

Attitude of Science Students towards the General Studies Programme: The Federal University Of Technology, Owerri Example

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Abstract

This study employed a survey research design to investigate the attitude of pure science students towards the General Studies Programme using students from the Federal University of Technology Owerri, Imo State. Three research questions guided the study and a research instrument tagged: "Students' Attitude to General Studies Questionnaire" (SAGSQ) ($r = 0.92$) was developed and used to collect data from 198 who constituted the study sample. Results showed that science students had positive attitude towards the General Studies Programme, there was difference between the attitude of male science students and their female counterparts towards the General Studies Programme. The attitude mean score of the male students ($\bar{x} = 39.50$) was higher than that of the female students ($\bar{x} = 9.61$). It was also confirmed that there was no difference between the upper level students and the year one students in their attitude towards the General Studies Programme. The attitude mean scores for the two groups were ($\bar{x} = 26.25$) and ($\bar{x} = 23.53$) respectively. Based on the findings, the study recommended among others that the General Studies Programme should no longer be seen as a necessary evil or an undue academic burden on students.

Keywords: Attitude, General Studies Programme, General Studies Courses, Science Students

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I. INTRODUCTION

One cardinal objective of university education in Nigeria as enshrined in the sixth edition of the National Policy of Education document is to make optimum contribution to national development by intensifying and diversifying its programmes for the development of high level man power within the context of the needs of the nation. The Federal University of Technology Owerri (henceforth FUTO) is a pure science and technology based university. For admission into the institution for any degree programme, at least a credit pass in the core science subjects– Physics, Chemistry, Mathematics and Biology is a prerequisite. Thus, FUTO students could be referred to as pure science students. The academic curriculum of FUTO aims at preparing her students to be masters in their chosen areas of studies and in the accompanying skills that go with or result from university education. Thus, the curriculum includes some courses which are outside the specialized pure science and technology based courses of the students. These are the General Studies (GS) courses. The GS courses expose the students to varied knowledge in the liberal arts which no doubt enhances their all-round development thereby making them better prepared to function in the society and most importantly to stand a chance in the labour market.

In Nigeria today, one major problem many students face after graduation is unemployment. This has become a national issue. With over one hundred universities (public and private) and the yearly churning out of thousands of graduates, Nigeria's labour market has always been saturated. The scenario thus created is there are more job seekers than job opportunities. Consequently, there is a lot of competition among job seekers for the few existing employment opportunities. Nevertheless, over a long time, employers of labour have lamented over the poor on-the-job skills exhibited by Nigerian graduates. According to Sodipo (2014) employers of labour have complained that some graduates of Nigerian universities though professionally or technically qualified are unemployable in that they lack the requisite, essential skills or competencies needed in the job or for sustainable employment. Thus, when Abe (1991) as cited in Udosen (2006) observes that most secondary school students cannot read with adequate comprehension nor can they complete application forms for employment, one could add that the situation is not cheery among university undergraduates and graduates alike. For instance, the front page article of the Guardian p.2 Feb. 19, 2001 titled "World Bank scores Nigerian graduates low" as reported in Aliyu (2002) goes thus:

One banker told us that he cannot get five correctly drafted sentences in one paragraph from recent university graduates. The banker added that some graduates who were recruited as senior managers cannot write a memo of three paragraphs.

While someone might ask whether the graduates in the World Bank report are graduates of English language, the researchers' submission is that it does not matter. The ability of an educated person to function effectively outside his area of specialization is ultimately the hallmark of scholarship. Just as Gage (1987) rightly points out, even though one may be in school to establish credentials for pursuing a career, the personal benefit of education is the experience of becoming a more capable person outside the strict boundaries of that career. Besides, experience has shown that many people are in jobs not directly related to their field of study or area of specialization. It is a common parlance among university students that employment today is not based on one's certificate or qualifications but on one's connection. Consequently, employers often times subject their employees to rigorous in-house training in order to get what they want (Ihejirika, 2012). Then, one might ask: "what do employers want?"

Sodipo (2014) asserts that employers want skills that go beyond qualifications and experience given that while experience may make a job seeker eligible for a job, success at the job demands possession of a mix of skills. These are skills that can be transferred between different jobs and different employment sectors.

Considering the interdisciplinary nature of the General Studies Programme, it may therefore, not be out of place to say that the programme is a fertile ground for the acquisition of a mix of skills as it has frequently been regarded as an intellectual meeting point for all disciplines. The philosophy behind the General Studies Programme is the provision of intellectual knowledge and training that equip students to understand the complex dynamics of modern society so that graduates from any discipline can function effectively in all fields irrespective of his or her area of specialization (Iloeje, 2016). To achieve this, various courses were introduced under the General Studies Programme viz Use of English, Logic and Philosophy, Peace and Conflict Resolution, Nigerian Peoples and Culture, Citizenship Education, Entrepreneurship Studies, Use of Library among others (Oluwatusin & Daisi, 2017). It is through these courses that students are exposed to varied knowledge in the liberal arts. The liberal arts according to Iloeje earlier cited introduce aesthetic values to students which are the key to living a meaningful life and they provide students with the intellectual knowledge, sagacity and training which equip them to understand the complex dynamics of modern society so that they can function maximally and effectively in diverse fields. However, many students are so career minded that they fail to find any value in academic programmes that do not seem to have direct payoff in terms of their performance on the job. The General Studies Programme is one such academic programmes.

According to Anyadike (2013) the General Studies Programme is not accorded the recognition and acceptance it deserves in most universities by both students and university administration. He observes that students see the general studies courses as not relevant to their disciplines, reasoning that the programme is a mere academic requirement for the award of degree. On the part of university administration he opines that general studies examinations and lecture schedules are often covertly or overtly disrupted by the university administration and departments. He notes that departments schedule lectures and examinations at the same period and in same venues where general studies examinations are to be held and in some situations, on arrival, the examination venues are found to be under lock and key even when appropriate authority was duly informed. But this misconception and negative attitude notwithstanding, General Studies is a force to reckon with in the quest to obtain a university degree in Nigeria because a good number of undergraduates have failed to graduate in various fields of study due to their failure to measure up to expectation in the general study courses (Araromi, 2013).

Investigation of students' attitude towards curriculum contents has received attention from researchers. Attitude could be regarded as the way an individual feels about somebody, something or an event. As one of the most frequently discussed concept in the teaching and learning process, attitude has been viewed from different perspectives. Lawrenz (2003) sees attitude as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. Hussain (2006) describes it as a tendency to react favourably or unfavourably towards a designated class of stimuli. According to Sethi (2015) attitudes are formed as a result of same kind of learning experiences. Hence, they are generally regarded as an enduring thought modifiable by experiences and by persuasion as learned rather than innate. For Araromi (2013) attitude could be formed unconsciously or consciously and these two discernible attitudes i.e explicit and implicit attitude do affect people's behavior. He adds that the attitudes and meta-cognitive knowledge that students show in the lecture hall are critical factors in the learning process. In all attitude is an important motivator of behavior and it affects the achievement of goals. The concern of this paper therefore, is to examine the attitude of pure science students towards the General Studies Programme. Specifically, the paper sets out to ascertain the following:

- a. what the attitude of pure science students is towards the General Studies Programme.
- b. whether there exists difference between the attitude of male pure science students and the female pure science students towards General Studies Programme.
- c. if the attitude of upper level students towards the General Studies Programme differs from that of the year one students.

Research Questions: The following research questions were raised to guide this study.

- a. What is the attitude of pure science students towards the General Studies Programme?
- b. Is there difference between the attitude of male pure science students and their female counterparts towards the General Studies Programme?
- c. Is there difference between the upper level students and the year one students in their attitude towards the General Studies Programme?

II. THE GENERAL STUDIES PROGRAMME IN THE FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI

The General Studies Programme differs in content and objectives from one institution to another. For FUTO the objective of the programme complements the cardinal objective which the institution seeks to achieve; that is, to transform the nation's economy from consumer-oriented to production-oriented with sound technological base. This is in pursuit of the vision of repositioning the institution among the global best universities by driving the culture of excellence. Thus, the major goal of the General Studies Programme in FUTO is to transform the institution into the best university of technology in Nigeria and Africa through the provision of a unique, innovative, creative and procreative humanities and social sciences components of the university academic curriculum in order to produce highly skilled, self-sustaining and technologically-oriented graduates that will provide solutions to the numerous problems of Nigeria and Africa in a globalized world (Directorate of General Studies Handbook, p.3-4).

In FUTO the Directorate of General Studies has five units: English language, Philosophy, Social Science, French and Igbo. The English language unit offers three courses: GST 101 (Use of English 1), GST 102 (Use of English 2) and MGT 405/ENG 313 (Technical Report Writing). In the Social Science unit, GST 108 (Polity and Economy of Nigeria), GST 201 (Nigeria and African Cultural Development) and GST 221 (Peace Studies and Conflict Resolution) are offered. Three courses GST 103 (Philosophy and Logic), GST 110 (Philosophy of Science and Technology) and MGT 206 (Industrial Psychology) are offered in the Philosophy unit. IGB 101(Introduction to Igbo Grammar, Composition and Comprehension) and IGB 102 (Introduction to Igbo History, Culture and Literature are courses in the Igbo unit. In the French unit FRN 101 (French language 1) and FRN 102 (French language 2) are offered. As indicated in the General Studies Handbook, IGB101 and 102 are alternatives to FRN 101 and 102 and together with MGT 206, they are designated elective courses.

III. THEORETICAL FRAMEWORK

Theories of attitude formation are broad conceptual framework which have many perspectives. Martin Fishbein's expectancy-value theory on which this study is based is one perspective. Fishbein believes that there is a connection between beliefs and attitudes (Ajzen, 2010). Expectancy-value theory holds that attitudes are developed and modified based on assessments about beliefs and values. Thus, it attempts to determine the mental calculations that take place in attitude formation (<https://psynso.com/expectancy-value-theory>). In other words, the theory rests on the view that an individual's attitude toward an object is not spontaneous but rather a function of his careful evaluations of the beliefs, values or views he holds about the object. This theory is considered relevant to this study because the study seeks to ascertain participants' assessment of the General Studies Programme based on their beliefs and values.

IV. METHODOLOGY

Research design: This study adopted a descriptive survey design.

Study sample: One hundred and ninety eight (198) students selected randomly from all the schools/faculties in FUTO formed the sample for the study. There were one hundred and forty (140) males and fifty eight (58) females. Ninety three (93) were in year one and the remaining one hundred and five (105) were in higher levels. It should be clarified here that this research was carried out during the Harmattan (first) semester. At this time, the first year students had not taken all the GS courses required of them. The researchers therefore, made use of year two (200 level) students instead because they had offered all year one GS courses and sat for their examinations. In other words, the year two students were taken as year one students for the purpose of this study while the higher levels were year three (300 level) students and above.

Research instrument: To elicit information on students' attitude to GS programme i.e. how they feel and what they think about the programme, the researchers developed a questionnaire tagged "Students' Attitude to

General Studies Questionnaire” (SAGSQ). It was a 12-item four-point modified likert scale of strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD). Items were rated as follows: SA = 4; A = 3; D = 2; SD = 1 for positive items and for negative items, the reverse was the case. To determine the face and content validity of the instrument, the researchers gave the questionnaire to three of their colleagues for their assessment and suggestions. Their suggestions were incorporated into the final draft. To ascertain its reliability, the instrument was test-run on 30 students. Using Cronbach’s alpha method, a reliability coefficient of 0.82 was established.

Procedure and method of data analysis: The researchers personally administered the questionnaires to the respondents. Two hundred (200) questionnaires were prepared and distributed to participants but one hundred and ninety-eight (198) were returned. Data collected were analysed using simple percentage technique for research question one while for research questions two and three, one sample t-test was used to test the result at 0.05 level of significance with the aid of statistical package for social sciences (SPSS Version 21).

V. RESULTS

For the discussion of the findings for research question 1, strongly agree and agree were merged and taken as agreement while disagree and strongly disagree put together stand for disagreement.

Research Question One: What is the attitude of pure science students towards the General Studies Programme?

Table 1: Students’ Attitudinal Responses towards the General Study Programme

	Statements	SA		A		D		SD	
		No.	%	No.	%	No.	%	No.	%
1	The introduction of the General Studies Programme into universities is a good idea	97	49.0	83	41.9	12	6.1	6	3.0
2	GSP is not needed in science-based institutions.	21	10.6	29	14.6	90	45.5	58	29.3
3	GS courses are difficult.	8	4.0	33	16.7	101	51.0	56	28.3
4	I do not find GS courses useful in my career prospects.	21	10.6	22	11.1	77	38.9	78	39.4
5	I get good grades in GS courses	46	23.2	113	57.1	26	13.1	13	6.6
6	I do not like any of the GS courses.	15	7.6	23	11.6	61	30.8	99	50.0
7	I find GS courses interesting.	58	29.3	101	51.0	24	12.1	15	7.6
8	I am discouraged by the marks I score in GS courses.	36	18.2	37	18.7	67	33.8	58	29.3
9	If GS courses are optional, I will not register for any of them.	57	28.8	37	18.7	71	35.9	33	16.7
10	I do not attend GS classes regularly because it is a waste of time.	10	5.1	20	10.1	83	41.9	85	42.9
11	I do not bother to buy textbooks on GS courses because they are not useful.	16	8.1	33	16.7	94	47.5	55	27.8
12	I prefer GS courses to other university general courses.	26	13.1	41	20.7	56	28.3	75	37.9

Table 1 shows that majority of the total respondents 180 (90.9%) agreed that the introduction of the General Studies Programme into universities is a good idea. Another good number of the respondents 148 (74.8%) indicated disagreement with the statement that the General Studies Programme is not needed in science-based institutions. Similarly, 157 (79.3%) disagreed that GS courses are difficult, 155 (78.3%) disagreed that they do not find GS courses useful in their career prospects and 159 (80.3%) affirmed that they get good grades in GS courses. Again, majority of the respondents 160 (80.8%) disagreed that they do not like any of the GS courses. Table 1 further reveals that 159 (80.3%) of the respondents found GS courses interesting. 125 (63.1%) disagreed that they are discouraged by the marks they score in GS courses and 104 (52.6%) disagreed that if GS courses are optional they will not register for any. Equally, 168 (84.8%) did not agree that they do not attend GS lectures regularly just as 149 (75.2%) disagreed that they do not bother to buy

textbooks on GS courses. However, 131(66.2%) of the respondents did not agree that they prefer GS courses to other university general courses.

Research Question Two: Is there difference between the attitude of male pure science students and their female counterparts towards the General Studies Programme?

Table 2: Determination of the Difference in Students' Attitude towards the General Studies Programme based on Gender

Gender	N	Mean	SD	Df	t	p-value
Male	140	39.500	24.313	196	16.431	.000
Female	58	9.617	6.095			

Table 2 reveals that the attitude mean score of male students is 39.500 and a standard deviation of 24.313 while that of their female counterparts is 9.617 and a standard deviation of 6.095. This means that there is a significant difference between the attitude of male pure science students and their female counterparts towards the General Studies Programme since $p\text{-value} = .000 < 0.05$.

Research Question Three: Is there difference between the higher level students and the year one students in their attitude towards the General Studies Programme?

Table 3: Determination of the Difference in Students' Attitude towards the General Studies Programme based on Level

Level	N	Mean	SD	Df	t	p-value
Year One	93	23.531	13.906	196	-.170	.396
Higher Level	105	26.250	16.952			

Table 3 indicates that the attitude mean score of higher level students is 26.250 with a standard deviation of 16.952 and that of the year one students is 23.531 with a standard deviation of 13.906. This means that the higher level students have a higher mean attitude score than the year one students but the difference is not significant since $p\text{-value} = .396 > 0.05$ level of significance. We therefore conclude that there is no difference between the attitude of higher level pure science students and their year one counterparts towards General Studies Programme.

VI. DISCUSSION

The thrust of this study was to investigate the attitude of pure science students towards the General Studies Programme. It also sought to ascertain whether there exists difference in the attitude of students towards the programme based on gender and class level. The findings presented in Table 1 indicate that the pure science students have a positive attitude towards General Studies Programme. The students find the courses offered under the programme interesting and useful in their career prospects. One of the possible explanations for the this result could be based on the assumption that the students have come to terms with the utilitarian value of GS courses as a means of providing well-balanced university education.

Nevertheless, this result is similar to Alakija, Odetola and Okojie (1987) who in a survey of medical students' attitude to general studies in the University of Benin, Nigeria found that the students have a positive attitude to general studies. The researchers report that the students regard the programme as useful, effective and relevant to their medical education and want the programme to continue. Again, the result obtained here is consistent with Chukwuanukwu et al. (2016) who reported positive attitude towards general studies by students of Nnamdi Azikiwe University.

There is gender difference in the attitude of pure science students towards the General Studies Programme as shown in Table 2. It is revealed that the male pure science students have a higher mean attitude score than the female pure science students. Thus, it is concluded that male pure science students are more favourably disposed to the General Studies Programme than their female counterparts. On the other hand, level has no influence on the attitude of pure science students towards the General Studies Programme.

VII. CONCLUSION

The study revealed that participants in the study have a positive attitude towards the General Studies Programme. Generally, they agreed that the academic programme is relevant in science and technology-based institutions and that GS courses are interesting and relevant to their career prospects. Based on this result, it could be concluded that there is need to sustain students' positive attitude. This is important because attitude is not static. The first step in this direction is for teachers to adopt innovative and interactive methods that keep students engaged and motivated and to de-emphasize the lecture method of teaching.

VIII. RECOMMENDATION

Based on the findings of this study, it is recommended that the General Studies Programme should no longer be seen as a necessary evil or an undue academic burden on students. University administration should encourage the teaching and learning of GS courses by ensuring that departmental general tests and lectures are not fixed at the same period for GS lectures and general tests. Finally, lecture halls should be equipped with modern instructional materials like interactive whiteboards, projectors etc.

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