



Analysis of the relationship between students engagement and academic achievement: Impact on college of education students in Ghana

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Abstract

The study examined the analysis of the relationship between students' engagement and academic achievement: Impact on College of Education students in Ghana. The descriptive survey design was used to conduct the study. A multi-stage sampling procedures (proportionate and simple random sampling) were used in the selection process. In all 5 Colleges of Education and 310 students comprising 187 males and 123 females were selected to participate in the study. Standardised instrument was used to collect data for the study which was tested using both descriptive statistics like mean and standard deviation as well as inferential statistics such as multiple regression and independent sample t-test. The findings showed that the self-reported behavioural, emotional and cognitive engagement did not predict academic achievement of College of Education students. When the total student's engagement construct was put together, it also did not predict academic achievement. The results again showed that there is no significance gender difference in students' engagement of College of Education students. The study recommended that policymakers and teachers should consider or pay attention to student's classroom participation in a way that directly or indirectly influences academic attainment. The study again recommended that teachers should be assigned to use methods to create students' school engagement in order to evaluate the effectiveness of each method, and if teachers recognize the benefits and outcomes that have occurred with students, teachers should become aware of the importance of their role in promoting students' school engagement. The study went on to say that principals in various Colleges of Education should encourage school programs to be held on a regular basis so that students understand that if they are more involved in school learning and activities, their grades will always be the best, and they will avoid dropping out from school.

Keywords: students engagement and academic achievement

Introduction

The phenomenon of student engagement and its impact on academic achievement of College of Education students has piqued interest in recent years. Researchers, educators, and policymakers are increasingly focusing on student engagement as a means of addressing low academic success, boredom, disaffection, and alienation, as well as high dropout rates (Fredricks, Blumenfeld & Paris, 2004; Appleton *et al.*, 2008; Connell & Wellborn, 1991; Finn, 1989; Finn & Zimmer, 2012; Fredricks & McColskey, 2012; Goodenow, 1993b; Jimerson *et al.*, 2003; Marks, 2000; Martin, 2009; Skinner, Kindermann, Connell, & Wellborn, 2009b; Skinner & Pitzer, 2012) [24, 10, 15, 21, 28, 31, 39, 40, 59, 57].

Early research characterized student engagement primarily by observable behaviours such as participation and time on task, despite significant variance in how it has been defined and quantified (Brophy, 1983; Natriello, 1984) [7, 44]. Skinner, Kindermann and Furrer (2009a, p. 494) [58], defined engagement as "the quality of a student's sense of connection or participation with the endeavor of schooling, and hence with the people, activities, goals, values, and place that form it". Student engagement is characterized as constructive, eager, willing, emotionally positive, and cognitively focused participation in school learning activities (Connell & Wellborn, 1991; Skinner *et al.*, 2009a; Skinner & Pitzer, 2012) [10, 57]. Student engagement

can also be defined as a collection of interactions between a student and the school community, a student and adults at school, a student and peers, a student and instruction, and a student and the curriculum (Yazzie-Mintz, 2010) [64]. Academic engagement is a positive sense of drive, fulfillment, psychological presence, and personal dedication to educational goals (Schaufeli, Salanova, Gonzales-Roma, & Bakker, 2002) [52].

Theoretical models have been suggested by researchers that imply that student engagement predicts future accomplishment and success in school. The participation identification model was one of the first theories of engagement (Finn, 1989) [15]. This theory defines school engagement as "containing both a behavioural and an emotional component, referred to as participation and identification" (Finn & Voelkl, 1993, p. 249) [20]. Connell and Wellborn (1991) [10] and Skinner and Belmont (1993) [56] established another influential model that distinguishes two endpoints of a continuum: engagement and disengaged patterns of action. Students that are engaged in learning have a good emotional tone and persevere when faced with a challenge (Connell & Wellborn, 1991) [10]. Students' participation was regarded as a person-centered strategy by Appleton, Christenson, and Furlong (2008) since it is a non-cognitive (meta-construct) aspect that has the ability to help students achieve their goals, especially at the college level. According to Fredricks (2011) [22],

academic engagement is higher in classrooms where learners develop interpersonal skills, where learners' autonomy is respected, where learners receive consistent and clear feedback, where teachers have high expectations, and where learners are given meaningful, interesting, and challenging tasks. Disengaged or disillusioned students, on the other hand, are passive, do not strive hard, are bored, give up easily, and exhibit negative emotions like anger, blame, and denial (Skinner & Belmont 1993) [20]. Learner boredom, separation, high dropout rates, and low achievement are all consequences of disengagement in the classroom (Fredricks, Filsecker, & Lawson, 2016; Fredricks, 2015; Landis & Reschly, 2013; McFarland, Cui, Rathbun, & Holmes, 2018) [25, 23, 35, 41]. Hence there is the need to examine the relationship between students' engagement and academic achievement and the impact it has on College of Education students in Ghana

Statement of the problem

Academic success has long been viewed as a critical outcome of student engagement. Despite the fact that there has been a lot of empirical study on the relationship between student engagement and academic accomplishment, the results have been mixed. Balfanz and Byrnes (2006) [5], for example, looked at the link between engagement and achievement and discovered that learners' engagement is crucial in predicting academic achievement. Furthermore, Patrick, Ryan, and Kaplan (2007) [47] looked into the links between the social environment, classroom engagement, and student achievement. Their study found that social environment had a good relationship with engagement, and engagement had a positive relationship with academic accomplishment.

Chase, Hilliard, Geldhof, Warren, and Lerner (2014) [8] chose 710 participants at random (69 females and 31 males) to determine the extent to which student engagement is associated to achievement in secondary school students. Their findings revealed that learners have a competent degree of engagement, but engagement and achievement have a positive moderate association. Student engagement and academic accomplishment have a large and relatively high association, according to Zhu (2010) [66] and King (2015) [33]. Lee (2014) and Pietarinen, Soini, and Pyhältö (2014) [49] showed a link between cognitive engagement and academic accomplishment. Student engagement increases academic success, according to the theorized mechanism underlying these correlations (Crossan, Field, Gallacher, & Merrill, 2003) [11], which encourages students to participate in learning activities, creating a virtuous circle of learning (Lei, Xu, Shao, & Sang, 2015) [37]. Van Rooij, Jansen, and Van de Grift (2017) [60] conducted research on 669 students from 11 high schools to see if there was a link between engagement, academic adjustment, and achievement. Students with a high level of engagement performed well in school, according to the researchers. To investigate the relationship between academic engagement and learners' academic outcomes, Wara, Aloka, and Odongo (2018) [62] chose 316 secondary school students. The study discovered a moderately positive association between learner engagement and academic outcomes. According to some academics, the link between behavioural engagement and academic accomplishment is stronger than the link between emotional and cognitive engagement (Furrer & Skinner, 2003) [27]. Their studies' findings suggest that different measures of

student engagement have varying associations with academic achievement when taken together.

Although the bulk of past research has identified a correlation between student engagement and academic success, there are also studies that have found no link between student engagement and academic success. Abid and Akhtar (2020) [1] did research to look into the link between student academic engagement and achievement. The study enlisted the participation of 800 10th grade pupils. They were chosen at random from 20 high schools in the Lahore district. Academic engagement was measured using the Academic Engagement Scale (AES), while academic accomplishment was determined using student end-of-term results. ANOVA, Pearson, and independent sample t-tests were used. The findings revealed a weak and negative relationship between students' academic engagement and their accomplishment ($r = -.088, p > 0.01$). Shernoff (2010) [55] stated that there is no link between students' active emotional engagement and their math and English achievement. In addition, Chen, Yang, Bear, and Zhen (2013) [9] discovered no link between student engagement and academic accomplishment. According to Appleton *et al.* (2006) [3], the link between cognitive engagement and academic achievement is minimal. One possible explanation for these findings is that students who receive poor grades lack a solid foundation of learning skills, making it difficult for them to achieve good grades even when they seek to engage in classroom learning. It's worth noting that the results of different studies in the literature are inconsistent. The use of a limited sample size could be one cause for the results' variability. As a result, more research is needed to modify the population and use a larger sample size to determine what the outcome will be.

Objectives of the study

1. Determine how student's engagement (behavioural, emotional, cognitive) will not predict academic achievement of College of Education students in Ghana.
2. Examine gender difference in student's engagement of College of Education students in Ghana.

Research Hypotheses

1. **H0:** Student's engagement (behavioural, emotional, cognitive) will not predict academic achievement of College of Education students in Ghana
H1: Student's engagement (behavioural, emotional, Cognitive) will predict academic achievement of College of Education students in Ghana
2. **H0:** There is no statistical significance gender difference in student's engagement of College of Education students in Ghana.
H1: There is a statistical significance gender difference in student's engagement of College of Education students in Ghana.

Engagement Model

Engagement, according to Fredricks *et al.* (2004) [24], is a flexible, growing, and multidimensional construct with three major dimensions: behavioural, emotional, and cognitive engagement. According to the authors, the dimensions are not separated, but rather interact with one another. They dimensions are described below;

Behavioural Engagement

According to Finn and Rock (1997)^[18] and Fredricks *et al.* (2004)^[24], behaviour engagement entails good behaviour such as conforming to classroom standards, obeying regulations, and not engaging in disruptive behaviours. Discussions, contributions, asking questions, paying attention, concentrating, demonstrating tenacity, and putting forth effort are all examples of behaviour engagement in learning and academic-related tasks (Fredricks *et al.*, 2004; Skinner & Belmont, 1993)^[24, 20]. Behavioural engagement is also defined by Finn (1993)^[20] and Finn *et al.* (1995)^[19] as participation in school-related activities such as sports.

Emotional Engagement

Students' affective reactions and feelings in the classroom, such as curiosity, boredom, happiness, grief, and worry, are referred to as emotional engagement (Connell & Wellborn, 1991; Skinner & Belmont, 1993)^[10, 20]. Some definitions allude to students' emotional responses to the school and the teacher (Appleton, Christenson, Kim, & Reschly, 2006; Lee & Smith, 1995)^[6, 36] while others define it as school identity (Finn, 1989; Voelkl, 1997)^[15, 61] or as belonging (a sense of being significant to the school), and place a high value on it (that is, an appreciation of success in school outcomes). The definition of emotional engagement emerges from earlier bodies of work on students' attitudes, which examined feelings toward school: liking or disliking school, the teacher, or the work; feeling happy or sad in school; or being bored or interested in the work (Fredricks *et al.*, 2004)^[24]. In addition, similar notions of emotions such as interest and value were used in previous research of student motivation. Clearly, the dimensions utilized in motivation and valuing and belonging study coincide with the constructs used in emotional engagement definitions and research. While the classifications used in motivational and value literature draw further differences between different sorts of emotional components, those employed in engagement studies are less specific and elaborate. Motivational studies of interest, for example, distinguish between situational and personal interest and presume that interest is directed towards a specific activity or scenario, whereas definitions in the engagement literature are more generic and do not distinguish between domains or activities. As a result, the source of emotional reactions is unknown (Fredricks *et al.*, 2004)^[24].

Cognitive engagement

Two significant bodies of literature influenced the definitions of cognitive engagement. One is a psychological investment in learning, as evidenced by a desire to go beyond educational requirements and a liking for challenge (Connell & Wellborn, 1991; Newman, 1989)^[10, 45]. This definition of cognitive engagement involves problem-solving flexibility, a propensity for hard work, and positive failure coping. Attention, concentration, focus, absorption, "head-on," mentally involved, participation, and a readiness to go beyond what is required are definition of cognitive engagement (Skinner & Pitzer, 2012)^[57]. However, the learning literature regards cognitive engagement as strategic or self-regulating, with meta-cognitive methods used to organize, monitor, and evaluate cognition while completing tasks (Pintrich & De Groot, 1990). Furthermore, the psychological investment in learning concepts is quite similar to motivational

conceptions like motivation to learn, learning goals, and intrinsic motivation (Fredricks *et al.*, 2004; Harter, 1981)^[24, 29]. A student who is driven to study values learning and strives for knowledge and mastery in learning contexts, according to the motivation construct. Similarly, students who set mastery objectives rather than performance goals are more concerned with learning, comprehending, mastering, and attempting to complete a difficult activity. Intrinsically motivated students seek out challenges and persevere in the face of adversity (Anderman & Maehr, 1994)^[2]. Each of these ideas stresses the extent to which students care about and value learning, and they all imply that the investment is linked to, but distinct from learning strategies (Fredricks *et al.*, 2004)^[24].

Empirical Review

The impact of behavioural, emotional, and cognitive engagement on student achievement has been established through empirical studies using cross-sectional and longitudinal research designs. Secondary school students' mathematics involvement was investigated by Ayub, Suraya, Mahmud, Salim, and Sulaiman (2016)^[4], concentrating on cognitive, affective, and behavioural engagement dimensions. A total of 387 students (186 males and 201 females) were chosen at random from urban and rural secondary schools in Pahang, Malaysia. Behavioural engagement had the greatest mean ($M = 3.74$, $SD = .63$), followed by cognitive engagement ($M = 3.56$, $SD = .43$), and affective involvement ($M = 3.48$, $SD = .47$) in descriptive analyses of mathematics engagement domains. The mean for students' overall mathematics engagement was 3.56 ($SD = .46$). Further analysis revealed significant differences in each of the engagement domains in mathematics learning (affective, cognitive, and behavioural), with students in urban schools achieving significantly higher mean scores for affective, cognitive, and behavioural domains, as well as overall mathematics engagement, than students in rural schools. There were also substantial disparities in the total mathematics involvement mean across the genders, according to the research. Girls outperformed boys in all three engagement categories (affective, cognitive, and behavioral) in mathematics learning, according to the findings. It was also discovered that girls had a higher overall mathematics engagement mean than boys.

The relationship between student engagement and academic achievement was investigated by Dogan (2015)^[12]. A total of 578 intermediate high school students were used in the investigation. Cognitive engagement was revealed to be a favorable predictor of academic achievement ($=.49$, $p.05$) in the study. Lee (2014) revealed that both emotional and behavioral engagement strongly influenced students' reading performance in a study including 268 secondary school students. Lee also discovered that behavioural engagement partially mediated the effect of emotional engagement on reading performance ($=.037$, $p.05$). Dotterer and Lowe (2011)^[13] did a similar study with primary school children. The authors found that students' achievement was predicted by cognitive and emotional engagement (integrated as a single construct) as well as behavioural engagement ($\beta = .15$, $p < .05$). ($\beta = .14$, $p < .05$). In a similar line, Perry, Liu, and Pabian (2010)^[48] found that a combination of emotional and behavioural engagement strongly predicted students' grades in a study including 285 intermediate and high school students ($\beta = .37$, $p < .001$). In addition, Mo and Singh (2008)^[42] have also provided

evidence for the positive contribution of behavioural ($\beta=.28$), emotional ($\beta=.04$) and cognitive engagement ($\beta=.20$) on students' performance outcomes among 1971 intermediate school students. Wang and Holcombe (2010) discovered that behavioural (school participation), emotional (school identity), and cognitive (application of self-regulation skills) engagement characteristics were all positively related to academic achievement GPA ($R^2 = .41$, $f^2 = .69$, $\beta = .13, .32$, and $.17$) respectively. Previous studies on student engagement revealed considerable disparities between male and female students (Fernández-Zabala, Goi, Camino, & Zulaika, 2015). Female students were more engaged in class than male students. Female students engage in fewer disruptive behaviours. Male and female students have different academic motives, according to Bikar, Marziyeh and Pourghaz (2017) [6]. In another point of view, these outcomes do not always occur in different countries. According to the findings of King's (2016) study, there was no significant difference in student engagement levels between male and female students in the Philippines.

Methods

Research Design

A research design is a master plan or blueprint that specifies the technique to be followed in order to find an answer to the research questions. The logical order, the blue print for data collecting, data analysis, and measurement of variables employed in the study are all examples of research design (Sekaran, 2006) [54]. A research design, in its simplest form, refers to the techniques and processes used by a researcher to gather, analyze, and interpret data in order to answer research questions or hypotheses. The descriptive survey design was employed for this investigation. A descriptive survey research study, according to Kerlinger (2004) [32], is aimed to gather relevant information about the current status of a phenomena. This method is appropriate since it determines the nature of the current state and is a self-report study that necessitates the collection of quantitative data from the sample. It is effective in gathering enormous amounts of data in a short length of time. A descriptive survey is a way for gathering uniform information about a target population's perceptions, attitudes, and other traits in a methodical manner (Seidu, 2007) [53]. This entails administering a pre-determined set of questions to the research units.

School Selection

The target population for the study include all College of Education students in Ghana. There are forty-six (46) Colleges of Education in Ghana (Institute of Education, 2021). The public Colleges of Education in Ghana are in five zones namely, Northern Zone which have 10 Colleges of Education, the Ashanti/Brong Ahafo Zone have 13 Colleges of Education, the Volta Zone also have 7 Colleges of Education, the Eastern/Greater Accra Zone have 9 Colleges of Education and the Central/Western Zone which also have 7 Colleges of Education. The accessible population for the study was level 200 students from 5 Colleges of Education in Ghana which amount to 1,665. A multi-stage sampling techniques were used in the selection process. Proportionate sampling technique was used to identify the total number of Colleges of Education to be selected from each of the zones. Thereafter, simple random sampling was used to select the Colleges of Education. Proportionate sampling technique was again used to identify the total number of students

to select from the Colleges of Education. Thereafter, simple random sampling specifically, the table of random numbers were used to select the students. In all 310 students which comprised 187 males and 123 females were selected based on Krejcie and Morgan (1970) [34] sampling size determination table.

Data Collection Instrument and Analysis

The Behavioural-Emotional-Cognitive School Engagement Scale (BEC-SES 15; Li & Lerner, 2013) was adopted and used in the study. The scale includes 15 items in the 4-point Likert scale (Strongly Agree = 4 to Strongly Disagree = 1). The internal consistency of the subscales of behavioural scores was .82, emotional was .87, and cognitive engagement was .90 respectively with overall scale of .95 (Li & Lerner, 2013). Students' achievement test scores were taken from Institute of Education, University of Cape Coast and used as calculated grade point average (GPA). Hypothesis one was tested with the use of multiple linear regression while hypothesis two was tested using independent sample t-test.

Findings

Hypothesis One

H0: Student's engagement (behavioural, emotional, cognitive) will not predict academic achievement of College of Education students in Ghana

H1: Student's engagement (behavioural, emotional, cognitive) will predict academic achievement of College of Education students in Ghana

The main aim of the hypothesis was to examine the relationship among self-reported behavioural, emotional, cognitive and academic achievement of College of Education students in Ghana. The results are presented in Table 1- 4.

Table 1: Correlation among the various AA, B, E and C

Variable	AA	B	E	C
Academic Achievement	1.000			
Behavioural	.027	1.000		
Emotional	-.059	-.020	1.000	
Cognitive	.076	.108	.054	1.000

Source: Field survey, 2021

To determine which of the variables given by the respondents is statistically significant in predicting academic achievement of College of Education students, a standard multiple linear regression analysis with the Enter method was performed. To see if self-reported behaviour, emotional, and cognitive were linearly connected to academic accomplishment, the Pearson's correlation was used first. The result showed that all the variables (behavioural, emotional and cognitive) had relationships with academic achievement with emotional recording a negative correlation coefficient ($r = -.059$, $p = .151$). Examining, the predictors only, the results indicates that the highest correlation was between cognitive and behavioural ($r = .108$, $p = .029$). Notwithstanding the significance of the correlation, the coefficient is medium, hence it could be said that the predictors are measuring different things so there is no collinearity. It was again realized that cognitive correlates best among all the predictors with academic achievement. Although cognitive correlate best among the variables it was not statistically significant ($r = .076$, $p = .091$). Table 2 present the model summary.

Table 2: Model summary^b of AA, B, E and C

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.100 ^a	.010	.000	20.45834

Source: Field survey, 2021 a. Predictors: (Constant), Behavioural, Emotional and Cognitive

In the model summary the R Square value was .010 which accounted for 10% of the variance in the self-reported academic achievement of students. To assess the statistical significance of the result, the ANOVA table indicates that statistically, the three

self-reported variables together could not significantly predict academic achievement ($F(3, 306) = 1.031, p = .37$). This suggests that the variables were not significant in predicting academic achievement of College of Education students.

Table 3: ANOVA^a regression of B, E, C and AA

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1294.626	3	431.542	1.031	.379 ^b
	Residual	128074.410	306	418.544		
	Total	129369.035	309			
a. Dependent Variable: GPA						
b. Predictors: (Constant), Cognitive, Emotional, Behaviour						

There was the need to ensure that the dimensions were not collinearly related as this could inflate the coefficients. The tolerance value for each of the independent variables (.988, .996, .985) were not less than .10 therefore, we have not violated the multicollinearity assumption. This is also supported by the VIF values (1.012, 1.004, 1.015), which is well below the cut-off of 10 (Pallant, 2016). Although, none of the variables predicted the outcome significantly, there was the need to

compare the different variables so it was important to consider Beta under standardised coefficient. In this regard cognitive ($\beta = .077, p = .17$) best predict the outcome as compared to the other predictors behavioural ($\beta = .017, p = .76$) and emotional ($\beta = -.063, p = .27$) as shown in Table 4. Therefore, the study fails to reject the null hypothesis that student's engagement (behavioural, emotional, Cognitive) will not predict academic achievement of College of Education students in Ghana.

Table 4: Regression coefficients of the various self-reported dimensions B, E, C and AA

Model	Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics		
	Beta			Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	41.725	.000						
	Behaviour	.017	.297	.766	.027	.017	.017	.988	1.012
	Emotional	-.063	-1.100	.272	-.059	-.063	-.063	.996	1.004
	Cognitive	.077	1.351	.178	.076	.077	.077	.985	1.015
a. Dependent Variable: GPA									

Table 5: Regression for total Students Engagement construct and academic achievement

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1	(Constant)	272.283	6.529		41.702	.000
	Engagement	.030	.152	.011	.196	.845
a. Dependent Variable: GPA						

Consequently, the study proceeded to consider the total students engagement construct as reported by College of Education students.

The results indicate that students' engagement construct did not predict academic achievement of College of Education students ($r = .011, p = .84$). Students' engagement accounted for 11% of the variation in the academic achievement of College of Education students.

Hypothesis Two

H0: There is no statistical significance gender difference in student's engagement of College of Education students in Ghana.

H1: There is a statistical significance gender difference in student's engagement of College of Education students in Ghana. The hypothesis sought to examine gender difference in students' engagement of College of Education students in Ghana. The results are presented in Table 6

Table 6: Mean difference in Students Engagement

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Engagement	Male	187	41.8289	7.79665	.57015
	Female	123	42.5854	7.41612	.66869

Source: Field survey, 2021

Table 6, displays the frequencies, means and standard deviations of the self-reported total students engagement construct between male and female students. The data presented in the table depicts an existence of mean differences between male and female students with regards to students' engagement. To test whether these differences in means are statistically significant, independent sample t-test was run and the result is presented in Table 7.

Using Levene's test for equality of variance, Table 7 reveals equality of variances test was not significant ($p = .68$) therefore

the assumption of homogeneity of variances have been met. Hence, Independent Sample T-test was used to evaluate the mean difference between male and female students in relation to total students' engagement construct. On the average student's

engagement was higher among female students ($M = 42.58$, $SD = 7.41$) than male students ($M = 41.82$, $SD = 7.79$). The difference was not statistically significant $t(308) = -.852$, $p = .39$. However, the eta squared statistics (.002) indicated a small effect size.

Table 7: Independent Samples T-test of Students Engagement

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Students Engagement	Equal variances assumed	.161	.688	-.852	308	.395	-.75649	.88790	Lower	Upper
	Engagement	Equal variances not assumed			-.861	270.197	.390	-.75649	.87876	-2.48657

Source: Field survey, 2021

Discussion

Findings on hypothesis one showed that the self-reported behavioural, emotional and cognitive did not predict academic achievement of College of Education students. When the total student's engagement construct was put together, it also did not predict academic achievement of College of Education students. The findings are consistent with those of Abid and Akhtar (2020) [1], Shernoff (2010) [55], Chen, Yang, Bear, and Zhen (2013) [9], all of whom conducted research on the relationship between student engagement and achievement. Their findings revealed that there was a weak and negative relationship between student engagement and achievement ($r = .088$, $p > 0.01$). The findings are similarly consistent with those of Appleton *et al.* (2006) [3], who discovered a weak link between cognitive engagement and academic achievement. One possible explanation for these findings is that students who receive poor grades lack a solid foundation of learning skills, making it difficult for them to achieve good grades even when they try harder. It is suggested that if engagement decreases, disengagement will also increase throughout the school years (Fredricks *et al.*, 2004; Hayam-Jonas & Friedman, 2000) [24, 30]. According to these researchers, negative attitudes toward certain subjects can be detected as early as the first year of school and continue through the last year of school, or until the student leaves or drops out. The most notable changes appear to occur during the transitions from secondary school to the tertiary (Wigfield *et al.*, 2008) [63], with 25% to 40% of students showing signs of disengagement (National Research Council and the Institute of Medicine, 2003) [43]. This can result in dropout from school and as a result it leads low achievement of students.

Hypothesis two also showed that there is no statistical significance gender difference in student's engagement of College of Education students. The findings are consistent with King's (2016) research, which indicated no significant variation in student engagement levels between female and male students. Similarly, the findings of the study agree with Finn and Cox (1992) [17] who found no statistically significant difference in academic involvement between male and female students, according to their findings. As a result, both male and female students were constantly involved in school events. It was unsurprising that they didn't have any disparities.

Conclusion and Recommendation

It's discouraging to learn that student engagement has no bearing on academic performance. However, academic engagement is higher in classrooms where learners have developed

interpersonal skills, where learners' autonomy is respected, where learners receive consistent and clear feedback, where teachers have high expectations, and where learners are given meaningful, interesting, and challenging tasks. However, if a large percentage of students are disengaged in the classroom, the likelihood of students being depressed and dropping out of school is significant, which will have a severe impact on their academic achievement. It may also be stated that both male and female students made effective use of their study time, performed well in academics, and had positive relationships with their peers and teachers. This enabled them to avoid self-destructive behaviours. The study recommended that policymakers and teachers should consider or pay attention to student's classroom participation in a way that directly or indirectly influences academic attainment. The study again recommended that teachers should be assigned to use methods to create students' school engagement in order to evaluate the effectiveness of each method, and if teachers recognize the benefits and outcomes that have occurred with students, teachers should become aware of the importance of their role in promoting students' school engagement. The study went on to say that principals in various colleges of education should encourage school programs to be held on a regular basis so that students understand that if they are more involved in school learning and activities, their grades will always be the best, and they will avoid dropping out from school.

Reference

1. Abid N, Akhtar M. Relationship between academic engagement and academic achievement: an empirical evidence of secondary school students. *Journal of Educational Research*, Dept. of Education, 2020;23(1):48-61.
2. Anderman EM, Maehr ML. Motivation and schooling in the middle grades. *Review of Educational Research*, 1994;64(2):287-309.
3. Appleton J, Christenson S, Kim D, Reschly A. Measuring cognitive and psychological engagement: Validation of the student engagement instrument. *Journal of School Psychology*, 2006;44(5):427-445. doi: DOI: 10.1016/j.jsp.2006.04.002
4. Ayub AFM, Suraya AY, Mahmud R, Salim NR, Sulaiman, R. Differences in students' mathematics engagement between gender and between rural and urban schools, *International Conference and Workshop on Mathematical Analysis*. Published by AIP Publishing, 2016. doi: 10.1063/1.4972169

5. Balfanz R, Byrnes V. Closing the mathematics achievement gap in high poverty middle schools: Enablers and constraints. *Journal of Education for Students Placed at Risk*,2006;11(2):143-159.
6. Bikar S, Marziyeh A, Pourghaz A. Affective structures among students and its relationship with academic burnout with emphasis on gender. *International Journal of Instruction*,2017;11(1):184-194
7. Brophy J. Conceptualizing student motivation. *Educational Psychologist*,1983;18:200-215.
8. Chase PA, Hilliard LJ, Geldhof GJ, Warren DJ, Lerner RM. Academic achievement in the high school years: The changing role of school engagement. *Journal of Youth and Adolescence*,2014;43(6):884-896.
<https://doi.org/10.1007/s10964-013-0085-4>
9. Chen D, Yang C, Bear G, Zhen S. School engagement as mediator between school climate and achievement. Paper presented at the annual convention of the National Association of School Psychologists, Seattle, WA, USA, 2013.
10. Connell J, Wellborn J. Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In L. Gunnar, R. Megan & A. Sroufe (Eds.), *Minnesota Symposium on Child Psychology: Self processes and development* Hillsdale: Lawrence Erlbaum Associates,1991:23:43-77.
11. Crossan B, Field J, Gallacher J, Merrill B. Understanding participation in learning for nontraditional adult learners: Learning careers and the construction of learning identities. *British Journal of Sociology of Education*,2003;24:55-67.
<https://doi.org/fw4bnf>
12. Dogan U. Student Engagement, Academic Self-efficacy, and Academic Motivation as Predictors of Academic Performance. *Anthropologist*,2015;20(3):553-561.
Retrieved from <http://search.proquest.com.ezproxy.une.edu.au/docview/1718083542?accountid=17227>
13. Dotterer AM, Lowe K. Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence*,2011;40(12):1649-1660.
<http://dx.doi.org/10.1007/s10964-011-9647-5>
14. Fernández-Zabala A, Goñi E, Camino I, Zulaika LM. Family and school context in school engagement. *European Journal of Education and Psychology*,2016;9(2):47-55.
<https://doi.org/10.1016/j.ejeps.2015.09.001>
15. Finn J. Withdrawing from school. *Review of Educational Research*,1989;59(2):117-142.
16. Finn JD. *School engagement and students at risk*. Washington, DC: National Center for Education Statistics, 1993.
17. Finn JD, Cox D. Participation and withdrawal among fourth-grade pupils. *American Educational Research Journal*,1992;29(1):141-162.
18. Finn JD, Rock DA. Academic success among students at risk for school failure. *Journal of Applied Psychology*,1997;82(2):221-234.
<http://dx.doi.org/10.1037/0021-9010.82.2.221>
19. Finn JD, Pannozzo GM, Voelkl KE. Disruptive and inattentive-withdrawn behavior and achievement among fourth graders. *The Elementary School Journal*,1995;95(5):421-434.
<http://dx.doi.org/10.1086/461853>
20. Finn J, Voelkl K. School characteristics related to student engagement. *The Journal of Negro Education*,1993;62(3):249-268.
21. Finn J, Zimmer K. Student engagement: What is it? Why does it matter? In S. L. Christenson, A. L. Reschly & C. Wylie (Eds.), *Handbook of research on student engagement* New York: Springer Science & Business Media, 2012, 97-131.
22. Fredricks JA. Engagement in school and out-of-school contexts: A multidimensional view of engagement. *Theory into Practice*,2011;50(4):327-335.
23. Fredricks JA. Academic engagement. In J. Wright (Ed.), *The international encyclopedia of social and behavioral sciences* Oxford: Elsevier,2015:2:31-36.
24. Fredricks JA, Blumenfeld PC, Paris AH. School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*,2004;74(1):59-109.
<http://dx.doi.org/10.3102/00346543074001059>
25. Fredricks JA, Filsecker M, Lawson MA. Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction*,2016;43(3):1-4.
<https://doi.org/10.1016/j.learninstruc.2016.02.002>
26. Fredricks J, McColskey W, Meli J, Mordica J, Montrosse B, Mooney K. *Measuring student engagement in upper elementary through high school: A description of 21 Instruments Issues & answers (REL 2011–No. 098)* Washington, DC: Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast, 2011, 88.
27. Furrer C, Skinner E. Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*,2003;95:148-162.
<https://doi.org/bgsj2s>
28. Goodenow C, Grady K. The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education*,1993;62(1):60-71.
29. Harter S. A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. *Developmental Psychology*,1981;17(3):300-312.
30. Hayam-Jonas A, Friedman I. Student satisfaction from school. In S. Tsidkiyahu & M. Peled (Eds.), *Education in the third millennium: Initiatives in education, teaching and management* Bet Berl: Yigal Allon Teacher Training College for the Teaching of Values, 2000, 87-95.
31. Jimerson S, Campos E, Greif J. Toward an understanding of definitions and measures of school engagement and related terms. *California School Psychologist*,2003;8:7-27.
32. Kerlinger FN. *Foundation of behavioural research*. Second Edition. Surjeet, 2004.
33. King RB. Sense of relatedness boosts engagement, achievement, and well-being: A latent growth model study. *Contemporary Educational Psychology*,2015;42:26-38.
<https://doi.org/chqz>

34. Krejcie RV, Morgan DW. Determining sample size for research activities. *Educational and Psychological Measurement*,1970;30(3):607-610.
35. Landis RN, Reschly AL. Reexamining gifted underachievement and dropout through the lens of student engagement. *Journal for the Education of the Gifted*,2013;36(2):220-249. <https://doi.org/10.1177/0162353213480864>
36. Lee VE, Smith JB. Effects of high school restructuring and size on early gains in achievement and engagement. *Sociology of Education*,1995;68(4):41-270.
37. Lei H, Xu G, Shao C, Sang J. The relationship between teachers' caring behavior and academic achievement of students: The mediating role of learning self-efficacy. *Psychological Development and Education*,2015;31:188-197. <https://doi.org/chq2>
38. Li Y, Lerner RM. Trajectories of school engagement during adolescence: Implications for grades, depression, delinquency, and substance use. *Developmental Psychology*,2011;47(1):233-247. <http://dx.doi.org/10.1037/a0021307>
39. Marks H. Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. *American Educational Research Journal*,2000;37(1):153-184. doi: 10.3102/00028312037001153
40. Martin A. Motivation and engagement across the academic life span: A developmental construct validity study of elementary school, high school, and university/college students. *Educational and Psychological Measurement*,2009;69(5):794-824. doi: 10.1177/0013164409332214
41. McFarland J, Cui J, Rathbun A, Holmes J. Trends in High school dropout and completion rates in the United States: 2018. Compendium Report. (NCES 2019-117). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2018. Retrieved May 6th 2018 from <http://nces.ed.gov/pubsearch>
42. Mo Y, Singh K. Parents' Relationships and involvement: effects on students' school engagement and performance. *Research in Middle Level Education*,2008;31(10):1-11. <http://dx.doi.org/10.1080/19404476.2008.11462053>
43. National Research Council and the Institute of Medicine. *Engaging schools: Fostering high school students' motivation to learn*. Washington DC: The National Academies Press, 2003.
44. Natriello G. Problems in the evaluation of students and student disengagement for secondary schools. *Journal of Research and Development in Education*,1984;17:14-24.
45. Newman FM. Student engagement and high school reform. *Educational Leadership*,1989;46(5):34-36.
46. Pallant J. *A step by step guide to data analysis using SPSS (6TH ED.)*. New York, NY 10121-2289, USA, 2016.
47. Patrick H, Ryan AM, Kaplan A. Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*,2007;99(1):83-98.
48. Perry JC, Liu X, Pabian Y. School engagement as a mediator of academic performance among urban youth: The role of career preparation, parental career support, and teacher support. *The Counseling Psychologist*,2010;38(2):269-295. <http://dx.doi.org/10.1177/0011000009349272>
49. Pietarinen J, Soini T, Pyhältö K. Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research*,2014;67:40-51. <https://doi.org/chq3>
50. Pintrich PR, Smith DA, Garcia T, McKeachie WJ. Reliability and predictive validity of the motivated strategies for learning questionnaire (Mslq). *Educational and Psychological Measurement*,1993;53(3):801-813. doi: 10.1177/0013164493053003024
51. Reeve J, Tseng CM. Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology*,2011;36(4):257-267. <https://doi.org/10.1016/j.cedpsych.2011.05.002>
52. Schaufeli WB, Salanova M, Gonzales-Roma V, Bakker AB. The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*,2002;3:71-92.
53. Seidu A. *Modern approaches to research in educational administration*. Kumasi: Payless Publication Limited, 2007.
54. Sekaran U. *Research methods for business: A skill-building approach (3rd ed.)*. New York: John Wiley, 2006.
55. Shernoff DJ. Engagement in after-school programs as a predictor of social competence and academic performance. *American Journal of Community Psychology*,2010;45:325-337. <https://doi.org/cvk8sg>
56. Skinner EA, Belmont M. Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*,1993;85(4):571-581.
57. Skinner EA, Pitzer JR. Developmental dynamics of student engagement, coping, and everyday resilience. In S. L. Christenson, A. L. Reschly & C. Wylie (Eds.), *Handbook of research on student engagement* New York: Springer Science & Business Media, 2012, 21-44.
58. Skinner EA, Kindermann T, Furrer C. A motivational perspective on engagement and disaffection. Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*,2009a;69(3):493-525. doi: 10.1177/0013164408323233
59. Skinner EA, Kindermann T, Connell J, Wellborn J. Engagement and disaffection as an organizational construct in the dynamics of motivational development. In K. Wentzel & A. Wigfield (Eds.), *Handbook of motivation in school* Mahwah, NJ: Erlbaum, 2009b, 223-245.
60. Van Rooij EC, Jansen EP, Van de Grift WJ. Secondary school students' engagement profiles and their relationship with academic adjustment and achievement in university. *Learning and Individual Differences*,2017;54(2):9-19. <https://doi.org/10.1016/j.lindif.2017.01.004>
61. Voelkl KE. Identification with school. *American Journal of Education*,1997;105(3):294-302.
62. Wara E, Aloka PJ, Odongo BC. Relationship between emotional engagement and academic achievement among Kenyan secondary school Students. *Academic Journal of Interdisciplinary Studies*,2018;7(1):107-118. <https://doi.org/10.2478/ajis-2018-0011>.

63. Wigfield A, Guthrie JT, Perencevich KC, Taboada A, Klauda SL, McRae A. Role of reading engagement in mediating effects of reading comprehension instruction on reading outcomes. *Psychology in the Schools*,2008;45(5):432-445. doi: 10.1002/pits.20307
64. Yazzie-Mintz E. Charting the path from engagement to achievement: A report on the 2009 high school survey of student engagement. Bloomington: Center for Evaluation & Education Policy, 2010.
65. Zaff JF, Kawashima-Ginsberg K, Lin ES, Lamb M, Balsano A, Lerner RM. Developmental trajectories of civic engagement across adolescence: Disaggregation of an integrated construct. *Journal of Adolescence*,2011;34(6):1207-1220. <https://doi.org/10.1016/j.adolescence.2011.07.005>
66. Zhu XX. A study of the relationship between fear of failure, learning engagement and academic performance in high school students (Master's thesis). Hebei Normal University, 2010. Shijiazhuang, China. <https://www.doc88.com/p-5794120159939.html>