

Studying the Effect of Teaching Methods of Professors on Students' Motivation for Academic Achievement in Payam-e Nour University, Qeshm International Branch

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Abstract

The present survey was conducted to study the effect of teaching methods of professors on students' motivation for academic achievement in Payam-e Nour University, Qeshm International branch. Therefore, all students of this university were selected as the statistical population and the statistical sample contained three-hundred fifty students. Sampling was conducted through stratified random sampling method given to the university structure from technical-engineering, basic sciences and humanities majors. The applied tools were researcher self-made questionnaire with Likert scale and historical study. The collected data was studied via descriptive statistics method. First, central tendency measures, data dispersion and distribution were determined and then hypotheses were tested using inferential statistics such as regression coefficient (one-variable and multiple-variable). The results revealed that there is a significant relationship between teaching method and motivation for academic achievement.

Keywords: Teaching Methods, Motivation for Academic Achievement

Introduction

Teaching is referred to all acts performed by teachers to attract students' attention towards efficient teaching. Teachers can control the class without harshness and corporal punishment and maintain order through familiarity with teaching methods and implementing them in the classroom. Among the teaching methods, the following can be mentioned (Piriaee, 2005). Motivation for achievement is tendency towards performing the tasks well in comparison with the superior performance. It is proposed when the individual considers a

prominent standard in his/her activity as a model or looks for success (Reuo, 2005). This is the most important motivation in educational psychology and the researches conducted about this structure are an attempt to improve academic achievement of students and has the most important applications in education (Mussavi Rad, 2002). Motivation for achievement is comprehensive attitude towards performance assessment of the individual given to the best standards; trying to be successful in performance and enjoying the pleasure that is accompanied by success in performance (Massen et al., 2006). Psychologists believe that motivation for achievement and success is one of the acquisitive motivations of human beings (Mak Kelend et al., 1961). Researches show that the higher the motivation for achievement is, the more successful the individual will be. Also, motivation for achievement is regarded as one of the major pre-requisites of learning and it has a considerable effect on individuals' performance. According to many psychologists and instructors (like Bloom & Wainer, 1972), motivation is one of the factors for achievement in classroom and most instructors agree with Biogleski's opinion that motivation is the basic factor for academic achievement (Bloom & Wainer, 1972). Generally, those who have motivation for achievement feel that they dominate their life and enjoy it. They try to improve their performance and prefer to perform challenging tasks and embark upon activities whose evaluation for achievement is possible (Tokerled, 2000). It is essential to pay attention to vital role of achievement in the process of learning and achievement of students. The optimal social, cultural, family and psychological conditions should be provided to enhance this motivation, reduce its decreasing factors and direct motivation, so a dynamic and happy society can be educated and competitions and capacities of people can be utilized ideally towards the aims of civil and accountable societies. Mak Kelend believes that societies whose people do not have motivation will have less chance for development and progress even despite the best possibilities and desirable natural conditions. Also through highly accurate studies, he perceived that climatic status of a region cannot be an important factor in economic development. Finally, he concluded that economic, social and cultural growth of a society depends on individuals' motivation for achievement. According to him, students will become imperialist in adulthood in countries where parents have motivated them towards achievement, and thus help their economic growth (Asvadi, 2001). Numerous studies have been conducted about the need to achievement or motivation for achievement. Ghich and Berlainer have defined motivation for achievement as tendency towards or interest in total success or success in a specific activity. Studies reveal that people are highly different in terms of this need. Some people have a high level motivation and try hard in competition with others and in their tasks to be successful. Some other does not have much motivation for success and progress and are not prepared for risk taking for success due to their fear of being failed (Seif, 2007). Motivation for achievement accelerates the process of learning, so the individual gains honor through qualification and success. The need to progress is adjusted by motivation to avoid failure (Karimi, 2012). Discussion about motivation for achievement was proposed academically by Morry entitled need for the first time (Bahrami, 2005). He suggested several needs for humans, some of which are biological and some other are psychological. Motivation for achievement is a social need and is dominating the obstacles, achieving higher standards, competing with others and preceding them (Daraee, 2002). It is a personality characteristic due to which people are different and special behaviors can be predicted based on it. Motivation for achievement is an attitude to precede others for progress given to certain standards and trying to achieve success (Shokrkon & Bagheri, 1995). Mak Kelend et al (1961) have investigated the term motivation for achievement more than others. In their viewpoint,

motivation for achievement is proposed when the individual considers a prominent standard as a model in his/her activity and looks for success. Pintrich and DiGrout (1990) showed that self-regulation, self-efficiency and anxiety are the best predictors of academic performance and self-regulation has a higher predictability than the other two variables. Similarly, Pintrich and Schunk (1996) have revealed in another study that motivation is one of the important and effective factors on human learning and his/her performance manner. Teaching is applied to purposeful activities of teachers that is occurred in learners through the interaction between the teacher and the learner. Indeed, learning is the purpose of teaching that is the means of achieving this purpose. In other words, deliberate and thoughtful control of learners' experiences to influence their learning means teaching. Therefore, teaching requires utilization of strategies designed to direct learners to achieve educational expectations (Sharifan, 2011). Teaching is an activity that is led to learning. Different theories and viewpoints have been presented about the nature of learning among which cognitivism is important because of emphasizing on comprehensive activeness in learning and representation of a logical model (Fathi Azar, 1994). Also, teaching is one of the major elements of the education process that plays an effective role in efficiency of the educational system (Shabani & Pourzahir, 1998). Quality of teaching in classrooms depends on individual differences especially learning styles of students, teacher's education and his/her teaching methods, physical and psychological environment of the classroom, possibilities and various types of resources used in the process of teaching-learning, school management, etc (Fazli, 2011). The common teaching and learning methods in education are just limited to recitation and oral statement of topics instead of using all talents of learners and guiding such potential capabilities for research, investigation, observation, experiment, analysis, judgment about the phenomena or interpreting them. Anyway, ignoring these issues and overemphasizing the traditional methods are led to inactive learning. Moreover, it ignores creativity and genius of learners; destroys their motivations and interests for learning and changes them into inactive individuals who do not have any interest. The result is a useless education system or inappropriate efficiency of the system that is appeared as "academic failure" (Aminfar, 1989). There are many students and teachers who permanently repeat that "this teaching method cannot be used in classrooms". They express it because the teacher does not know that any teaching method has its special efficiency and one teaching method cannot be used to teach all lessons or cannot be used in all classrooms. Similarly, some suggest that implementing some teaching methods is resulted in disorder of the classroom. It is noteworthy that the teacher should choose a suitable method given to class conditions- possibilities and equipments- as well as his/her own capabilities and those of students and content of textbooks. If the teaching method is not suitable, it will be led to students' confusion, disorder in the classroom and wasting of time. Thus it is essential for teachers to be familiar with models, methods and strategies of teaching methods to utilize them in suitable place and time. Content of textbooks is one of the reasons due to which active teaching methods are not used by teachers. Analysis of the content of secondary school textbooks indicates that only 37% of standards of active teaching methods and textbooks of this course have been implemented. It is necessary for teachers to consider strategies for instructional design to make the students familiar with the represented concepts and prevents students from disrupting the order of the classroom. Also it is essential to revise the content of textbooks considering the education manner and implementation of active teaching methods (Piriaee, 2005).

Research Background

In this section, the studies conducted about motivation for academic achievement are mentioned. Because of the extensive number of researches conducted about academic performance (academic achievement and academic failure), it has been tried to present literature review proportional to the current classification (Tamanaeefar et al., 2008).

Foruzanfar et al (2010) performed a study entitled "effective factors on motivation for academic achievement in the Islamic Azad University, Neiriz branch" in which frequency, frequency percentage, and diagram were used for data analysis at descriptive statistics level and F-test (variance analysis) and regression analysis were used at inferential statistics level. The results revealed that there is a significant difference among economic, social, cultural, educational and psychological factors with motivation for achievement.

In a study entitled "studying the effective factors on motivation for academic achievement of students in the Islamic Azad University, Lamerd branch", Hashemi (2011) used descriptive-field methodology. The effective factors on motivation for academic achievement in this study included 1- educational factors, 2- cultural factors, 3- geographical factors, 4- personality factors and 5- economic factors. Questionnaire and various statistical methods at two levels were used for data analysis. The information was analyzed by means of descriptive statistics method (tables, frequency distribution, percentage, mean, diagram and standard deviation) at the first level and inferential statistics methods (one-sample t-test) were used at the second level.

Nadim Aslani et al (2011) have investigated the effective methods of encouragement and punishment in education by considering the concept of motivation and 80 points have been mentioned in this regard including factors of reward, punishment as well as authoritative, dictatorial and free styles. Also effectiveness of encouragement and punishment has been studied.

In a study on the interaction between the student and teacher in different countries, Wabels et al (1990) concluded that communicative skills of teachers are highly effective on creating a positive environment for learning and efficient teachers are successful in their communication. Moreover, teaching methods can be successful too. According to Pintrich and Schunk' book entitled "motivation in education" (2010), motivation is regarded as a force that creates, maintains and guides behavior and the effective factors on education are management styles of the classroom, content, purpose, teaching methods, assessment, encouragement and punishment and so on.

In a survey conducted by Velrand (1997) in Canada on secondary school students, academic achievement scale was considered and the results demonstrated that students who have a higher intrinsic motivation enjoy a higher academic achievement. Also it was determined that girls have a higher intrinsic motivation than boys. In a study entitled student-teacher interaction, Harrison, Clark and Angerer et al (2006) have suggested that a good relationship between the teacher and student improves and enhances academic compatibility and motivation for achievement in students. Students who have mental and behavioral problems have experienced weak relations between teacher and student.

Statistical population

The statistical population is the one on which the study is conducted. This is not necessarily composed of humans; rather phenomena, things and creatures can compose it. The statistical population in the current survey included all students of Payam-e Nour University, Qeshm International branch that were equal to 3500.

Statistical sample

The sample under study contained 350 students. It was calculated through Cochran formula and stratified random sampling method was used.

$$n = (N \times t^2 \times p \times q) \div (N \times d^2 + t^2 \times p \times q)$$

In the above formula, maximum permissible error (d) is usually considered equal to 0.05; safety factor is equal to 0.95; t is equal to 1.96; p and q are equal to 0.5 and the sample size is equal to N. P-value is considered equal to 0.5, because if $P = 0.5$, n will have its maximum possible value and thus the sample will adequately be large (Sarmad et al., 2010).

Measurement tools

The measurement tools included questionnaire of professor's teaching methods and questionnaire of students' motivation for academic achievement. Psychometrical characteristics of this tool are studied below.

Questionnaire of professor's teaching methods and questionnaire of students' motivation for academic achievement

Researcher self-made questionnaire of professor's teaching methods and Pintrich and Digout's motivation for academic achievement questionnaire with Likert scale were used in this survey. Cronbach's alpha was applied to calculate the reliability of questionnaires. To do this, 30 persons were tested. Having omitted the questions with low reliability, the final questionnaire was confirmed by supervisor and advisor professors. Then they were distributed among the subjects. Also other tools such as interview and historical study were used if necessary.

Implementation method

In order to prepare the questionnaire of professor's teaching methods and students' motivation for academic achievement, items were written to make the preliminary form of the scale using psychological and education texts as well as the conducted studies such as Zandinia (2011), Tamanaeefar et al (2008), Puladi (1997) and Biabangard (1997). At least one item was proposed accurately to evaluate each one of the reported components of professor's teaching methods and students' motivation for academic achievement in the primary version of the questionnaire, so the final questionnaire would have an acceptable comprehensiveness. Then a number of questions were written to measure effective inter-organizational factors and motivation for academic achievement of students based on Likert scale in the primary stage. This was tested on a number of students in a pilot study and the students were asked to choose one option. Also they were asked to choose and mark vague items to be corrected in next phases. Given to students' opinions, some items were omitted and some of them were corrected. Then the final questionnaire was confirmed by supervisor and advisor professors. Afterwards, reliable and valid questionnaires were distributed among the subjects. Also other tools such as interview and historical study were used if necessary.

Data analysis method

The collected data was studied by means of descriptive statistics to determine central tendency and data dispersion and distribution. Then the hypotheses were tested using inferential statistics such as regression coefficient (one-variable and multi-variable), correlation coefficient, frequency, standard deviation, and mean. SPSS 18 software was used for data analysis and Cronbach's alpha coefficient was applied to measure the reliability.

Descriptive data

Table 1.

Studying frequency, percentage and cumulative percentage of students at Payam-e Nour University of Qeshm

Gender	Frequency	Percentage	Cumulative percentage
Female	212	60.6	60.6
Male	138	39.4	100
Total	350	100	

As the data in the above table show, among the 350 participants in the survey, 138 were male that was equal to 39.4% and 212 were female equal to 60.6%. This is shown in Diagram 1.

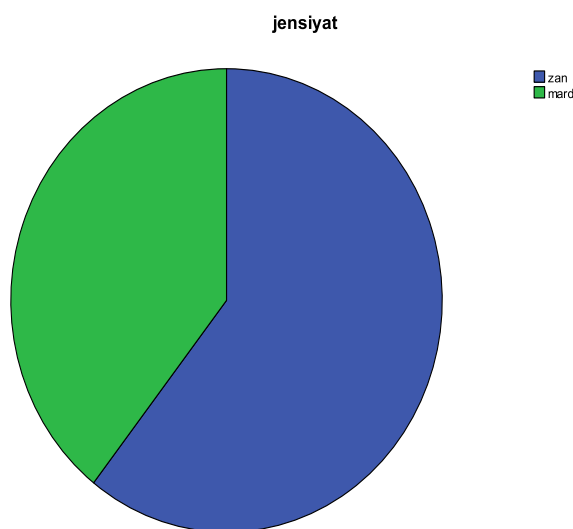


Figure 1. Studying the average number of male and female students

Inferential data

Research question: Is there any relationship between teaching method and motivation for academic achievement?

To respond this question, the extracted data from the questionnaires are illustrated in the below table.

Table 2.

Summary of the regression model regarding the effect of teaching method on motivation for academic achievement

Model	Correlation coefficient (R)	Coefficient of determination (R^2)	Adjusted R	Estimation error
1	0.196	0.038	0.035	12.820

Correlation coefficients show that there is a correlation between teaching method and motivation for academic achievement equal to 0.196 and this relationship is significant at level 0.01. Simultaneous regression was used to achieve the prediction coefficient between teaching method and motivation for academic achievement. The findings related to this analysis are displayed in Table 2. The obtained R^2 from the regression model showed that

teaching method can explain 0.038 of motivation for academic achievement of students at Payam-e Nour University of Qeshm.

Table 3.

Summary of The Results of Variance Analysis Regarding The Effect of Teaching Method on Motivation For Academic Achievement

Model	Sum of squares	Degree of freedom	Mean of squares	F-value	Significance level
Regression effect	2020.100	1	2020.100	12.290	0.1
Residue	50790.273	309	164.370		
Total	52810.373	310			

One-way regression analysis was tested in the above table. It is observed that the obtained F equal to 12.290 is significant at level 0.01.

Table 4. Coefficients of simultaneous regression equation to predict the effect of teaching method on motivation for academic achievement

Model		Non-standard coefficients			t-value	Significance level
		β	Standard error	Standard Beta		
Teaching method	Motivation	127.186 0.165	2.424 0.047	- 0.196	52.472 3.506	0.000 0.001

In the above table, standardized Beta coefficients, t-value, Beta and significance level of the predictor variable are shown. The results of analysis reveal that teaching method variable ($\beta = 127.196$) has explained motivation for academic achievement in a positive and significant manner.

Discussion and conclusion

Is there any relationship between teaching method and motivation for academic achievement? The effect of teaching method on motivation for academic achievement of students was studied through this question. The relationship between teaching method and motivation for academic achievement is significant at level 0.01 given to the tests and data analyses. In their studies on the interaction between the student and teacher in different countries, Wabers et al (1990) concluded that communicative skills of teachers are highly effective on creating a positive environment for learning and efficient teachers are successful in their communication. Moreover, teaching methods can be successful too. Results of the current survey are consistent with their findings. Also this factor is consistent with research results of Fooladi (1993) and Elhampour (2006) who demonstrated that students' understanding of educational quality of professors especially teaching skills is related to their academic achievement. Aminfar (1989) suggests that not using desirable teaching and learning methods destroys learners' interest and motivation and this lack of interest has an unfavorable effect on their academic performance. According to Shabani and Pourzahir (1998), teaching is one of the major elements of education process that plays an effective role in efficiency of this educational system. Also, Androus has stressed the role of teacher and teaching process in academic performance of learners.

Recommendations for future studies

- With regard to teaching methods of professors and their effect on students' motivation for academic achievement, it is recommended to conduct more researches in different academic courses. In addition to motivation, its efficiency should be investigated and it is recommended to compare male and female graduates in urban and rural areas.
- It is recommended to perform more researches about motivation for academic achievement.
- Student-orientation should be stressed and utilization of students' capacities and capabilities are recommended.
- Professors have to become familiar with modern teaching methods and assessment of students.
- Presenting new resources, participation of students in choosing the learning resources and compatibility of the content with real needs and interests of students are recommended.
- It is recommended to use assessment methods that are suitable to content of lessons as well as determining the problems in teaching and learning.
- It is recommended to reinforce teaching manner proportional to students' needs.
- It is recommended to pay more attention to educational possibilities and devices to enhance teaching quality.
- It is recommended to provide suitable conditions for participation of students when the teacher is teaching.

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