Emotional Intelligence as correlates of Academic Procrastination among Students in Higher Institutions of Learning in North-Central, Nigeria

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Abstract
This study examines emotional intelligence as a correlate of academic procrastination among students in higher institutions of learning in North-Central Nigeria. A correlational research design was adopted for the study; a stratified sampling technique was employed to select eight (8) higher institutions in the region. A proportionate sampling technique was used to sample 433 students in the selected institutions in Nigeria. Two adapted scales were used to assess the variables of interest in this study (Emotional intelligence and academic procrastination) from Mangal and Mangal (2004) and Lay (1986). Their validity and reliability were acceptable at 0.67 and 0.71, respectively. The study employed the Pearson Product-Moment Correlation Coefficient to test the null hypotheses. The findings of this study revealed that there was significant positive relationship between emotional intelligence and academic procrastination among male and female students in higher institutions of learning in North-Central, Nigeria; there was significant positive relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria; and there was significant positive relationship between male and female students ' academic procrastination in higher institutions of learning in North-Central, Nigeria. This study recommended that students, regardless of gender, should use their emotional intelligence to reduce academic procrastination. The implications of this study for policymakers and interventions in higher education are to identify practical ways to help undergraduates overcome academic procrastination and to design a programme that enhances students' emotional intelligence.
Keyword: Academic Procrastination, Emotional Intelligence, Higher Institutions of Learning, Male and Female

Introduction

Emotional intelligence suggests that humans are both rational and emotional beings. They are predominantly neither rational beings nor emotional beings. Hence, adaptation and coping abilities in life depend on the integration of both rational and emotional capacities (Salovey, Bedell, Detweiler, & Mayer, 2000). Every child is born with some intellectual potential (Intelligence as innate), which grows and develops with maturity and experience (as acquired). Similarly, one is born with some potential for

emotional intelligence, including emotional sensitivity, emotional memory, emotional processing, and emotional learning ability. The potential (unlike intelligence) is liable to develop or be damaged as a result of one's life experiences. (Mangal, 2007). Emotional intelligence helps you build stronger relationships, succeed at school and work, and achieve your career and personal goals. It can also help you to connect with your feelings, turn intention into action, and make informed decisions about what matters most to you (Segal et al, 2019). Emotional Intelligence supports a range of developments, and awareness is one of the key points to consider in developing the skills we need for a successful adulthood. Emotional intelligence is the ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathise with others, overcome challenges and defuse conflict.

Emotional intelligence involves a combination of competencies that allow a person to be aware of, understand, and control their own emotions, recognise and understand the emotions of others, and use this knowledge to foster their own success and the success of others. Emotional Intelligence is a recent development in the area of intelligence as well as in affective science, both of which have given birth to over overlapping perspectives on human nature. Dalip Singh (2003) stated that emotional Intelligence comprises three psychological dimensions: emotional sensitivity, emotional maturity, and emotional competency, which motivate an individual to recognise truthfully, interpret honestly, and handle the dynamics of human behaviour. Mala Kapadia (2004) stated that emotional Intelligence from a Vedic Psychology perspective can be described as the transformation of mind, body, and spirit to realise our true potential for universal well-being and abundance of joy.

Academic procrastination is an individual's failure to complete the academic tasks he originally intended to complete, and it is accompanied by negative emotional reactions (Ma, Zhang, Wang, Ding, & Li, R., 2020). Tuckman (1991) posited that academic procrastination is an individual's behavioural tendency to avoid academic tasks, a manifestation of insufficient self-control. Steel (2017) stated that academic procrastination is an irrational behaviour that deliberately delays learning and work, even though individuals realise the adverse effects it has on them. Ferrari and Díaz-Morales (2017), cited in Guo and Lee (2022), defined academic procrastination as irrational behaviour. Those who avoid procrastination choose to postpone learning tasks to maintain their self-worth, while those who procrastinate deliberately enjoy the pleasure of the final sprint when they cannot escape the tasks. Svartdal and Løkke (2022) found that academic procrastination is a behavioural tendency to delay the completion of academic tasks or goals. Factors of procrastination may be situational or personal. The cause of procrastination has been a major concern for many theorists. Among the situational factors, the workload of assignments and students' improper time management have been considered important causes of academic procrastination (Sultan & Hussain, 2010). Research studies have revealed that personal dispositional factors associated with fear of failure, such as depression and anxiety, often lead to procrastination (Chang, 2014; Milgram & Toubiana, 1999; Senecal, Koestner, & Vallerand, 1995). There are various classifications of procrastinators based on personality type (Wessel et al., 2019). This can be break down into four types of academic procrastination, namely: active academic procrastination and passive academic procrastination (Wieland, 2022); avoidance academic procrastination and arousal academic procrastination (Van Eerde &Venus, 2018); anxious academic procrastination and relaxed academic procrastination (Can & Zeren, 2019); and different tasks academic procrastination (Solomon & Rothblum, 1984).

More importantly, various studies have found a negative relationship between academic procrastination and emotional intelligence (Chow, 2011; Deniz, Tras, & Aydogan, 2009; Heward, 2010). This means that people with high emotional intelligence pay greater attention to their own emotions, have better emotional clarity than others, are capable of emotional healing, and thus are able to complete their activities in time (Heward, 2010), cited in Arooj, Maria, and Sobia (2021). In the same vein, studies have shown that gender differences exist in academic procrastination (Else-Quest, Hyde, Goldsmith, & Van Hulle, 2006; Feingold, 1994), as cited in Arooj, Maria, and Sobia I. (2021). Previous studies on gender differences in academic procrastination have yielded divergent findings (Feingold, 1994). Male students exhibit greater academic procrastination than female students. Contrariwise, other findings stated that female students experience

more academic procrastination than male students (Else-Quest et al., 2006). Many studies found that gender differences exist in emotional intelligence (Sutarso, 1999). Female students were more predisposed to have higher emotional intelligence than their male counterparts. It was found that men are less emotionally expressive than women because they can understand and recognise emotions better. Similarly, the current study found that female students who experience emotional intelligence show better academic performance than their male counterparts who don't (Sutarso, 1999), cited in Arooj, Maria, and Sobia (2021).

The major problem of this study, therefore, is to examine the contradictions that have emanated from the various findings of previous research on emotional intelligence and academic procrastination. Besides, from the available literature at the researcher's disposal, it has been discovered that those past studies left some gaps unfilled. Based on the review of related literature conducted by earlier researchers, none of these studies addressed emotional intelligence and academic procrastination among male and female undergraduate students in North Central, Nigeria. As a result of limitations observed in past studies, particularly with respect to the variables covered, the areas of operation, and sample size, this study examined emotional intelligence and academic procrastination among male and female undergraduate students in North Central Nigeria.

Purpose of the Study

The main purpose of this study is to examine the relationship between emotional intelligence and academic procrastination among male and female students in higher institutions of learning in North-Central, Nigeria. Specifically, it examines:

1. The relationship between emotional intelligence and academic procrastination among male and female students in higher institutions of learning in North-Central, Nigeria
2. The relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria
3. The relationship between male and female students' academic procrastination in higher institutions of learning in North-Central, Nigeria

Hypotheses

The following null hypotheses were formulated and tested in the context of this study.

HO_1: There is no significant relationship between emotional intelligence and academic procrastination of male and female students in higher institutions of learning in North-Central, Nigeria

HO_2: There is no significant relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria

HO_3: There is no significant relationship between male and female students' academic procrastination in higher institutions of learning in North-Central, Nigeria

Methods

Research Approach, Paradigm, and Design

This study adopted a quantitative, correlational research design. A stratified sampling technique was employed to select twelve (12) higher institutions in the selected four states in North-Central, Nigeria. In each state, three higher institutions were selected: a university, a polytechnic, and a college of education. A proportionate sampling technique was used to sample four hundred and thirty-three (433) students in the selected institutions in Nigeria. The proportionate sampling technique was used in line with Sambo (2008), who posited that the best procedure for selecting a sample from an unequal population is this method.

Data Collection Instruments

Two adapted instruments were used to assess the variables of interest in this study (Emotional intelligence and academic procrastination) from Mangal and Mangal (2004) and Lay (1986). The instruments contained two sections: A and B. Section A contained demographic data of the respondents, namely gender and institution type. Section B consists of the items on the scales that embed the main variables of interest in

this study (emotional intelligence and academic procrastination). Psychologists validated them through face and content validity; this implies that the experts reviewed the instruments based on their expertise and found them valid and suitable for the study. The test-retest method of reliability was adopted; the data were analysed using the Pearson Product-Moment Correlation Coefficient (PPMC), and reliability coefficients of 0.67 and 0.71 were recorded. The instrument was administered to the respondents by the researchers with the assistance of five (6) trained research assistants.

Data Analysis

The collected data were analysed using SPSS (Statistical Package for the Social Sciences, version 21). The Pearson Product-Moment Correlation Coefficient (PPMC) statistical tool was used to test the formulated hypotheses at the 0.05 level of significance.

Ethical Consideration

Informed consent from the respondents before the administration of the instrument and data collection, ensuring they understand the purpose, and benefits of study was adhered to; confidentiality: respondents anonymity and confidentiality was safe guarded by removing identifying information from the instruments and ensuring secure storage; voluntary participation: respondents were allowed to withdraw from the study at any time without any penalty; ethical approval most be sought from relevant ethics committees or institutional review boards (school management) before commencing data collection.

Data collection is one of the crucial pillars in conducting research. In conducting this research, the researcher visited the selected institutions to administer the instruments. Permission was sought from the relevant authorities at the selected institutions. The instruments were then administered to the respondents by the researchers. To avoid boredom, the instruments were administered on alternate days, and the researchers ensured that the seating arrangement and atmosphere were not only conducive but also tension-free by explaining that there were no right or wrong answers. The respondents were allowed to ask questions about any items that were not clear to them during the course of answering the instruments, and this was done with the assistance of trained research assistants.

Results and Interpretation

Respondents' Demographic Information

Gender and the institution attended by students are considered demographic variables. Demographic information is presented in the following tabular form:

Table 1: Demographic Data of Respondents

Variable Characteristics	Categories	Frequency	Percentage
Gender	Male	248	55.1
	Female	185	41.1
Total		433	96.2
Institution	University	185	41.1
	Polytechnics	101	22.4
	Colleges of Education	147	32.7
Total		433	96.2

Table 1 presents the demographic information for the students who participated in this study. The table shows that 248 (55.1%) of respondents were males, while 185(41.1%) were females. This means that male students were more represented than their female counterparts. Also, the table shows that 185 (41.1%) respondents were from universities, 101 (22.4%) were from polytechnics, and 147 (32.7%) were from colleges of Education. This indicates that respondents from universities were more than those from polytechnics and colleges of Education.

Hypotheses Testing
Pearson correlation and regression statistics were used to test the formulated hypotheses at a 0.05 level of significance.

H0$_1$: There is no significant relationship between emotional intelligence and academic procrastination of male and female students in higher institutions in North-Centre, Nigeria
Table 2 presents the results of the correlation between emotional intelligence and academic procrastination of male and female students in North-Centre, Nigeria.

		Emotional Intelligence	Academic Procrastination	Gender
Emotional Intelligence	Pearson Correlation	1	.107	.198**
	Sig. (2-tailed)		.026	.000
	N	433	433	433
Academic Procrastination	Pearson Correlation	.107*	1	.104*
	Sig. (2-tailed)	.026		.030
	N	433	433	433
Gender	Pearson Correlation	.198**	.104	1
	Sig. (2-tailed)	.000	.030	
	N	433	433	433

*Correlation is significant at the 0.05 level (2-tailed), ** Correlation is significant at the 0.01 level (2-tailed)
The results in Table 2 of the Pearson Correlation statistics indicate that students' emotional intelligence (.198) and gender (.198) are significantly correlated with their academic procrastination.

Linear Regression Analysis
Table 3 presents the explanatory power of the regression model used in this study. The dependent variable of the model is academic procrastination, and the independent variables are students' gender and their emotional intelligence. R-squared explains the variation in the dependent variable.

Table 3: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.137[a]	.019	.014	2.14492

Predictors: constant, Gender, Emotional Intelligence
Table 3 shows the overall significance of the model; the regression model is statistically significant, as the p-value is less than 0.05.
Table 4: Model significance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.651	2	18.826	4.092	.017[b]
	Residual	1978.289	430	4.601		
	Total	2015.940	432			

a. Dependent Variable: Procrastination b. Predictors: (Constant), Gender, Emotional
Table 4 presents the regression coefficients. It shows that Sig. .017 and F-value 4. 092. The p-value is less than the 0.05 significance level. Hence, the hypothesis that there is no significant relationship between emotional intelligence and academic procrastination among male and female students is rejected. Therefore, there was a significant positive relationship between emotional intelligence and academic procrastination of male and female students.

Table 5: Coefficient of Regression

Model	Unstandardized coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
(Constant)	21.474	1.507	.090	14.252	.000
Emotional Intelligence	.092	.050		1.849	.065
Gender	.377	.213	.086	1.774	.077

a. Dependent Variable: Procrastinations

Table 5 shows the contribution of each independent variable (coefficient). The table shows that emotional intelligence contributes .090, and gender contributes .086. The calculated p-value for EI at the 0.05 level of significance is 0.000, which is lower than the significance level. Thus, there was a positive, significant relationship between the emotional Intelligence (EI) of male and female students.

H0₂: There is no significant relationship between male and female students' emotional intelligence in higher institutions in North-Central, Nigeria

Table 6 presents the results of the correlation between male and female emotional intelligence.

		Gender	Emotional Intelligence
Gender	Pearson Correlation	1	.198**
	Sig. (2-tailed)		.000
	N	433	433
Emotional Intelligence	Pearson Correlation	.198**	1
	Sig. (2-tailed)	.000	
	N	433	433

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

The results in Table 2 of the Pearson Correlation statistics indicate that students' gender (198) is significantly correlated with their emotional intelligence.

Table 7: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.198[a]	.039	.037	2.08396

Predictor (constant): Gender

Table 7 shows the overall significance of the model; the regression model is statistically significant, as the p-value is less than 0.05.

Table 8: Model Significance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	76.135	1	76.135	17.531	.000[b]
	Residual	1871.786	431	4.343		
	Total	1947.921	432			

a. Dependent Variable: Procrastination. b. (constant), Gender and Emotional Intelligence

Table 8 presents the regression coefficients. It shows that Sig. 000 and F-value 17.531. The p-value is less than the 0.05 significance level. Hence, the hypothesis that states that there is no significant relationship between male and female students' emotional intelligence is rejected. Therefore, there was a significant positive relationship between male and female students' emotional intelligence.

Table 9: Coefficient of Regression

Model	Unstandardized coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
(Constant)	29.721	.306		97.186	.000
Gender	.848	.202	.198	4.187	.000

Table 9 shows the contribution of each independent variable (coefficient). The table shows that, based on the better weight, gender contributes .086. The calculated p-value for EI at the 0.05 level of significance is 0.000, which is lower than the significance level. Thus, there was a significant positive relationship between male and female students' emotional intelligence.

Ho3: There is no significant relationship between male and female students' academic procrastination in higher institutions in North-Central, Nigeria

Table 10 presents the results of the correlation between male and female students' academic procrastination.

		Gender	Procrastination
Gender	Pearson Correlation	1	.104*
	Sig. (2-tailed)		.030
	N	433	433
Procrastination	Pearson Correlation	.104*	1
	Sig. (2-tailed)	.030	
	N	433	433

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

The results in Table 10 of Pearson Correlation statistics indicate that students' gender (.104) is significantly correlated with their academic procrastination (.104).

Table 11: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.104[a]	.011	.009	2.15093

a. Predictors: (Constant), Gender

Table 11 shows the overall significance of the model; the regression model is statistically significant, as the p-value is less than 0.05.

Table 12: Model Significance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.925	1	21.925	4.739	.030[b]
	Residual	1994.015	431	4.626		
	Total	2015.940	432			

a. Dependent Variable: Procrastination b. (constant), Gender

Table 12 presents the regression coefficients. It shows that Sig. 030 and F-value 4.739. The p-value is less than the 0.05 significance level. Hence, the hypothesis that states that there is no significant relationship between male and female students' academic procrastination is rejected. Therefore, there was a significant positive relationship between male and female students' academic procrastination.

Table 13: Coefficient of Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	24.198	.316		76.664	.000
	Gender	.455	.209	.104	2.177	.030

a. Dependent Variable: Procrastination

Table 13 shows the contribution of each independent variable (coefficient). The table shows that, based on the better weight, gender contributes .104. The calculated p-value for gender at the 0.05 level of significance is 0.000, which is lower than the significance level. Thus, there was a significant relationship between male and female students' academic procrastination.

Summary of the Findings

1. There was a significant positive relationship between emotional intelligence and academic procrastination of male and female students in higher institutions of learning in North-Central, Nigeria.
2. There was a significant positive relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria.
3. There was a significant positive relationship between male and female students' academic procrastination in higher institutions of learning in North-Central, Nigeria.

Discussion of the Findings

Based on the data collected, collated and analysed, the following results were found and discussed.

The finding revealed a significant positive relationship between emotional intelligence and academic procrastination among male and female students in higher institutions of learning in North-Central, Nigeria. The findings of this study are consistent with the findings of Chow (2011); Deniz, Tras, & Aydogan (2009); Heward (2010); Heward, (2010) who found that there is a negative relationship between academic procrastination and emotional intelligence of students irrespective of their gender. This implies that students with high emotional intelligence pay greater attention to their own emotions, have better emotional clarity than others, are capable of emotional healing, and thus are able to complete their activities in time.

The finding revealed a significant positive relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria. This finding contradicts the findings of Sutarso (1999), cited in Arooj, Maria, and Sobia (2021), who found differences in emotional intelligence between male and female students; their study revealed that female students were more predisposed to have emotional intelligence than their male counterparts. It was found that men are less emotionally expressive than women because they can understand and recognise emotions better. Similarly, the current study found that female students who experience emotional intelligence show better academic performance than their male counterparts who don't.

The finding revealed a significant positive relationship between male and female students' academic procrastination in higher institutions of learning in North-Central, Nigeria. This finding corroborates those of Else-Quest, Hyde, Goldsmith, and Van Hulle (2006), who found that male students exhibit greater academic procrastination than female students. Contrariwise, other findings stated that female students experience more academic procrastination than male students.

Conclusions

This study concluded that there is a positive relationship between emotional intelligence and academic procrastination of male and female students in higher institutions of learning in North-Central, Nigeria; also shown that there a positive relationship between male and female students' emotional intelligence in higher institutions of learning in North-Central, Nigeria and that there is a positive relationship between male and female students academic procrastination in higher institutions of learning in North-Central, Nigeria.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. That student, regardless of their gender variations, should use their emotional intelligence to reduce their academic procrastination.
2. The school authority should organise a workshop on the impact of emotional intelligence on students' academic procrastination; this will facilitate a higher level of seriousness in students' academic pursuits.
3. Stakeholders in education should also sensitise students, regardless of gender, to the significance of emotional intelligence in dealing with fellow human beings in the society they belong to.

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