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Undergraduate Students' Perceived ACADEMIC ENVIRONMENTAL CHARACTERISTICS AS CORRELATES OF LEARNING OUTCOMES

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Abstract

This study examined the relationship between undergraduates' perception of the academic environment, their attitude to academic work and achievement. A total of 348 undergraduates who formed the sample were drawn from five departments in three universities in Nigeria. The study revealed that four dimensions of the academic environment as perceived by students, seemed to be potent factors influencing students' attitude to academic work. These perceived factors were: commitment of lecturers to teaching and commitment expected of students; personal attention given to students; academic guidance and respect for students. Two other dimensions - freedom in students' learning and the relationship with students correlated significantly with only one dimension of attitude to academic work respectively. However, students' GPA correlated negatively with two dimensions of academic environment - academic guidance and personal attention given to students. The implications for teaching and learning in Nigerian tertiary institutions were discussed.

Introduction

Universities, the world over, are seen as main environments where higher learning and research are facilitated. The "disciplines" or the departments within the universities have become known as the "academic homes" of students because of the intrinsic role they play in shaping the lives of students and the faculty members (Winteler, 1981). Students, both at home and abroad have played significant roles in evaluating the quality of learning environments as well as the quality of instructions that go on in these institutions through self-rating of academic characteristics.
In recent times, the debate of whether students can effectively evaluate the teaching-learning environment and the teaching process of their lecturers has been on. The issues at stake in these arguments are whether students do recognize what constitute teaching effectiveness criteria, or whether their emotional disposition and the grades lecturers award them do influence the stability and reliability of their ratings? Research evidence (Ramsden, 1979, Onocha, 1995a and 1996) has shown that such students' rating of their academic environment has not only become stable and reliable in the short term but also in the long term.

It is worthy of note that students' evaluation of teaching and learning has become important consideration in the annual appraisal of lecturers in many American Universities and Colleges. However, this phenomenon is gradually being discussed and debated by Stakeholders in university education in Nigeria. The focus has been on its usefulness and applicability in this part of the world. It is hoped that when the debates and discussions are over, the resulting reforms

would have repositioned students' evaluation of teaching and learning in a better pedestal in the Nigerian university system.

Among the attempts made in the past to assess the academic environment of foreign universities was from the perspectives of faculty members. Of the several studies that investigated this, Peterson, Centra, Hartnett and Linn (1970), Ramsden (1979), Gaff, Crombag and Chang (1976) reported that distinct academic cultures exist within various departments. The Peterson et al (1970) study, specifically, reported that these differences as measured by achievement tests were common place. Their study therefore, revealed that the perception of faculty about the department characteristics and individual student descriptors were not related to students' achievement. These scholars suggested that students' views about their academic environment may be more reliable in assessing the factors that determine their academic achievement. Further, if students are to learn effectively, as well as continue to make successes of their academic endeavours, it is imperative that they develop confidence in their ability to make appropriate decisions that affect their studies. The role of lecturers in the ability of students to make such decisions cannot be overemphasized. Scholars such as Gaff and Wilson (1971), Hartnett and Centra (1977) and Lamport (1994) have stressed the importance of student-faculty interaction in and outside of class, faculty interest in teaching and in students as well as in their performances.

Students' perception of their departments and teachers have been known to exert important influence on the approaches that students adopt in learning (Marton and Saljo 1976; and 1984) while students' perception of a particular learning task have been found to influence the level at which the student tackles it (Ramsden, 1979). Other studies such as Endo and Harpel (1982) found that informal student-faculty contact had far greater effects on attitudes about college experience, satisfaction with college than formal contacts. Wilson et al 1975 contend that when education is seen by faculties as an interactive process between teachers and learners, high rate of contact with their students both in and out of classrooms are encouraged such that student learning outcomes are improved.

Few local studies have adopted students' self-reports in conducting studies that rate learning environments in tertiary institutions. Among these are Onocha (1995a) and (1996) who evaluated the quality of teaching of university lecturers through students' self-reports and Okwilagwe (1999) and (2002) who examined students' environmental perception through self-reports.. Using the composite Scale of the Academic Environmental Factor (SAEF), Okwilagwe (1999) and (2001) found that in conjunction with other variables, such as Secondary School Achievement Scores (SSCE), the use of academic materials, cognitive styles and academic environmental factors had direct and significant influence on students' learning outcomes. In spite of these findings, it has become pertinent to examine in detail those specific dimensions and/or items of the academic environment that made the significant contributions to undergraduates' learning outcomes in order that their increase and improvement can be encouraged in the teaching-learning process.

In the light of the foregoing, it is obvious that there has not been concerted efforts to evaluate students' perception of their academic environment as they relate to their learning outcomes in Nigerian universities. There is therefore need to further investigate this relationship in order to establish a consistent research support in the area.

Problem

The study focused on how university students' perception of the characteristics of their academic department impinge on their attitude to work and their academic performance, with a view to determining the need for enhanced student-faculty relationship that will culminate in improved

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teaching and learning at this level of education in Nigeria. Specifically, the study sought to determine undergraduate students' perceived academic environmental characteristics as correlates of learning outcomes, more so as the academic departments have been described as the "academic homes" of students.

The study objectives are to determine if there is a relationship between students' perception of their academic environmental characteristics and students' attitude to work and students' academic achievement.

Research Questions:
The study sought answers to the following research questions:

(i) How do students' perception of their academic environment influence their attitude to academic work?, and
(ii) how do their perceptions of their academic environment influence their achievement (measured by means of the GPA)?.

Methodology

Sample: This consisted of 348 final year undergraduates drawn from the departments of English, Mathematics, Chemistry, Economics and Education in three universities in Nigeria. They were aged between 20-29 years. The three universities selected, were on the basis of status, that is, time of establishment, whether first, second or third generation universities respectively (Sajo et al, 1992), and on the funding status, that is, whether funded by Federal or State governments. The only group of universities not covered in the sample are the relatively new and privately owned universities which are just on the verge of settling down to serious academic work at the time the data for this study was gathered.
Three criteria guided the selection of the five departments. They are: similarities of the courses offered by the departments with those in secondary schools in Nigeria; each department chosen is a representative of a larger faculty, running courses that are similar in nature, philosophy, serve common public interest and satisfy the broad-field paradigm; and English and Mathematics were selected because they are basic selection criteria for admission into Nigerian Universities, while Economics further satisfy the popularity criteria among other secondary school subjects. With respect to the number of students used, the researcher was interested in final year undergraduates because it is believed that these students would have got used to their academic environments well enough to have developed and be able to provide stable and accurate perceptions of their academic environments. Also, only students who provided all required information about themselves were analysed.

Instruments: Two valid and reliable instruments were constructed and administered on the students. The Scale on Academic Environment Factor (SAEF) measured students' perception of the quality of climate in their academic environment, while the attitude of undergraduates to academic work was measured using the Scale on Attitude of Students to Academic Work (ATAWS). The psychometric properties of these instruments were; a Cronbach coefficient Alpha of between 0.53-0.77 was obtained for the six - dimensions of SAEF, and 0.55 - 0.71 for the six dimensions of ATAWS accounting for 51.6% and 52.6% respectively of the variability in the criterion of academic environment (Okwilagwe, 1999 and 2000). The grade Point Average scores were gathered from relevant documents in the three universities.

Procedure and Data Analysis
The instruments were administered on the students before the end of their 4-years programme. Data were analysed using correlation. The inter-correlations between the six dimensions of SAEF

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i.e. commitment expected from students and commitment to teaching of lecturers, personal attention to students, relationships with students, freedom in students learning, academic guidance and respect for students and the six dimensions of ATAWS on the one hand and with GPA on the other were computed. ATAWS dimensions were: effectiveness of instruction and effectiveness of administration, tests/examinations, lectures/assignments, studying, usefulness of university education and time required of students/assessment. The probability level for determining significant level was P <0.05.

Results and Discussion

Research question 1 examined the influence of students' perception of their academic environment on students' attitude to academic work. This result is presented in Table I.

Table I: ***Inter-Correlations of students' Perceptions of their Academic Environment on their Attitude to Academic Work***

Students' perception of Acad. Environment	Attitude to academic Work	Dimensions of Attitude to Academic work					
		1	2	3	4	5	6
1. Commitment	0.3167*	0.0308	0.2660*	0.2196*	0.0456	0.0009	0.3694*
2. Attention	0.3200*	0.2143*	-0.1855*	0.2087*	0.1300*	0.0329	0.4156*
3. Relationships	0.0568	-0.0988	0.0371	0.1244*	0.0780	-0.0627	-0.0387
4. Freedom	0.0527	0.0620	-0.0002	0.0160	0.0970*	-0.0278	-0.0316
5. Guidance	0.3309*	-0.1258	0.1992*	0.2173	0.1218*	0.0551	0.3776*
6. Respect	0.1480*	-0.1872	0.1932*	0.0936*	-0.0526	0.0200	0.1904*

*Significant correlations at P<0.05 (One-tailed Test)
N.B. = On the dimensions of attitude to academic work.
1 = represents Effectiveness, 2 = Tests/Exams, 3 = Lectures/Assignments 4 = Studying, 5 = Usefulness of university degree and 6 = Time required for academic work/assessment method.

Nomenclature of academic environment scale were abridged.

The results in Table I indicate that students' perception of their academic environment correlated significantly with four dimensions of attitude; such as, commitment of lecturers and commitment expected from students correlated (0.3167) with students' composite attitude to academic work. The specific dimensions of students' attitude that were significant here were students' positive disposition to taking tests and examinations (0.2660), disposition to lectures and assignments (0.2190) and the adequacy of time required of students and the assessment method adopted (0.3694). Personal attention to students (i.e. student - faculty relationships) correlated (0.33200) with attitude and specifically with effectiveness (0.2143), tests/examinations (-0.1855) lectures and assignments (0.2087), studying (0.1300) and (0.4156) with time required for academic work and assessment method used.

Relationships with students correlated (0.1244) with disposition of students to lectures and assignments. Similarly, freedom in students learning correlated (0.0979) with studying. Academic

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guidance was found to influence attitude to academic work (0.3309). Specific dimensions were: taking tests/ examinations (0.1992), disposition to lectures and assignments (0.2173), studying (0.1218) and the time required for academic work/assessment method used (0.3776).

Respect for students had strong influence on attitude to work and on several of its dimensions. With the composite attitude scale it was (0.1480); tests/examinations (0.1922) lectures and assignments (0.0936) and time required for academic work and assessment methods (0.1904). The influence of students' perception of the academic environment on their academic achievement (research question 2) is presented in Table 2.)

Table 2: ***Correlations Between Students' Perception of the Academic Environment and Academic Achievement***

Scale	N	r	Sig. Level	Remark
Commitment	348	0.0481	0.185	NS
Personal Attention	348	-0.1279	0.009	*
Relationships	348	-0.0289	0.296	NS
Freedom	348	0.0485	0.183	NS
Academic guidance	348	-0.1080	0.022	*
Respect	348	-0.0527	0.163	NS

*Significant at $p<0.05$.

N.B. Scale dimensions' nomenclature abridged.

The results in Table 2 show that two dimensions of academic environment were significantly, but negatively correlated with students GPA, while the rest were not significant. These significant factors were personal attention given to students and academic guidance.

Discussion

From the findings in this study, it would appear that students' perception of their academic environment is strongly related to their attitude to academic work, as several significant correlations between the two measures (18 out of 36) were evident. That the commitment of lecturers to teaching and the commitment expected of students' dimension significantly influenced students' disposition to academic work (most especially those that have to do with taking tests and examinations as well as attending lectures, doing and submitting assignments on schedule instead of being penalized, in addition to being favourably disposed to the time required of them for academic work and adequacy of the assessment method used), are indicative of the value that students place on genuine efforts that their lecturers make to help them learn. In this respect, this study corroborate that of Ramsden (1979) which found that though each department had a distinctive atmosphere, students valued an environment in which their lecturers made genuine efforts to help them learn, but contradicts Gaff et al (1976) which, found that all departments studied, had a high degree of impersonality.

Equally significant is the finding that personal attention given to students in terms of student - faculty interaction has strong positive influence on most of the dimensions of attitude to work. Most importantly, are effectiveness of instruction and administration in addition to doing

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assignments and studying, as well as attending lectures, the time allocated for academic work and assessment method used. By this findings, the study supports recent studies such as Baird (1992) and Lamport (1994) who found that increased student - faculty interaction has a positive influence on students' personal and intellectual growth, career and educational goal. It is worthy of note to observe that the inverse relationship obtained between personal attention given to students and attitude to tests and examinations would seem to suggest that sitting for tests/ examination and subsequently doing well in it does not necessarily depend on student - faculty interaction or on the frequency. This could be dependent on some other factors inherent in the student or the work environment. This way, this findings would seem to support previous findings that students were less concerned with student - faculty interaction, curriculum content among others, than they were with physical features of the academic environment such as parking of cars, the physical appearance of campus facilities, cost of fees and books, and safety (San-Diego Community College Research and Planning, ERIC, 1994).

On the one hand, the amount of student's discretion in choosing and organizing learning (freedom in students' learning) is positively correlated with the disposition to studying exhibited by the students. On the other hand, the relationships with student - that is the help and understanding shown to students also had a strong correlation with students' disposition to taking tests/examinations, attending lectures and doing assignments and the adequacy of the time required for academic work and the method of assessment used. This finding support the San-Diego's Community College Research and Planning (1994) study that over 86.2% of the students felt they were given the respect of adults, while 80.1% felt that the staff treated all students fairly equally.

The inverse relationship observed between students' GPA and their perceived personal attention given to them on the one hand and academic guidance on the other, have serious implications for teaching and learning in Nigerian tertiary institutions. This finding in conjunction with the earlier findings with respect to students' attitude in this study, would seem to question the quality of academic guidance and personal attention given to students by lecturers. The modest existence of these characteristics in some departments as English (Arts) or their complete absence as in Economics (Social Science) as reported by (Okwilagwe, 2002), clearly indicate the existence of some academic problems in these tertiary institutions. Or, could these findings be a case of what Becker *et al,* (1968) as cited by Ramsden (1981) explained as a situation where the academic environment value attendance and written work, but do not seem to reward students for showing intellectual involvement? Findings in this study contradict previous studies which revealed that personal attention through student - faculty interaction is a valuable factor in improving students' academic achievement during college. Wilson *et al.,* 1975) (Baird, 1992; and Lamport, 1994; but corroborates those of Endo and Harpel (1982). Moreover, a lack of significant relationship was observed in this study between commitment of lecturers to teaching and student achievement. This senario could be attributed to some factors such as: the poor disposition to teaching exhibited by lecturers in some departments such as English (Arts), Economics (Social Sciences) and the presence in modest levels of such teacher characteristics as punctuality to lectures, innovativeness in teaching, coupled with approachability on academic matters and development of low self-esteem due to lack of commitment to teaching of their lecturers (Okwilagwe, 2002). It stands to reason that the lack of commitment to teaching on the part of lecturers could have a negative influences on students not wanting to study these courses as they lack the motivation to do so.

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Conclusion and Recommendations

In conclusion, the implication of the findings in this study for teaching and learning in higher institutions borders on not reducing the academic environment to a tense and anxiety producing place through placing more premium on studying, taking tests and examinations and the like. Also, to be noted, is the high degree of impersonality students say is prevalent almost in all the departments. On the contrary, it is the perception of students that a conducive social and psychological atmosphere or climate necessary for releasing the tension created by the context of learning should be provided in the academic environment. Such climates could be established through increased and purposive student - faculty, formal and informal interaction, enhanced and qualitative student - teacher relationships and respect for students which could possibly go a long way to enhance their academic achievement.

The current study was primarily meant to provide information and knowledge of students' perception of the teaching-learning environments of the universities used in the study. However, generalizations of the current research findings to other universities could be possible and fostered by application and transfer of learning to new inquisition milieus in spite of some extenuating factors and circumstances of the present study. This is because, the Nigerian students, to a very large extent, operate in a common national academic environment in which teaching and learning are guided by the same national educational policies within a national value system framework.

In the light of the findings of this study, these recommendations are made with a view to improving the teaching-learning environment in tertiary institutions in Nigeria as follows:

i lecturers should encourage and indeed initiate purposeful academic consultation with students formally and informally (out-of-class), irrespective of their tight workloads;

ii. university courses should be designed in such a way that students' intersects are catered for, while students should be given high discretion and unrestricted access to selecting courses of great relevance and interest to their chosen career as well as freedom in organizing self-learning;

iii. lecturers should be motivated to give selfless services and quality guidance to their students and not only to those they supervise. This would go a long way to boosting students' ego, self-esteem and improve better attitude to work that could translate into enhanced academic achievement, emotional and psychological contentment that could further fuel their drive to excel in their academic pursuit; and

iv. Lecturers should show more commitment to teaching, be punctual at lectures, be approachable on academic matters and be innovative in teaching as these are some of the hallmarks of an effective teacher.

When these recommendations are truly and adroitly implemented, coupled with the development of positive, innovative and creative attitudes to teaching and learning by lecturers and students, conducive environment would result in sustainable quality education in universities in Nigeria.

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