

Perceived Classroom Goals Structure and Academic Achievement among Iranian University Students

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Abstract: Classroom is one of the main places for teaching scientific subjects and teaching medical sciences is highly important due to dealing with health and medical issues that impact human health; the aim of this study was determined of perceived classroom goals structure and academic achievement among university students in the West of Iran. This cross sectional study was carried out on 330 college students of Kermanshah University of Medical Sciences, the west of Iran which recruited with a random sampling method. Data were analyzed by SPSS-21. Our findings, showed mastery goal structure has a significant positive correlation with academic achievement students ($p = 0.001$ and $r = 0.430$). According to findings, “creating motivation by the professor” among the factors related to the professor, “interest in the academic field” among the factors related to student and “the time the classes are held” among the factors related to the environment were among the main factors impacting class attendance. In addition, “the classroom goal is accurate and real understanding of the teaching materials” among mastery structure items, “the main classroom goal is obtaining good score” among the performance structure items and “it is highly important in the class that individual does not make mistake in the presence of others” among the performance avoidance structure items obtained higher mean scores.

Key words: Classroom climate, college education, academic education, materials, Iran

INTRODUCTION

Classroom is one of the main places for teaching scientific subjects and teaching medical sciences is highly important due to dealing with health and medical issues that impact human health. However, the results of some studies suggest the increase of students' absenteeism and this issue has not been studied much (Azmoddeh *et al.*, 2013). Classrooms are places for the beginning of thought transfer and students' presence in classroom impacts improvement of their ability in doing their duties (Appleton *et al.*, 2008). However, students' absenteeism has become one of the increasing problems of the educational system in recent years which begins since the students enter the university and some students may do not attend a class even once if there is no roll call (Montazeri *et al.*, 2012). The usefulness of class

attendance has been shown in reducing anxiety especially anxiety with regard to tests and facilitation of learning in students (Azmoddeh *et al.*, 2013). On the other hand, the lack of attendance can disrupt dynamic learning environment (Appleton *et al.*, 2008).

Regarding the factors that impact students' absenteeism, different studies have pointed out factors such as students' incorrect belief that class attendance is not useful, the lack of appropriate educational facilities and active participation of the students in learning process and the lack of control of classroom environments by the teacher (Valiente *et al.*, 2008; Mirzaei *et al.*, 2011; Hosseini *et al.*, 2016; Tatar, 2005). On the other hand, one of the missions of any educational institution is identification of factors that impact academic achievement of students in order to develop objectives and solutions for achieving them and one of the main

factors in students' learning is perceived classroom goals (Zimmerman and Pons, 1990). Perceived classroom goals structure refers to the perception of the goal which is emphasized in the classroom and is divided into three dimensions: mastery goal orientation (understanding teaching materials), performance approach (students' competition for obtaining better scores and their encouragements) and performance avoidance (students try not to lag behind; this means that they avoid obtaining low scores) (Areepattamannil and Caleon, 2013). A perceived classroom goal structure is one of the factors suggested to the impact students' academic achievement and is formed based on the goals and values of the school. However, the way it impacts motivation and performance of students depends on the students' perception of class structure (Alkharusi, 2010). Different results have been provided regarding the relationship of perceived classroom goals and academic achievement in different studies (Wolters, 2004; Gonida *et al.*, 2009).

Therefore, identification of these conditions and identification of factors that impact class attendance on one hand and developing of programs for improvement of students' positive perception of class structure by using effective planning frameworks such as intervention mapping approach on the other hand can be highly useful and effective (Kok, 2014; Eldredge *et al.*, 2016). Thus, considering the importance of the subject, the present study was conducted with the aim of exploring the factors that impact class attendance, perceived classroom goals structure and academic achievement in students of Kermanshah University of medical sciences.

MATERIALS AND METHODS

This cross-sectional study was conducted on 320 college students in Kermanshah University of Medical Sciences, the West of Iran, during 2015. The sample size was calculated at 95% significant level according to the results of a pilot study and a sample of 320 was estimated. Of the population of 320, 300 (93.7%) signed the consent form and voluntarily agreed to participate in the study which has been approved by substance abuse prevention Research Center at the Kermanshah University of Medical Sciences, the West of Iran.

Data collection conducted after receiving approval from the relevant university ethics committee, this project was carried out and the volunteers were given the self-questionnaire. This study has been approved by the institutional review board at the Kermanshah University of Medical Sciences (KUMS.REC.1394.266). Only the college students in Kermanshah University of medical sciences were eligible to participate in this study. Furthermore, uncompleted questionnaires as well as unwillingness to participate in study were considered as exclusion criteria. The variables assessed in this study

included four sections. Background questions were: age (years), marital status (single, married), live in dormitory (yes, no), field of education (Medical, Dentist, Pharmacology, Nursing, Paramedical and Health), parents' educational level (primary school, secondary school, high school diploma and academic education), academic achievement (average score of previous semester of students, 0-20). The second section was consisted of 17 questions about the factors impacting students' class attendance. For example, "does the professor's mastery of the teaching materials impact the students' absenteeism?" the items were scored with 4 point Likert-style scale (never, low, medium and high). The content validity of the questionnaire was confirmed by a group experts and its validity was reported to be 0.81 in a previous study (Naderi and Aein, 2014). Also, the validity of the aforementioned questionnaire was obtained being equal to 0.76 in the present study which is an appropriate validity.

The third section of the questions was related to perceived classroom goals structure. The standard questionnaire by Midgley was used for measuring this section. This scale has 14 items in three sections (Midgley *et al.*, 1998); Mastery goal structure (6 items with the score range of 6-30); for example, "in the classroom, understanding the teaching materials is important not memorizing them". Performance goal structure (3 items with the score range of 3-15); for example "the main classroom goal is obtaining good scores" and performance-avoidance goal structure (5 items with the score range of 5-25); for example, "one of the main class goals is that the individual is not seen as someone who is unable to do his/her duties". The validities of the aforementioned scales are verified in Iran and they been reported to be 0.76, 0.70 and 0.83, respectively. Also, the reliabilities of the aforementioned scales have been obtained to be 0.88, 0.67 and 0.75, respectively in the present study and indicate the reliabilities of the scales are appropriate.

The fourth section was related to measurement of students' academic achievement which was measured using a question on students' overall average score during the students' education and was a score between 0 and 20. Data were analyzed by SPSS Version 21 using appropriate statistical tests including bivariate correlations, t-test and one-way ANOVA statistical tests at 95% significant level.

RESULTS AND DISCUSSION

Mean age of the subjects was 21.65 (SD: 2.37) years (range, 18-36 years). Almost, 49.7% (149/300) of participants were male and 50.3% (151/300) were female. In addition, 6.7% (20/300) participants were married and

Table 1: Bivariate correlation analysis between perceived classroom goals structure and academic achievement

Variables	Mean (SD)	X ¹	X ²	X ³
X ¹ . Mastery goal orientation	17.49 (5.81)	1		
X ² . Performance approach	8.78 (2.31)	-0.065	1	
X ³ . Performance avoidance	14.65 (3.83)	-0.039	0.416**	1
X ⁴ . Academic achievement	15.73 (1.38)	0.430**	0.092	-0.013

* Correlation is significant at the 0.01 level (2-tailed).

Table 2: Assessment the items of class attendance scale among participants

The items of factors impacting class attendance	Mean	SD
Professor's mastery of teaching materials	2.20	0.95
Having personal and family problems	2.17	0.84
The professor's appearance and behavioral characteristics	1.99	0.96
Calling the roll by the professor	2.46	0.80
The importance of class attendance for better understanding of the materials	2.15	0.83
Using audiovisual and teaching-aid equipment	2.09	0.86
Interest in the academic field	2.49	0.76
Lack of interest in the teaching subject	2.32	0.82
The expression of teaching materials by the professor on answering the examination questions	2.09	0.81
Mixed-gender class	1.97	0.99
Behaviors of the classmates	2.08	0.88
Class uniformity and teaching style	2.38	0.77
Inappropriate classroom time	2.44	0.78
Students' marital condition	1.95	0.84
Continuous evaluation by professor	2.15	0.81
Living in dormitory or at home	2.17	0.87
Creation of motivation by professor	2.48	0.78

Table 3: Assessment the items of perceived classroom goals structure among participants

Items of perceived classroom goals structure	Mean	SD
Classroom goal is accurate and real understanding of the teaching materials	3.03	1.21
In the classroom, understanding the teaching materials is important not memorizing them	2.85	1.30
Making efforts is highly important in the classroom	3.02	1.17
Making mistakes in the classroom is acceptable on the condition that it leads to learning	2.91	1.27
The extent of learning is important in the classroom	2.87	1.19
Learning new materials and subjects is highly important in the classroom	2.80	1.15
Giving right answers is highly important in the classroom	2.91	0.95
Obtaining high scores is in examinations highly important	2.81	0.94
The main classroom goal is obtaining good scores	3.05	1.05
One of the main class goals is that the individual is not seen as someone who is unable to do his/her duties	3.05	1.09
It is highly important that the individual is not seen as stupid in the classroom	2.61	1.09
It is highly important in the class that individual does not make mistake in the presence of others	3.19	1.13
It is highly important in the classroom that the student does not do assignments worse than other students	2.93	1.03
It is really important in the classroom that the individual shows others that he/she is not unable to do his/her assignments	2.86	1.02

93.3% (280/300) were single. Furthermore, 64% (192/300) of participants were living in dormitory. In Table 1 the correlation between perceived classroom goals structure and academic achievement the participants has been explored. As seen from the finding, mastery goal structure has a significant positive correlation with academic achievement students ($p = 0.001$ and $r = 0.430$).

In Table 2 the results related to absolute and relative frequencies of the answers to the items of the questionnaire "the factors impacting classroom attendance" have been given. According to findings, "creating motivation by the professor" among the factors related to the professor, "interest in the academic field" among the factors related to student and "the time the classes are held" among the factors related to the environment were among the main factors impacting class attendance. In Table 3 the results related to absolute and related frequencies of the answers to the items

questionnaire "perceived classroom goals structure" has been given. As seen, "the classroom goal is accurate and real understanding of the teaching materials" among mastery structure items, "the main classroom goal is obtaining good score" among the performance structure items and "it is highly important in the class that individual does not make mistake in the presence of others" among the performance avoidance structure items obtained higher mean scores.

The present study was conducted with the aim of exploring the factors that impact class attendance, perceived classroom goals structure and academic achievement in students of Kermanshah University of Medical Sciences. According to the findings, regarding the factors related to the students' class attendance, "creating motivation by the professor" among the professor-related factors and "interest in the academic field" among the student related factors and "the time

classes are held” among the environment-related factors were the main factors determining class attendance. In this regard, Azmoudeh, et al conducted a study titled “Survey of Student Views about factors affecting students' attendance in classrooms in Sabzevar University of medical sciences” and found that the domain of professor had the highest mean score in encouraging students to attend class (Azmoudeh *et al.*, 2013). Also, in some studies the basic role of creating motivation in academic achievement has been pointed out (Chan, 2009; Deane and Murphy, 2013; Abdulghani *et al.*, 2014). Having self-esteem is also pointed out to be one of the factors predicting academic achievements in students (Mirzaei *et al.*, 2012). In this regard, different studies have pointed out that professor's personality and role on one hand and the presence and individual characteristics of the students in the classroom on the other hand had a special place that can lead students towards educational goals or deprived them of achieving those goals.

The professor deals with different and multiple factors during teaching and controlling them create an environment in which favorable and effective learning occurs. The students that attend classroom and interact with the professor try to improve their behaviors, decisions and future goals through identification with the professor and modeling his roles (Azmoudeh *et al.*, 2013; Appleton *et al.*, 2008; Montazeri *et al.*, 2012). The findings the present study too confirms this issue and show the importance of professor's mastery over teaching material and creation of motivation in the students by the professor in academic achievement students.

One of the other findings of the present study was a significant correlation between academic achievement and mastery structure; also in this regard, have been pointed out that mastery goals have special motivational outcomes; these outcomes include: high levels of academic effectiveness, assignment-orientee's, interests, efforts and persistence in facing challenging assignments (Kaplan *et al.*, 2002; Meece *et al.*, 2006; Wolters, 2004). Considering these findings, it seems that the students who have mastery goals will be more successful.

CONCLUSION

Based on our results, “creating motivation by the professor” among the factors related to the professor, “interest in the academic field” among the factors related to student and “the time the classes are held” among the factors related to the environment were the main factors impacting class attendance. In addition, “the classroom goal is accurate and real understanding of the teaching materials” among mastery structure items, “the main classroom goal is obtaining good score” among the performance structure items and “it is highly important in

the class that individual does not make mistake in the presence of others” among the performance avoidance structure items obtained higher mean scores.

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