving high school, *Journal of Social Psychology*, 128, (2), 665-692.
- Jacobson, B. N. & Viko, B., (2010). Effect of instruction in metacognitive self- assessment strategy on chemistry student's self- efficacy and achievement, *Academic Arena*, 2, (11), 1-10.
- Jantz, C., (2010). Self-regulation and online developmental student success, *MERLOT Journal of online learning and teaching*, 6, (4), 852-857.
- Kajbaf, M., Molavi, H. & Shirazi, A., (1982). Investigation of relationship between motivation believe and ways of educational self-regularization with educational function of high-school students. *Journal of Cognitive Sciences*, 5, (1), 328-337.
- Knouse, L.E., (2008). *AD/HD, meta-memory and self-regulation in context*, Unpublished doctoral dissertation, Faculty of the Graduate School, Greensboro University.
- Korial, A., Maayan, H. & Nussinson, R., (2006). The intricate relationships between monitoring and control in metacognition: Lessons for the cause and effect relation, *Journal of Experimental Psychology*, 135, 36-69.
- Lau, S. & Kwokleung, P., (1992). Self-concept, delinquency, relations with parents and school and Chinese adolescents: perception of personal control, personality and individual differences. *Journal of Educational Psychology*, 3, (5), 615-622.
- Lerner, D. G. & Kruger, L.J., (1997). Attachment, self concept and academic motivation in high school students, *American Journal of Orthopsychiatry*, 67, (3), 87-96.
- Lemos, S. L., (1999). Students' goals and self-regulation in the classroom. *International Journal of Educational Research*, 31, 471-485.
- Mahmoodi, Z., (2007). *Investigation of relationship between self- imaginary, self-regularization and educational progress of students in Shahriyar guidance schools*, Master thesis, Tehran University, 1377.
- Man-Chih, A., (2006). *The effect of the use of self-regulation learning strategies on college student's performance and satisfaction in physical education*, a thesis submitted in partial fulfilment of the requirements of degree doctor of education.
- Mangal, S.K., (2002). *Advanced Educational Psychology*, Delhi, Prentice Hall of India.
- Mango, C., (2010). Assessing academic self-regulated learning among Filipino college students: The factor structure and item fit. *The International Journal of Educational And Psychological Assessment*, 5, 61-76.
- Marsh, H., (1992). Content Specificity of relation between academic achievement and academic self-concept, *Journal of Educational psychology*, 84, (1), 35-92.
- Metcalf, J., (2009). Meta cognitive judgments and control of study, *Current Directions in Psychological Science*, 18, (3), 1-15.
- Mih, C. & Mih, V., (2010). Components of self-regulated learning, Implications for school performance, *Acta Didactica Napocensia*, 3, (1), 39-48.
- Mohammadamini, Z., (1987). The relation between ways of educational self-regularization and motivation believe with educational progress of students. *Journal of New Training Thinking*, 4, (4), 123-136.
- Mohsenpoor, M., Hejazi, E. & Kiyamanesh, A., (1986). The role of self-performance, progress goals, learning ways, permanent in educational progress in mathematic. *Journal of Educational Innovation*, 16, (5), 27-38.
- Molaghanbari, A., (2013). *Investigation of relationship control core, self regulatory learning and educational development in accepting of public tests on 1379 in Kashan University*, Master thesis, Educative science and Psychology Faculty, Shiraz University, 1380.
- Mousoulides, N. & Philippou, G., (2005). Students' motivational believe self-regulation strategies use, and mathematics achievement. *Group for the Psychology of Mathematics Education*, 3, 321-328.
- Nabeshima, K., (2004). *Raising the quality of secondary education in East Asia*: Word Bank Policy Research Working.
- Nurius, P. S. & Markus, H., (1998). Situational variability in the self concept, *Journal of Social Psychology*, 9, (3) 17-29.
- Nota, L., Soresi, S. & Zimmerman, B.J., (2004). Self-regulation and academic achievement and resilience: A longitudinal study. *International Journal of Educational Research*, 41, (3), 198-215.
- Panaoura, A., Gugatsis, A. & Demetriou., (2009). An intervention to the metacognitive performance: self-regulation in mathematics and mathematical modelling, *Acta Mathematica*, (9), 63-79.

- Paris, S.G. & Newman, R.S., (1990). Developmental aspects of self-regulated learning, *Educational Psychology*, 25, (1) 169-209.
- Perfect, J.T. & Schwartz, B.L., (2004). *Applied meta cognition*: Cambridge University Press.
- Pintrich, P. R., (2004). A conceptual framework for assessing motivation and self-regulating learning in college students, *Educational Psychology Review*, 16, (4), 385-497.
- Pintrich, P. R., (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research*, 31, 459-470.
- Pintrich, P.R. & Degroot, E.V., (1990). Motivational and Self-Regulated Learning Components of Classroom Academic Performance, *Journal of Educational Psychology*, 82, (1), 33-40.
- Porky, W., (1988). *An overview of self concept theory for counsellors*. ED 304630: Ann Arbor.
- Reid, G., (2003). A practitioner's had book 3rded. Yohn wiley & sons' itd. Retrieved from www.idonline.org
- Rickards, A., (2001). Cognition, academic progress, behaviour and self-concept at 14 years of very low birth weight children. *Journal of Developmental & Behavioural paediatrics*, 17, 1-15.
- Saffariyan, T. M., (2012). Investigation of relationship between using of self- regulatory in learning and educational functioning in boy students of guidance school in Mashhad.
- Salarifar, M. & Pakdaman, S., (1988). The role of meta cognition attitude parameters in educational function, *Journal of applied psychology of Shahid Beshiti University*, 12, 102-112.
- Salarifar, M., Mazaheri, M., (1989). The relationship between meta cognition attitude and self-regularization, *Journal of cognitive sciences*, 12, (4), 60-68.
- Salarifar, M., Pooretamad, H., Heidari, M., Asgharnejad, M., & Farid, A., (1990). Believe and meta cognition attitude, inhibitory and easier of educational self-regularization, *Journal of Psychotherapy and Counsellor Culture*, 2, (7), 654-678.
- Shirinzade D., S., Goodarzi, M., Rahimi, C. & Naziri, G., (1987). Investigation acting structure, validity and reliability of meta-cognition questionnaire 30 question. *Journal of psychology*, 48, 445-461.
- Sink, A. C., Barnett, J.E. & Hixon, J.E., (1991). Self-regulated learning and achievement by middle school children. *Psycho Reports*, 69, (3), 76-95.
- Talebzade, M., Abolghasemi, M., Ashoorinejad, F. & Moosavi, H. Investigation of structure relationships between self – imaginary, self-regulatory learning and educational success of students, *Methods and models of cognition*, 1, (4), 72-59.
- Tan, S., Moulding, R. , Nedeljkovic, M. & Kgrios, M., (2010). Metacognitive, cognitive and Developmental predictors of Generalized Anxiety disorder symptoms, *Clinical Psychologist*, 14, (3), 84-89.
- Valle, A. , Nunez, J. C. , Cabanach, R. G. , Gonzlez-Pienda, J. A. , Rodriguez, S. , Rosavio, P. , Cerezo, R. & Munoz-Cadavid, M. A., (2008). Self-regulated profiles and academic achievement, *Psycothema*, 20, (4), 724-731.
- Wells, A. & Cartwright-Hotton, S., (2004). A short form of the meta-cognition questionnaire: Properties of The MCQ-30, *Behaviour Therapy*, 42, 385-396.
- Wells, A., (2009). *Function guidance metacognition treatments of depression and anxious*, Translator: Mohamadkhani Shahram, Tehran, Varaye danesh publication. [Persian].
- Wells, A., (2010). Meta cognitive therapy for anxiety and depression. *Cognitive behavioural therapy book reviews*, 6, (1), 1-4.
- Wells, A., (2010). *Emotional and meta cognition disorders*. Isfahan: Mani publication, 1385, [Persian].
- Zimmerman, B. J., (1990). Self-regulating academic and achievement: The emergence of a social cognitive perspective. *Educational Psychology Review*, 2, (2), 432-445.
- Zokaiei, R. (2013). *Investigation of relationship between self-imaginary and attributive methods with educational development in boy students of high schools in Tehran*, Master thesis, Educative science and Psychology Faculty, Tarbiyat Moalem Tehran University, 1378. [Persian].