



Resilience and Academic Self-Concept as Explanatory Variables of Achievement Motivation Among College Students

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Abstract

People with high achievement motives will act in ways that will help them to outperform others, meet or surpass some standards of excellence, or do something unique. Several variables have been suggested in the literature to significantly contribute to students' achievement motivation. As the principal aim, the study sought to investigate whether or not resilience and academic self-concept significantly contribute to students' achievement motivation. A cross-sectional research design was employed to sample 327 first year college students from five College of Education institutions in Ghana using proportionate stratified sampling procedure. Three instruments (i.e., resilience scale, academic self-concept scale and achievement motivation scale) were adapted and used for the study. Findings of the study showed that

students' sampled were resilient and had high academic self-concept. The results further showed that resilience and academic self-concept variables were significant predictors of achievement motivation. The study recommends that academic counseling within Colleges of Education in Ghana should be made a priority in order to address issues of self-doubt and that of learned helplessness, particularly to maintain or improve individual resilience and achievement motivation. Other implications are discussed.

Keywords: Motivation, Resilience, Self-Concept, Performance, Colleges of Education, Ghana

Introduction

Achievement motivation is a pattern of planning of actions and feelings connected with striving to attain some internalized standard of excellence (Chetri, 2014). Achievement motivation is the attitude to achieve rather than the achievements themselves. It can be considered as extended person- intrinsic motivation because its reward is delayed (Chetri, 2014). Achievement motivation arises from an interaction within the person. Achievement motivation as an intrinsic component can be viewed from the perspective of a person striving to accomplish something difficult, and/or to overcome obstacles in order to attain appreciable standards of life pursuit (Lang & Fries, 2006). Achievement behavior was deemed significant by social cognitive theories of motivation when examining thoughts, beliefs, and emotions (Linnenbrink & Pintrich, 2002). Students with high achievement motives will act in ways that will help them to outperform others, meet or surpass some standard of excellence, or do something unique (Awan, Noureen & Naz, 2011). To some extent, all students are influenced by a need to achieve; however, those students, who hold a high desire of success, often work hard to achieve (Zenzen, 2002). According to Maehr (2008), achievement motivation is largely a social psychological phenomenon, and it often occurs within groups where interpersonal interactions can undermine or facilitate engagement in the tasks to be done. Wigfield and Gladstone (2019) indicated that achievement motivation works in tandem with a constellation of factors such as motivational beliefs, task values, goals, and achievement motives. Literature indicates that achievement motivation is a significant determinant of academic performance because it invigorates and guides the behaviours of learners (Plante, O'Keefe & Théorêt, 2013; Wigfield & Gladstone, 2019; Snyder & Wormington, 2020). Undoubtedly, among tertiary students, achievement motivation is obviously seen as an important variable that facilitates learning and sustains students' interest in the academic environment. On the basis of the foregoing enumerated relevance of

achievement motivation, it is therefore seen as a criterion variable in this study.

Academic self-concept is a composite view of oneself across various sets of specific academic domains, abilities, and perceptions (Trautwein et al., 2006). This is based on self-knowledge and evaluation of values formed through experiences with the interpretation of one's academic environment (Eccles, 2005; Bong & Skaalvik, 2003). Academic self-concept has been noted to vary as students move through academic levels in which their academic self-concepts tend to rise in the direction of their academic achievement (Liu & Wang, 2005; Jacob et al., 2002), while other studies found out that it tends to become weaker (Marsh et al., 2002). Generally, it has been highlighted that academic self-concept influences students' desire to achieve academically (Awad, 2007; Marsh, 2006; Cokley, 2000). However, various researchers concur with the changes in academic self-concept among students, but only a few studies have tackled changes in the instruments used in measuring academic self-concept across various groups of students (Matovu, 2012). Academic self-concept construct has particularly been cited as having influence on student achievement motivation and other relevant school outcome measures (Awan, Noureen & Naz, 2011). In effect, academic self-concept may be seen as an important variable that explains the sustainability of students' desire to perform and excel in academic tasks at all levels. Academic self-concept has been chosen as a variable in this study in order to understand whether it contributes to the explanation of achievement motivation of students.

Resilience has been likened to a set of attributes that help people succeed and cope effectively in the face of adversity (Cyrulnik, 2009). With the growing research in positive psychology, resilience has gained momentum and recognition as a framework for examining the differences between students who flourish within the academic environment and those who struggle to cope (Seligman et al., 2009; Stallman, 2011). Resilience consists of protective processes such as resources, competencies, and skills that dwell within the individual, family, or community (Loh, Schutte & Thorsteinsson, 2014). When people are subjected to great risk situations, these protective factors become very meaningful (Zautra, Hall & Murray, 2010). For example, a resilient individual is more likely to demonstrate increased flexibility and tolerance to new experiences and readily perform self-regulatory behaviours designed to overcome difficulties (Loh et al., 2014). Consequently, resilience appears to serve an important role in the normal adaptive functioning process by facilitating individuals' ability to adjust to alarming challenges and achieve objectives for academic tasks (i.e. achievement motivation). Resilience has been found to predict successful adjustment and motivation to succeed in the face of an increasingly stressful college environment (Hartley, 2011; Leary &

DeRosier, 2012). Resilience was added as a variable in this study to further understand its relationship with college students' achievement motivation.

In Ghana, anecdotal information from some college tutors which incidentally aligned with some empirical information in developed jurisdictions suggest that transitioning to college by students simultaneously encounter a variety of challenges including changes in their environment, new and increased academic pressures, diminished access to previous social support networks, a need to create new peer relationships, and increased personal responsibilities (Galatzer-Levy et al., 2012; Vaez & LaFlamme, 2008). Encountering these numerous challenges as first-year college students may find themselves prone to experiencing greater anxiety, stress, and psychological distress (Bayram & Bilgel, 2008), which may threaten their achievement motivation. Studies in developed jurisdictions have found that resilience contributes to students' adjustment and their sense of achievement (Hartley, 2011; Leary & DeRosier, 2012). Could this be the case for a Ghanaian first-year college of education student? Again, elsewhere, several studies have discovered that academic self-concept accounted for a significant proportion of differences in achievement motivation and academic centered attitudes among college students (Cokley, 2000; Cokley, Komarraju, King, Cunningham & Muhammad, 2003; DeFreitas & Rinn, 2013; Isiksal, 2010; Martin & Marsh, 2006). One may want to know whether the same issues relating to academic self-concept can be said of a college of education student situated in Ghana.

The above questions are not readily answerable, and this is because over the years, studies conducted by Ghanaian scholars have not focused attention on the subject of resilience and academic self-concept influence on achievement motivation, instead the attention has been on other educational related issues which create a knowledge gap within the resilience literature. For purposes of emphasis, some of the empirical studies conducted in Ghana related to resilience include; educational resilience and academic achievement of immigrant students where the study found that personal, positive, environmental, and risk factors contributed to their educational resilience and academic achievement (Kumi-Yeboah, 2016). Students' perspectives on resilience, risk and academic achievement, where the study discovered that social support systems in the form of collective family/kinship values, future orientation and individual characteristic of "not giving up", emerged as protective factors that tend to support academic resilience (Abukari, 2018). For Ibrahim (2018), he was interested in investigating resilience among students' mothers in Ghana where it turnout that factors such as financial difficulty, stigmatization, and lack of social support among others hindered the resilience building process. Moreover, stress management and resilience among junior and senior nursing students in Ghana has also been explored

where it was found that students were somehow resilient. As part of the findings of the same study, emotional and spiritual support along with getting more involved in physical school activities were noted to be the main strategies used by students to deal with stress (Sossah & Asiedu, 2015). Furthermore, Dramanu and Balarabe (2013) researched into relationship between academic self-concept and academic performance where the study revealed a significant positive relationship between academic self-concept and academic performance of students. Finally, Laryea, Saani and Dawson-Brew (2014) also explored the influence of self-concept on students' performance where, at the end of the study, it was found that students' self-concept was perceived positive by students. However, this self-concept does not directly predict students' academic performance. Clearly, as shown by the foregoing studies, knowledge regarding resilience and academic self-concept as explanatory variables of achievement motivation appears to be missing in the resilience literature, and effort towards empirically investigating the same is the motivation behind the conduct of this current study.

Need Achievement and Self-Worth Motivation Theory

From need achievement and self-worth motivation perspectives, students can be broadly characterized in terms of their motive to avoid failure and approach success (Atkinson, 1957; McClelland, 1987). Based on a need achievement model of motivation, students can be characterized in terms of three typologies: the success-oriented student, the failure-avoidant student, and the failure-accepting student.

Success-oriented students tend to be optimistic, adopt a proactive and positive orientation to their studies, and are not debilitated by setback but rather respond to it with optimism and energy (Martin et al., 2001). These students, it can be argued, are highly motivated in a positive and proactive manner and respond most adaptively to setback if it should occur (Martin et al., 2001).

Failure-avoidant students tend to be anxious (Alpert & Haber, 1960) and motivated by a fear of failure, live in self-doubt, and are uncertain about their ability to avoid failure or achieve success (Covington & Omelich, 1991). While these students can often work hard and achieve well, they tend to be adversely affected by setback as it tends to confirm their doubts about their ability and their uncertain control (Covington & Omelich, 1991; Martin et al., 2001). In essence, they lack academic resilience. Often in response to this fear of failure, failure-avoidant students may even actively sabotage their chances of success (e.g., procrastinate, leave study until the last minute, or not study at all), so that they have an excuse if they do not do so well.

Failure-accepting students (sometimes referred to as learned helpless) have given up to the point of not even trying to avoid failure. These students

are generally disengaged from their studies and display a helpless pattern of motivation (Abramson, Seligman & Teasdale, 1978). In many cases, failure-accepting students also actively sabotage their chances of success through not trying at all (Martin et al., 2001). These students lack both motivation and academic resilience.

From need achievement and self-worth motivation perspectives, critical factors such as resilience and positive view of oneself to succeed (academic self-concept) help in sustaining one's motivation to excel in academic tasks. For the success-oriented student, there is a claim of high self-belief (i.e., academic self-concept) and control (i.e., likened to resilience). However, for the failure-oriented student, there is an evidence of self-disbelief and intense anxiety that inhibit the individual to take self-initiatives toward succeeding academically. In summary, the underlying theory for this empirical work is that students who are resilient and have positive academic self-concept are more likely to excel academically since their motivation to do so would be higher.

Research Objectives

The study sought to explore:

- Students' resilience level.
- Academic self-concept level.
- Effect of resilience on achievement motivation.
- Effect of academic self-concept on achievement motivation.

Research Questions

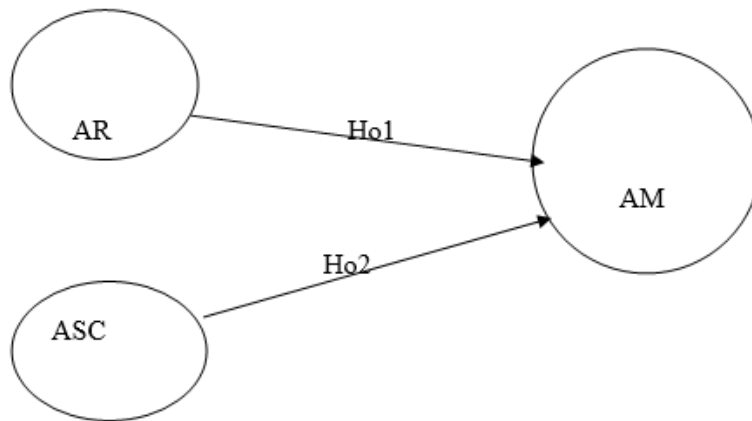
The following research questions guided the study:

1. What is the resilience level of first year college students?
2. What is the academic self-concept level of first year college students?

Hypotheses

The following hypotheses were posed to guide the study.

1. H₀: Students' resilience will not significantly affect their achievement motivation.
H₁: Students' resilience will significantly affect their achievement motivation.
2. H₀: Students' academic self-concept will not significantly affect their achievement motivation.
H₁: Students' academic self-concept will significantly affect their achievement motivation.



Methods

Design

The study principally sought to explore the contribution of resilience and academic self-concept to college students. In line with the above intention, descriptive cross-sectional survey design was adopted for the investigation. The quest to measure the relevant variables among respondents to gain knowledge about the state of affairs regarding students' achievement motivation drivers made the choice of the selected design ideal. Furthermore, the design has the advantage of permitting a wide scale survey of relevant audience to provide information that relates to the variables under investigation.

Participants

First year College of Education students were targeted for the study. They (i.e., first year students) became the prime focus for this study because they are new on college campuses, and they are working harder to strike a balance between academic pressures and adjustment issues. Hence, resilience and self-concept will be relevant to their overall desire to succeed academically. Using a multi-stage sampling approach, five colleges were randomly selected from among the forty-eight 48 Colleges of Education in Ghana, that is, a single college was taken to represent each of the five zones (namely; Ashanti-Brong Ahafo, Eastern-Greater Accra, Central-West, Volta and Northern). At the second stage, a sample of 327 first-year students were selected using proportionate-stratified sampling technique from 2,205 population of first-year students within the Colleges of Education. The proportionate stratified procedure was used because of the difference in numerical strength of first-year students for the various colleges that were selected. In this case, the stratification variable was colleges. Three hundred

and twenty-seven (327) students chosen was a representative of the population of 2,205, using Krejcie and Morgan (1970) sample estimation.

Measures

Three instruments were used in the survey. First of all, the 10-items unidimensional 4-points Likert resilience scale developed by Campbell-Sills and Stein (2007) was adapted and used. All the 10 items have good loadings ranging from .39 to .74. Again, the resilience scale has an internal consistency index of .85 which was measured using Cronbach Alpha. An academic self-concept scale (ASC) developed by Liu and Wang (2005) was also adapted and used. The 7-points Likert ASC- Scale has two hypothetical dimensions, that is, academic confidence dimension which has 10 items measuring students' confidence in academic work. This sub-dimension has Cronbach Alpha reliability index of .85. The second dimension was academic effort dimension which also has 10 items as well. The Cronbach Alpha index was .86. The overall internal consistency index for the ASC-Scale was .89. The third instrument used in this study was a 4-point Likert 10-item Achievement Motivation Scale (Lang & Fries, 2006) which also has two dimensions. The first dimension of AMS measures students' hope for success (HS). There are five items on this sub-dimension and with a Cronbach Alpha of .86. The second sub-dimension of AMS also measures fear for failure. Hence, the dimension is also called fear for failure (FF) dimension. This sub-dimension also has a Cronbach alpha index of .92. The instruments were pilot-tested using 50 college students to fine-tune the items (Amedahe, 2002).

Data Collection Plan

The study went through ethical clearance protocols prior to the administration of the instruments. First of all, authorities of the various colleges were consulted and permissions were sought appropriately. Researchers briefed participants about the aim of the study and sought for their permission to take part through signing of research participation form. Participants were assured of confidentiality and anonymity throughout the process, and they were also given the permission to opt out of the study whenever they so desire. In all, 327 questionnaires were given out to participants to respond to, and all the questionnaires were received after the twenty-one days of data collection exercise. This represented 100% return rate of the entire survey.

Data Analysis

After the data processing which involved coding, entry and cleaning, data on research questions one and two were analyzed using descriptive statistics, specifically, mean and standard deviation. However, hypotheses one

and two were tested using multiple linear regression analysis. Summary of the analysis are shown in Table 1 and 2.

Results

The data was analyzed by means of both descriptive and inferential statistics. The data were cleaned and relevant assumptions underpinning a particular statistical procedure were checked. The results were presented based on the research questions and the hypotheses.

Research Question One: What is the academic resilience level of first year college students?

The research question sought to investigate the resilience level of respondents which was measured on a continuum. For easy interpretation of the data, mean scores below the standard means (Refer to Table 1) show ‘lower level’, and mean scores above the standard means show ‘high level’. Nonetheless, means scores of the exact standard means show ‘moderate level’.

Results from Table 1 shows that respondents (i.e., first-year college students) had high academic resilience level. This is so because the mean scores ($M = 3.0$, $SD = .90$) for respondents’ academic resilience was above the standard mean score of 2.5. The standard deviation score for resilience also shows that respondent’s responses were homogeneous.

Table 1. *Levels of Respondents Resilience and Self-Concept*

Scale	Scale Mean of Means	Standard Deviation	Scale Range	Standard Mean Scores	α
Academic Resilience	3.0	.90	1 – 4	2.5	.85
Academic Self-Concept	2.8	.97	1 – 4	2.5	.89

Research Question Two: What is the academic self-concept level of first year college students?

The aim of this research question was to examine students’ self-concept level even as they continue to engage their new academic environment. As in the case of resilience, academic self-concept variable in this study was measured as a continuous variable with academic self-concept scale.

From Table 1, the mean scores ($M = 2.8$, $SD = .97$) of academic self-concept which is higher than the standard mean score (2.5) is an indication that respondents had high level of ‘academic self-concept’. Implications are discussed in the study.

Table 2. Model Summary

Model	R	R ²	Adjusted R ²	S. E. of Estimate	R ² Change	F Change	df1	df2	Sig. F Change
1	.475	.225	.221	3.891	.225	47.154	2	324	.000

Table 3. Regression Analysis on Resilience and Self-Concept Impact on Achievement Motivation

Model	Unstandardized Coefficient		Standardized coefficient		
	B	Std Error	Beta	T	Sig.
1 (Constant)	9.926	2.131		4.659	.000
A.Resilience	.251	.055	.233	4.539	.000
A.Self-Concept		.034	.349	6.794	.000

Dependent Variable: Achievement Motivation, $p < .05$

Prior to the examination of the predictive value of each of the predictors in explaining the model, preliminary analysis was conducted to test for key assumptions. Standard multiple regression assumptions such as linearity, adequacy of sample size, multicollinearity, normality and homoscedasticity were all satisfied.

The two hypotheses sought to investigate the individual effect of resilience and academic self-concept on students' achievement motivation. The hypotheses were tested using standard multiple linear regression analysis which has resilience and academic self-concept as the predictors in the model, and achievement motivation as a criterion variable.

Results from Table 2 indicated that students' resilience and their academic self-concept accounted for 22.5% of the variance in achievement motivation. The model was significant, $F(2, 324) = 47.154$, $R^2 = .225$, $p = .001$, which means that resilience level and academic self-concept were crucial in predicting students' achievement motivation. Further analysis as shown in Table 3 also revealed that resilience ($\beta = .233$, $t = 4.539$, $p = .001$) and academic self-concept ($\beta = .349$, $t = 6.794$, $p = .001$) were significant predictors of students' achievement motivation. Substantially, a student's dynamic capacity to overcome adversity (i.e., resilience), and the individual's belief about himself or herself relative to academics (i.e., academic self-concept) tend to affect their overall desire for excellence while in school. Implications of the findings are discussed.

Discussion

Achievement motivation emphasizes the attitude to achieve rather than the achievement itself. It actually arises from an interaction within the person. Due to the inherent nature and the critical role of achievement motivation in

the lives of students, it is always important for stakeholders of education to understand the drivers of such psychological construct in order to improve it. This present study aimed at examining the impact of resilience and academic self-concept variables on students' achievement motivation. In line with the general objective, the study explored College of Education students' resilience and academic self-concept level. Findings revealed that college students had high level of resilience. This was not surprising because first year students are mostly noted to have flexible thinking for their new environment as well as strong determination to overcome challenges in the new found context (Loh et al., 2014). Anasuri and Anthony (2018) also discovered that college students in the states of Alabama and Tennessee had high resilience. Hence, they know how and what to do in their educational context. Moreover, McGillivray and Pidgeon (2015) previously discovered university students in Australia to have high resilience. Students having high level of resilience are not only impressive but also crucial since such a status helps them to know what to do when faced with academic and life adversities. This is in line with Ungar and Liebenberg (2011) who opined that resilience which is an individual protective factor is extremely important, and it has a crucial role in the way individuals respond and react in difficult situations.

The present study also discovered college students to have high level of academic self-concept. The findings corroborate with Rubie-Davies and Lee's (2013) study which showed that New Zealand tertiary students had higher academic concept, but differed significantly based on gender. Enhanced self-concept of college students is good because within the self-concept literature, it has been associated with numerous beneficial academic outcomes, such as better course choice, choice of major, career choice and so on (Michie, Glachan & Bray, 2001; Rodriguez, 2009). Respondent rating higher on the resilient and academic self-concept scale was good. However, more crucial was the thought of whether both variables will significantly predict students' achievement motivation. Findings from this present study indicated that resilience and academic self-concept variables were significant contributors of achievement motivation construct. This is to say that students' self-evaluations and resilience do affect their desire to achieve excellence or succeed within the academic environment. The finding is in line with earlier study findings which reported that resilience of students does not only determine how students cope with the academic environment, but also heightened their desire to perform (Hartley, 2011; Leary & DeRosier, 2012). Narasimhan (2018) also intimated that achievement motivation, though it is present in varying degrees in all human beings, is largely influenced by an individual's evaluation of self. In effect, a college student becomes more desirous to succeed the academic environment when he/she has a positive view about the programme and his or her capabilities. The contribution of

resilience and academic self-concept in explaining achievement motivation further strengthens the proposition of need achievement and self-worth motivation theory that, success-oriented students tend to be optimistic, adopt a proactive and positive orientation to their studies, and are not discouraged by challenges but rather respond to it with optimism and energy (Covington & Omelich, 1991; Martin et al., 2001).

Conclusions and Implications for Practice and Research

The findings from the current study suggest that college students who were selected from four regions of Ghana were resilient and had high academic self-concept relevant for meaningful academic journey. The reliance of students implies that, even as fresh men and women of the colleges, they were psychologically ready for the hectic intellectual tasks and were more likely to cope well with adverse stressful situations. Higher academic self-concept implies that students had positive impressions about their own academic capabilities. Hence, they are more likely to actively participate fully in all academic tasks as may be required. Furthermore, the study findings also showed that resilience and academic self-concept were relevant variables for a person to desire excellence or to do well in the programme he or she is doing. This is to say that, in the quest for education stakeholders to improve college students' performance that would translate into quality teacher education in this 21st century, students' resilience and academic self-concept should be a priority and a topical issue for further interrogation. More often than not, stakeholders (i. e., teachers, researchers, education administrators and so on) attention has been on performance. However, the study has revealed that the relevant issues of 'a person's innate ability to cope with stressful academic situations (resilience), and the perception that the person has about his or her own capabilities for a particular discipline or course of action.'

Tutors/lecturers should be encouraged to relate with students with utmost good faith in order to maintain or enhance the teacher-learner relationship that has the potency to improve students' academic self-concept. Thus, tutors/lecturers should at each point in time during instructional period appreciate differences in abilities among students, and work harder to meet the diverse academic needs of students in order to enhance their academic self-concept. Furthermore, academic counseling within Colleges of Education institutions in Ghana should be made a priority and enhanced to address both self-doubt issues and that of learned helplessness, particularly to improve individual resilience and achievement motivation. Future researchers are encouraged to replicate this study in different jurisdictions for better understanding of the issue and generalizability of the study finding. Future researchers are also urged to investigate the joint effect of resilience and academic self-concept on achievement motivation in specific course domains.

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