

The Relationship Between Educational Psychology and Academic Motivation and Self-efficacy and Minor Training Skills of Teachers

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Abstract: One of the important issues in the curricula of universities and other educational centers is determining the goals for education to achieve them. In addition to specify the educational goals, regulators of curriculum, shall take measures based on educational objectives and their position in training activities. In this context regarding the importance of science and principles of educational psychology in educational systems, this study seeks to find a significant relationship between academic motivation and self-efficacy with the principles of educational psychology in teacher students. Also the relationship between principles of educational psychology has been determined by minor teaching skills of teachers. In this study the variable of academic motivation is considered as a predictive variable and the variable of self-efficacy is considered as the evidence variable. Another variable in this study is minor skills of teachers. Research hypotheses have been examined by appropriate statistical tests. Results suggested that there is no difference between the self-efficacy of teachers. Educational motivation of teachers familiar with the principles of educational psychology is higher than unfamiliar teachers. Also the minor skill in each teaching session of teachers familiar to the principles of educational psychology teachers is higher than unfamiliar teachers. Also there is no significant relationship between self-efficacy and academic motivation.

Keywords: Educational motivation, educational psychology, minor teaching skills, self-efficacy

INTRODUCTION

New knowledge of educational psychology has been developed in Europe and America since nineteenth century. Based on researches in the field of education, the principle of educational psychology was considered as a separate branch of humanities and philosophy of education (Ravandi and Kourosh, 2007). Knowledge of educational psychology generally has five basic functions: select targets; recognize characteristics of student; understand and apply theories related to learning and development process; select and use teaching and training methods and evaluation of learning and growth in students. Each of these five tasks in the pattern of teaching and training process has theoretical foundations and principles and rules based on research (Lotf Abadi, 2008). These fundamental theories like other theories of human science are different from the point of view of various scientists and schools of psychology and educational psychology. Sometimes educational psychology is considered as a branch of psychology and sometimes is considered as a branch of education. What today in English is known as the word "education", in Greek and French academic traditions was called Pedagogy (i.e., the science and art of teacher). The etymon of this Greek word "pedagogy" means "student leadership". Pedagogue was called to slaves responsible

to take care of their master's sons and take them to school. Therefore, the term "education" is a Latin word replaced to the Greek word Pedagogy and in English, it means all of the concepts related to teaching and learning and educational activities (Gage and Berliner, 1995). Perception of ability and competence-motivation is one of the important concepts presented in motivation cognitive theories in education. The underlying idea of this incentive structure is about the students' attitude toward their function ability which predisposes the motivation (Abdkhodae *et al.*, 2009). Motivation for educational achievements, as an aspect of motivation depends on sustained effort to accomplish tasks and activities, which is an effective factor in learning and progress. This study seeks to examine the relationship between educational psychology and academic motivation and self-efficacy and minor skills of teachers.

THEORETICAL FOUNDATIONS

Academic motivation is divided into three general areas (Ryan and Decie, 2000):

- **Intrinsic motivation:** The desire to do something because it is satisfying and fun to do.
- **External motivation:** The desire to do something because it is mandatory to achieve a specific purpose.

- **No motivation:** Not wanting to do something because they deem unimportant.

Another concept introduced in the structure of education is self-efficacy. Bandura believes that teacher's self-efficacy is his judgment about his ability to get desired results in teaching students, even with students who have little motivation to learn. He believed that this belief will be effective on activities and efforts and diligence of teachers in training (Tschannen-Moran and Woolfolk, 2001). Following two different conceptualizations of Bandura about expectations structure, Gibson and Dembo (1984) introduced teacher's efficiency in two components of self-efficacy and public efficiency in teaching.

Another variable in this study is the minor skills of teachers in teaching which is classified as the teaching skills of teachers. Teaching skills are special abilities a teacher acquires during training courses in teacher training center, or is gained as a result of years of teaching experience, to practice successfully. These factors generally significantly improve the quality of education and teaching and learning. Previously, teachers were identifying the method of teaching. But today, the teaching methods shall be in consistent with the learning style of learners. Noncompliance of this principle is neglecting the possibilities of which teachers can enrich the teaching and learning process. However, researchers have tried various ways to identify various learning styles of students and on its base provide some strategies for teaching in the classroom (Aghazadeh and Muharram, 2009). In this regard, the impact of principles of educational psychology on each of the introduced variables shall be identified. This study sought to determine the relationship between academic motivation variables, self-efficacy and minor skills of teachers and also the relationship between familiarity with the principles of educational psychology and each of these variables.

Background research: To clarify the important relationships between variables and components lots of research has been done. Therefore in this section, the results of these researches are reviewed.

Salmani Dastjerd and Ibrahim (2006) in a study titled "Evaluation of in-service training and self-efficacy of physical education teachers in East Azarbaijan province" shows there are no significant differences between teacher's self-efficacy and the extent of their participation in in-service classes, between those who participated in academic-professional competitions and did not participated, with a degree in physical education and non-physical education, men and women, with different age groups, education, teaching level. But there are significant differences between teacher's self-efficacy and teaching experience.

Emmer and Laura (2001) in an article titled "Classroom Management: A Critical Part of Educational Psychology, With Implications for Teacher Education" examined the effect of principles of Educational Psychology on classroom management by teachers. They expressed that collaborative learning activities and involving students in training needs some principles to affect on classroom management. In this study the influence of educational psychology in preparing teachers for better classroom management is reviewed.

Deniz and Birikim (2010) in an article entitled "Relationship between self efficacy and educational psychology course perceptions of pre-service teachers studying at education faculty of NEU" had determined the relationship between self-efficacy and educational psychology. Data was collected by a questionnaire with three sections:

- Profile
- Self-efficacy
- Perception of education and training courses

To illustrate the relationship between these two variables the correlation analysis was used. This study argues there is but little significant positive relation between self-efficacy and educational psychology.

Masoud *et al.* (2011) in a study titled "The Effect of Self-regulation Learning Strategies Training on the Academic Motivation and Self-efficacy" examined the effects of self-regulation strategy of students on self-efficacy and academic motivation. Quasi-experimental research design was arranged using pretest and posttest. To measuring research variables, Harter academic motivation questionnaire and Mcilroy & Bunting self-regulatory education was used. Results showed self-regulatory academic strategies affected significantly on variable of academic motivation and self-efficacy.

Fettahlıoglu and Gülay (2011) in a study titled "Affect of teacher candidates' academic self-efficacy beliefs on their motivations towards sciences" expressed that their study aimed to determine the effects of belief in self-efficacy and academic motivation. Results showed teachers in teacher training school possess same educational overlapping and motivation scale, but their self-efficacy variable has been in a average level. Also approximately 20% of them have gained their academic motivation through self-efficacy factor.

METHODOLOGY

Assumptions:

- There are differences between academic motivation of teachers who are familiar with the principles of educational psychology and teachers who are not familiar.

- There are differences between self-efficacy of teachers who are familiar with the principles of educational psychology and teachers who are not familiar.
- In the self-assessment form to evaluate minor teaching skills in each session, there are differences between teachers who are familiar with the principles of educational psychology and teachers who are not familiar.
- There is a relationship between efficacy and academic motivation.

Statistical population: The statistical population of this study includes: all the students of teacher training school, both male and female studying in undergraduate level in 3 Hakim Abol Qasem Ferdowsi teacher training centers, Amir Kabir and Teacher Training Center and Islamic Azad University, Karaj branch in the academic year 2000-2001. Obviously, it was not possible to perform the project for all the 410 people in the statistical population. For this purpose, a sample of 266 subjects was selected and the tests were performed according to the research project.

Methods and research model: In this research, to collect data and review research objectives three main tools were used. First the Vallerand Academic Motivation questionnaire (AMS) was used for academic motivation scale. This test is a study pencil test, based on self-determination theory of Ryan and Decie (1985). The test is composed of 28 articles in response to a question: Why do you go to university? As the instructions on the test shows, subjects based on a seven-degree continuum, determine their opposition or approval to each article mentioned in response to the question. In this continuum, number 1 indicates full disagreement and number 7 indicates full agreement and number 4 indicates the moderate level or no comment. This test measures totally 7 structures of motivation. Intrinsic motivation with 3 levels: intrinsic motivation to understand, intrinsic motivation to do the job, intrinsic motivation for experience; external motivation with three levels: external regulation, injected or stimulated; and finally without motivation. Validity of Vallerand academic motivation scale was calculated in two ways of structural and discriminative validity. To estimate the validity of structure between obtained subscales the Pearson correlation was calculated and results showed that the correlation level between adjacent elements is higher than non-adjacent elements. Reliability estimation using two methods of retest and internal consistency showed that reliability with retest method varies 77 to 83% and this demonstrates the internal consistency of subscales of academic motivation (Bagheri, 2000). The second tool was teacher's self-efficacy questionnaire. This questionnaire was designed by Gihbson and Dembo

(1984) with 30 phrase, with Likert six-degree scale (quite agree, quite disagree) and evaluates the self-efficacy personal beliefs of teachers and his/her belief toward public efficiency in teaching. This questionnaire was presented individually to subjects. They were asked to respond to questions in the presence of the researcher and after completion the questionnaires were analyzed. Then to survey teachers, a questionnaire for self-evaluation of teachers in minor skills in any session was designed, in order to understand the level of awareness and information of teachers from course objectives, teaching methods and teaching skills of teachers. This questionnaire contains 35 questions that were set in five categories and after completed by teachers, data were extracted and analyzed.

RESULTS

In this study to analyze data, descriptive and inferential statistics will be used.

- There are differences between academic motivation of teachers who are familiar with the principles of educational psychology and teachers who are not familiar.

Independent t-test results presented in Table 1 shows that assumption of homogeneity of variance is established and the calculated t for academic motivation ($p = 0.0001$, $df = 266$, $t = 3.838$) is lower than significant level of 0.01. So there are differences between teachers' academic motivation. Comparison of means in two group shows that academic motivation of teachers familiar with the principles of educational psychology is higher than unfamiliar teachers.

- There are differences between self-efficacy of teachers who are familiar with the principles of educational psychology and teachers who are not familiar.

As results in Table 2 shows, assumption of homogeneity of variance is established and the calculated t for self-efficacy ($p = 0.806$, $df = 266$, $t = -0.246$) is not lower than significant level of 0.01. So there are no differences between teachers' self-efficacy.

- In the self-assessment form to evaluate minor teaching skills in each session, there are differences between teachers who are familiar with the principles of educational psychology and teachers who are not familiar.

Results presented in Table 3 shows that the assumption of homogeneity of variance is established and the calculated t for minor skills ($p = 0.0001$, $df = 266$, $t =$

Table 1: Results of independent t-test for comparison between motivation of teachers familiar and not familiar with principles of educational psychology

Variable	Group	Mean	S.D.	F	Sig	t	df	Sig
Motivation	familiar	120.55	17.19	0.237	0.627	3.838	266	0.0001
	unfamiliar	112.73	16.07					

Table 2: Results of independent t-test for comparison between self-efficacy of teachers familiar and not familiar with principles of educational psychology

Variable	Group	Mean	S.D.	F	Sig	t	df	Sig
Self-efficacy	familiar	69.96	9.55	0.222	0.638	-0.246	266	0.806
	unfamiliar	70.25	9.94					

Table 3: Results of independent t-test for minor skills in each session between teachers familiar and not familiar with principles of educational psychology

Variable	Group	Mean	S.D.	F	Sig	td	F	Sig
Minor skills	familiar	51.05	5.79	1.523	0.218	3.759	266	0.0001
	unfamiliar	48.25	6.36					

Table 4: Summarize of the regression model, analysis of variance and statistical parameters of self-efficacy regression based on academic motivation of teachers

Model indicator	SS	df	MS	F	p	R	R ²	SE
Regression	968.470	2	484.235	5.281	0.006	0.196	0.038	9.575
Remaining	242998.605	265	91.693					
Total	25267.075	267						
Variables indicator	B	SEB	β	T	p			
Academic motivation	0.008	0.036	0.211	0.833				

3.759) is lower than significant level of 0.01. So there are differences between teachers' minor skills in each teaching session. Comparison of means in two group shows that minor skills in each teaching session of teachers familiar with the principles of educational psychology is higher than unfamiliar teachers.

- There is a relationship between self-efficacy and academic motivation.

The method of concurrent multivariate regression analysis was used to predict self-efficacy based on teachers' academic motivation. Summary of results of multiple regression analysis using concurrent method is presented in Table 4.

According to the results in Table 4 the observed F ratio is significant ($p > 0.001$) and 0.038 is the variance in common between predictive variables of teachers is academic motivation in predicting self-efficacy. Therefore the linear regression model is significant. The results of estimated significant model in regression coefficients table shows t-statistics was not a significant academic motivation variable.

CONCLUSION

Given the importance of science and principles of educational psychology in the present educational system, this study seek to find a significant relationship between principles of educational psychology and academic motivation and self-efficacy of students. The results of this survey showed that there is no difference between the self-efficacy of teachers familiar and unfamiliar to the

principles of educational psychology. These results are paradox with the results of (Salmani Dastjerd and Ibrahim, 2006) and inconsistency with (Deniz and Birikim, 2010). Academic motivation of teachers familiar with the principles of educational psychology is higher than unfamiliar teachers. Also the minor skills in each session of teachers familiar with the principles of educational psychology are higher than unfamiliar teachers and there is no significant relationship between self-efficacy and academic motivation. With this approach it can be said that learning the principles of educational psychology in teacher training centers and universities is essential for training efficient and motivated teachers and educators and provides peace of mind for them to educated and transfer information.

Researches about the position of educational psychology in education has been done, most of which are very general and comprehensive. The following titles are recommended for further research in this field:

- Determine the relationship between educational psychology in parents' super emotional styles and emotional intelligence of students.
- Determine the relationship between growth psychology and learning psychology in educational systems.
- Explain the relationship between linguistic and cultural deprivation and self-efficacy and academic motivation.
- Explain the relationship between academic motivation and self-efficacy and learning and growth process in educational psychology science.

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