



ASSESSMENT OF CONGRUENCE, GENDER, AND SOCIAL STATUS ON ACADEMIC PERFORMANCE OF RADIOGRAPHY STUDENTS IN NORTHERN NIGERIAN UNIVERSITIES

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ABSTRACT

Introduction: Assessing the influence of congruence, gender and social status on academic performance of Radiography students in Northern Nigerian Universities using Holland's theory of career choice was carried out in 6 Northern universities, out of which 5 are Federal Universities, while 1 is a private university., using 300-400 level students, as they have taken more than half of their total credits required subject courses in Radiography.

Materials and Methods: Statistical analysis was carried out using statistical package for social science version 2.0(SPSS inc., Chicago Illinois}, with description and inferential (Pearson's correlation) statistics done. Statistical significance was considered at $P < 0.05$. **Result:** The research results indicated that most of the respondents agreed that congruence has an impact on academic performance of Radiography students with the percentage of 54.34% to 34.7% of the gender difference, in terms of performance, the female students performed better than the male, with the mean score of 54.82% to 54.46% respectively. Furthermore, the result analysis for social status reveals a significant role in the academic performance, with about 22% of the students agreeing in ratio 10-10.8%.

Conclusion: In conclusion, congruence, gender and social status on academic performance of Radiography students in Northern Nigerian Universities, using Holland's theory of career choice should be given significant attention, with more efforts made in admitting students whose interest aligns with field and practice of

Radiography, likewise discouraging gender differences in academic, while improved welfare means improved performance in respect to social status.

Keywords: Social Status, Academic Performance, Radiography Students, Northern Nigeria, Universities

INTRODUCTION

Congruence as defined by Holland (1997) is the compatibility of the individual's personality type and a type of work or the environment which an individual work or the environment chosen, it can also be defined as the match between personality and occupational choice or university major choice¹. Another researcher, examined interest environment congruence in a sample of language teachers from the United States (US) and Canada by comparing individual and environmental three-letter codes, the result shows that for the majority of teachers, the profile of individual interests was similar to the environmental assessment of the profession¹. A study had opined that medical student at the university-imposed challenges on students dampen their interest and ability, also observed that many students who initially applied for medicine and surgery as a major, but admitted into health sciences programs, such as radiography tend to show little or no interest in their studies². Holland's theory suggests that individuals who work in environments that align with their

personalities are more satisfied and successful, than individuals who work in environments that are different from their personalities³. The theory describes factors to include family, peers, teachers, other adult role models; school, work, socioeconomic status and ethnic background, as an interactive model, which is based typology of persons and environment^{4,5}. The objectives of this research are: to determine the assessment of congruence on academic performance of radiography students in Northern Nigerian universities; to determine gender differences in academic performance amongst the students and to find out the role of social status on the academic performance of the students^{6,7}.

MATERIALS AND METHODS

The research design adopted in this study is quantitative and descriptive design. The study targeted all Radiography students in 300-400 levels of northern Nigerian federal universities, because they have taken more than half of their total credit to ensure that they have completed the major required subjects. The study also adopted the proportional stratified sampling technique where students in each of the six universities offering radiography as a course were taken as strata, to ensure that the sample accurately reflects the population's composition, particularly when certain subgroups are much larger than others; and also to improve the accuracy of estimates for the entire population. A simple random sampling was carried out among each of the 300 and 400 level students of each university enabling an equal chance of being selected for the study without reference^{8,9}. The research instrument employed to meet the objectives of the study was self-administered four-part survey questionnaire in English. The study consulted validated instrument from higher institution of learning, at department of Education Foundations faculty of education university of Jos, who satisfied the instrument and covers the objectives of the study. Statistical analysis was carried out using Statistical Package for social science version 20.0. Both descriptive and inferential (Pearson's correlation)^{10,11}. Statistics were done, statistical significance was considered at $P < 0.05$.

RESULTS AND DISCUSSION

The bio-data of respondents are categorized into level of study of the respondents, gender of the

respondents and age of the respondents.

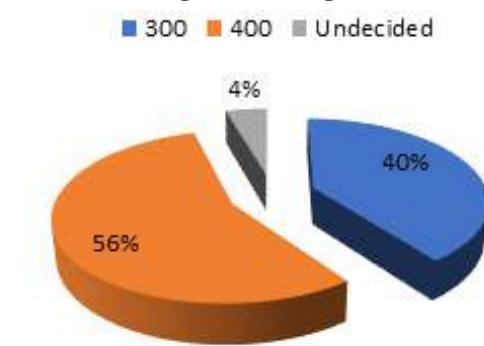


Figure 1: Shows that 39.8% of the respondents are in their 300 level, 55.6% of the respondents are in their 400 level while 4.5% of the respondents were undecided. This can be seen on the chart below

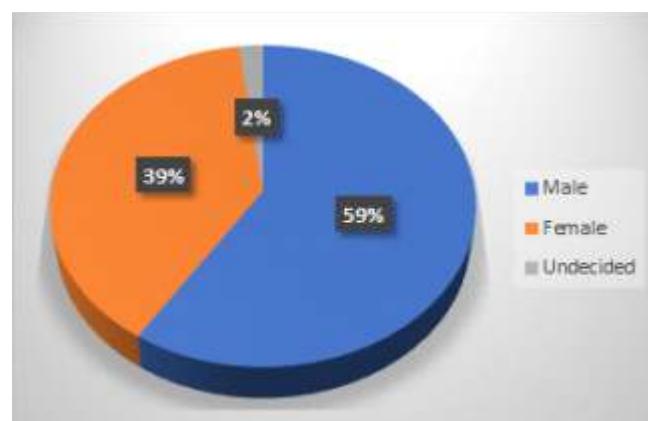


Figure 2: Shows that 59.1% of the respondents are male, 38.8% of the respondents is female while 2% of the respondents did not reveal their gender status.

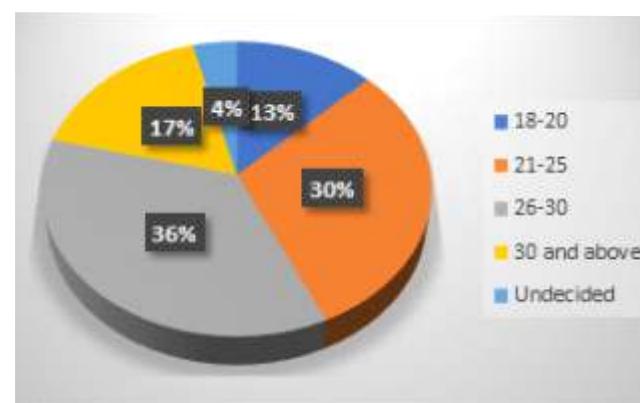


Figure 3: Shows that 12.7% of the respondents are within the age bracket of 18-20, 30.3% within the age bracket of 21-25, 35.8% within the age bracket of 25-30, 17.0% within the age bracket of 30 and above while 4.0% did not reveal their age bracket.

Table 1: Questionnaire congruence

S/N	STATEMENT	N	SA	A	UD	D	SD	x SD
1.	My chosen field of study aligns with my interest and values	399	8 (in9%)	135 (32.6) (307)	127	129	(312)	3.05.88
2.	I have a sense of fulfillment studying Radiography	399	262(90 4%)	137 (33.1%)	0(0 %)	0(0 %)	0.(0%)	0. (0%).4662
3.	The academic environment in my school is inclusive and supportive							
4.	I have a dedicated study schedule and routine	399	162 (63.3%)	12931.2	4 (1.1)	4 (1.1 %)	0 (0)	4.610.01
5.	There are academic support programmes and resources available in my school	399	4 (10%)	391 (944%)	4 14	0 (0)	0 (0%)	400 (0%) 0.14
6.	My teachers are supportive in my academic pursuit	399	133 (32%)	258 (62.3%)	4 (1.0)	4 (1)	0 (1.0)	4.29
7.	If given another opportunity I will choose Radiography as a course of study	399	204 (638)	127 (37%)	8 (1.9)	0 (0)	0 (0%)	0 (0%) 4.64.52
8.	I will consider further studies in Radiography given available opportunities	399	268 6 67.7	127 (30.7)	4 (1.0)	0 (0)	0 (0%)	466 .49
TOTAL		399	54.34	34.7	5.44	2.11	3.41	3.71

Table 1: The result of the analysis from table above reveal that 54.34% of the respondents strongly agreed that congruence impact of academic performance of Radiography students, 34.7% agreed, 5.44% were undecided, 2.11% disagreed and 3.71% strongly disagreed that congruence has

an impact on academic performance of radiography students. The overall results reveal that most of the respondents agreed that congruence has an impact on academic performance of Radiography students in Northern universities.

Group	N	X	SD	Difference
Male	174	54.46	9.46	
Female	225	54.82	8.01	0.36

Table 2: The analysis reveals the results on gender difference in academic performance among University students of Radiography in Northern Nigeria. It shows that male respondent had a mean score of X 54.46, SD = 9.46, while female students

had a mean score of X 54.82, SD = 8.01 and a mean difference of 0.36 in favour of female students. This implies that the performance of female students was higher than that of male students.

Table 3: Analysis of the respondents

S/N	STATEMENT	N	SA	A	UD	D	SD	X SD
1.	I belong to the upper class in terms of social status	399	266	4	129	0	0	43.35
2.	Social status impact on academic performance of Radiography students	399	200 (32)	160 (35)	29 (200)	8 (2) (2)	8 (2)	43.35

3.	Financial challenges impact of negatively on my academic performance	399	123 (309)	90 (22%)	80 (20%)	40 (14%)	66 (23%)	3.99
4.	Social status affects access to educational opportunity	399	124 (40%)	57 (24%)	84 (28%)	90 (20%)	34 (12%)	364
5.	I have experienced bias or discriminating in academic pursuit due to my social status	399	125 32%	5.6 20%	80 25%	94 (20)	40 (0%)	4.11
6.	My social status has impacted on my wellbeing as a Radiography student	399	120 35	61 10	54 11	90 25	40 18	4.66 4.31
7.	Social status affects the equality of mentorship coverage in the field of Radiography	399	130 (402)	57 22	81 (177)	93 (10)	40 (10)	4.3 3.97

Table 3: The result of the analysis reveal that (40.2%) of the respondents strongly agreed that social status played a significant role in the academic performance of Radiography students of Northern Nigeria, 22% Agreed, 17% are undecided, 10% Disagreed while 10.8% strongly disagreed.

This implies that most of the respondents Agreed that social status play a significant role in determining the academic performance of Radiography students in Northern Nigerian Universities.

Table 4: Results of the Pearson r analysis on the impact of congruence on academic performance

Group	N	X	SD	R	P-value	Decision
Congruence	399	41.64	94			
Academic performance	399	54.66	8.66	0.554	0.000	Reject 40

The result of the Pearson r analysis from table 7 reveal that congruence had a mean score of X 41.064, SD = 94 while academic performance had a mean score of X 4.66, SD = 8.66. The results reveal $r(399) = 0.551$ $P < 0.000$ since the P – value of 0.000 is less than the significant level of 0.05, we reject the

null hypothesis and conclude that there is a significant impact of congruence on the academic performance of Radiography students in Northern Nigerian Universities this implies that University students congruence impact on the academic performance of students in Nigerian University.

Table 5: Result of the Pearson analysis on the impact of gender on academic performance of radiography students

Group	N	X	SD	R	P-value	Decision
Gender	399	13.44	1.79			
Academic performance	399	54.66	5.60	0.741	0.000	Reject 40

The result of the Pearson r analysis from table 8 reveals that gender had mean of 13.14, SD = 1.79 while academic performance had a mean of X 54.60, SD = 8.66. The result revealed that $r(399) = 0.741$ $P < 0.000$. In the P – value of 0.000 is less than

the significant level of 0.05, we reject the null Hypothesis and conclude that academic performance of radiography students in Northern Nigeria Universities is not impacted by students' gender.

Table 6: Result of the Pearson r analysis on the impact of social; status on academic performance of Radiography students.

Group	N	X	SD	R	P-value	Decision
Social Status	399	33.55	4.44			
Academic performance	399	54.66	8.66	0.761	0.000	Reject HO

The result of the Pearson r analysis from table 6 reveals that social status had a mean score of X 33.55, SD = 4.44 while academic performance had a mean of X 54.66, SD = 8.86. The results reveals that $r(399)=0.761$ $P<0.000$. Since the P – value of 0.000 is less than the significant level of 0.05, we reject the null hypothesis and conclude that social status significantly impact on the academic performance of radiography students in Northern Nigerian Universities¹².

CONCLUSION

On gender, it is evident that male students dominate the field of Radiography in terms of number but their number does not translate to performance as evident from the study that the female folks perform better academically. Social status plays a significant role in determining the academic performance of Radiography students. This is in accordance with the findings by Ukwuezu et al (2014) who reported that social status of students plays a significant role in determining the performance of students in a given school subject^{12,13,14}. The implication of these findings is that parents need to give their children equal opportunity no matter their social status to enable students to do well in school.

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