

## Quality control measures and student output in University of Uyo and University of Calabar

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### ABSTRACT

The study examines the nature of relationship between quality control measures and student output in University of Uyo and University of Calabar. Two research questions and two hypotheses guided the study. The correlational research design was used for the study. The population comprised 2,967 teaching staff and 11,635 students from University of Uyo and University of Calabar. Simple random sampling technique was used to select 642 teaching staff and 1,232 students from the sampled schools. Two instruments, one being researchers-developed instrument titled "Quality Control Questionnaire (QCQ)" and a documentary analysis checklist titled "Student Output Checklist (SOC)" were used for data collection. The instruments used for data collection were face validated by three experts. The reliability co-efficient of QCQ was determined using the Cronbach Alpha Analysis and a reliability index of 0.81 was obtained. The r-value of Pearson Product Moment Correlation (PPMC) coefficient was used to answer the research questions, while PPMC was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that the quality control on student intake and student engagement significantly relates to student output in University of Uyo and University of Calabar. It was therefore concluded that the quality of student output in University of Uyo and University of Calabar is influenced by quality control variables. Based on the findings of this study, it is therefore recommended amongst others that, universities' admission regulatory body should ensure that all prospective students vying for admission have good grades in their O'levels and Unified Tertiary Matriculation Examination (UTME). Furthermore, all candidates should also be admitted based on merit in order to ensure quality student output.

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## 1. INTRODUCTION

Educational quality in universities has become one of the integral issues that has taken precedence in the recent educational reform going on nationwide. Over the years, considering the phenomenal growth rate in Nigeria's youthful population, the number of students seeking admission into the university has not been commensurate with the number of universities available. This has intensified the proliferation of universities from both the private and public sector, worsened by their unethical hunt for profit and a deviation from the

policy direction. This increase in the prospective students' number has also heightened the variety of students in terms of entry qualifications, expectations and motivations of those seeking to be enrolled in the university. University education is present in different places, at different times, organized or unorganized, under different terms and conditions, but only a few are capable of living up to the quality standards required for quality output.

Quality can be described as the degree to which a product or end result conforms to the quality standards and parameters set. [1] defined quality as fitness or suitability of a thing for a particular purpose. This implies that the quality of graduates churned out should be of tremendous benefit to the labour market and society at large. Furthermore, [2] defined quality as the ability or degree with which a product, service or phenomenon conforms to an established standard, and which makes it to be relatively superior to others. Quality in education is a multifaceted concept that encompasses institutional functions and responsibilities such as quality of students admitted, student engagement through teaching and learning, research, access to educational study materials and other related issues. Educational quality implies that the acceptable world ranking standard of education must be made available across all borders without lowering the standard. These standards as stated by [3] are, quality student intake; quality teaching and learning; research and development; high standards in the quality of facilities; services and resources; and much more as stated.

Control, on the other hand is regarded as one of the integral basic concepts in the art and science of institutional leadership. It is defined as the act of checking, comparing and initiating an action through agreed upon standards in order to breach the gap between what is on ground and what it ought to be. There has always been a mix up with the terms – quality assurance and quality control as it has been observed that most organizations use both terms interchangeably. For the purpose of clarification, [4] stated that quality assurance has to do with the process of education while quality control involves the product. [4] further described quality control as a means of establishing quality assurance. The complaints of the dwindling standard of university student output led the federal government to adopt measures designed to control the quality of education. Some of the measures include shutting down of unaccredited tertiary institutions and courses, closure of outreach centres or satellite campuses, introduction of post Joint Admission and Matriculation Board (JAMB) aptitude test, unduly long duration of programmes, and intensive professional development programmes for teachers.

Quality control from the foregoing and for the purpose of this study can therefore be defined as the act of checking, comparing and initiating an action through agreed upon standards in order to ensure that a product or end result conforms to the quality standards and set parameters. In order to provide 'quality' of higher education, quality control is necessary. The importance of quality control in higher institution setting cannot be ignored as it is the only measure through which universities can be enhanced for maximum service delivery in line with set down goals and objectives. Poor or below par quality control measures in schools will certainly lead to poor quality output of graduates from the universities. The extent of quality control in universities should be given the desired attention it deserves. It should also be sufficient enough to a point whereby it can compete favourably with the standard obtainable in other top universities across the country and beyond. Quality control is a management process of ensuring that the production process considers all the possible measures geared towards making sure that the final product is finished and ready to be sold at a set standard. In education, quality control is a concept that encompasses mechanisms, processes, policies and actions put in place by an institution to ensure that the education provided is of high quality, and that this quality is maintained and improved upon. These measures are: students' admission policy, curricular policy, recruitment and selection policy of academic staff, supervision of instruction and teaching effectiveness, measurement and evaluation of learning outcomes, and provision of quality learning environment. Quality control also involves dealing with a detour outside permitted tolerance and the verification of output conformance to desired quality levels. This means that the quality of graduates should be checked against the quality of students' requirement with various checks being conducted at planned points in the development life cycle. This life cycle commences from the point of students' entry, through their stay in school, up to the point of graduation. The attainment of quality control measures in universities has been hindered by a number of problems ranging from poor quality of student intake, population explosion, poor student engagement, and deteriorating physical facilities. By this, quality control is needed as it serves as a series of operational techniques and activities used in ensuring that the earlier mentioned problems are tackled.

In education, output refers to students' achievement in terms of the quality of degrees or certificates awarded; skills, attitude and knowledge attained; number of students who persist till the completion of prescribed academic programmes; and societal expectations. Student output is greatly influenced by the environment, content and processes that learners encounter in school which leads to diverse results, some intended and others unintended. Output measures have been used in time past to criticize education systems and will continue to be used for this purpose. The quality of student output goes a long way in showcasing and establishing the effectiveness of the quality control mechanisms that were deployed. Student output as it relates to students' achievement, is the end product of tertiary education programme and the bottom line in education. Quality student output entails producing the best quality of students who will make up the manpower and

become great leaders of the country. As stated by [5], quality educational output refers to graduates with high standards, quality results, high educational prowess, impeccable moral and ethical traits, competitive skills, and superlative competence. Students' graduation grade and their ability to defend such grades are important indicators of capability and productivity when those individuals get into the labour force. In quality control, output indicators are used to measure concrete results produced in the learning environment. This can be measured by performance, discipline, good citizenry or examination of a given standard. Examination is more widely used because it enables easy comparison.

Observing Nigerian federal universities, there has been a persistent poor output quality and this has been a source of concern to educational stakeholders over a period of time. On graduation, most students tend to graduate with pass, third class and second class lower degrees, leaving the first class and second class upper degrees to just a few students. To students, graduating with first class or second class upper degree seems like a tall dream that could never be achieved. This has become a problem where parents, government and the society at large are lamenting about, thereby making scholars interested in finding solutions to the problem. This has created a gap which this study on the relationship between quality control measures and student output is poised to fill. For instance, Nwokocha as cited in [6] pointed out that many entrants into Nigerian universities are deficient in academic quality. [7] also sought to find out the extent of students' engagement in virtual learning in Anambra State. Their finding amongst others revealed that low engagement of students in virtual learning limits the global participation of these students to their lagging behind other students in the international arena. This is supported by [8] who stated that, quality with regards to the quality of the university education is the level of excellence in performance on the strength of the quality of the context, inputs process transaction and output. This low quality of student output may probably be attributed to the quality of student intake and engagement as examined in this study.

The quality of students admitted into the university is a fundamental contributor to the educational quality of that institution. There has been a rising pressure on institutions from government and the society to increase enrolment numbers which will result to more tuition for the institutions. This is expected to be appropriately executed without any form of compromise on the part of the institution in a bid to satisfy societal demand. At the entry point of the university system, the candidates are expected to meet the standard of the level they are to be enrolled into for academic purposes. In most cases, candidates with poor academic abilities have been admitted into universities. The admission of students who are not well groomed for university education is a pathway to laying the foundation for poor student output which violates the quality control ethics. The Joint Admission and Matriculation Board's (JAMB) policy on the admission of only 45% of students based on merit, leaving a whopping 55% to catchment area and educationally disadvantaged states has been ineffective in presenting quality candidates for admission. The quest for high pre-qualification marks in JAMB and O'levels, as well as the poor level of quality control on the part of academic institutions seem to create avenues for examination malpractices. The examination malpractice act of 1999 which would have helped to curb incidences that results in breach of examination security and serve as a deterrent to would-be offenders has been poorly implemented. These have greatly contributed to low quality student output since a large number of candidates are not admitted into the universities based on true outstanding performance/merit.

The methods and processes of teaching and learning which are the twin-primary purposes of a university are ways of engaging students, and it is a principal indicator of quality control. Student engagement can be achieved by making the learning opportunities learner centered, increase student participation in conferences and workshops for curriculum design, and allowing students to be involved in decision making and governance through the student affairs unit/student union government. This shows how institutional factors such as contextual, teacher and curriculum factors relate to students' output and educational outcomes. The nature of interactions and the extent of relationship between teaching and the learning experiences produces student learning output. Schools that engage students by creating supporting and caring social environment promotes a sense of belonging which encourages students to attend school regularly, learn more and get more engaged in academic work. Academic staff's appraisal seems to be dependent on research output, which is just one out of the three teachers' mandate, thereby causing the teaching and community service mandate to be slightly neglected. This invariably contributes to low level of student engagement. Students' low level of engagement is highly evident in the rapidly declining quality of graduates from Nigerian universities as pointed out by most employers of labour. Tertiary institution students at all levels are expected to graduate with certain skills and knowledge that will enable them compete favourably with graduates all over the world. Anything contrary to this is an indication that the quality of education is below the acceptable threshold.

## 2. CONCEPTUAL AND EMPIRICAL REVIEW

### 2.1 Student intake

Student intake in tertiary institutions refers to the number of prospective candidates admitted at a particular time to undergo a course in the university or college. Admission points and student entry qualifications resulting from previous academic performance has high tendency to affect students' future academic performance. These forms the basis for selecting students for admission into colleges of education, monotechnics, polytechnics and universities. [9] observed that the measurement of students' prior educational outcomes or performance is one of the essential indicator or determinant of students' prospective academic performance. Quality input give rise to quality output. Certain factors contribute to determining student academic output in any educational endeavor. These factors may range from the academic background of the students admitted to a programme of study [10]; the type of school a student attended prior to admission into a programme [11]; and the various entry qualifications obtained by the students for admission into a higher academic programme [12].

A study carried out by [13] expressed that the inclusion of quota system as well as the federal character principles incorporated into the admission system in Nigeria has made admission in Nigeria to lack credibility. This is reflected in all admission processes across the three levels of education in Nigeria. Onwuka as cited in [14] defined quota system as the number of people that should come from each state whether they are qualified or not. Other forms of quota include academic merit, educationally disadvantaged state, catchment areas and desertion. Admission into public universities is often characterized by corruption, nepotism and favoritism. In view of the fact that the admission quota system has drastically reduced the gap between the major ethnic groups, a study by [15] revealed that the quota system does not represent fair and equal admission thereby lowering the standards in higher education, which in turn affect professionalism and productivity. In spite of these hiccups, the admission process in Nigeria has tremendously united the country together.

Shedding more light on what admission stands for in the school system, [16-18] believes that admission service is a necessity for the school to scrutinize their applicants before they consider applicants to be picked. Thus, the need for a functional admission unit in the school system. According to [19], several researches have been conducted to review the correlation between students' A-level scores for new entrants and their final college degree result to establish how previous academic performance predict undergraduate achievement and progression. The result of these studies revealed a strong, statistical relationship between prior attainment and subsequent first year results. Similarly, [20] clarified that students with excellent entry qualification attained consistently better grades than those with average level qualification. Indeed, evidence suggests that students who performed well in high school usually continue this high performance throughout their studentship [21, 22].

In 2018, a new pattern of university admission in Nigeria was introduced by JAMB and it involves the following:

- a. JAMB must offer a candidate admission before such candidate qualifies for screening in the institution he or she has been provisionally admitted.
- b. Institutions admission screening processes will now be based on point system. For O'level grading, one sitting = 10 marks, while two sittings = 3 marks. Similarly, each grade will now have its equivalent marks in this manner; A (A1) = 6 marks, B (B2, B3) = 4 marks, and C (C4, C5, C6) = 3 marks. For JAMB, each score will have its equivalent in this manner; 180 - 200 = 20 - 23 marks; 200 - 250 = 24-33 marks; 251 - 300 = 34 - 43 marks; and 300 - 400 = 44 - 60 marks.
- c. JAMB provisional admission is now a means to an end and not an end itself whereby JAMB may offer a candidate a provisional admission and such candidate will still be denied admission if he or she comes below the cut-off mark of the desired course of the institution.
- d. Admission process will still put into consideration other factors like catchment area and ELDS (Educationally Less Developed States) in determining the number of candidates admitted.

The introduction of these additional quality control measures is an indication that candidates with better grades and marks in their O'levels and JAMB stands a better chance of securing admission which will eventually culminate into quality student output. Universities are facing problems of dwindling student output due to poor quality of intakes without proper screening. The high proliferation of universities in Nigeria has caused these institutions to award high grades/marks to undeserving candidate just to attract them for admission which ultimately culminates to poor quality of graduates. The concern for quantity and quality in the school system is that quantity through the admission of as many students as possible to schools within the shortest time allowed should be assessed to ensure quality [23].

In a study conducted by [24], the predictive validity of entry qualification on academic performance of students in the Faculty of Business Programmes at Solusi University, Zimbabwe was examined. The predictors were the modes of entry and qualifications for acceptance into college, while the criterion was the final Cumulative Grade Point Average (CGPA) at the end of the college education. To conduct the study, a

sample size of four hundred and sixty-three (463) students who graduated in 2007, 2008 and 2009 from the faculty of business were used. For data analysis, the Stepwise Regression method was used. The result of the study indicated that the CGPA at the end of the pre-university examination predicts educational performance of the new entrants. Also, [25] conducted a study to establish if there is a link between new entrants' admission scores (high school GPA and GAT) and their educational performance. The study was carried out in a Saudi Arabian University with a sample size of 1,368 business students undergoing undergraduate study. All the students were either graduated or have exhausted the maximum number of years provided for graduation. Details pertaining to high school examination scores, standardized eligibility scores and final GPA of the graduated students were used for analysis. Mean, standard deviation and regression analysis were used for data analysis. The finding of the study points towards a high level of correlation between the standardized admission tests score and the overall university GPA.

## 2.2 Student engagement

As defined by [26], student engagement refers to the degree at which school leaders, educators and faculty members involve students in learning opportunities, curriculum design, decision-making processes or governance. As stated by [27], it is declared that student engagement is about what a student brings to higher education in terms of goals, aspirations, values and beliefs, and how these are shaped and mediated by their experience whilst a student. By these definitions, it is difficult to capture the breadth of student engagement concept in a single definition [28]. Operationalized engagement as a multidimensional concept in terms of behavioural, cognitive, and motivational engagement. Engaged students are thought to be intensively and extensively involved – behaviourally, intellectually, and emotionally – in their learning [29]. Effectively engaging students during the course of their academic programme in the university drives effective learning. Students who feel deeply entrenched within the institution's departmental activities feel more aligned to their identity as professionals. In the long run, this propels them to nurture learning strategies that are effective and can facilitate the growth of such an identity [30-32]. There has been an increased need to ensure that effective mechanisms for quality governance is in place in all higher institutions of learning.

The success of universities in facilitating student engagement is at the core of a critical pedagogy with the sole aim of promoting effective learning through a two-way dialogue and participatory engagement. At the heart of effective critical pedagogy is the essence of students being actively involved in their learning rather than simply relying on only the information made available [33]. To achieve this, students are encouraged to think critically about what they are taught and to challenge these views, which in turn will enable them make subsequent changes to their learning [34]. According to [35], maintains that the students' experience cannot be understood without the acknowledgment of university power dynamics. This is based on the fact that students have little or no control over what is taught, the way it is taught and how their learning is evaluated [36]. Advised that in order to effectively engage students with quality processes, it is necessary to make changes to the quality systems and processes that incorporate the student-lecturer partnership, learner-centredness, value added and the quality of the student learning experience.

Student engagement is important in so many ways as it is an acknowledged way for students to experience increased learning and improved output from institutions of learning. The quality and quantity of student engagement through active and collaborative learning, student- faculty interactions, teaching strategies and co-curricular activities directly influences student levels of learning and development. The findings of [37] suggest that student engagement decreases student dropout rates. Students' improved learning has been found to be greatly influenced by the teaching strategies adopted by teachers in the course of engaging students. A strategy that is enjoyed and accepted by a student goes a long way in positively influencing student learning outcomes. Engagement practices that stem from faculty, staff, and student actions are found to help students develop intellectually and personally [38, 39].

A study was conducted by [40] which examined student engagement in the electronic learning process and the effect on their academic achievement. An undergraduate level one module which made use of the traditional lecture mode mixed with the e-learning method was used to deliver the lecture. Out of one hundred and eighty-one (181) students who enrolled on the module, thirty-six (36) withdrew during the year while one hundred and forty-five (145) completed the module. Incomplete data in respect to student entry qualifications meant that only 113 of the 145 students that completed the module were used. Regression analysis was used to analyse the data. The result indicated that the e-learning engagement mode positively influences the module mark thereby, accounting for the positive variations in students' marks. This implied that higher education should aim at developing effective e-learning based teaching strategies that will facilitate greater engagement.

The following questions were raised to guide this study: (i) How does quality control on student intake relate to student output in University of Uyo and University of Calabar? (ii) How does quality control on student engagement relate to student output in University of Uyo and University of Calabar?. The following hypotheses were postulated for the study: (i) There is no significant relationship between quality control on

student intake and student output in University of Uyo and University of Calabar. (ii) There is no significant relationship between quality control on student engagement and student output in University of Uyo and University of Calabar.

### 3. RESEARCH METHOD

The correlational research design was used for this study. The study was carried out in University of Uyo (UNIUYO), Uyo, Akwa Ibom State and University of Calabar (UNICAL), Calabar, Cross River State. These universities are located in South-South Geopolitical Zone of Nigeria. The population of the study comprised 2,967 teaching staff and 11,635 students from University of Uyo and University of Calabar in 2014/2015 and 2015/2016 academic sessions. The sample size of this study was 642 (21%) teaching staff and 1,232 (10%) students drawn from the two sampled schools. To arrive at the sample size, simple random sampling technique was used to select six faculties and 28 departments that cut across the two sampled universities. In each of the sampled faculties, simple random sampling method of balloting was also used to select two departments each from the six faculties thereby arriving at 12 departments from the six sampled faculties. At the final stage, the teaching staff and graduating students of the faculties and departments sampled were selected. This formed the sample size for the study.

Two instruments were used for data collection in the study. One was a researchers-developed questionnaire titled "Quality Control Questionnaire (QCQ)", while the second one titled "Student Output Checklist (SOC)" was data on student graduation grade from the sampled schools gathered from the universities' relevant authorities. The QCQ was used to measure quality control and to gather data on the two variables, while the SOC was used to measure student output. The QCQ was a 20-item questionnaire structured on a five-point scale of Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). The second instrument was the SOC which was obtained from each university's relevant authorities. The content was the total number of students that graduated with first class, second class upper, second class lower, third class and pass degrees from the two sampled universities. The SOC utilized a five-point scale of Excellent (1st class - 5), Very Good (2nd class upper - 4), Good (2nd class lower - 3), Fair (3rd class - 2) and Poor (Pass - 1). A combination of the scores from the quality control variables and the student output checklist were analysed to determine the nature of relationship between the two variables.

The QCQ was subjected to face validation by three research experts from the Faculty of Education, University of Uyo. In order to establish the internal consistency (reliability) of the instrument, a trial test was conducted using 30 (15 from each university) teaching staff of the University of Uyo and University of Calabar who were not part of the study sample, but were from other departments in the sampled universities who were not selected. After the appropriate scoring of the responses, Cronbach Alpha Analysis was employed to obtain the reliability coefficient of 0.81. A consent form containing information about the research were initially given to the teaching staff to fill before the researchers-developed questionnaire – QCQ was administered with the help of two research assistants for each of the sampled universities who were briefed on what to do.

The data from the questionnaire were sorted, compiled, classified and coded into a coding sheet and analysed using a computerized data analysis package known as Statistical Package for Social Sciences (SPSS). The r-value of Pearson Product Moment Correlation (PPMC) coefficient was used to answer the research questions, while PPMC was used to test the null hypotheses at 0.05 level of significance. In scoring the QCQ, the positively worded statements were weighted 5,4,3,2,1, moving from SA to SD, while the negatively worded statements were scored in the reverse direction, the weights moving from 1 to 5. The second instrument (SOC) being data on graduates' educational output (graduation grade) were gathered through validated checklist from the universities' relevant authorities and were classified under Excellent, Very Good, Good, Fair and Poor weighing 5,4,3,2,1. The SOC was measured using weighted mean by assigning value/criteria and converting the scores to percentage. The scores were spread across the number of teaching staff and the values were correlated. Research questions one and two were answered based on the associated natures of relationship. In testing the null hypotheses, the r - calculated was compared with the r - critical at 0.05 level of significance. The null hypotheses were rejected if the calculated r value was greater than the critical r value, and were retained if the critical r value was greater than the calculated r value.

### 4. DATA ANALYSIS AND RESULTS

**Research Question One:** What is the relationship between quality control on student intake and student output in University of Uyo and University of Calabar?

**Hypothesis One:** There is no significant relationship between quality control on student intake and student output in University of Uyo and University of Calabar.

Entries in Table 1 shows a moderate positive relationship between quality control on student intake and student output ( $r = 0.468$ ). This result indicates that when quality control on students being admitted is adequate, it will enhance the quality of students' output. The result also implies that when students are mostly admitted on merit, students' output will become better. Table 1 also shows that the calculated r-value of .468 is greater than the critical r-value of .088 at 0.05 level of significance with 640 degrees of freedom. This result indicates that quality control on student intake significantly relates to student output. Therefore, the null hypothesis that there is no significant relationship between quality control on student intake and student output is rejected. This means that student output in University of Uyo and University of Calabar is moderately related to quality control on student intake.

Table 1. Result of pearson's product moment correlation coefficient analysis (r) of the relationship between quality control on student intake and student output in university of uyo and university of calabar (n = 642)

Variables	$\sum X$ $\sum Y$	$\sum X^2$ $\sum Y^2$	$\sum XY$	r-cal	r-crit	Remark	Decision
Student Intake (X)	12174	199788	362665	0.468	0.088	Moderate	Reject $H_{01}$
Student Output (Y)	22538	4090681					

\*Significant at  $P \leq 0.05$ ,  $df = 640$

**Research Question Two:** How does quality control on student engagement relate to student output in University of Uyo and University of Calabar?.

**Hypothesis Two:** There is no significant relationship between quality control on student engagement and student output in University of Uyo and University of Calabar.

Entries in Table 2 shows a moderate positive relationship between quality control on student engagement and student output ( $r = 0.456$ ). This result indicates that when there is adequate quality control on how effective students are well engaged in teaching, learning and interpersonal relationships, this will go a long way in enhancing the quality of students' output. Table 2 also shows that the calculated r-value of .456 is greater than the critical r-value of .088 at 0.05 level of significance with 640 degrees of freedom. This result indicates that quality control on student engagement significantly relates to student output. Therefore, the null hypothesis that there is no significant relationship between quality control on student engagement and student output is rejected. This means that student output in University of Uyo and University of Calabar is moderately related to quality control on student engagement.

Table 2. Result of pearson's product moment correlation coefficient analysis (r) of the relationship between quality control on student engagement and student output in university of uyo and university of calabar (n = 642)

Variables	$\sum X$ $\sum Y$	$\sum X^2$ $\sum Y^2$	$\sum XY$	r-cal	r-crit	Remark	Decision
Student Engagement (X)	12170	199486	362482	0.456	0.088	Moderate	Reject $H_{02}$
Student Output (Y)	22538	4090681					

\*Significant at  $P \leq 0.05$ ,  $df = 640$

## 5. DISCUSSION

### 5.1 Student intake and student output

The result of the analysis presented in hypothesis one revealed that there is a significant relationship between quality control and student output. This is seen to be true because the quality of candidates admitted into the university can influence student output. The result could be attributed to the fact when prospective candidates with high quality grades which are a true reflection of their capabilities are admitted, this reflects in their academic performance which invariably culminates into quality education output. But on the contrary, when admission of students is based mainly on catchment area, educationally disadvantaged states, poor quality candidates who acquire and present impressive paper qualifications that they cannot defend, this can adversely affect their academic performance. However, this study has revealed that admitting poor quality candidates without adhering to the spelt-out admission policy will not produce the expected quality of university graduates and this is the scenario that has been playing out in our higher institution of learning.

The result of this study aligns with the findings of [41] who stated that student quality in terms of their academic performance, retention and graduation rate could be predicted by examining the criteria by which students were admitted. The result of this study also conforms with [42] who opined that the quality of students'

intake is one of the factors that contribute to quality of graduates. Graduation qualification in higher institutions has been said to depend not only on the learning process or educational facilities in the particular institution, but also on the quality of input i.e., the quality of undergraduate students admitted into the institution. The result of the findings also supports the opinions of [43] who noted that scores in examinations conducted by the West African Examination Council, National Examination Council and National Business and Technical Examination Board in conjunction with the Joint Admission and Matriculation Board predict academic achievement of students in University degree examinations, and that of [44] who revealed that the UTME scores significantly predict students' final year academic performance.

This finding that quality control on student intake significantly relates to student output in University of Uyo and Calabar is further supported by the findings made by other researchers, as earlier reported in this study. For instance, [45] concluded that some relationships existed between Universities Matriculation Examination (UME) and First Year Grade Point Average (FGPA). It was also discovered that using UME scores or SSCE grades alone did not predict performance in FGPA as much as when the two were combined. Also, [10] in their study concluded that High-School Grade Point Average (HSGPA) is consistently the best predictor not only of freshman grades in college, nor the outcome indicator most often employed in predictive-validity studies, but of four-year college outcomes as well. In addition, [46] also stated that students with higher Standardized Admission Test (SAT) scores tend to earn higher college grades, on average, than those with lower SAT scores. These results imply that effective quality control on student intake in universities positively enhances the quality of student output.

## 5.2 Student engagement and student output

In testing hypothesis two, a significant relationship was established between student engagement and student output. This result could be attributed to the fact that when students are actively and effectively engaged, student output will be greatly improved upon. On the contrary, when students are poorly engaged in teaching and learning, curriculum development, teaching strategies and faculty interactions, this will lead to poor academic performance and results. The provision of quality student engagement through active and collaborative learning directly influences students' level of learning and development. The result is in line with the findings of [47] who argued that universities need to instigate, sustain and promote students personal, social and academic engagement, particularly for those students who face the greatest challenges in transition. Similarly, a recent literature review of [48] on student engagement submitted that the interaction between the time, effort and other relevant resources invested by both students and their institutions towards optimizing students' experience, enhances the learning outcomes, development and performance of students, as well as the performance and reputation of the institution.

The commitment of institutions to fostering student engagement is also seen to be a critical factor in quality student output and retention. This agrees with the findings of [49] who sees the effective engagement of students as a significant precursor to academic excellence and an indication of institutional quality. In the same vein, [50] maintained that institutions should take responsibility for and encourage student engagement. The finding of this study is also in line with the opinions of [51] who noted that strategizing ways to increase the engagement of various student populations, especially those for whom engagement is known to be problematic, is a worthwhile endeavour. The gains and outcomes of actively engaging students in the learning process are too robust to leave to chance.

## 6. CONCLUSION

Based on the findings of this study, it is safe to conclude that the quality of student output in University of Uyo and University of Calabar increases as quality control measures on student intake and student engagement increases, and it reduces as quality control measures reduces.

## 7. RECOMMENDATIONS

University's admission regulatory body should ensure that all prospective students vying for admission have good grades in their O' Levels and Unified Tertiary Matriculation Examination (UTME). All candidates should also be admitted based on merit in order to ensure quality student output. Universities' quality control department should put measures in place to ensure that students are actively and positively engaged in teaching and learning, faculty interactions, teaching strategies, curriculum design, co-curricular activities and decision-making processes.

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