

A study on Academic Motivation and its components in Higher Education

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Abstract

The purpose of this study was to evaluate academic motivation and its components in higher education institutions Qom, Iran. A descriptive and analytical research method was utilized. The Statistical population included all students of Qom universities during 2015-2016 academic year from which a sample of 320 was selected from 2200 students of 2 universities through stratified random sampling. The data collection instrument was academic motivation questionnaire adopted from De Noble et al. (1999). Face and content validity of the questionnaire confirmed by experts and its reliability was estimated 0.90 through Cronbach's alpha coefficient. The gathered data was analyzed through descriptive and inferential statistics. Extrinsic motivation components were external regulation, identified regulation, and interjected regulation while intrinsic motivation components included knowledge (to know), accomplishment, and stimulation. The findings showed in Qom University that academic motivation and its subcomponents (external regulation, identified regulation, interjected regulation knowledge (to know), accomplishment, stimulation and amotivation) mean scores were lower than average level. The six dimensions of academic motivation Qom University of medical Sciences were higher than average level while the lowest mean is related to External regulation. Significant differences were also observed regarding demographic variables. This paper shows to the importance of analyzing academic motivation subcomponents in Iranian universities. It offers practical help to universities to develop motivation activity so students' motivation avoids challenging situations and persist in the face of difficulties.

Keywords: Academic Motivation; Students; Higher Education.

Introduction

Motivation has been an essential and perennial subject in the field of psychology, for it is at the main of biological, cognitive, and social regulation (Ryan and Deci, 2000). Motivation can be appreciated as a form of cognitive and emotional arousal that makes us want to do something or achieve a result. Such a want frequently leads to making a decision to performance and endure our efforts for a period of time to attain our goal (Williams and Burden, 1997). Motivation is an important issue for several fields, mainly in education. It is a significant element to be considered mainly in issues that are challenging for the students to understand. While the significance of motivation in learning is well-known and believed it is usually failed to recognize its meaning and know how to use it in a teaching design. The reasons for this are as follows:

- Motivation is an element that could not be observed directly and then cannot be evaluated,
- There is a usually accepted view that it is easier to evaluate the achievement levels of cognitive targets than the attainment levels of motivational targets (Spitzer, 1996; Seah and Bishop, 2000).

Motivation is a procedure rather than being a conclusion, thus it cannot be observed directly. Some assumptions could be made about the motivation levels through observing the activities that individuals prefer, how much they insist on participating in these activities or their verbal reactions on these activities (Pintrich and Schunk, 1996).

Two main categories of motivation have been proposed. These are intrinsic motivation and extrinsic motivation in addition to amotivation while the lack of the former two is apparent or indifference exists (Deci and Ryan, 1985; Vallerand et al., 1992). Intrinsic motivation refers to motivation that is derived from pleasure or satisfaction one becomes from participating in an action. Intrinsic motivation encompasses motivation to learn new things and gain knowledge (e.g. joy of learning new things); motivation toward accomplishment and for the pleasure of surpassing oneself (e.g. accomplishing difficult academic tasks); and motivation to experience stimulation and get aesthetic and/or sensory pleasure (e.g. pleasure about reading interesting subjects). (Deci and Ryan, 1985). Extrinsic motivation, on the other hand, is a state of cognitive or emotional arousal to get a prize or to avoid negative conclusions. Extrinsic motivation, instead, consists of external regulation that represents motivation to gain rewards or avoid problems (e.g. to find a better job); introjected regulation which involves engaging in an activity to maintain self-worth (e.g. to prove that one is capable of doing an activity); and recognized regulation involves feeling the benefit and essential in doing an activity (e.g. belief that doing an activity will be useful in future). (Deci and Ryan, 1985). In conclusion, amotivation refers to a state at what time one is neither intrinsically nor extrinsically motivated; and while one involvements a loss or lack of interest and really questions why in the world s/he does a given action (Deci and Ryan, 1985). Several psychologists and educators have extended considered students' motivation for example a significant factor for effective school learning (Ryan and Connell, 1989). Then the early 1970's, there has been a continued research center how students' motivation effect learning and classroom performance (Linnenbrink and Pintrich, 2002).

Research in this area has pointed out that students' motivation predict both the quality of engagement in school learning (Ames, 1992) and the degree to which students seek out or escape challenging states and carry on in the face of difficulties (Elliott, 2005). A student through positive academic motivation has the want to learn, likes learning related activities, and

considers that studying is significant. Positive academic motivation not only assistances students to succeed at a university, but also assistances them in seeing that learning is satisfying and important in all features of life (Brown, 2009). Investigators have been progressively interested in understanding students' motivation, and discovery ways to forecast and progress their academic performance. Several researchers proposed that motivation is linked to students' beginning of the duty, the amount of work they spend on the task, and their persistence in implementation the task (Wigfield, 2000). In the study carried out by Bridges and Roig (1997) through 195 university students, it was found that the irrational beliefs of the students growth their tendency of academic procrastination. Such an effect is understood to be significant for revealing its relation with academic motivation. Since academic motivation is essential for academic achievement (Pajares and Urdan, 2002).

In the study of Busato et al., (2000), both intrinsic and extrinsic motivation declined with years in college, and this result seems to support the report made by Ryan and Deci in 2000, that, generally, levels of intrinsic motivation decrease with an advancement through one's academic career, becoming less and less self-determined. These findings described the arguments of other researchers cited in Vallerand et al., (1992) that external events, imposed goals and competition have been found to decrease intrinsic motivation. A study showed that significant differences were found in undergraduates' academic motivation according to gender, domain and grade (Hakan and Münire, 2014). The analysis conducted by Harackiewicz et al., (2002) showed no significant difference in academic motivation between male and female pre-service English teachers. Therefore, the aim of this study was to examine the academic motivation and its subcomponents at Qom universities. In this research, the scores of undergraduates on the main factors such as extrinsic motivation, intrinsic motivation and amotivation, were analyzed.

Research Methodology

The present study employs a questionnaire survey approach to collect data for testing and research Question. Variables in the questionnaire comprise background information, academic motivation in higher education. All variables require five-point Likert style responses ranging from "strongly disagree" to "strongly agree". The population for the study is 2200 students of 2 universities comprise Qom University and Qom University of medical Sciences. This study uses a stratified random sampling method to select 320 students. The authors distribute 320 questionnaires and ask for the questionnaires to be completed by faculty members. Of the 303 returned questionnaires, 17 are incomplete. The residual 303 valid and complete questionnaires are intended for the quantitative analysis. Data were composed by one questionnaire:

Motivation was measured through Academic Motivation Scale (Vallerand et al., 1992), which is a college version of the authors' motivation instrument. Reflecting multidimensional nature of intrinsic and extrinsic motivations, the scale comprises of three extrinsic components, three intrinsic components, and amotivation. Extrinsic motivation components were external regulation, identified regulation, and introjected regulation while intrinsic motivation components included knowledge (to know), accomplishment, and stimulation. The scale consists of 28 items with a 5-point Likert Scale. To verify the questionnaire validity face and content method and authority opinions were utilized. Reliability coefficient of questionnaire was

estimated with an overall through Cranach's alpha coefficient 0.90 and all subcomponents exhibiting alpha values higher than 0.85. To show the differences academic motivation among universities types, t-test, Fisher test, MANOVA were employed. A multiple comparison post hoc test with least significant difference (LSD) was used to determine which universities types were significantly different from the others.

Results

Most respondents (83.3%) aged 19 to 22 years; the participants included 62.1% female and 37.3% male. The number of medical Sciences students was 63% and those whose domain was Social Sciences were 37%. The number of the students studying at the first grade was 41% and those studying at the fourth grade was 59%.

Table [1] shows that the means of all academic motivation components were about lower average in Qom University, with Identified regulation the highest ($M=2.61$) and Stimulation the lowest mean ($M=1.92$).

Table 1: Academic motivation components mean, standard deviation Qom University ($\bar{X}=3$, $df=141$)

Indicators	\bar{X}	S	SK	\bar{X}_d	tob	P
Academic motivation (components)						
Identified regulation	2.61	0.67	0.050	0.42	7.56	0.000
External regulation	2.21	0.58	0.044	0.18	2.73	0.001
Introjected regulation	2.45	0.51	0.038	0.28	-1.06	0.002
Knowledge (to know)	2.16	0.68	0.051	-0.05	2.17	0.000
Accomplishment	2.49	0.60	0.045	0.31	2.93	0.001
Stimulation	1.92	0.70	0.053	-0.08	-1.14	0.004
Amotivation	2.29	0.68	0.051	0.21	2.45	0.003
Total	2.39	0.44	0.033	0.23	2.83	0.000

[Table 2] regarding the seven dimensions of academic motivation Qom University of medical Sciences the highest mean Stimulation ($M=3.65$), while the lowest mean is related to External regulation ($M=2.44$).

Table 2: Academic motivation components mean, standard deviation Qom University of medical Sciences
 ($\bar{X} = 3, df = 160$)

Indicators Academic motivation (components)	\bar{X}	S	SK	\bar{X}_d	tob	P
Identified regulation	3.12	0.80	0.05	0.29	3.45	0.003
External regulation	2.44	0.63	0.06	-0.08	-1.25	0.005
Introjected regulation	3.21	0.78	0.06	0.23	3.55	0.001
Knowledge (to know)	3.29	0.89	0.07	0.29	3.63	0.002
Accomplishment	3.31	0.79	0.06	0.34	5.27	0.000
Stimulation	3.65	0.93	0.09	0.55	7.32	0.000
Amotivation	3.17	0.84	0.07	0.27	3.53	0.002
Total	3.36	0.87	0.07	0.36	5.47	0.000

According to finding of multivariate analysis (MANOVA) showed that observed F at confidence level of $p \leq 0.05$ for academic motivation (components) according to demographic characteristics is significant. Eta square for age, Sciences domain are not significant. But Eta square for university type, sex and grade is significant (Table 3).

Table 3: Paired comparison of Mean Differences and standard deviation of Academic motivation (components)

Academic motivation (components)	Demographic Variables	Mean Differences	Sig
Stimulation	University Type Qom University of medical Sciences and Qom University	0.9653	0.000
Knowledge (to know)	University Type Qom University of medical Sciences and Qom University	0.6848	0.036
External regulation	Sex female and male	0.5467	0.025
Identified regulation	grade fourth grade and first grade	0.4273	0.017

According to finding of table 3, LSD test results identified that Stimulation and Knowledge (to know) in Qom University of medical Sciences was more than Qom University. LSD test results identified that external regulation according to sex students with female were more than those with male and so, identified regulation according to grade students with fourth grade were more than those with first grade.

Conclusion and Recommendation

One of the goals of higher education is to growth motivation for life-long learning. Academic motivation is considered as an influential factor for students in terms of doing their homework and creating them more interested in learning (Artino and Stephens, 2009). This concept represents the difference of students' work for doing their homework. Therefore it is recognized as a important factor in teaching and training. Usually, in motivation theories the positive influence of academic motivation on students' function is known (Ryan and Deci, 2000). Research results showed that in Qom University that academic motivation and its subcomponents (external regulation, identified regulation, introjected regulation knowledge (to know), accomplishment, stimulation and amotivation) mean scores were lower than average level. Also, the findings showed the six dimensions of academic motivation Qom University of medical Sciences were higher than average level while the lowest mean is related to External regulation. Results of this study are almost compatible with studies that showed that both intrinsic and extrinsic motivation declined with years in college (Busato et al., 2000) and this finding seems to support the statement made by Ryan and Deci (2000) generally levels of intrinsic motivation decrease with a advancement through one's academic career, becoming less and less self-determined. These findings explained the arguments of other researchers cited in Vallerand et al. (1992) that external events, imposed goals and competition have been found to decrease intrinsic motivation. Finally, significant differences were observed between academic motivation and its subcomponents regarding demographic variables. Results of this study are almost compatible with studies that showed that significant differences were found in undergraduates' academic motivation according to gender, domain and grade (Hakan and Münire, 2014). The analysis conducted by Harackiewicz et al., (2002) showed no significant difference in academic motivation between male and female pre-service English teachers. Regarding the importance of academic motivation especially in the higher education, it is suggested to include teaching these motivation theories and strategies in in-service training programs of teachers and also to provide the back grand for teaching these strategies at schools.

References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84: 261- 271.
- Artino, A.R., & Stephens, J.M. (2009). Academic motivation and self- regulation: A comparative analysis of undergraduate and graduate students learning online. *The Internet and Higher Education*, 12 (3), 146-151.
- Bridges K. R., & Roig, M. (1997). Academic procrastination and irrational thinking: a re-examination with context controlled. *Personality and Individual Differences*, 22(6): 941- 944.
- Brown, M. B. (2009). Academic motivation: strategies for students. *Communique Handout*, 38, 1. Retrieved from: <http://www.nasponline.org/publications/cq/archive/category-list.aspx?id=7>.
- Busato, V. V., Prins, F. J., Elshout, J. J., & Hamaker, C. (2000). The relation between learning styles, the big five personality traits, and achievement motivation in higher education. *Personality and Individual Differences*, 26:129- 140.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation*. New York: The Guilford Press.
- Hakan, K., & Münire E. (2014). Academic Motivation: Gender, Domain and Grade Differences. *Social and Behavioral Sciences*, 143: 708- 715.
- Harackiewicz, J. M., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002a). Revision of achievement goal theory: Necessary and illuminating. *Journal of Educational Psychology*, 94: 638- 645.
- Linnenbrink, E. A., & Pintrich, P. R. (2002). Motivation as an enabler for academic success. *The School Psychology Review*, 31: 313- 327.
- Pintrich, P., & Schunk, D.H. (1996). *Motivation in education: theory, research, and applications*. Prentice-Hall, Inc.
- Pajares, F., & Urdan, T. (2002). *Academic Motivation of Adolescents*. Information Age Publishing. USA.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization. *Journal of Personality and Social Psychology*, 57: 749-761.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55: 68-78.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55: 68-78.
- Seah, T., & Bishop, A. (2000). Values in mathematics textbooks: A view through two Australasian regions, *The Annual Meeting of the American Educational Research Association*. New Orleans, LA, April.
- Spitzer, D. (1996). Motivation: the neglected factor in instructional design. *Educational Technology*, May- June: 45- 49.
- Vallerand, R. J., & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality*, 60: 599-620.

- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senècal, C., & Vallières, E. F. (1992). The Academic motivation scale: A measure of intrinsic, extrinsic, amotivation in education. *Educational and Psychological Measurement*, 52:1003-1017.
- Wigfield, A. (2000). Facilitating young children's motivation to read. In L. Baker, M. J. Dreher, & J. T. Guthrie (Eds.), *Engaging young readers*. New York: Guilford.
- Williams, M., & Robert, R. L. (1997). *Psychology for language teachers: A social constructivist approach*. Cambridge: Cambridge University. Press, 23- 25.

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