Level of Academic Stress among E-Learning Student-athletes

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ABSTRACT

Academic stress refers to the impact that educational organizations may produce on their students by imposing too many tasks with great competition from other students. Lower academic stress has been linked to higher performance in studies through e-learning. The aim of this research was to identify and compare the level of academic stress among different types of e-learning users among student-athletes' such as Frequent, Partial and Rare-user. The 34 items of Academic Stress assessing seven factors were used to collect data. One hundred and twenty students were selected to participate in this study. The results showed that the Group Stress ($\bar{x}$=18.1146) and Peer Stress ($\bar{x}$=14.4036) were higher in studying among the Frequent e-learning users. It was identified that Time Management Stress ($\bar{x}$=14.1621) was higher among the Partial e-learning users. The Rare e-learner users' stress level was higher in Teachers Stress ($\bar{x}$=17.3397), Result Stress ($\bar{x}$=19.1528), Test Stress ($\bar{x}$=18.3346) and Self-inflicted Stress ($\bar{x}$=15.1019). The findings in this study provide a useful insight to educators to motivate the rare-users to engage in e-learning in order to reduce their academic stress, since high level of academic stress is associated with poor academic achievement.

Keywords: Academic Stress, Frequent, Partial, Rare-user

INTRODUCTION

Hussien and Hussien (2006) defined stress as the situation by which an individual suffers from physical and psychological hyper tension resulted from factors that cannot be handled and exceeds human capability to cope. The effects of long term stress are illustrated in a series of stages proposed by Hans Selye (Feldman, 2011; Ampofo Boateng, 2009). This model, known as general adaption syndrome (GAS), suggests that the physiological response to stress follows the same set of pattern regardless of the cause of stress. The first stage, "alarm" and "mobilization" occurs when people become aware of the presence of a stressor. According to the biological perspective, the sympathetic nervous systems become energize and help the individual to cope initially with the stressor. However, if the stressor persists, that person moves into the second response stage, called "resistance" stage. During this stage, the body is actively fighting the stressor biologically. During the resistance period, people use a variety of means to cope with the stressor. Sometimes they are successful with some degree of physical or psychological wellbeing. For example, a student becomes stressful for failing several courses, might spend longer hours studying and seeking to cope with the stressful circumstances. If resistance is inadequate, people enter the last stage called "exhaustion" stage. During the exhaustion stage, a person's ability to fight the stressor declines to the point where negative consequence of stress appears, like physical illness and psychological symptoms in the form of inability to concentrate and irritability.

As we know, campus life at times can be purely stressful for undergraduates. These undergraduates might experience stressors in managing their finances, making friends, shyness, jealousy, overloaded courses, presenting papers, assignments, test, quizzes, final examination, practical training and completing their project papers and theses. For some undergraduates it can be a challenge, but to most of them it can be perceived as a stressor. Some may feel overwhelmed with the academic stress and may drop out. The level of stress in undergraduates could impact the climate of the environment, especially their social skills by influencing their behaviours and academic performance. People with high level of stress show lower levels of social competencies to handle relationships well and adapt to a variety of social situations. Previous studies showed that college students who experience high levels of stress are more likely to practise bad habits,

tend to experience psychological problems have low self-esteem, poor physical health, lack of sleep, continuous tension, fatigue, headaches and digestive problems (Vincent, Yahaya, Julinamary, Sarimah, Nagoor Meera & Mohd Rahizam, 2014; Wilson & Pritchard, 2005). Laurence, William and Eiland (2009) conducted a survey on 453 undergraduates, 25% of them reported having experienced depressive symptoms. This study indicated examinations, fear of failing, shortage in clinical time, decrease in self esteem and prompt reduction in time spent in recreational activity have been associated with higher stress levels.

Stress in studies or academic stress is basically defined as the impact that educational organizations may produce on their students with too many tasks and great competition with other students (May & Casazza, 2012; Kilpatrick, Hebert & Bartholomew, 2005). The everyday pressures of life have the ability to undermine an individual's comfort and security while creating problems for people in establishing their psychological identity, which in return may lead to vulnerability to stress and anxiety (Saipanish, 2003). Undergraduates should learn the ways to cope with academic stressors such as time management, studying, classroom task, grades, jobs, money, friends and others. It is very common that when students experience high level of stress, this condition affects their motivation, examination performance, class attendance and assignments negatively.

It was assumed that those undergraduates who actively involved in e-learning, made a good preparation academically and therefore, their academic stress should be less than those who seldom or rarely engaged in e-learning. Thus, the present research determined the level of academic stress on those undergraduates' actively engaging in e-learning, partially using e-learning and rare-user.

AIM OF THE STUDY

The aim of this research was to identify the level of academic stress among types of e-learners. It aimed at comparing the level of academic stress among different types of e-learners. It sought to identify the level of academic stress between frequent, partial and rare users of e-learning.

METHOD

This survey was conducted using a set of questionnaire namely, Academic Stress. Academic Stress is a self-reported measure that provides an estimation of the level of academic stress. The Academic Stress research was carried out using Cronbach reliability test (Ying & Farn, 2009). Factor 1 (Teachers stress) showed 0.90, factor 2 (Result stress) showed 0.89, factor 3 (Test stress) showed 0.92, factor 4 (Studying in group stress) showed 0.87, factor 5 (Peer stress) showed 0.85, factor 6 (Time management stress) showed 0.87 and factor 7 (Self-inflicted stress) showed 0.86. The α value of the overall academic stress inventory was 0.90. This demonstrated the reliability of the various factors of the academic stress pre-test questionnaire achieved the levels required by the estimation standards of George and Mallery (2003). The 34 items of Academic Stress assessed seven factors as in Table 1.

Table 1: Seven Factors of Academic Stress

No	Factors	Items
1	Teachers stress	9
2	Result stress	5
3	Test stress	4
4	Studying in group stress	5
5	Peer stress	4
6	Time management stress	3
7	Self-inflicted stress	4

The respondents for this survey were student-athletes from the Faculty of Sport Science and Recreation, at Universiti Teknologi MARA (UiTM), Shah Alam. One hundred and twenty student- athletes were selected to participate in this study. They were categorized into three groups according to their use of e-learning (Frequent, Partial and Rare-user). Frequent users are those who engage in e-learning frequently or always. Partial are those who use e-learning sometimes. Rare-users were individuals who very rarely or seldom use e-learning.

RESULT

Respondents' Profile

The profile of the e-learning respondents described their gender, ranking, types of sports involvement and age. Table 2 shows the overall results of the respondents' profile on 75 male and 45 female athletes. The overall mean age for respondents was 21.08 years old. The age of male student-athletes varied from 19 to 25 years, where the mean age was 22.28 years old. The female student-athletes age ranged from the minimum of 19 to the maximum of 23 years old. The mean age for female respondents was 21.88 years old.

The variable "rank in sports" is gathered through this study. This variable is categorized into four levels such as the university, district, state and country. The result showed that 46 respondents had participated at national level, whilst 27 respondents participated at state, 20 had participated at district and 27 respondents participated at university level. Furthermore, there were three groups of e-learners. There are 60 frequent (always used), 35 partial (sometimes used) and 25 rare-users (very rarely used) of e-learning. The CGPA of e-learners category showed that the majority of the respondents who had CGPA more than 3.0, belongs to Frequent users (68.33%).

Table 2: Respondents' Profile (n=2)

Variables	Frequent	Percentage	Mean	SD
Gender				
Male	75	62.50		
Female	45	37.50		
Athletes' Rank				
University Players	27	22.50		
District Players	20	16.67		
State Players	27	22.50		
National/Country Players	46	38.33		
E-Learning User				
Frequent	60	50.00		
Partial	35	29.17		
Rare-User	25	20.83		
CGPA of E-Learning User				
Frequent Group				
Less than 2.5	9	15.00		
2.5 to 3.00	10	16.67		
More than 3.0	41	68.33		
Partial Group				
Less than 2.5	18	51.43		
2.5 to 3.00	10	28.57		
More than 3.0	7	20.00		
Rare-User Group				
Less than 2.5	15	60.00		
2.5 to 3.00	7	28.00		
More than 3.0	3	12.00		
Age				
Overall			21.08	1.97
Male			22.28	1.72
Female			21.88	1.18

Mean of Academic Stress

The results in Table 3 show that e-learning Frequent users were higher in group study stress ($\bar{x}$=18.1146) and Peer stress ($\bar{x}$=14.4036). Rare-users of e-learning were higher in Teachers stress ($\bar{x}$=17.3397), Result stress ($\bar{x}$=19.1528), Test stress ($\bar{x}$=18.3346) and Self-inflicted stress ($\bar{x}$=15.1019).

Table 3: Mean of Academic Stress Based on the E-Learning User

Academic Stress	Frequent	Partial	Rare-user
Teachers stress	12.4451	15.4177	17.3397
Result stress	14.9840	17.4031	19.1528
Test stress	11.8201	14.7133	18.3346
Group study stress	18.1146	12.2153	10.6107
Peer stress	14.4036	12.9140	10.2155
Time management stress			
Self-inflicted stress	11.3411	14.1621	12.7122
	11.3494	13.7185	15.1019

Level of Academic Stress

One way ANOVA showed high significant differences on the levels of academic stress among e-learning users, F (2, 120) = 17.2104, p<0.01 (Table 4). E-learning student-athletes belong to Frequent, Partial and Rare-user categories.

Table 4: Level of Academic Stress Based on E-Learning Users

Categories of e-learning Users	Mean	Value-*F*	Value-*p*
Frequent	13.3612	17.2104**	0.000
Partial	15.4521		
Rare-user	22.1145		

** p< 0.01

Post-Hoc Tukey Test in Table 5 showed that the level of academic stress on Non e-learning users was higher than Frequent ($p<0.05$) and Partial categories ($p<0.05$). Furthermore, the level of academic stress among Partial e-learners was lower than Rare-users ($p<0.05$) but higher than Frequent users ($p<0.05$). In addition, the level of academic stress on Frequent users was lower than Partial ($p<0.05$) and Rare-users ($p<0.05$).

Table 4: Post Hoc Tukey: Level of Academic Stress Based on E-Learning Users

Categories of E-learners	Frequent	Partial	Rare-user	N
Frequent		*(-1.337)	* (-1. 857)	60
Partial			* (-1.182)	35
Rare-user				25

*p<0.05

DISCUSSION

Mean of Academic Stress

The mean of academic stress showed that Frequent users were lower in all the factors of academic stress, except for group stress and peer stress, compared to Partial and Rare-users of e-learning. Frequent users engage in e-learning frequently, therefore they had a very good preparation for the subject or examination. This reduced their anxiety level and enhanced their self confidence, which helped to lower their academic stress. Rare-users of e-learners were higher in most of the stress factors including teachers stress, result stress, test stress and self-inflicted stress. Partial users of e-learning scored the highest in time management stress and second highest is in teachers stress, result stress, test stress and self-inflicted stress.

Level of Academic Stress

Overall the results show that the student-athletes in the Frequent categories exhibited lower level of academic stress compared to Partial category student-athletes, whereas Rare-users showed the highest levels

of academic stress. In other words, the result of this research means that the higher the usage of e-learning, the lower their academic stress would be. In Malaysia, so far no research has been done involving these three categories of users, so the findings on the current research could not be compared with that of previous research. However, the knowledge obtained from e-learning is the main factor that determines the level of academic stress. E-learning helped to enhance student-athletes' abilities to do well in their studies and lower their academic stress level. Therefore, the levels and factors of academic stress may differ from the frequently use e-learning student-athletes to the rare-user student-athletes. The frequent enhanced knowledge through e-learning determines the academic stress level.

There are many challenges in academic like too many assignments, tests and examinations. Previous studies have proven that stress is present in educational environments and it is more frequent with homework and tests, the lack of time to complete assignments and the inability to understand the materials (Diaz, 2010; Pulido, Serrano, Valdes, Chavez, Hidalgo & Vera, 2011; Roman, Ortiz & Hernandez, 2008). E-learning is considered as the best tool to prepare well and understand materials taught in class, test, examinations and assignments. Therefore it reduces their stress level especially the academic stress.

The CGPA surveyed with the three groups provided some valuable information. Most of the student-athletes' in Partial and Rare-user groups are those undergraduates who have CGPAs less than 2.5. Furthermore, during the discussion in class, it was found that some of them are repeaters of several subjects and always submit their assignments after the due date. In other words, they are left behind, thus they scored highest academic stress. Contradictory, Table 1 showed, undergraduate student-athletes' in Frequent group are those with CGPAs more than 3.0 (68.33%). They are considered good or excellent achievers. Therefore, they scored the lowest in academic stress. However, this research showed that there is a negative relationship between the use of e-learning and academic stress. Furthermore, those undergraduates' attendance is lower than 75% but belong to Frequent group, has a higher CGPA. In other words, those undergraduates who miss the class frequently but are active in their e-learning manage to gain high grades. Thus, it can be concluded that e-learning might be more effective than attending classes. It becomes very common that undergraduates always

complain that the classes are boring, they feel sleepy and cannot concentrate. Most probably e-learning is more effective for those undergraduates who experience similar problems.

CONCLUSION

The results of this research show that the overall frequent e-learning users scored lower in academic stress and Rare-users, the highest. The result also showed the existence of a strong negative relationship between the level of academic stress and use of e-learning. However, future research is necessary to determine this. This finding would benefit educators to motivate rare-users to engage in e-learning in order to reduce their academic stress, since high level of academic stress is associated with poor academic achievement.

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