



Academic Burnout and Academic Performance of Agricultural Students

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Abstract

Academic burnout is one of the major challenges of educational system. The purpose of this study is to investigate the relationship between academic burnout and academic performance of agricultural students. A sample of 247 students from Iranian Colleges of agriculture was randomly selected and answered to the questionnaire. Reliability and validity of instrument were determined through opinions of faculty members and application of Cronbach's Alpha. Data were analyzed descriptively and inferentially using SPSS (Statistical Package for Social Science)/Windows. Our study implied that both similarities and differences could be observed on the factors influencing academic burnout of agricultural students. The model obtained in the study revealed that the three dimensions of academic burnout had negative and significant effects on academic performance. The results of regression analysis revealed that academic inefficacy could explain the most variation in academic performance of agricultural students. Based on the findings, recommendations were put forth.

Key words: academic burnout, academic performance, student, GPA

Introduction

Burnout is defined as "a state of physical, emotional, and mental exhaustion caused by long-term involvement in conditions that are emotionally demanding" (Pines & Anderson, 1988; cited in Schaufeli & Buunk, 1996). The notion of burnout was first suggested in 1970s by the American psychologist Herbert Freudenberger, referring to the consequences of severe stress and high ideals in "helping" professions (National Library of Medicine, 2017). According to Christina Maslach, "job burnout is a psychological syndrome that involves a prolonged response to stressors on the job" (Maslach, 2003). A stressful lifestyle can put people under extreme pressure, so they feel exhausted, burned out, and unable to cope (National Library of Medicine, 2017). The concept of burnout has developed over time, and now is used not only in job settings, but also among students (Demerouti et al., 2001; Bakker et al., 2002). Students' core activities can be observed as a kind of work, so academic burnout exists (Zhang et al., 2013). A number of studies have identified the variables that lead to academic burnout, including: gender (Jahedizadeh et al. 2015), self-regulatory strategies (Ghanizadeh & Ghonsooly, 2014), perfectionism (Chang et al., 2015), neuroticism (Reichl et al. 2014), and so forth.

Academic burnout is consisted of three conceptually distinct but empirically related dimensions including Emotional exhaustion, academic uninterested, and academic inefficacy. Students who experience academic burnout usually demonstrate symptoms such as: lack of participation in classroom activities, inability to maintain a steady presence in classroom and learning, and lack of interested to lessons (Asghari et al., 2015). Individuals suffering from burnout feel exhausted, uninterested, and ineffective; instead of feeling energized, interested, and efficacious (Jahedizadeh et al., 2015).



Academic burnout may disrupt students' enthusiasm to pursue learning and may have negative effect on academic performance (Saviz and ZandvanianNaeini 2014).

Academic performance of students is one of the most important pieces of information used by employers in decision making as a signal of individuals' ability. Based on the issue that each system tries for its growth and development and achieving to its planned objects, it is essential to pay attention to manpower. So, there is a key question: why some students' performance is better than the others? Previous studies found different answers, such as gender (Sharifian, 2001), student interest in academic major (King & Kotrlid, 1995), learning styles (Garton et al., 2000; Garton et al., 2002), and etc. This study deals with the influence of academic burnout on academic performance of students.

On the other hand, agricultural sector is one of the most crucial agents in development. With the development of more diverse markets in agriculture, competence work-forces are required to improve agricultural production, processing and marketing of products, and successful implementation of agricultural policies in the country (Sundstøl, 2004). Therefore, with improving the efficiency of agricultural colleges and universities in fostering skillful workforce, it would be possible to take a major step in developing the agricultural sector. Hence, the major aim of this study is to examine the relationship between academic burnout and academic performance of agricultural students.

Materials and methods

Population and Sample

The statistical population of this study included students at the Colleges of agriculture at Universities of Tehran, Yasouj, Ilam, ShahidBahonar Kerman, and Razi Kermanshah. According to Cochran Formula, a sample of 247 students was selected, using random sampling method.

Instrumentation

Data were collected from the target group by means of a questionnaire. The first section of questionnaire contained demographic characteristics of respondents and the remaining sections consisted questions related to research objectives. For assessing academic burnout, the questionnaire made by Maslach and revised by Bresó et al. (2007) was applied. The scale has 15 items and assesses 3 dimensions of academic burnout including emotional exhaustion, academic uninterested, and academic inefficacy, on a 5-point Likert scale. For assessing academic performance of agricultural students, grade point average (GPA) of respondents was measured. Face validity of the instrument was tested by a panel of experts consisting of agricultural faculty members. A pilot study was conducted for testing the reliability and improving the questionnaire. Cronbach's alpha was used to estimate reliability of the questionnaire and showed the high reliability for the instrument.

Data analysis

Analysis of data was done in two sections including descriptive and inferential statistics. Statistics such as frequency distribution, percentage, mean and standard deviation were used in the descriptive section. Correlation coefficient, t-test were used in the inferential analysis section. Furthermore, a multiple regression analysis was used to explain variation in academic performance of students. In applying the statistical techniques, Statistical Package for Social Science (SPSS) was used.

Results and Discussion

Demographic characteristics of respondents:

Frequency distribution of respondents in relation to demographic characteristics indicated that 58.7% of the respondents were male and 41.3% were



female. Respondents were on average 21 years old and the range of respondent age was between the age of 18 and 25 years. 76.9 % of students had no previous experience on agriculture and only 23.1% had some agricultural experience before entering the university. More than half of the respondents (63.2%) were in dormitory and the rest (36.8%) lived with their family.

Agricultural students' academic burnout

Emotional exhaustion mean score of students was 14.96 of a maximum possible score of 25, academic uninterested mean score was 12.33 of a maximum possible score of 20, and academic inefficacy mean score was 15.89 of a maximum possible score of 30.

By gender

It was found that male students' emotional exhaustion and academic inefficacy mean scores were higher (but not significantly) than female students' emotional exhaustion and academic inefficacy mean scores (EE: $t = .404^{ns}$, $p = .688$; AI: $t = .104^{ns}$, $p = .917$). On the contrary, female students' academic uninterested mean score was significantly higher than male students' academic uninterested mean score (AU: $t = -2.043^*$, $p = .042$) (Table 1).

Table 1- Results of t-test

Variable	Label	Gender				t-Value (Sig.)
		Male		Female		
		Mean	SD	Mean	SD	
Emotional exhaustion	EE	15.03	3.43	14.86	3.13	.404 (.688)
Academic uninterested	AU	12.05	2.58	12.75	2.73	-2.043* (.042)
Academic inefficacy	AI	15.91	3.82	15.86	3.09	.104 (.917)
Residence						
Variable	Label	Home		Dormitory		t-Value (Sig.)
		Mean	SD	Mean	SD	
		Emotional exhaustion	EE	14.82	3.29	
Academic uninterested	AU	11.82	2.35	12.64	2.79	-2.362* (.019)
Academic inefficacy	AI	15.12	3.72	16.33	3.34	-2.571* (.011)
Agricultural experiences						
Variable	Label	Yes		NO		t-Value (Sig.)
		Mean	SD	Mean	SD	
		Emotional exhaustion	EE	14.45	3.37	
Academic uninterested	AU	11.91	2.42	12.47	2.72	-1.397 (.164)
Academic inefficacy	AI	14.91	3.76	16.18	3.42	-2.405* (.017)

^{ns}: Non significant

*: $p < .05$

** : $p < .01$

By residence

According to the findings (Table 1), the emotional exhaustion mean score of students lived in dormitory was higher (but not significantly) than the other group's mean score



(EE: $t = -.506^{ns}$, $p = .614$). In addition, the academic uninterested and academic inefficacy mean scores of students lived in dormitory was significantly higher than the other group's mean scores (AU: $t = -2.362^*$, $p = .019$; AI: $t = -2.571^*$, $p = .011$).

By agricultural experiences

The findings (Table 1) showed that the emotional exhaustion, academic uninterested, and academic inefficacy mean scores of students with no previous experiences in agriculture were higher than the other group mean scores, with one of those was significant (AI: $t = -2.405^*$, $p = .017$).

Correlation analysis

Pearson correlation analysis was used to examine the relationship between academic performance and the three dimensions of academic burnout. The findings showed that all the three dimension of academic burnout had negative and significant correlation with academic performance, in which the level of significance of two dimensions (Emotional exhaustion and Academic inefficacy) was at 1% and one of the dimension (Academic uninterested) was at 5% with academic performance.

Table 2- Correlation analysis (academic performance and academic burnout)

Independent variable	Label	r	Sig.
Emotional exhaustion	EE	-.168**	.008
Academic uninterested	AU	-.132*	.038
Academic inefficacy	AI	-.205**	.001

* Significant at $p < .05$

** Significant at $p < .01$

Regression analysis

In order to explain variation in the extent of academic performance of agricultural students by academic burnout, a multiple regression analysis was conducted. An overview of stepwise model is shown in Table 3. Among independent variables that have significant correlation with dependent variable, academic inefficacy and academic uninterested have entered to regression equation by two steps.

Table 3- Regression analysis

Variables	Label	Unstandardized	Standardized	t	Sig.
		coefficients B	coefficients Beta		
Constant		18.535		44.571	.000
Academic inefficacy	AI	-.059	-.203	-3.262	.001
Academic uninterested	AU	-.050	-.129	-2.074	.039

a. Dependent Variable: GPA

Considering the results shown in the table 3, regression equation in standard situation will be as follow:

$$Y = \text{constant} + B_1X_1 + B_2X_2 \quad (1)$$

Equation (1) shows that (Y) is used as dependent variable that representing academic performance of students, (X_i) is independent variable and (B_i) is the coefficient of independent variable. Consequently, final equation of regression is:

$$Y = 18.535 - .059 \text{ AI} - .050 \text{ AU}$$

In addition, the results showed that academic inefficacy (Beta= 0.203) could explain the most variation in academic performance of agricultural students.



Conclusion

Since academic burnout is one of the major challenges of educational system, it is important to study the predictors and also, the consequences of academic burnout, that this study addressed the issues. One of the questions examined in this study was "Are there significant differences between students on the basis of academic burnout?". The findings showed that there was significant difference in academic uninterested of male and female students, in which females showed more academic uninterested compared with the other group. So, the H₀ that express "There is no significant difference in academic uninterested between male students and female students" is rejected. The result is accordant to the study done by Jahedizadeh et al. (2015), in which gender and academic burnout were correlated. There were significant differences in academic uninterested and academic inefficacy between students lived in dormitory with the other group. Hence, the H₀s express "There is no significant difference in academic uninterested between students who live in dormitory and students who live with their family" and "there is no significant difference in academic inefficacy between students who live in dormitory and students who live with their family" are rejected. In addition, according to the findings, students with no previous experiences had significantly more academic inefficacy than the students with previous experiences. Hence, the H₀ that express "There is no significant difference in academic inefficacy between students who have previous experience in agriculture and those who havenot" is rejected.

Correlation analysis for probabilistic relationship was used to test the relations between students' academic performance with the three dimensions of academic burnout. The results showed that the extent of emotional exhaustion, academic uninterested, and academic inefficacy were negatively and significantly correlated with the grade point average of students. Therefore, The three H₀s that express "there is no correlation between students' grade point average and emotional exhaustion", "there is no correlation between students' grade point average and academic uninterested", and "there is no correlation between students' grade point average and academic inefficacy" were rejected and can be concluded that academic burnout is correlated with academic performance. Finally, according to the results of regression analysis, academic inefficacy can explain the most variation in academic performance of agricultural students.

The findings revealed that academic burnout disrupt students' interest to pursue learning and has negative effect on academic performance. So, it is recommended that the consulting centers at University provide effective consultations about the methods to self-directed learning and increasing motivation. Also, it is recommended that faculty members use appropriate approaches to stimulate students' interest for effective leaning.

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