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Research Article

Academic Emotions Antecedents of Dropout Intentions Among College Freshmen: An Assessment

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ABSTRACT

College freshmen often face challenges in their shift to higher education and experience a different level of academic pressure. These difficulties and pressures may provoke various negative emotions, leading to the high intention of dropping out of their course. Thus, it is vital to understand the role of academic emotions concerning minimizing dropout and increasing academic success among freshmen since they are in the critical first academic year as it influences overall academic success. Thus, this study was conducted to determine how academic emotions would predict dropout intentions among college freshmen. A sample of 156 college freshmen from a state university department was randomly selected through stratified and systematic sampling procedures. Academic Emotions and Dropout Intention questionnaires were adapted, validated and pilot-tested. The statistical tools used to analyze data were mean, standard deviation, Pearson - r correlation, and multiple regressions. Findings reveal that freshmen experience relatively higher positive emotions (enjoyment, hope and pride) than negative emotions (anger, anxiety, shame, hopelessness and boredom). Positive emotions were positively correlated, while negative ones were also positively correlated. Positive emotions and negative emotions were negatively correlated. Positive and negative emotions were positively and negatively correlated to the dropout intention. Among the academic emotions, pride and boredom were the significant predictors; the former was a positive predictor, while the latter was a negative predictor of dropout intentions among freshmen. This study recommends that higher education institutions are encouraged to promote positive academic emotions to minimize dropout intentions among college freshmen.

Keywords: Philippines, antecedents, academic emotions, dropout intention, college, freshmen

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INTRODUCTION

Attrition studies have shown that a high attrition rate frequently occurs among college freshmen (Dennis, 1998; Levitz et al., 1999, cited in Corley, 2003). According to Tinto (1987), "early-stage separation from a previously established social system is the most difficult step for a college student beginning to socially integrate into an institution" (cited in Corley, 2003). The phenomenon of high attrition among college freshmen can be attributed to the challenges they faced in their shift to higher education. They experience a different level of academic pressure than when they were in high school. These difficulties and pressures may provoke a variety of negative emotions, which could lead to the high intention of dropping out from their course, which is a warning of actual dropout. In the study of Ruthig et al. (2007), there is a positive relationship between negative academic emotions and voluntary course withdrawal. Putwain et al. (2013) also found that positive academic emotions lead to better achievement among freshmen at the end of the academic year. Moreover, Pekrun (2006) claims that emotions are regulated by how students value learning and are socially constructed. Thus, students exchanged emotional experiences with their classmates, teachers, peers in the school setting, and their parents at home. Therefore, it is vital to understand the role of academic emotions concerning minimizing dropout among freshmen since they are in the critical first academic year, which influences their overall academic success.

The Control - Value Theory of Academic Emotions is a theoretical model that looks at how motivational beliefs and competency provoke different emotions that students experience in educational settings (Pekrun & Stephens, 2010). Academic emotions are defined as learners' emotional experiences related to the educational processes of teaching and learning in a school or university setting. This is based on expectancy-value (Eccles & Wigfield, 2002) and attribution theories (Weiner, 2008). Learning-related emotions can be differentiated by valence (positive vs.

negative) and activation (activating vs. deactivating emotions). Positive activating emotions are thought to preserve mental resources, focus attention on the learning activities, support interest and intrinsic motivation, and facilitate deep learning. In contrast, negative deactivating emotions is the opposite. Moreover, deactivating positive emotions is thought to lessen attention and effort, but they can support long-term motivation to re-engage with learning. Activating negative emotions can reduce mental resources by inducing extraneous thinking, such as worries about failure in test anxiety and undermining intrinsic motivation (Pekrun et al., 2002).

Many pieces of research have cited the theory above (Ainley et al., 2005; Reschly & Carolina, 2008; Frenzel et al., 2007; and Pekrun et al., 2007). However, most of these studies have explored this theory among general student populations. There has been a little inquiry on how academic emotions as antecedents to students who are at-risk of dropping out, as determined in their drop out intentions. Thus, this study would investigate how academic emotions would predict dropout intentions among college freshmen. It is vital to understand the role of academic emotions concerning minimizing dropout and increasing academic success among freshmen since they are in the critical first academic year, which influences overall academic success. Results of this study added to the growing knowledge on academic emotions and dropout intentions. These results may help design instructions or interventions that help freshmen adjust from high school to college.

OBJECTIVES OF THE STUDY

The purpose of the study was to investigate academic emotions as antecedents on the dropout intention among college freshmen. Specifically, this study aimed to: (1) determine whether there is a significant relationship between dropout intention and academic emotions, namely, enjoyment, hope, pride, anger, anxiety, shame, hopelessness and boredom; (2)

determine whether these academic emotions would significantly predict freshmen's dropout intention.

RESEARCH HYPOTHESES

This study hypothesized the following:

- Positive emotions are significantly and positively correlated.
- Negative emotions are significantly and positively correlated.
- There is a significant negative correlation between positive and negative emotions.
- Positive emotions significantly and negatively predict dropout intentions among college freshmen.
- Negative emotions significantly and positively predict dropout intentions among college freshmen.

METHODOLOGY

Population and Sampling Procedure

The target population of this study was college freshmen of the College of Teacher Education of Zamboanga Peninsula Polytechnic State University (ZPPSU). There are five teacher education programs offered: Bachelor of Elementary Education (BEEd); Bachelor of Secondary Education (BSEd) major in

Mathematics; Bachelor of Physical Education (BPed); Bachelor of Technology and Livelihood Education (BTLED) majors in Home Economics (HE), Industrial Arts (IA) and Information and Communication Technology (ICT); and Bachelor of Technical – Vocational Teacher Education (BTVTED) majors in Automotive Technology, Civil Technology, Drafting Technology, Electrical Technology, Electronics Technology, Food Service Management, Garments, Fashion Design, Heating, Ventilating and Airconditioning Technology, Mechanical Technology and Welding and Fabrication Technology.

An a priori power analysis was conducted using G*Power 3 (Faul et al., 2009) to determine the required minimum sample size for the multiple regression analysis. Based on a two-tailed test, a medium effect size ($f^2 = .102$) based on a similar study and an alpha of .05, a sample size of 156 participants was required to achieve a power of .80. The participants were randomly selected through stratified and systematic sampling procedures. The mean age was 19.67, and the standard deviation was 2.45 years (ranging from 17 to 30 years). Table 1 summarizes the distribution of the participants according to courses across gender.

Table 1 Participants of the Study according to Courses across Gender

Teacher Education Courses	Gender		f	%
	Male	Female		
<i>BEED</i>	7	25	32	20.5
<i>BSED MATH</i>	9	7	16	10.3
<i>BPED</i>	15	16	31	19.9
<i>BTLED IA</i>	4	7	11	7.1
<i>BTLED HE</i>	2	9	11	7.1
<i>BTLED ICT</i>	3	3	6	3.8
<i>BTVTED AUTO</i>	3	1	4	2.6
<i>BTVTED CIVIL</i>	3	-	3	1.9
<i>BTVTED DRAFT</i>	4	5	9	5.8
<i>BTVTED ELEFT</i>	2	5	7	4.5
<i>BTVTED ELECT</i>	5	-	5	3.2
<i>BTVTED FSM</i>	1	8	9	5.8
<i>BTVTED GFD</i>	2	10	12	7.7
Total	60	96	156	100.0

Measures

Academic Emotion Questionnaire. This questionnaire was adapted from the Academic Emotions Questionnaire (AEQ; Pekrun et al., 2005, 2011), a five-point Likert scale (1 = Strongly disagree; 5 = Strongly agree). Some words were changed from the original instrument to be more appropriate in the study context. To keep the questionnaire short, only four items were selected from the eight subscales: enjoyment, hope, pride, anger, anxiety, shame, hopelessness, and boredom. The original AEQ questionnaire was very lengthy. Bachman and Herzog (1981) claim that respondents answering lengthy questionnaires are more likely to give the same answers to most or all of the items than those responding to shorter questionnaires.

Drop out Intention Questionnaire. This questionnaire was adapted from the Freshman Orientation Survey (Brown, 2012), consisting of eight items. Some words were changed from the original instrument to be more appropriate in the study context. College freshmen reported their possibility of shifting their major or leaving the college (1 = Very unlikely; 5 = Very likely).

Both questionnaires were validated and pilot tested. All Cronbach's alpha values indicate satisfactory internal consistency reliability. The table below shows the alpha value for each subscale of academic emotions and the dropout intention questionnaire. Cronbach's alpha values greater than 0.7 indicate satisfactory internal consistency reliability (Malhotra & Birks, 2007).

Table 2 Reliability of the Research Questionnaires

Questionnaires	Cronbach's Alpha
Academic Emotions	
Enjoyment	.759
Hope	.756
Pride	.719
Anger	.748
Anxiety	.749
Shame	.789
Hopelessness	.777

Boredom	.722
Drop out Intention	.781

RESULTS AND DISCUSSION

Table 3 below shows the Pearson r coefficients between the academic emotion subscales and dropout intention. These correlations are necessary assumptions that we need to check to determine whether or not there is a linear relationship between academic emotions and dropout intentions. This is also one way to check multicollinearity among the academic emotion subscales since these are considered predictors in this study.

Table 3 Pearson r Correlation Coefficients between Variables

Variables	1	2	3	4	5	6	7	8
(1) Enjoyment								
(2) Hope	.736							
(3) Pride	.609	.642						
(4) Anger	-.256	-.263	-.152					
(5) Anxiety	-.196	-.313	-.124	.536				
(6) Shame	-.265	-.288	-.249	.535	.615			
(7) Hopelessness	-.394	-.401	-.390	.518	.535	.724		
(8) Boredom	-.451	-.421	-.376	.605	.512	.495	.583	
(9) Drop out Intentions	-.447	-.379	-.462	.294	.223	.259	.378	.441

Note: All correlation coefficients are significant alpha = .05

The table reveals that the positive emotions; enjoyment, hope and pride, were positively correlated while the negative emotions; anger, anxiety, shame, hopelessness and boredom, were also positively correlated. Moreover, positive emotions and negative emotions were negatively correlated. Positive and negative emotions were positively and negatively correlated to the dropout intention.

Multiple regression was run to predict dropout intentions among college freshmen with academic emotions as predictors. As evaluated by partial regression plots and a plot of studentized residuals against the predicted values, there was linearity. As assessed by a Durbin-Watson statistic of 1.684, residuals were independent, which is close to 2. There was homoscedasticity, as evaluated by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no

multicollinearity among predictors, as measured by tolerance values greater than 0.1. The VIF value of 1.165, which is not substantially greater than 1, indicates that the assumptions of no multicollinearity between predictors were met. There were no studentized deleted residuals greater than ± 3 standard deviations; no leverage values greater than 0.2, and values for Cook's distance above 1. The assumption of normality was met, as evaluated by a Q-Q Plot. The multiple regression model statistically significantly predicted dropout intentions, $F = 8.78, p$

$< .05$. The adjusted R squared of 28.7% indicates the variation in dropout intentions attributed to the predictors. However, only two academic emotion subscales, pride and boredom, added statistically significantly to the prediction, $p < .05$. The pride subscale was a negative predictor, while the boredom subscale was a negative predictor of dropout intentions among freshmen. Regression coefficients, standard errors and beta coefficients can be found in Table 4 (on the next page).

Table 6 Summary of Multiple Regression of Academic Emotions for Predicting Dropout Intentions among College Freshmen (n = 156)

	B	SE B	β
Constant	18.842	3.568	
Enjoyment	-.183	.208	-.098
Hope	-.136	.199	-.077
Pride	-.511	.177	-.277*
Anger	.106	.140	.071
Anxiety	.024	.151	.015
Shame	.084	.141	.064
Hopelessness	.130	.131	.110
Boredom	.304	.154	.197*

Note: $R = .569, R^2 = .323, Adj. R^2 = .287, F = 8.78, p < .05$

* Significant at alpha = .05 level.

The result indicates that as students feel more proud of studying, they will be less likely to drop out of their course. On the contrary, when students feel bored about the school, they are more likely to drop out of their course. These findings are incognizant to the study of Ruthig et al. (2007), that there is a positive relationship between negative academic emotions and voluntary course withdrawal, while positive academic emotions do not. However, this is inconsistent with Respondek et al. (2017) findings that enjoyment or boredom has no specific impact on the intention to drop out. Negative emotions are likely higher among students who dropped out than those who finished their studies (Pekrun et al., 2002). Thus, instructors

must support and pay attention to positive academic emotions to moderate dropout intentions among freshmen. In coordination with the Guidance Office, the university could offer training regarding emotion regulation. In general, it is a must that freshman-supporting programs be promoted to help freshmen adjust during their transition from high school to college.

CONCLUSION, RECOMMENDATION AND LIMITATION OF THE STUDY

The present study showed the importance of academic emotions on the students' academic success at the college or university level. This inquiry supplements the scarce literature about the predictive effects of academic emotions on students' academic success by investigating the dropout intentions among college freshmen as the outcome variable. This investigation can further be extended against the actual dropout. Future researchers may extend this study by including other predictors, like, achievement goal orientation. However, the findings of this may only be valid for the college freshmen of the College of Teacher Education. This study can also be reanalyzed with the entire cohort of students in the college together with other consequent and antecedent variables. A longitudinal study can analyze the causality of attributional variables on dropout intention. The findings could have been different if the survey had been conducted at the beginning or towards the middle of the semester.

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