

Relation among Self-Regulating Learning Recognizing Alternatives and Creativity by Educational Performance in PE Student

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ABSTRACT: Human important characteristic is having learning ability and mental progress. Education and training expert believes in addition to creativity and intelligence, there are other factors influential on educational progress like learning recognizing alternatives. The object of study is to examine the relation among self-regulating learning recognition strategies and creativity to educational progress in physical education student. The method of study is of correlation kind in which 350 physical education student of Islamic Azad University, Babol unit, been selected simple randomly (115 male, 235 female) information gathering has been done through self regulating learning recognition strategies questionnaire and talking creativity questionnaire. Also, the educational mean of university student has been used as educational progress scale. We have used of Pearson correlation method, step to step regression analysis, and fisher z-test to analyze datum. Research findings showed meaningful positive relation among self-regulating strategies and the amount of educational progress in university students. Also there is positive meaningful relation among university physical education student's educational progress and creativity. In addition, creativity variable does have influential role in forecasting physical education student's educational progress. Correlation difference in the two groups of girl and boy were not meaningful to recognition and supra recognition strategies. Creativity correlations to educational progress in boys are higher than girls. Using self-regulating strategies and applying the method of increasing university students' creativity, their educational progress has increased, too. In this case, we could help university students to improve their educational progress by educating self-regulating recognition learning strategies and providing feasible condition for growing self-efficiency and creativity.

Keywords: Self-Regulating Learning Strategies, Creativity, Educational Progress, Gender.

INTRODUCTION

Nowadays, against the past anyone learning ability is not dependent to the amount of intelligence and talents, but in addition to inherent factors of intelligence and talents, there is no inherent factors influential on learning like learning strategies (recognition and supra recognition alternatives) and the amount of people creativity (Weinstein & Hume, 1998).

Educational progress is of indicators in evaluating .the amount of learning. In recent two decades, education and training expert have done many researches on educational progress and have achieved different factors like educational talents, recognition factors like intelligence, educational self efficiency, self-regulating alternatives, creativity, lesson class structure, educational motive, learner's ability, teachers' education, and

learners' motive (Seif, 2009). Among these factors, educational and personal factors by recognition and social nature do have the most influence on educational progress (Abedi et al., 2015).

One of theories in which researcher have studied more is self-regulating learning theory. It is to find how university students organize their work though supra-recognition, motivational and behavioral believes (Pintrich, 2002). Self-regulating learning includes person ability in organizing and self managing behaviors in achieving different targets (Lemos, 2000); and has been formed by two motivational and learning strategies. Recognition and supra-recognition strategies are of learning alternatives (Pintrich, 1991). Recognition strategy includes developing, deep learning strategy (adaptive learning strategy) and superficial learning strategy (non adaptive alternative) (Lim et al, 2008). Deep strategy leads to success and higher progress in students. Whereas superficial strategy leads to lower educational progress. There is so many method for better and deeper learning than using recognition alternatives and has been called supra recognition alternatives and the object is to program, audit and regulate learning procedure (Seif, 2009).

Chang (2009) has studied the relation among university students' educational performance and recognition style, supra recognition, motivational and self regulating learning strategy and showed self regulating learning strategies does have meaningful correlation to educational performance. Amini (2009) has studied on high school students and showed all self-regulating learning indicators do have the ability to forecast educational progress.

Some findings showed girls use more of deep and supra recognition strategies than boys (Nolen, 1988). But other findings showed female students use more of mental review recognition strategy and developing special to simple and complicated duties and also of supra recognition and self-control and self-regulating than male students (Ababaf, 1999).

Other research findings shows university students could regulate their recognition, motivation, behavior of educational performance as an learner are successful, too. These findings shows self regulating learning is forecaster of educational performance and learners should learn how to regulate their performance and targets despite of problematic lesson concepts (Zimmerman & Shunk, 2002; Pintrich, 2002). In general, study findings showed students who use of learning strategy do have higher progress (Green & Miller, 2002; Wolters, 2004; Middleton & Midgley, 2004).

Creativity as an influential factor on educational progress is a procedure in which leads to problem solving, making art forms, theorizing, and unique production (Ghasemzade, 1996). Today, authorities believe increasing recognition by creativity leads to motivate people in finding ideas and creative products (Davis & Rimm, 2008). In Kerr and Gagliardi (2006) view creating new ideas and creative products are of human characteristics. In general, they believe collection of recognition factors (like intelligence and talent) environmental variable (like policy, cultural, economical, and social) and characteristic variables (like inner motivation, self leading characteristic) are influential on creativity (Khanzade, 2003). Runco (2007) and Mann (2006) have shown positive relation among creativity and educational progress and believe we could increase students' mathematical ability through applying creative thought. Different researches has shown creativity education is influential on supra recognition indicators (Pirkhaefi, 2009). Those who have higher creativity has used more of recognition strategy than those who have lower creativity. Thos who use recognition strategy does have higher creativity score than other students (Jams & Asmus, 2005; Fryer & Codlings, 2002). Liem et al (2008) showed male creativity is higher than female.

So many research findings showed creativity and self regulating learning strategies are the two important indicators in students' educational performance (Davoodi, 2009; Fleith et al., 2009). But they have paid less attention to examining the relation among creativity and self regulating learning strategies to educational performance as a complicated collection. Based on topic importance and limitation of related research, they decided to clear the relation among self regulating learning and creativity to educational progress.

MATERIALS AND METHODS

The method of study is of correlation study and research sample includes 350 university students of Islamic Azad University, Babol unit (184 female and 166 male), does have the mean age of 24 and has been selected by randomly simple sampling. We have used of Pearson correlation, step by step regression and fisher z-test to analyze datum. In order to gather datum, we have used of motivated strategies for learning questionnaires (Pintridge et al, 1990). This questionnaire does have two parts of motivational strategy and learning. We have used of learning strategy in this study. Learning strategy includes three parts of recognition, supra recognition and resource management in which in this study, we have used of recognition strategies (mental review, developing and organizing) and supra recognition (programming, audit and regulation) recognition and supra recognition questionnaire includes 31 materials by 14 related to recognition strategies and 17 are related to supra recognition strategies. Pintridge (1991) has calculated scales reliability of mental review, developing, organizing, programming and self regulating as 0.69, 0.76, 0.64, 0.80, and 0.79, respectively.

Jabbary (2002) has achieved to scales reliabilities of mental review, developing, organizing, programming and self regulating as 0.61, 0.77, 0.61, 0.68, and 0.75, respectively. Of another instrument in this research, Torrens (1974) talking creativity test has been used. Talking creativity questionnaire includes 60 questions in which any question response does have three choices and scores dimensions is from 0 to 120. Achieving higher score shows higher creativity. Torrens (1974) has achieved to 0.80 creativity reliability and its narration as 0.63. Abedi (2006) has achieved to 0.73 creativity reliability and 0.67 narrations.

RESULTS

Table 1, 2 shows the result of Pearson correlation test in relation of self regulating learning strategies sub scales and creativity to educational progress. Findings shows there is positive and meaningful relation among all these sub scales (mental review, developing, organizing, programming and self regulating) and educational progress ($p < 0.01$). Also, there is positive and meaningful relation among creativity and educational progress ($p < 0.01$, $t = 0.86$).

Table 1. Result of Pearson correlation test among subscales of self regulating learning strategy and educational progress.

		Mental Review	Developing	Organizing	Programming	Self-Regulating
Education al Progress	Correlation Coefficient	0.49	0.66	0.52	0.63	0.17
	Sig. (Two Dimensions)	0.001	0.001	0.001	0.001	0.001

Table 2. The result of Pearson correlation test among creativity and educational progress.

		Creativity
Educational Progress	Pearson Correlation Coefficient	0.86
	Meaningful Level (Two Dimensions)	0.001
	N	350

We have used of fisher analysis In order to determine gender relation to creativity and self regulating learning strategies. The result showed correlation differences are not meaningful in the two groups of girl and boy to recognition and supra recognition learning strategies. In addition, it is obvious correlation differences in the two groups of girl and boys are meaningful to creativity. But creativity correlation is boys are higher than girls in educational progress.

Table 3. Fisher analysis result, recognition and supra recognition strategies and creativity to educational progress and gender.

Relation	Groups	r	Zr	zob
Recognition Learning Strategies/Educational Progress	Male	0.47	0.51	1.45
	Female	0.59	0.67	
Supra Recognition Learning Strategy/Educational Progress	Male	0.56	0.63	0.9
	Female	0.50	0.54	
Creativity Strategy/ Educational Progress	Male	0.77	1.02	2
	Female	0.84	1.22	

In continue, we have used of regression analysis test in order to determine what does have higher share among self regulating learning strategy and creativity in forecasting educational progress. According to table 4, forecasting educational progress does have two models. As it is clear, in model1 related to creativity, determination coefficient is equal to ($R^2 = 0.651$) and it means more than 65% of educational progress variance has been forecasted by creativity variable. Educational progress variance would be increased by 3% by entering "self-regulating learning" variable. It means more than 68% educational progress variance would be forecasted by one linear mix of creativity and self regulating learning variables. As we have seen in table 5, among the two variables of creativity and self regulating learning strategies, creativity does have the most shares in forecasting

educational progress. Therefore, the result showed these two models, creativity and self regulating learning strategies forecast educational progress.

Table 4. Multi-correlation, square and multi correlation square adjusted amount in educational progress regression according to independent variables.

Model	Correlation Coefficient	Determination Coefficient	Ad. Determination Coefficient	F	Sig.
Creativity	0.80	0.651	0.65	591	0.001
Self-Regulating Learning	0.82	0.682	0.68	30	0.001

Table 5. Educational progress regression to self regulating learning strategies and creativity.

Variables	Non Standard Coefficient		Sd Coefficient	t	Sig.
	B	Sd Error	B		
Creativity	0.72	0.89	0.71	19.70	0.001
Self-Regulating Learning	0.198	0.85	0.19	5.48	0.001

CONCLUSION

The recent research showed there is meaningful relation among self regulating learning strategies and educational progress. These findings are the same as past studies of Chang (2009) Zimmerman and Shunk (2002) Zimmerman and Pons (1988), Chen (2002). These findings mean those university students using self regulating learning strategies do have higher educational progress. Those who have used of self regulating learning strategies in professor education and or in study try to learn concepts by giving meaning to information, establishing logical relation to the past information, controlling how is procedure and creating feasible environment for learning and increase their educational performance. In other words, university students using supra recognition strategies are familiar with their learning. They almost use of recognition strategies and in most cases duties are as challenges and an opportunity to teach (Bouffard et al., 2007).

Of other findings of this study is positive and meaningful relation among creativity and educational progress. In other words, increasing university student's creativity increases their educational progress. Also it has been clear creativity in boys is more than girls and is correlated to educational progress, but there are no meaningful differences about the amount of learning strategies relation to educational progress in the two genders. In addition, creativity does have more shares than learning strategies in forecasting educational progress. This finding is the same as past researches (Fleith et al., 2009; Runco, 2007; Abdolmaleki, 2009; Hoseini, 2007). In general, we believe, families have more emphasize on curiosity, study, critical thought, releasing from dogmatism and traditionalism and indicating thought freely, creativity growth would be more in their children (Mann, 2006). In our society, spite of having talented forces, we lose creative talents. Perhaps one of important factor is non-defining creativity status and lacking facilities and its growth possibilities. According to findings, it is suggested to professor to provide influential educational environment to learn self regulation and provide duties to increase programming strategy, organizing and recognition and supra recognition abilities and also emphasizing on university students creativity and provide the ground for more progress.

Conflict of interest

The authors declare no conflict of interest.

REFERENCE

- Ababaf, Z. (1999). Comparing recognition strategies and supra recognition in high school students according to their level of capability, educational field, and gender and providing suggestions in lesson eras. *Educational innovation*, 7(25), 119-150.
- Abdolmaleki, J. (2009). Examining the relation among creativity and educational progress in university students of Tehran Shahed. *Training new thought*, 5(2), 9-22.
- Abedi, A. (2006). Examining the relation among creativity and educational progress motivation in high school students in Esfahan city to their educational performance in mathematic lesson, *Tabriz University research scientific seasonal*, 1(1), 37-54.
- Abedi, R., Esmaeilpour, E., & Forghani Ozrudi, M. B. (2015). Top Students' Operation Assessment at high Schools of Babol city in Physical Education Course. *International Journal of Sport Studies*, 5(9), 1046-1048.

- Amini, S. (2009). Examining self-efficiency, self-regulation and self-esteem role in educational progress of high school students in third degree, experimental science field in shahrkord city, m.d thesis, teacher training college.
- Bouffard, B., Rechar, T., Paren, S., & Laviree, S. (2007). Self-regulation on a conceptformation task among Average and Gifted students, *Journal of Excremental child psychology*, 56(1), 115-134.
- Chang, C. Y., (2009). A study of the realation ship between college student's academic performance and their cognitivetyle, metacignition and self-regulated factirs. *Journal of Educational psychology*, 24, 145-161.
- Chen, C. S. (2002). Self-regulated learning strategies and achievement in an introduction to information systems course. *Journal of Information technology, learning and performance*, 20, 11-25.
- Davis, G. A., & Rimm, S. B. (2008). *Education of the gifted and talented*. Englewood cliffs. NJ: prenticeltall.
- Davoodi, M. (2009). Comparing the influence of three methods of creativity training in increasing creativity in the second grades or high school students in Shahrkord, Iran *psychology and clinical psychology magazine*, 15(1), 57-62.
- Fleith, S., Renzuli, D., & Westberg, J. (2009). Effects of a crativity training program ondivergent thinking abilities and self-concept in monolingual and bling classrooms. *Journal of Creativity Resarch*, 14, 373-386.
- Fryer, M., & Codlings, Y. (2002). British teacher views of creativity. *Journal of creativity Behavior*, 25, 17-35.
- Ghasemzade, H. (1996). *Talents and creativity skills and the method of education and training*. Tehran: New World publication.
- Green, B. A., & Miller, R. B. (2002). Influences on course performance: Goals, Perceived ability, and self-regulation. *Journal of Contemporary educational psychology*, 21, 181-192.
- Hoseini, A. (2007). Examining teachers' creativity education program on educational progress creativity and self-concept in Tehran students. *Educational innovation seasonal*, 6(23), 8-35.
- Jabbary, H. (2002). Comparative examination of university students on haltering document, motivational beliefs and l self-regulated earning strategies (M.D thesis), *psychology and training science college in Shahid Beheshti University*.
- Jams, K., & Asmus, C. H. (2005). *Personality, cognitive skills, and creativity in different life domains. Creativity in adulthood*. Columbus: Ericclearning house on adult.
- Kerr, B., & Gagliardi, D. (2006). Measuring creativity in research and practice. *Journal for education of the Gifted*, 25, 226-250.
- Khanzade, A. (2003). *Creativity in academy*. Tehran: Chehre publication.
- Lemos, S. L. (2000). Student's goals and self-regulation in the classroom. *International journal of Educational research*, 37, 471-485.
- Liem, A. D., Lau, S., & Nie, Y. (2008). The role of self-efficacy, task value, and achievement goals in predicting learning strategies, task disengagement, peer relationship, and achievement outcome. *Journal of contemporary educational psychology*, 33, 486-512.
- Mann, L. E. (2006). *Creativity: The Essence of Mathematics*. *Journal for education of the Gifted*, 30, 236-260.
- Middleton, M., & Midgley, C. (2004). Avoiding the demonstration of lack of ability: an underexplored aspect of goal theory. *Journal of educational psychology*, 89, 710-718.
- Nolen, S. (1988). Reasons for studying: Motivational orientations and study strategies. *Cognition and instruction*, 5, 269-287.
- Pintrich, P. R. (1991). Student goal orientation and self- regulation in college classroom. In M.L.maehr & P.R. pintrich (Eds), *Advances in motivation and achievement: Goals and self-regulatory processes*, 371-402, Greenwich, ct: JAIPRESS.
- Pintrich, P. R. (2002). A conceptual framework for assessing motivation and self-regulating learning in college students. *Journal of Educational psychology Review*, 16, 385-407.
- Pirkhaefi, A. (2009). Examining the influence of creativity education on supra recognition indicators of creative thought in the youth and children thought training association in Hamedan province. *Creativity and innovation seasonal*, 4, 51-62.
- Runco, M. A. (2007). Achievement Sometimes Requires Creativity. *Journal of High Ability Studies*, 18, 75-77.
- Seif, A. A. (2009). *Training psychology*, Tehran: Agah publication.
- Weinstein, C. E., & Hume, L. M. (1998). *Study strategies for lifelong learning*. Washington D.C., APA.
- Wolters, C. A. (2004). Advancing achievement goal theory: using goal, structures and goal orientation to predict student motivation, cognition and achievement. *Journal of educational psychology*, 96, 236-250.
- Zimmerman, B. J., & Pons, M. (1988). Construct validation of a strategy model of student self-regulated learning. *Journal of Educational psychology*, 80, 284- 290.
- Zimmerman, B. J., & Shunk, D. H. (2002). Self-regulated learning and achievement: the emergence of social cognitive perspective. *Journal of Educational psychology Review*, 2, 173-201.