Pharmacophore

ISSN-2229-5402

Journal home page: http://www.pharmacophorejournal.com

Pharmacophore
an International Journal
ISSN 2229-5402

RELATIONSHIP BETWEEN LEARNING STRATEGIES AND LEARNING MOTIVATION IN STUDENTS

Mina Azimi Parsa[1], Nasrollah Erfani [2]

1. *M.A of Educational Psychology, Faculty Of Humanities, Hamedan Azad University, Hamedan, Iran.*
2. *Assistant Professor, Faculty of Humanities, Hamedan Payam noor university, Hamedan, Iran.*

ARTICLE INFO

Received:
03th Jun 2017
Accepted:
29th Nov 2017
Available online:
14th Dec 2017

Keywords: *Transformational Leadership, EFQM, Organizational Performance*

ABSTRACT

The aim of this study was to identify the relationship between learning strategies and learning motivation in students. The research is of correlational-prediction type and the statistical population includes all 3245 first grade female students in secondary school from districts 1 to 2 in Hamadan, among whom 311 students were selected by multistage cluster sampling method. The data collection instruments were questionnaires of learning strategies and achievement motivation in learning, which their reliability was calculated 97.0% and 90.0% using Cronbach's alpha and retest, respectively. For data analysis, one-sample t test, Pearson correlation coefficient and stepwise multiple regression were used. The results showed that there is a significant relationship between the cognitive learning strategies and learning motivation of female students. Also, a significant correlation was observed between cognitive learning strategies and student's learning motivation. In addition, a direct relationship was observed between learning strategies and student's learning motivation. The results showed that student's learning motivation can be explained and predicted by cognitive and metacognitive strategies.
.

To Cite This Article: Mina Azimi parsa, Nasrollah Erfani . (2017), "Relationship between learning strategies and learning motivation in students", ***Pharmacophore, 8(6S),*** *e-117387.*

Introduction

Motivation plays a major role in predicting and controlling human behavior and awareness of students' motivation is of very important in advanced education systems. The teacher can predict the behavior of his students by awareness of their motivation and thus bring them under control in the school environment. Motivated students are ready to learn activities that will help them learn. Learning strategies are considered important issues in contemporary educational concepts that include valuable processes in the learning teaching, success and life achievements. Information processing approach is the theoretical framework of study skills in this research. In this approach, learning is defined as the process of receiving environmental stimuli by sensory receptors, passing the stimulus from sensory memory and short-term memory to encryption and meaningfulness and ultimately exposure to long-term memory. Hence, anything that will facilitate the process, helped to learn and remember. Measures that have been developed by psychologists and experts are called learning as studying skills or in more technical term, cognitive and metacognitive strategies [1]. As human beings need necessary training in order to achieve their objectives, needs and instincts, academic motivation has a special importance on education as well as, is a necessity in achieving success in learning and academic progress [2]. Indeed, researchers have focused on the fact that how students can be developed into independent learners and be able to direct their own learning? This means that they have to take responsibility for their learning and monitor their behavior in order to be independent in their learning [3]. Achievement motivation is one of the incentives that have an impact on human behavior. Motivation to learn is essential for student's achievement. There are several aspects of academic motivation and is related to many factors [4]. [5] believe that teaching metacognitive strategies to the students can lead to academic motivation in them and eventually result in their academic

Corresponding Author: Mina Azimi parsa, E-mail: mina_azimi_p@yahoo.com

success. The study by [2] also confirms that meta-cognitive skills have a significant relationship with students' scores. Self-confidence is one of the important reasons affecting learning motivation. The term cognitive strategies used to describe a broad range of schemata or mental associations that people use in order to cope with their problem solving or learning tasks. It is necessary to distinguish between cognitive strategies; whereas cognitive strategies are used to facilitate learning and complete the task, metacognitive strategies are used to review the progress. For example, taking note while reading a text is a cognitive strategy. However, selection of the most efficient strategy for homework and regularly review to determine the effectiveness of the strategy and its changing when required, are considered a metacognitive strategy quoted by [1]. [1] has defined cognitive strategies as rehearsal or review strategy, expanding or semantic expanding strategy, and organizing strategy, which each of these components include simple and complex tasks. According to the above, it can be stated that teaching learning strategies will enable students to use appropriate cognitive and metacognitive strategies in order to learn better, and benefit from it for achieving success. The assumption is that if learners learn to monitor their own learning strategies, they can improve their performance in different subjects and learning. Teaching the learning strategies will enable students to monitor and control their learning process over time and take step to achieve their academic motivation by timely use of these strategies and commitment and personal responsibility. The findings also show that many students who can adjust and control their motivational aspects of their academic performance have been very successful as a learner. Learning can be a predictor of academic performance and to achieve academic success, learners must learn how to adjust their performance and keep their goals in spite of difficult assignments. Given the importance of this issue, the researcher tried to conduct the study in order to examine learning strategies and their impact on learning motivation of students, so that the results can suggest some motivation and learning tools in order to help students achieve their predetermined goals.

Method

The research is of correlational-prediction type and the statistical population includes all 3245 first grade female students in secondary school from districts 1 to 2 in Hamadan; the sample size (n=311) was determined by Cochran formula based on population size. The study used random multi-stage clustering sampling method, so that 10 schools were chosen randomly from secondary schools in 1 and 2 districts of Hamadan city; 3 classes were selected from each school and the questionnaires were distributed among students of all classes. The data collection tool includes two questionnaires: a) Learning and Study Strategies Inventory, b) achievement motivation Inventory. The reliability of the questionnaires was calculated using Cronbach's alpha (97.0%) as well as retest (98.0%). All these testify that the selected instrument to measure the level of familiarity and use of skills is quite an appropriate. To test research hypothesis, Pearson correlation coefficient and multiple regression analysis were used in addition to the frequency distribution table, percentage, central tendencies and dispersion descriptive statistics in order to answer research questions. Moreover, before applying the tests, their assumptions of normality, the linearity of the relationships between the predictor variables and criteria and lack of multicollinearity of predictor variables were examined; data analysis was performed with SPSS software.

Findings

Table 1. One sample t test results to compare the mean scores of variables and average scale

Variable	Observed mean	Mean scale	t	df	p
Cognitive strategies	302.23	220.5	22.143	310	**0.0001 ****
Metacognitive strategy	232.87	166.5	23.074	310	**0.0001 ****
Learning Strategies	535.11	387	23.504	310	**0.0001 ****
Learning motivation	198.25	180	14.977	310	**0.0001 ****

One-sample t test results show that there is a significant difference between the average scores of cognitive strategies and the average scale (t (310)=22.144, P<0.01) so that the mean scores of cognitive strategies are greater than the scores of average scale. One-sample t test results show that there is a significant difference between the average scores of cognitive strategies and the average scale (t (310) =23.074, P<0.01) so that the mean scores of cognitive strategies are greater than the scores of average scale. One-sample t test results show that there is a significant difference between the average scores of cognitive strategies and the average scale (t (310)=23.504, P<0.01) so that the mean scores of cognitive strategies are greater than the scores of average scale. One-sample t test results show that there is a significant difference between the average scores of learning motivation and the average scale (t (310)=14.977, P<0.01) so that the mean scores of learning motivation are greater than the scores of average scale.

Table 2. Relationship between cognitive, metacognitive strategies and learning with learning motivation of female students

Strategy	Learning motivation	
	r	P
Cognitive	0.428	0.0001**
Metacognitive	0.504	0.0001**
Learning	0.481	0.0001**

n= 311 0.01 P< **

The results of the Pearson correlation coefficient showed a significant relationship between cognitive strategy and learning motivation (r =0.428, P<0.01). The results of the Pearson correlation coefficient showed a significant relationship between metacognitive strategy and learning motivation (r =0.504, P<0.01).

The results of the Pearson correlation coefficient showed a significant relationship between cognitive strategies and learning motivation (r =0.481, P<0.01).

Table 3. Summary of the regression analysis for predictors of learning motivation

Model	source of changes	S.S	d.f	M.S	F	P
1	Regression	36415.637	1	36415.637	105.464	0.0001**
	Residual	106694.3	309	345.289		
	Total	143109.9	310			

The results of the regression analysis (Table 3) showed that metacognitive strategy has the ability to significantly predict learning motivation in first grade female students in secondary school in Hamedan (F (1.309)=105.462, P<0.01).

Table 4. Regression coefficients for prediction of learning motivation based on metacognitive strategies in female students

Model	**Coefficient**	B	SE	Beta	t	P
1	Fixed	148.492	4.958		29.948	0.0001**
	Metacognitive strategy	0.214	0.021	0.504	10.270	0.0001**

Considering the standardized beta coefficient, results in Table 4 show that one standard deviation change in metacognitive strategy makes 0.504% standard deviation change in motivation and learning. Therefore, the prediction equation for learning motivation based on metacognitive strategies in female students can be written as follows:

y' = Prediction of learning motivation among female students

a = Constant value (148.492)

b = Metacognitive strategy index (0.214)

x = metacognitive strategy score

Discussion and conclusion

Results showed that there is a relationship between cognitive strategy and learning motivation. This hypothesis is consistent with the findings of [6] and [7]. As a consequence, as students become more familiar with cognitive strategies, their learning motivation will be increased. The result is also consistent with the results of [8] and [9] and Sobhaninejad and [10] showing that positive intrinsic motivation is able to predict cognitive processes and academic achievement. Cognitive strategies refer to any behavior or action that the learners use, and these strategies aim to help learning, organizing and storing knowledge and skills, as well as ease of operation in future [6]. The results showed that there is a relationship between metacognitive strategies and motivation to learn. This hypothesis is consistent with the findings of the [11] and [12]. The result is also consistent with the results of [8]. Strategies of monitoring, control and regulation enhance motivation in students, because when students learn how to learn and use it, they become more motivated to learn. Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning. Metacognitive is among the ways for achieving meaningful learning. Metacognition is defined as the ability of the individual to think about their own mental processes, careful attention to individual efforts for achieving higher cognitive ability [13]. This knowledge will also help us to assess our efforts and measure our mastery of the material that we've read [14]. When students become aware of metacognitive strategies, they are more motivated to learn. The results showed that there is an association between learning strategies and learning motivation. This hypothesis is consistent with the findings of [15], [16] and [17]. In addition, the result is also consistent with the results of [18] and [19]. Learning, cognitive and metacognitive strategies promote learning motivation and using these strategies not only increases the motivation for academic achievement but also promote it. Overt and covert activities for processing information while encoding by learners to facilitate the acquisition of knowledge and correct recovery of previously learned information, can improve motivation. The results showed that metacognitive strategy can predict learning motivation in the first grade female students in secondary school in Hamedan city. This result is consistent with the results of [9] showing that the positive intrinsic motivation can predict cognitive processes and learning motivation. So it is obvious that cognitive learning strategies are some of the factors that will increase learning motivation in students. Academic motivation is associated with cognitive processes and curriculum development. These results generally showed that there is a direct relationship between learning cognitive strategies in students and their learning motivation as well as there is a direct relationship between

learning metacognitive strategies in students and their learning motivation; there is also a direct relationship between learning strategies in students and their learning motivation; cognitive and metacognitive learning strategies can explain and predict the learning motivation in students.

Reference:

1. Saif Ali Akbar, (2009), Modern Educational Psychology, Psychology of Learning and Teaching, Tehran: Doran Press.
2. Bakhshie and Amjad Hamid, Zahra Akhondie and Hamid. (2011), Investigating the Factors Affecting Academic Motivation of Students. Rafsanjan University of Medical Sciences and Health Services, Rafsanjan. (Research project).
3. Shoarinejad, Ali Akbar. (2001), A New Approach to Psychology, Psychology of Learning or Behavior Change, Tehran: Jahanbakhsh.
4. Tamannaie, MR, Gandomie, Zainab. (2011), Relationship between Achievement Motivation and Academic Achievement in Students, the Educational Strategies Journal, 4 (1), pp. 15-19.
5. Fouche,J and Lamport,M,A.(2011). Do Metacognitive Strategies Improve Student Achievement in Secondary Science Classrooms?.Christian Perspectives in Edducation,Vol.4,Iss.2{2011},Art. 4.
6. Weinstein, C. E., & Hume. L.M. (1998). Study Strategies for life long learning. Washington D. C.: Psychology American Association.
7. Printich, P. R., & De Groot, E. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of Educational Psychology, 82(1), 33-50.
8. Ababaf, Zohreh. (1995), Comparing the Cognitive Strategies of Students in Public and Professional Education, Institute of Education, Tehran
9. Latifian, M. (2003), Deceased Situations of Motivation, Self-Regulation Strategies and Academic Achievement, Shiraz: Shiraz University Journal of Humanities and Social Sciences, Volume 20, Issue 1, Pages 47-57.
10. Sobhaninejad, Mehdi Abedi, Ahmad. (2006), Examining the Relationship between Self-Regulated Learning Strategies and Academic Achievement Motivation of High School Students with their Academic Performance in Math, Tabriz, University Journal of Psychology, Volume I, Issue 1, Pages 42-57.
11. Bieler, R.F., & Snowman, J.(1993). Psychology applied to teaching (7th ed.). Houghton Mifflin. Psychological Monographs, 80, 1–28.
12. Rotter, J. B. (1982). Generalized expectancies for internal versus external control of reinforcement.
13. Sternberg, R. J., & Grigorenko, E. L. (1995). Styles of thinking in the school. European Journal of High Ability, 6 (2), 1-19
14. Schunk, D.H, (2001). Goal and Self-Evaluative Influences During Children's Cognitive Skill Learning, American Educational Research Journal, 33, 359-382.
15. Brown, A. L.(1982), Metacognitiv development anjd reading. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.). Theoretical issues in reading comprehension(pp.458-482). Hillsdale, NJ :Erlbaum.
16. Alborzi, Shahla & Samanie, Siamak. (2009), The Comparison the Self-Regulation Strategies and Motivational Beliefs in Gifted Boys and Girls, Shiraz University Journal of Social Sciences, Vol. 15, No. 1, pp. 3-18.
17. Rafieian, Keivan. (2000), Relationship between Self-learning Strategies, Motivational Factors (Self-Efficiency, Endogenous Values and Test Anxiety) and Intelligence with Each Other and with the Academic Performance of Male Students in High School, Ahvaz: Research projects Education Department in Ahwaz .
18. Kadivar, Parvin. (2003), Educational Psychology, Tehran: Samt Press.
19. Sorie Fateme. (2011), Impact of Self-Regulation Training on Motivational Beliefs and Attitudes Towards Mathematics in Third Grade Female Students in Hamedan, Hamadan, Iran: Master's Thesis , Islamic Azad University.