

**UNDERGRADUATES' ACADEMIC ENGAGEMENT: THE PREDICTIVE POWER OF  
ACADEMIC STRESS, EMOTIONAL INTELLIGENCE AND RESILIENCE**

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**Abstract**

This study investigated the predictive power of academic stress, emotional intelligence, and resilience on undergraduates' academic engagement. A cross-sectional survey design was adopted, and a multi-stage sampling technique was used to select 420 respondents, of which 398 (94.8%) were retrieved. Two hypotheses were formulated and tested using descriptive statistics, Pearson Product Moment Correlation, and multiple regression analysis at the 0.05 significance level. The findings of this study revealed that 45.1% of the total variance in the undergraduates' academic engagement is accounted for by academic stress, emotional intelligence, and resilience. Furthermore, there were significant and positive relationships between academic engagement, emotional intelligence, and resilience. However, a significant but negative relationship existed between academic stress and engagement. The study concluded that institutional policies and structures should be designed to cushion the negative effect of stress on learning. Therefore, it was recommended that emotional intelligence and resilience studies be incorporated into the school curriculum.

**Keywords:** Academic engagement, academic stress, emotional intelligence, resilience, and Undergraduates

## **1. Introduction**

Every nation hopes to have a bright future and should emphasize education because it is the way to development. Yusuf and Al-Banawi (2013) noted that education is an essential investment in modern economics because, as previously seen within the framework of a knowledge-based economy, there is a strong and positive correlation between economic activity and education in explaining economic growth. Olayanju (2014) posited that education is critical in building human capacity and skills. Academic success is the product of numerous variables that collectively aid university students in their experiences and increase their chances of attaining a postsecondary degree. To further clarify the nature of this success, some areas in the literature are dedicated to exploring student academic engagement.

Student engagement has recently become one of the school's desired outcomes because of its strong connection to academic success and well-being. Previous research has demonstrated strong links between student engagement in learning and such outcomes as school dropout, drug use, mental health, and academic outcomes. From the researcher's teaching experience over the years, students who engaged in learning were found to be more successful academically and less likely to drop out of school. They were intrinsically motivated to invest in learning, attend classes, and participate in study activities.

Student engagement has been a debatable issue for educational leaders. Engagement in education corresponds to academic engagement, which refers to a state of psychological well-being and commitment to studies (Ayodele et al., 2021). Student engagement has primarily and historically focused on increasing achievement, positive behaviors, and a sense of belonging in students so they might remain in school and be successful. The dynamics of the scholastic atmosphere have made the issue of academic stress, emotional intelligence, and resilience essential

for rousing academic performance among students. Regarding this view, it is paramount to examine their roles in improving students' academic engagement (Ononye et al., 2022).

Academic stress is mental distress concerning some anticipated frustration associated with academic failure or even unawareness of the possibility of such failure (Manikandan & Neethu, 2018). Students face many academic demands, for example, school examinations, answering questions in class, showing progress in school subjects, Understanding what the teacher is teaching, competing with other classmates, and fulfilling teachers' and parents' academic expectations. These demands may tax or exceed the available resources of the students. Consequently, they can be under stress since the demand is related to achieving an academic goal. According to Olanrenwaju (2017), academic stress reflects the perception of an individual's academic frustration, academic conflict, academic pressure, and academic anxiety. Therefore, the need to see how students approach academic activities in a learning context could be influenced by academic stress.

Emotional intelligence (EI) is recognizing, understanding, and being able to control one's and other peoples' emotions (Bhuyan, 2021). Emotional intelligence (EI) is a type of aptitude that involves monitoring one's feelings and that of others, discriminating between the two entities, and using gathered information to guide one's behavior. Students who are successful in their educational goals possess the ability to perceive, assimilate, understand, and regulate their personal and other people's emotions (Salovey & Mayer, 1990). This implies that emotional intelligence skills could contribute to students' academic engagement. Slatten et al. (2021) asserted that EI would likely yield a desirable attainment outcome since emotions can widen the concentration and cognition of students for scholastic knowledge. According to Hartmann et al. (2020) in Ononye et al. (2022), increasing spirals of students' academic engagement can affect EI positively if there are positive emotional dynamics stemming from the manifestation of academic resilience.

Academic resilience is described as a cognitive capacity to effectively predict and acclimatize to demanding situations in an educational environment (Romano et al., 2021). According to Ononye et al. (2022), academic resilience evolved from the array of capabilities that originate from significant scrutiny and amendment of maladjustment tendencies associated with exigent actions. Also, resilience is associated with basic protective systems, which include problem-solving, mastery, reasoning, meaning-making, and self-regulation (Theron, 2012). The characteristics of the individual and (social) environment stimulate the ability to maintain functioning despite the demands of the situation and moderate the effects of stressors on health and adjustment indicators (Adariku, 2020; Gowan et al., 2014).

Therefore, as student engagement is widely presumed to be malleable, exploring the predictors of school engagement and outlining factors that can influence it positively is relevant. In light of the described positive consequences of student engagement, the current study aims at contributing to the growing body of research by exploring the mechanisms of influence on student engagement. This study assessed the influence of academic stress, emotional intelligence, and resilience on undergraduates' academic engagement in Ogun State, Nigeria.

### ***1.1 Hypotheses***

The following hypotheses are formulated for testing at a 0.05 level of significance.

1. There is no significant relationship between academic stress, emotional intelligence, resilience, and undergraduate academic engagement.
2. There is no significant contribution of academic stress, emotional intelligence, and resilience to predicting academic engagement among undergraduates.

## **2 Methods**

### **2.1 Research Design:**

This research adopted a cross-sectional survey design to assess academic stress, emotional intelligence, and resilience as predictors of academic engagement among undergraduates in Ogun State, Nigeria.

## **2.2 Sample and Sample Size:**

The study population comprised all students in the public universities in Ogun State. Available statistics indicated three public universities in Ogun State as of April 2023. The Universities consist of one Federal University (Federal University of Agriculture, Abeokuta) and two state universities (Olabisi Onabanjo University, Ago-Iwoye, and Tai-solar in University of Education, Ijebu-Ode). A sample of 420 undergraduates was randomly selected. The universities were stratified into Federal University and State Universities to select the sample. For this study, two universities were selected (Federal University of Agriculture, Abeokuta, and Olabisi Onabanjo University, Ago-Iwoye) using a simple random sampling technique. In order to select undergraduates with similar characteristics, undergraduates from the Department of Physics and Microbiology were purposively selected because the sampled institutions offered them. From each institution, two hundred and ten (210) undergraduates were selected using a disproportionate stratified sampling technique making a total of 420 respondents.

## **2.3 Instrumentation:**

Four research instruments were used, including the following.

***Academic Engagement Scale*** (DeVito, 2016): It is a 10-item questionnaire measured on a 4-point Likert-type scale from 1 (*Never*) to (very often). The scale reported a reliability level of 0.90 and a validity level of 0.97.

**Academic Stress Scale (ASS)** (Sinha et al., 2001): It consisted of 30 items measured on a 5-point scale from 1 = Strongly Agree (SA) 2 = Agree (A) 3 = Neutral (N) 4 = Disagree (D) 5 = Strongly Disagree (SD). The scale reported a reliability level of 0.93 and a validity level of 0.81.

**The Emotional Intelligence Scale (EIS)** (Schulte et al., 1998) is 33 self-referencing statements tapping the appraisal and expression of emotions in self and others, emotion perception and regulation in self and others, and emotion utilization. The scale has a Cronbach alpha ranging from 0.72 to 0.93 within Nigeria. This was shortened and modified into a 21-item by Mabekoje (2014).

**Resilience Scale (RS)** (Wagnild, 2009): RS-14 is a shortened version of the RS-25 comprising 14 items. Each item is on a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale reported a reliability level of 0.93 and a validity level of 0.87.

**Data Collection:** The researchers personally visited the institutions selected for the study. The course advisers were contacted to request their support and permission to collect student data. The instruments were administered to the respondents willing to participate (that is, their consent was sought before the administration). The respondents were asked to fill out the instrument independently before returning them to the researcher. Of the 420 questionnaires distributed, only 398 (94.8%) were retrieved and valuable for the study.

**Method of Data Analysis:** The data analysis tools adopted include descriptive and inferential statistics. Descriptive statistics of frequency distribution mean and standard deviation were used to analyze the data and provide answers to the socio-demographic data. Simple regression analysis tests the hypotheses at a 5 percent significance level ( $\alpha = 0.05$ ) using the SPSS 23 version.

### **3. Results**

Table 1 shows that 67 (16.8%) respondents claimed they were between 16-18 years old. Two hundred and two (50.8%) of the respondents were 19-21 years of age, 112 (28.1%) were 22-24 years of age, and 17 (4.3%) were 25 years above. The majority (62.1%) of the respondents were female; 204 (51.8%) were Christians; almost all the participants were singles (88.4%). The participants' ethnic groups revealed that 308 (77.4%) of the participants were Yoruba, 22 (5.5%) were Hausas, 52 (13.1%) were Igbo, and 16 (4.0%) were others. The high population observed among the Yoruba is because the study area is in Yoruba land. Furthermore, the undergraduates' years of the study revealed that 109 (27.4%) were in 200 Level, 91 (22.9%) in 300 Level, 78 (19.6%) in 500 Level, 70 (17.6%) in 400 Level and 50 (12.6%) in 100 Level.

**Table 1: Respondents' Demographical Data**

Sr #	Variable (N =398)	Frequency	Percentage	
1	Age	16-18yrs	67	16.8
		19-21yrs	202	50.8
		22-24yrs	112	28.1
		25yrs above	17	4.3
2	Gender	Male	151	37.9
		Female	247	62.1
3	Religion	Christianity	204	51.8
		Islam	184	46.2
4	Marital Status	Single	352	88.4
		Married	46	11.6
5	Ethnicity	Yoruba	308	77.4
		Hausa	22	5.5
		Igbo	52	13.1
		Others	16	4.0
6	Level	100 Level	50	12.6
		200 Level	109	27.4
		300 Level	91	22.9
		400 Level	70	17.6
		500 Level	78	19.6

Results in Table 2 revealed that there were significant and positive relationships among academic stress and emotional intelligence ( $r = 0.431$ ;  $p = .00 < 0.05$ ); academic stress and resilience

( $r = 0.394$ ;  $p = .00 < 0.05$ ). Also, emotional intelligence is significantly and positively related to resilience ( $r = 0.545$ ;  $p = .00 < 0.05$ ) and academic engagement ( $r = 0.618$ ;  $p = .00 < 0.05$ ). Resilience was also positively related to academic engagement ( $r = 0.398$ ;  $p = .00 < 0.05$ ). However, a significant but negative relationship existed between academic stress and academic engagement ( $r = -0.172$ ;  $p = 0.05$ ). Therefore, the hypothesis that no significant relationship exists among academic stress, emotional intelligence, resilience, and undergraduate academic engagement cannot be retained.

**Table 2: Pearson Product Moment Correlation Coefficients of the interrelationship between academic stress, emotional intelligence, resilience, and undergraduate academic engagement**

	Academic stress	Emotional Intelligence	Academic Resilience	Academic engagement
Academic stress	1	0.431**	0.394**	-0.172*
Emotional intelligence	0.431**	1	0.545**	0.618**
Resilience	0.394**	0.545**	1	0.398**
Academic engagement	-0.172*	0.618**	0.398**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Table 3: Summary of Multiple Regression Analysis of the composite influence of academic stress, emotional intelligence and resilience on undergraduates' academic engagement**

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	P
Regression	82.902	3	27.634	6.261	0.000
Residual	1743.530	395	4.414		
Total	1826.432	398			

**R = .677; Multiple R<sup>2</sup> = .458; Multiple R<sup>2</sup> (Adj) = .451; Standard error estimate = 3.453**

Table 3 shows that undergraduates' academic engagement yielded multiple regression coefficients ( $R$ ) of 0.677 and a multiple regression square of 0.451. This shows that 45.1% of the total variance in the undergraduates' academic engagement is accounted for by academic stress, emotional intelligence, and resilience. The Table also indicates that the analysis of variance of the



multiple regression data produced an F-ratio value significant at the 0.000 level ( $F_{(3,395)} = 6.261$ ;  $p = 0.000 < 0.05$ ). Therefore, academic stress, emotional intelligence, and resilience combined to influence undergraduates' academic engagement. Therefore, the hypothesis, "There is no significant composite contribution of academic stress, emotional intelligence, and resilience to the prediction of academic engagement among undergraduates," was rejected.

### **Discussion of Findings**

The outcome of the first hypothesis revealed a significant composite contribution of academic stress, emotional intelligence, and resilience to the prediction of academic engagement among undergraduates. The findings showed that about half of the variance observed in the undergraduates' academic engagement is accounted for by academic stress, emotional intelligence, and resilience. It could mean that students encounter myriad stressors impacting their cognitive and emotional function, such as an uncondusive learning environment, limited support resources, and poor teacher support. Academic resilience and emotional intelligence are critical personal resources that can stimulate students' related outcomes, like academic performance (AP) and engagement. The result corroborates the findings of Chew et al. (2013), Romano et al. (2021), and Sarrionandia et al. (2018) in their various studies that emotional intelligence and resilience enhance academic outcomes as well as buffer the effects of stress on individuals.

The effect of academic resilience and emotional intelligence on academic engagement concurred with Zheng et al. (2020) that academic resilience has a predictive association with emotional intelligence in an academic context and showed consistency with the findings of Olusoji et al. (2021) and Sarwar et al. (2017), where resilience was conceptualized as a facet of psychological capital. That of emotional intelligence, as indicated by Afzal et al. (2016) and Da et

al. (2021), showed that successful regulation of emotional experiences is a critical aspect of academic resilience and engagement. Students with high academic resilience tend to strengthen emotional intelligence processes to adapt positively to challenging situations and increase school engagement. Emotional intelligence is one of the protective factors of academic engagement (Thomas & Zolkoski, 2020).

Many studies link positive engagement outcomes with life satisfaction (Hakanen & Schaufeli, 2021; Spedding et al., 2017). Zheng et al. (2020) confirmed the predictive power of resilience and emotional intelligence on secondary school students' academic success in Shanghai, China. Tugade and Fredrickson (2004) argued that resilient individuals are characterized by their positive emotionality because they strategically elicit positive emotions in challenging or stressful contexts, making them more productive. This is supported by Ononye et al. (2022), who reported that academic resilience was positively related to emotional intelligence, and academic resilience and emotional intelligence were positively related to academic performance. Emotional resilience mediates the positive relationship between academic resilience and academic performance, which might influence how students engage in academic activities (Ononye et al., 2022).

The second hypothesis's outcome revealed significant and positive relationships among emotional intelligence, resilience, and academic engagement. The positive relationship between academic resilience, emotional intelligence, and academic engagement concurred with Zheng et al. (2020) that academic resilience has a predictive association with emotional intelligence in an academic context and showed consistency with the findings of Olusoji et al. (2021) and Sarwar et al. (2017), where resilience was conceptualized as a facet of psychological capital. The Correlation between academic resilience and emotional intelligence indicated by Afzal et al. (2016) and Da et al. (2021) was confirmed. Since successful regulation of emotional experiences is a critical aspect

of academic resilience and engagement, students with high academic resilience strengthen emotional intelligence processes to demonstrate positive adaptation to challenging situations and increase school engagement. Emotional intelligence benefits from the experiential nature of students' adaptive functioning in a challenging academic environment. It seems logical to argue that emotional intelligence may be one of the protective factors of academic resilience due to the overlapping emotional regulation process that results in adaptive emotions (Thomas & Zolkoski, 2020).

Academic resilience, emotional intelligence, and academic engagement positively relation found support from Bittmann (2021). Thus, resilience, emotional intelligence, and engagement positively affect academic success. It is also in tandem with the general expectations of Thomas and Zolkoski (2020), Slatten et al. (2021), and Suleman et al. (2019) that academic resilience is an inner strength or resource a student should possess and capitalize on for better AP. Arguably, the cognitive state of students and co-occurring emotions would not be compromised to negate AP because of the protective factors (e.g., emotion regulation, personal strength, social competence, social support quality) impeding the negative impact of stressful educational contexts.

#### **4. Conclusion and Implications of the Study**

The present study's results have some implications for students, educators, and stakeholders. Since academic stress is negatively related to academic engagement, it implies that institutional policies and structures should be designed to cushion the negative effect of stress on learning. When this is in place, the students' stress levels will be reduced, making them more engaged with academics. This is important since cognitive evaluation theory Deci and Ryan (1985) have also proposed that environments impact the development of intrinsic motivation. More so, more attention

should be paid to recreation since this enables the students to recuperate from stress; a good measure of it will likely enhance their chances of focusing on academics.

Preventive strategies enhance undergraduates' emotional intelligence and resilience when a stressful situation arises. For instance, helping students acquire emotional intelligence competencies (e.g., perception, appraisal, expression of emotion, emotional facilitation of thinking, understanding and analyzing emotion, and employing emotional knowledge) may buffering the undergraduates' academic stress.

The results also indicated that resilience is positively related to academic engagement; this also has implications because resilience is the ability to withstand adversity and bounce back from complex life events. Being resilient does not mean that people do not experience stress, emotional upheaval, and suffering. Some people equate resilience with mental toughness, but demonstrating resilience includes working through emotional pain and suffering. This, in turn, will help an individual organize and execute the course of action required to attain predetermined types of academic engagement and is also concerned with estimating what one can attain with the skills one currently possesses. Thus, students should be encouraged to develop and cultivate a resilient attitude. This is important because it could serve as a buffer that may keep the students going despite their experience of academic stress.

In order to improve learning engagement, guidance should be provided for students to increase their emotional intelligence, which includes the ability of students to recognize and manage their own emotions, recognize the emotions of others and build relationships. Its relevance to learning engagement is that students who enjoy the climate of the classroom atmosphere can solve their emotional problems before starting learning. It will serve as excellent internal motivation, socialize well in class, and have better learning engagement than those who do not.

#### **4.1 Recommendations**

The following recommendations are presented based on the findings of this study.

- ❖ The efficacy of the three predictor variables is a pointer to the fact that undergraduates' academic engagement could be enhanced if the university management and the teachers correctly understand them. This will enhance undergraduates' academic engagement and foster coping skills and motivation to learn or study.
- ❖ They understand how academic stress, emotional intelligence, and resilience influence undergraduates' academic engagement and can help the university authority provide the students with the best quality services. Practicing counselors should take every opportunity to utilize as many strength-based approaches as possible when working with students seeking professional help.
- ❖ Given the potency of emotional intelligence in this study, it is recommended that emotional intelligence study should be incorporated into the curriculum of the schools across the federation. In this regard, competent psychologists should be involved in the review of the curriculum for education in Nigeria.
- ❖ It is equally recommended that educational needs in Nigeria should be comprehensively reviewed to meet the citizens' demands. Training programs should improve the student's academic engagement in Nigeria.

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