Key Dimensions of Educational Experiences Associated With Overall Undergraduate Students’ Satisfaction with Tertiary Institutions in Rivers State, Nigeria

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Abstract Higher education in Nigeria is increasingly becoming more competitive and service oriented. This is highlighted by the introduction of private universities and increase in school fees in public institutions of higher learning. There is growing need for universities to monitor students’ satisfaction and adopt entrepreneurial approach in service delivery to meet up with the growing competition. The purpose of this study was to measure the level of overall undergraduate students’ satisfaction with their universities. The relationship between undergraduate students’ overall satisfaction and four key dimensions of students’ educational experiences: Teacher effectiveness, classroom environment, administrative services, and curriculum content were investigated. Student Satisfaction Questionnaire (SSQ) was used to gather information from a sample size of 540 students. A reliability coefficient of 0.78 was obtained using test re-test method. Data was analyzed with descriptive statistics, Pearson Product Moment Correlation, t-test, ANOVA and ANOCOVA at 0.05 level of significance. The findings showed that the respondents expressed overall dissatisfaction with their educational experience in their various institutions. Students were not satisfied with classroom environment and administrative services but slightly satisfied with their teacher effectiveness and curriculum contents. Male students were more dissatisfied than their female counterparts. Recommendations were made; the university should endeavour to annually administer survey questionnaire to find out overall students satisfaction with the school experiences and the administrations.

Keywords: students satisfaction, educational experiences, classroom environment, administrative services, curriculum content and teacher effectiveness


1. Introduction

Students’ pleasurable experience with their university is important in many aspects. Student satisfaction is often linked with student and university success. Students who are satisfied with their university are more likely to remain and complete their programme [7], which is the main objective of students and universities. These students in addition, recommend their institutions to others [30] and more likely to give back to their alma mater [11]. Thus, satisfied university students are good assets to their universities. Furthermore, various organizations use student satisfaction as major criteria in their ranking of universities [17] and results obtained from students' satisfaction surveys are used by universities to identify areas of strength and improvement [28]. These benefits have compelled university decision makers to measure and monitor the level of student satisfaction in their institutions. Austin ([6]: 273) posits that student satisfaction is so important that "it cannot be legitimately subordinate to any other education outcome". Student satisfaction with their institutions has gained attention in many parts of the world and identified as an important goal of education and a strategic planning tool for institutions of higher learning [7]. Unfortunately, university administrators in Nigeria are slow in tapping into this popular and growing concept. This is evidenced by frequent breakdown in communication between university management and students' representatives which have led to incessant unrests in most tertiary institutions in Nigeria [4].

Universities need students to exist and when students are satisfied their institution progress peacefully. However, Students' satisfaction and opinions are not given much needed attention in Nigeria for some obvious reasons. Firstly, students’ financial contributions for capital projects and day to day expenditures in public universities are infinitesimal. Ahmed [1] puts the level of government financing of public universities at 90 percent. To this effect, there may not be much incentive to devote much effort to satisfy a partner that contributes 10 percent of the institutions running costs. Secondly, student satisfaction is not an important tool for attracting and retaining students in public institutions. Fresh students may not make
satisfaction a priority as the number of students seeking admission into tertiary institutions far outnumbered the available classroom seats and other facilities in the institutions [10]. The number one priority for intending college students is to gain admission in any university. Furthermore, dissatisfied students cannot easily transfer from one university to another within the country.

The attitude of university administrators towards student satisfaction is fast changing in line with societal needs and policy changes. Government inability to substantially fund university education as a result of fall in crude oil production and prices has changed the financial position of universities. Aiya [2] reported that sharp drop in government funding of universities has resulted to increase in school fees. The increase is on one hand motivating healthy competition between private and public universities and forcing them to adopt entrepreneurial approach to education. However, an increase in school fees that is not compared with quality delivery has also added to mass dissatisfaction and incessant student unrests. Aluede, Jimoh, Awinedo and Omeregun [5], noted that student unrest is a clear indication of students’ dissatisfaction with their university administrators.

University administrators have maintained that increase in the school fees is the way forward to achieve the funding policy in higher institutions; arguing that quality education at very low cost cannot achieve the objectives of quality education. Students who are forced to pay higher fees are increasingly demanding more values for their investment via satisfactory services and respect for their opinions on issues. The need to understand students’ satisfaction is now obvious and will continue to increase as long as demands for higher school fees continue to exist.

1.1. Purpose of Study

This study is one of the initial attempts to encourage Nigerian university administrators to recognize the benefits of students’ satisfaction with the universities. The primary aim is to obtain an empirical data on the level of students’ overall satisfaction with their universities. Four key factors associated with undergraduate students’ satisfaction with university experience and the level of relationship between these factors and students’ expression of overall satisfaction. Four key factors were investigated: classroom environment, teacher effectiveness, administrative services and curriculum content. University administrators can use the results obtained from this study to gain further insight on the levels of student satisfaction with services provided by their institutions. It is hoped that this research would further motivate university policy makers to investigate students’ satisfaction and use the results from such investigations to device strategies to improve student learning and satisfaction.

1.2. Related Literature Review

Student satisfaction is the “perception of enjoyment and accomplishment in learning environment” ([32]: 57). This definition imply that satisfaction can be derived from two sources; success in learning and pleasurable service. Harvey, Plimmer, Moon and Geall [19], saw satisfaction from utility perspective, referring it as a vehicle to enhance quality of students’ experience. Kotler and Clarke [24], see satisfaction as a feeling or a state experienced by an individual when outcome or performance fulfills expectation. This research adopts the definition proffered by Oliver and De Sarbo [26], which describes satisfaction as students’ favourable subjective experiences and outcomes associated with education. The four key dimensions of university experiences: administrative services, teacher effectiveness, curriculum contents and classroom environment for this study are discussed below:

University administration offers basic services designed to promote academic success and make life easier for students. Gronorods [18] defined administrative services as non-instructional services that are essential in obtaining core services. Seidman [31], pointed out that students have expectations that their university should provide them with services that will help them succeed. These services if correctly applied will help to stabilize students who are not well prepared for challenges of education. Administrative services dimensions covered in this study include; friendliness and willingness by administrative staff to provide information, ease of obtaining results from academic and records office, academic calendar planning and lecture timetables. Study on students’ satisfaction on administrative services by Matinez - Arguelles and Butalla – Busquetes [25] found that perceived administrative services can have comparatively high impact on student satisfaction.

Quality teaching is essential for effective learning. Coe, Aloisi, Higgins and Major [12] listed six (6) instructor characteristics that demonstrate effective teaching: content, knowledge, quality of the instruction, classroom climate, classroom management, teacher beliefs and professional behaviours. Delaney, Johnson and Treslan’s [14] survey of 17,000 graduate and undergraduate students of Montrial University of Newfound added respect for students, engagement, communicative, organized, responsive and humour as teachers effective behaviours. Responsiveness of lecturers in marking of papers, quality of teaching compared to expectations, carefulness and use of time, knowledge of course, quality of classroom discussions and individual attention from lecturers aspects of teacher behaviour were measured in this study. Broder and Dorfman [8] reported that students who believe they receive high quality instruction from their teachers are more satisfied. Smyth [33] is of the opinion that good teacher attitude towards students are very essential as students who feel important, valued, respected and honoured show their pleasure by turning into vessels of good faculty student relationship. Al-Kuwitti [3] found a strong relationship between teacher effectiveness and student overall satisfaction with university. Korte, Lavin and Davis [23] found that female students rate their teacher effectiveness higher and significantly different than their male counter parts in a study carried out in a Midwestern University.

Students spend more time in the classroom than in any other facility on campus and the quality of classroom environment affects students’ functioning and satisfaction. Class size has considerable impacts on students’ satisfaction [15], the smaller the size, the more the
satisfaction [29]. Oluwunmi, Durodola and Ajayi [27] study on student satisfaction with classroom facilities in three private universities in Nigeria revealed that students in those schools were satisfied with electricity supplies, finishing and furnishing of their classrooms but were dissatisfied with air-conditioning and internet facilities. Thompson [36] noted that conducive classroom environment affects students’ satisfaction even when students are thought by quality lecturers. Choi, Guerin, Kim, Brigham and Bauer [9] study in University of Minnesota revealed that students perceived effect of indoor environmental quality such as thermal conditions, acoustic conditions, lightings, furnishing and technology significantly influenced course satisfaction.

Curriculum content is best defined as “all the learning which is planned and guided by the school, whether it is carried out in groups or individually, inside or outside of the school” ([22]: 10). UNESCO ([37]:1), described the content of curriculum as “the main liver of educational quality”. Student satisfaction and learning are influenced by curriculum content and the teaching culture of the institution [13]. Studies have recorded positive relationship between curriculum content and student satisfaction. Curriculum content related positively with student satisfaction in a study conducted in Malaysian University among undergraduates [16]. Younger students reported that curriculum and teaching dimensions increased satisfaction in public universities in Southern Brazil [20] while moderate positive relationship between major curriculum and overall satisfaction was recorded by Tsehema, Ready & You [34] in a nine year study at mid-sized Med-western University in the United State. Zhou [38] study among undergraduastudents in China recorded students’ dissatisfaction with Curriculum content. She explained the result was due mainly to shortage of depth and high subject content which did not match with the present reality.

2. Methods

Exploratory Study: The first phase of this research was a pilot study carried out to identify key areas of student satisfaction and dissatisfaction with their university experience. A random sample of 30 final year students in each of the three universities were involved in a brainstorming section. The students were asked to identify campus experiences that were most satisfying or dissatisfying and give reasons on how they came up with such conclusions. Key factors identified by the student sampled were classified under the following Categories: Classroom environment, teacher effectiveness, and relationships with other students, curriculum contents, extracurricular activities, high cost of education and feedback on attention and care from administrative staff, especially in the area of accessing their semester results. Four of these variables; classroom environment, administrative services, teacher effectiveness and curriculum content were selected for further investigation.

Instrument: Student satisfaction questionnaire for measurement of the four independent variables and overall students’ satisfaction was designed based on the information provided by students during the preliminary stage of this investigation. Item on the subscale that measured classroom physical environment consisted of overcrowding in classrooms, use of teaching aids, housekeeping, furnishing and classrooms comfort. This questionnaire adopted a four-point Likert-scale of 25 items of five items for each of the variables. Each item is rated on the four point scale with, Totally false= 1, False= 2, True= 3, Totally true= 4. A reliability of 0.78 with a 95 percent confidence interval was obtained using test retest method, administered within an interval of two weeks.

Participants: participants comprise of the final year students. The researcher believes that the students have gained enough experience with the institutions. A total of 540 correctly filled copies of the questionnaires were used, comprising of 254 males and 286 females. University of Science and Technology was represented by 112 students, University of Port Harcourt and University of Education had 226 and 202 representatives.

Data Analysis: Basic components were summarized with the aid of descriptive statistics. The relationship between students’ overall satisfaction with university experience and joint effects of the four independent variables were measured using Pearson multiple correlation coefficient (R). Multiple regression analysis was used to interpret the individual contribution of the four key factors on students overall satisfaction. Analysis of Covariance (ANOCOVA) was used to test the significance of the four dependent variables on overall students’ satisfaction while controlling the effect of each school. This technique was selected because it compensates for imbalance between groups and makes adjustment for factors within the three schools that may confound the result of the comparison. Thereby reducing the variations that resulted from the covariates in the three independents variables.

3. Results

Research Questions 1 & 2:

Question 1: How satisfied are students with their universities and the four key factors?

Question 2: How satisfied are students with the four key factors of university experience?

| Table 1. Means, Standard Deviations Pearson Moment Correlations for all the Dimension |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| Variable         | Mean   | SD     | DV     | IV₁    | IV₂    | IV₃    | IV₄    |
| DV   | Overall Satisfaction | 11.64 | 4.74  | 1.000  |        |        |        |        |
| IV₁  | Classroom Environment | 10.55 | 3.35  | 0.616  | 1.000  |        |        |        |
| IV₂  | Teacher Effectiveness | 14.55 | 3.83  | 0.626  | 0.485  | 1.00   |        |        |
| IV₃  | Administrative Services | 11.88 | 3.64  | 0.712  | 0.650  | 0.629  | 1.00   |        |
| IV₄  | Curriculum Content | 14.12 | 3.31  | 0.653  | 0.439  | 0.635  | 0.630  | 1.00   |
**Result:** Results obtained from Table 1 was used to answer research questions 1 and 2. How satisfied are students in the three universities? And what are the relationships of all the factors: overall student satisfaction with the university, classroom physical environment, teacher effectiveness, administrative services and curriculum content? Result indicate that students are not satisfied with overall university experiences (mean= 11.65), classroom environment (mean= 10.55), and administrative services (mean= 11.86). They are however slightly satisfied with their teachers’ effectiveness in performing their functions (mean= 14.55) and curriculum content (mean= 14.14). Teacher effectiveness has the highest correlation, \( r = 0.715 \) while classroom environment has the least correlation, \( r = 0.616 \). All key variables correlated strongly with student overall satisfaction. All independent variables also correlated strongly with each other except the correlation between teacher effectiveness and classroom environment \( r = 0.485 \). Administrative services, classroom physical environment and curriculum content are very important to students \( r = 0.650 \) for both variables.

**Research Question 3:** To what extent do the four dimensions of students experience jointly predict the variance in student overall satisfaction?

**Result:** Table 2, shows the proportion relationship between students overall satisfaction and the joint effects of the four key dimensions of students’ satisfaction. An adjusted multiple correlation coefficient \( R^2 \) value of 0.62 was obtained; indicating that 62% of the variation on the overall dissatisfaction among students in the three tertiary institutions can be attributed to the joint contribution of the four variables under study.

**Table 2. Pearson Multiple correlation coefficient to determine joint effect of key factors on students overall satisfaction**

<table>
<thead>
<tr>
<th>model</th>
<th>R</th>
<th>R square</th>
<th>Standard Error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.789</td>
<td>0.620</td>
<td>2.923</td>
</tr>
</tbody>
</table>

ANOVA was used to transform the \( R^2 \) value to \( F \) in order to test the level of significance of the joint effect of the four key factors in predicting overall students’ satisfaction. The computed \( F \) value of 221.29 is statistically significant at alpha level of 0.001 less than 0.01 chosen level of significance, see Table 3. It is therefore concluded that the joint effect of the four independent variables to overall students’ satisfaction are significant.

**Table 3. ANOVA determine of level of significance of joint effect of key factors on overall students’ satisfaction.**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>7562.19</td>
<td>4</td>
<td>1890.55</td>
<td>221.29</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>4570.67</td>
<td>535</td>
<td>8.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12132.89</td>
<td>539</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 4:** To what extent do the key factors independently predict overall student satisfaction?

**Result:** Multiple regression was used to understand the independent contribution of the four (4) key factors investigated in this study towards students overall dissatisfaction. The result obtained from this analysis is presented in Table 4. The individual contribution of all the variables were significant at an alpha level of 0.001. The result produced unstandardized multiple regression coefficient of 0.33 for classroom physical environment, 0.21 for teacher effectiveness, 0.38 for administrative services and 0.36 for curriculum contents were obtained. Standard regression coefficient \( \beta \) (Beta) for classroom environment of 0.232 was significant (\( P < .01 \)), 0.17 for teacher effectiveness (significant, \( P = .001 < .01 \)) administrative services produced significant \( \beta \) value of 0.30 (\( P < .01 \)), also significant is the \( \beta \) value of curriculum contents of 0.25 (\( P < .01 \)). Thus, three in the dependent variables contributed significantly to students’ dissatisfaction.

**Question 5:** How do male students differ with female students in expressing satisfaction?

The result obtained from ANOVA Pairwise comparison for both sex is shown on Table 5. Result indicate a significant difference on satisfaction on all the key factors based on gender. Female students are more satisfied than their male counterpart.

**Table 4. Multiple regression coefficient to determine the significant independent contributions of each key factors to overall students satisfaction**

<table>
<thead>
<tr>
<th>Key Dimensions</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-3.688</td>
<td>0.606</td>
<td>-</td>
<td>-6.082</td>
</tr>
<tr>
<td>Classroom Environment</td>
<td>0.328</td>
<td>0.050</td>
<td>0.232</td>
<td>6.588</td>
</tr>
<tr>
<td>Teacher Effectiveness</td>
<td>0.207</td>
<td>0.046</td>
<td>0.167</td>
<td>4.487</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>0.384</td>
<td>0.056</td>
<td>0.295</td>
<td>6.892</td>
</tr>
<tr>
<td>Curriculum Contents</td>
<td>0.362</td>
<td>0.054</td>
<td>0.253</td>
<td>6.690</td>
</tr>
</tbody>
</table>

**Table 5. ANOVA Pairwise Comparison between Sex**

<table>
<thead>
<tr>
<th>Key Dimensions</th>
<th>Male (n= 254)</th>
<th>Female (n= 286)</th>
<th>Standard Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>SD</td>
<td>mean</td>
<td>SD</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>11.00</td>
<td>6.03</td>
<td>12.44</td>
<td>4.39</td>
</tr>
<tr>
<td>Classroom Environment</td>
<td>9.85</td>
<td>3.01</td>
<td>11.16</td>
<td>3.52</td>
</tr>
<tr>
<td>Teacher Effectiveness</td>
<td>13.11</td>
<td>4.13</td>
<td>15.65</td>
<td>3.11</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>10.86</td>
<td>3.09</td>
<td>12.79</td>
<td>3.86</td>
</tr>
<tr>
<td>Curriculum Content</td>
<td>12.80</td>
<td>3.38</td>
<td>15.26</td>
<td>2.79</td>
</tr>
</tbody>
</table>

All significant at \( P < 0.001 \).
4. Discussion

This study accessed the extent of the correlation between students' satisfaction in four key areas; classroom physical environment, teacher effectiveness, administrative services and curriculum content and overall student satisfaction. All the four factors correlated strongly and significantly with overall student satisfaction. However, the students were generally not satisfied with their universities. They were particularly dissatisfied with administrative services and classroom physical environment but slightly satisfied with teachers’ effectiveness and curriculum content. The result of this research indicated general dissatisfaction and low levels of satisfaction in two of the four variables are expected judging from consistent students’ unrest in the universities and Aluede et al [5] assertion that students unrest are clear indication of students dissatisfaction, as more satisfied students are less likely to demonstrate. University administrators are encouraged to use results obtained from student satisfaction studies to reduce the rate of unrest in their institutions.

Participants in this study were satisfied with the curriculum content of their disciplines. Curriculum content also contributed significantly to overall student satisfaction. It can be said that students of these three institutions perceived the content of their curriculum as enriching and adequate for the maximization of their educational objectives, thus, the main liver of their university satisfaction, curriculum content also correlated strongly with teacher effectiveness indicating that most of their teachers are following the school curricula. Female students were more satisfied with the content of the curriculum than their male counterparts. This finding supports Farahmandian et al. [16] study among undergraduate students in a Malaysian University that found positive relationship between curriculum content and students’ satisfaction. It failed to support findings reported by Zhou [45] in a study of undergraduate students in China which blamed the dissatisfaction on students perception that the content of their curriculum does not have enough depth to match present realities in that country.

Students were dissatisfied with administrative services rendered to them at their various universities. University of Port Harcourt was the least satisfied. This can be explained by the recent student unrest in the university protesting administration position on mode of payment of school fees. Administrative services recorded the highest correlation coefficient with the overall students dissatisfaction, classroom physical environment is another variable of dissatisfaction. These two services are strictly administrative functions. This goes a long way to buttress Omeregun [5] assertion that university administrators is one of the biggest source of student dissatisfaction. University administrators should pay special attention to improve administrative factors contributing to university overall dissatisfaction. Female participants were less dissatisfied with administrative service functions covered in this study than their male counterparts. Improvement in the quality of administrative services rendered to students will help students especially those not well prepared for the challenges of university education to remain in the university and succeed. The findings of this study support Matinez – Arguelles and Butalla – Busquetes [25] findings that administrative services have high impact on students’ satisfaction.

The highest level of dissatisfaction expression was with classroom physical environment. The need for quality classroom facility and administrative management in public university cannot be over-emphasized [10]. The classroom environment in these universities are particularly poor, they should take a clue from University of Education in refurbishing and remodeling of their classrooms. This study found significant gender bias in students rating of their classroom environment. Females rated their classroom environment better than their male counterparts although both sex were generally dissatisfied with the classroom environment.

Teacher effectiveness has the highest correlation with student overall satisfaction indicating that instructor effectiveness is an influential factor in students’ satisfaction. This result supports the various studies that linked effective teaching to student satisfaction [35]. It is hoped that the good rating of teacher effectiveness in this study will encourage instructors to make more efforts to improve the quality of teaching. UOE students were most satisfied with teacher effectiveness. This is a university of education that specializes in training of teachers. Teaching methods are highly emphasized in this school; this may be reflective of this result. Female students significantly rated teacher effectiveness higher than the males. This finding supports the result obtained from Corte et al. (2013) study of Midwestern University Business School students that found significant gender bias in rating teacher effectiveness. Female students rated their teachers higher than male students in this study.

5. Conclusion and Recommendation

Students in the three universities in Rivers State, Nigeria are not satisfied with their institutions. Male students are generally more dissatisfied than the females. Administrative functions such as; maintenance of classroom physical environment and administrative services provided to students contributed to student overall dissatisfaction while pedagogical functions relating to teacher effectiveness and curriculum content contributed to the marginal student satisfaction obtained. University administrators and policy makers are advised to invest more on infrastructural improvements and quality service delivery to reduce insistent student unrests in campuses. The four key factors (classroom physical environment, administrative services, teacher effectiveness and curriculum content) jointly and individually significantly related to student satisfaction or rather dissatisfaction.

Based on the findings of the study the following recommendations are made:

1. The university administration should develop tools or questionnaire for identifying students satisfaction.
2. The universities should administer and evaluate students’ satisfaction levels with their institutions as this will yield positively to student performance and a return on investment.
3. The university administrators should learn to develop listening ears to students issues as the serve
diverse students so that the will help to curb incessant students unrest due to students dissatisfaction with administrative practices. This will help the students and the educational system to remain relatively peaceful and to thrive in Nigerian institution.

4. The university should provide conducive classroom environment for effective learning which may call for a re-design of the university classrooms by provisions of modern technologies, large classroom space and cleaned environment.

References