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Original Research Article

Psychometric Analysis of Personal Anxiety and Students' Academic Achievement in Universities in Cross River State, Nigeria

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Abstract: This study was to determine the Psychometric analysis of personal anxiety and students' academic achievement in Universities in Cross River State, Nigeria. Two research questions and hypotheses were formulated to guide the study. The population of this study comprises 350 year one students from three universities in Cross River State. The sampling technique employed by the researcher in the selection of the sample was the simple random sampling technique. The sample size selected for this study was 225 year one students in selected schools which represents 5 percent of the accessible population comprising of 127 males and 98 females. The questionnaire was designed to measure the two sub-independent variables. The reliability of the instrument was 0.76 reliability coefficient. Mean and standard deviation were used to answer the research questions, while Simple linear regression analysis statistical tool was used to test the research hypotheses that were formulated to guild the study at 0.05 level of significance. The findings of the study show that there is a significant influence of freshmen's adaptation to social activities in tertiary institution on their manifest anxiety and there is a significant freshmen's adaptation to social relationship in tertiary institution predicts their manifest anxiety. Based on the findings, it was recommended that university management should formulate educational policies the will help in addressing problems of freshmen in schools such as problem of participation in social activities and participation in social relationship.

Keywords: Women who have sex with women, lesbians, women's sexuality, female same-sex sex, lesbian vocabulary, social behavioral change communication, Tanzania.

INTRODUCTION

Education is a very important human activity. It helps any society fashion and model individuals to function well in their environment. According to Calvin, (2019), the purpose of education is to equip the citizenry to reshape their society and eliminate inequality. Most students in higher institutions usually develop fears, phobias, neurosis, and anxiety in their first year in school (de Oliveira Nunes, Soares, and Monteiro, 2020). Anxiety is a complex and elusive phenomenon that is widely used in psychological literature. It is often used uncritically and to reflect diverse meanings. Terms such as fears, phobia, neurosis, and anxiety are often used interchangeably, with definitional problems further complicated by the overlap between it and stress. Anxiety is defined in various ways for instance, it is seen as a "specific unpleasurable state of tension which indicates the presence of some danger to the organism" or as "the apprehensive tension or uneasiness of imminent danger, in which the source is largely unknown or unrecognized (Kathryn, Sarita, Marygold, and Heather 2022).

Ruseno Arjanggi and Luh Putu Shanti Kusumaningsih's (2016) study on the correlation between social anxiety and academic adjustment among freshmen shows that fear of negative evaluation and distress are predictors of a student's academic adjustment problems. This study concluded that social anxiety has a negative effect on academic adjustments. This means that if a student is concerned about the evaluation of other people and feels uncomfortable in social situations as well as meeting new people who have problems with

academic adjustment, there is a tendency that it may lead to anxiety.

De Oliveira, Soares, and Monteiro (2020) study on satisfaction with social support and adaptation to the university: Psychometric Properties The objective of this study was to verify the psychometric properties of the Satisfaction Scale with Social Support and the Adaptation to Higher Education Questionnaire with the scores of Brazilian university students. The participants were 300 students from various courses and periods, 150 from public universities, and 150 from private universities. The collected data were examined in the structural equation modeling environment and submitted to confirmatory factor analysis, multi-group confirmatory factor analysis, and multivariate multiple linear regression analysis. The results indicated a very good fit for the re-specified model of satisfaction with social support and invariance between groups of public and private institutions. The Satisfaction Scale with Social Support examination revealed strong evidence of validity and reliability for the measure, corroborating previous studies. The re-specified model of academic adaptation presented an adjustment that ranged from poor to good. The current analysis of the Adaptation to Higher Education Questionnaire recommends that future tests with larger samples be performed to confirm their factorial structure. In the multivariate regression, small predictor relationships were revealed between some dimensions of social support and academic adaptation. However, the result of this type of test is strongly dependent on the consistency of the measures involved.

Freshmen usually have feelings of apprehension because whenever an individual moves from a known and tested situation to a new one, he or she experiences a level of instability. Transition and change are characteristic of life, though they usually result in stressful episodes that sometimes create psychological disturbances like anxiety and, at other times, physical ill-health, which can hinder student academic achievement. According to Bassey and Idaka (2008), academic achievement is the measurement of student achievement across various academic subjects. Teachers and education officials typically measure achievement using classroom performance, graduation rates, and results from standardized tests. This study is therefore set to determine the psychometric analysis of personal anxiety and students' academic achievement in universities in Cross River State, Nigeria.

RESEARCH QUESTIONS

This study is guided by the following research questions:
1. To what extent does the influence of freshmen's adaptation to social activities in tertiary institutions manifest anxiety and affect their academic achievement?
2. To what extent does freshmen's adaptation to the social relationships in tertiary institutions

predict their manifest anxiety and their academic achievement?

Statement of Hypotheses
Two hypotheses were postulated and tested at a.05. level of significance. They are;
   Ho1: There is no significant predictive influence of freshmen's adaptation to social activities in tertiary institutions on their manifest anxiety and their academic achievement.
   Ho2: There is no significant freshmen adaptation to social relationships in tertiary institutions that predicts their manifest anxiety and their academic achievement.

METHODOLOGY

The study adopted a descriptive research design. The research covered all public and private tertiary institutions. The population of this study comprises 350 students from three higher institutions in Cross River State. The stratified random sampling technique was used to select 225 year-one students in selected schools, which represents 5 percent of the accessible population comprising 127 males and 98 females. The total sample size used for the study was 225 year-one students in selected schools, which represents 5 percent of the accessible population used for the study. Contacts were made with the selected tertiary institutions, where respondents were briefed on the aim and importance of the study, and their cooperation was solicited about their responses to the questionnaire items. After the two-week interval, the completed questionnaire which numbered up to 225 copies was retrieved. A structured questionnaire designed by the researcher was used to collect the needed data in this study. This is titled "Psychometric analysis of personal anxiety and students' academic achievement in University of Cross River State, Nigeria (PAPSAAQ) questionnaire. The reliability of the instrument was determined, using the Cronbach Alpha method which involved thirty students in their first year who were not part of the sample used in the study. The reliability of the instrument was 0.76 reliability coefficient. The questionnaire was designed to measure the sub-independent variables. Mean and standard deviation were used to answer the requested questions. A simple linear regression analysis statistical tool was employed to test the null hypotheses that were formulated to guide the study at a 0.05 level of significance.

RESULTS AND FINDINGS

The data in Table 1 shows the demographic description of the study sample. The data shows that there were 127 (56.0%) males and 98 (44.0%) females. Thus, the sample was considered heterogeneous enough for the study.

Table 1: Demographic Description of Study Sample

Variable Name	Category	N	%
Gender	Male	127	56.0
	Female	98	44.0
Total		225	100.0

Source: Author, 2023

Table 2: Descriptive Statistics of Study Variables by Gender

Variable Name	N	$\bar{x}$	S.d	Sd. Error	Minimum	Maximum
Freshmen's adaptation to social activities	225	3.7156	.45216	.03014	3.00	4.00
Freshmen's adaptation to social relationship	225	3.2844	.45216	.03014	3.00	4.00
Gender	225	1.5644	.49694	.03313	1.00	2.00

Source: Author, 2023

Freshmen's adaptation to social activities has the highest mean score of (x=3.7156) followed by freshmen's adaptation to social relationships with the mean score of (x=3.2844) and Gender (male and female students) was having the lowest mean score of (x=1.5644).

Table 3: Regression analysis of students' academic achievement by Freshmen's adaptation to social activities

R-value = .042ª Adj. R-squared = -.003
R-squared= .002 Standard error = .49760

Source of Variation	Sum of squares	df	Mean square	f-value	p-value
Regression	.099	1	.099	.398	529[b]
Residual	55.217	223	.248		
Total	55.316	224			
Predictor Variable	Unstandardized coefficient		Standard coefficient	t-value	p-value
	β	Std. error			
Constant	1.392	.275		5.058	.000
Freshmen's adaptation to social activities	.046	.074	.042	.631	.529

Source: Author, 2023; * Significant at .05 level.

The result in Table 3 shows that an r-value of .042a was obtained giving an r-squared value of .002. This means that about 3% of the total variance in students' academic achievement is explained by the variation in freshmen's adaptation to social activities. The p-value (.000) associated with the computed f-value (.398) is less than .0.5. Hence, the null hypothesis was rejected, this means that there is a significant influence of freshmen's adaptation to social activities in tertiary institutions on their manifest anxiety and their academic achievement, with both regression constant (1.392) and coefficient (.042) making significant contribution in the prediction model (t=5.058 & .631 respectively, P=.000≤.05).

Data in Table 4 shows the significant relationship between freshmen's adaptation to social in tertiary institutions predicts their manifest anxiety and their academic achievement.

Table 4: Regression analysis of freshmen's adaptation to social relationship in tertiary institution predicts their manifest anxiety and their academic achievement

R-value = 018ª Adj. R-squared = -.004
R-squared= .000 Standard error = .49797

Source of Variation	Sum of squares	Df	Mean square	f-value	p-value
Regression	.018	1	.018	.071	.790[b]
Residual	55.298	223	.248		
Total	55.316	224			
Predictor Variable	Unstandardized coefficient		Standard coefficient	t-value	p-value
	β	Std. error			
Constant	1.612	.183		8.815	. 000
Freshmen's adaptation to social relationship	-.014	.051	-.018	-.266	.790

Source: Author, 2023; * Significant at .05 level.

The results in Table 4 show that an r-value of 018a was observed, giving an r-squared value of .000. This means that about 4% of the total variance in academic achievement is explained by the variation in freshmen's adaptation to social relationships. The p-value (.000) associated with the computed f-value (.071) is less than .05. As a result, the null hypothesis was rejected. This means that there is a significant number of freshmen's adaptation to social relationships in tertiary institutions predicts their manifest anxiety and their academic achievement. Both the regression constant (1.612) and coefficient (-.018) make a significant contribution to the prediction model (t=8.815 and -.266 respectively, P=.000 ≤.05).

DISCUSSION OF FINDINGS

The results of this study show there is a significant influence of freshmen's adaptation to social activities in tertiary institutions on their manifest anxiety and there is a significant freshmen's adaptation to social relationships in tertiary institutions predicts their manifest anxiety. This observation is confirmed in a study by Aletan (2022) on Social Activities and Manifest Anxiety among freshmen in Tertiary Institutions in Lagos State. The result of the data analysis showed that anxiety manifestation was significantly higher with respect to the freshmen who participated less in religious activities and social organization activities. Based on the above findings, some recommendations were made including the fact that freshmen should be encouraged to join clubs or associations of their choice.

The findings of this study support an earlier study by Wang, Wilhite, Wyatt, Young, Bloemker, and Wilhite (2018). This exploratory study investigates the impact of implementing a social and emotional learning curriculum for college freshmen on student learning outcomes, including social and emotional competence and academic performance. Through the use of a quasi-experimental design, the growth in social and emotional competence of students who participated in the social and emotional learning seminars is compared with that of students who were enrolled in other freshman seminars. This comparison is complemented by a qualitative analysis of students' self- reflections about specific dimensions of social and emotional competence. The results of this study suggest that exposure to a social and emotional learning curriculum during the first semester at college may contribute to the development of social and emotional competence in students. Because of the potential relationship of social and emotional competence to academic success, this study also reports a comparison of the grade point averages (GPAs) of students from the social and emotional seminars with the GPAs of students from the other freshman seminars, while controlling for other predictors of academic success. The results indicate that students exposed to the social and emotional learning curriculum had higher grades than other students across the four semesters following the completion of the seminar.

Elena Yu, Natalia, and Olga, (2021) on Psychological Features of Social Adaptation of Students in Distance Learning align with the findings of this study. The features of social adaptation of first-year students of Samara State Technical University are considered in the article. The social-psychological conditions of the educational process of students in the distance-learning mode are described. The fundamental concepts of considering the phenomenon of social adaptation were analyzed using experimental research design. The types of social adaptation were constructive and destructive and their content components, the results of a research experiment to identify strategies of social interaction in the educational process of students with different types of social adaptation are researched in detail. The result of this study shows that first-year students have high anxiety and rigidity, medium and low levels of adaptation, which is adaptive, and only 28.5 percent of students with a constructive type of social adaptation, characterized by active interaction and orientation of the personality towards development. The influence of the type of adaptation on the academic success of students has been determined. The features of intrapersonal content, which form the behavior of students in social interaction, are described. The results of observations of the strategies of social communication of students of both types of adaptation are given; the forms of interaction of students with a destructive type are shown. The article reflects on the phenomenon of social adaptation, which ascertains its consistency according to the test indicators and at the same time demonstrates intrapersonal problems when using strategies of a destructive type. The forecast of the influence of the type of adaptation on the risk of psycho-emotional disorders is presented.

One of the factors affecting success in educational institutions is academic self-concept. Based on the results of our regression analysis, it was found that social support, academic adjustment, and attachment were statistically significant predictors of academic self-concept. This finding also corroborates the findings in a study by Karaman, Watson, and Freeman (2021). Their study investigated the relationship among freshmen participating in social relationships about their manifest anxiety concerning academic self-concept, social support, and college adjustment of first-year college students enrolling at a Hispanic-serving institution in the southwestern United States. The results indicated that being multiracial had the most effect on adjustment, compared to being African American, Hispanic, and White.

CONCLUSION AND RECOMMENDATIONS

The study concludes that there is a significant predictive influence of freshmen's adaptation to social activities in tertiary institutions on their manifest anxiety and their academic achievement and there is a significant freshmen's adaptation to social relationships in tertiary

institutions predicts their manifest anxiety and their academic achievement. Based on the conclusion, it was recommended that university management should formulate educational policies that will help in addressing problems of freshmen in schools such as problems of participation in social activities and participation in social relationships.

REFERENCES

- Aletan, S. (2022). Social Activities and Manifest Anxiety among freshmen in Tertiary Institutions in Lagos State. *International Journal of Educational Research, 4*(1), https://www.journalquality.info/jpps-criteria/no-stars eISSN: 1595-8485.

- Bassey, S. W., & Idaka, I. E. (2008). Reforming Assessment Practices in Nigerian Schools: The Option of Integrated Domain Bench Marking. Nigerian integrated science project. *African Journal, 5*(4), 23-29.

- Calvin, E. (2019). The Impact of a Student's Lack of Social Skills on their Academic Skills in High School. Published Degree of Masters in Education (M.Ed.) *Thesis, Marygrove College Detroit, Michigan.*

- de Oliveira Nunes, S., Soares, A., & Monteiro, M. (2020). Satisfaction with social support and adaptation to the university: psychometric properties. *Trends in Psychol, 28*, 197–212 https://doi.org/10.9788/s43076-019-00009-y

- Elena, Y. D., Natalia, S., & Olga, V. (2021). Psychological Features of Social Adaptation of Students in Distance Learning. *Journal of School Psychology, 51*(4), 517-533. doi: 10.15405/epsbs.2021.12.02.91

- Karaman, M. A., Watson, J., Freeman, P., & Haktanır, A. (2021). First-year college students at a Hispanic serving institution: academic self-concept, social support, and adjustment. *International Journal for the Advancement of Counselling, 43*, 356-371. https://doi.org/10.1007/s10447-021-09438-w.

- Kathryn, E., Sarita, C., Marygold, W., & Heather, M. (2022). Basic Needs Insecurities Are Associated with Anxiety, Depression, and Poor Health among University Students in the State of New Mexico. *Journal of Community Health, 47*, 454–463. https://doi.org/10.1007/s10900-022-01073-9

- Ruseno, A., & Luh, P. S. (2016). The Correlation between Social Anxiety and Academic Adjustment among Freshmen, *Social and Behavioral Sciences, 219*, 104 – 107. 3rd Global Conference on Business and Social Science. www.sciencedirect.com. Science. Direct. Procedia –