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Colleges of Education Current Course Contents and Students Carrying Capacity

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ABSTRACT

This study examined the relevance of the quality and quantity of courses offered in colleges of education to account for differences among students. Two research questions and hypotheses were each answered and tested respectively. The study adopted a survey design with a population target that comprised students from colleges of education in the North Central zone of Nigeria. 510 respondents were randomly selected from both federal and state colleges of education proportionately. A "Course Contents Requisite Questionnaire (CCRQ)" was drafted and validated of which its reliability tested with a Cronbach's coefficient alpha gave .714. The data generated were analysed through descriptive and inferential statistics. Results showed that students found it difficult to properly grasp in-depth knowledge due to too many courses offered; GSE courses offered by students should be reduced and not beyond 200 level; no add and drop options and less than 40% of enrolled candidates complete within three years. It was recommended that a 3-term GSE courses be reduced and terminate at 200 level; NCCE to legitimately organize a workshop to address the inadequacies discovered in structural organization of the current contents; add and drop of course option be available in colleges among others.

Keywords : Course of Study, Course Contents, Quality, Structure, Course Contents Requisite Questionnaire, NCCE

I. INTRODUCTION

The mandate of Teacher training programmes at the Colleges of Education as presented in the Minimum Standard recognizes NCE as the minimum teaching qualification in Nigeria. The aim majorly has been to produce quality teachers who could handle the basic education, specifically the basic nine run en bloc in the UBE schools or segmented into primary 1-6 and junior secondary 1-3 (FRN, 2012). Thus, five major categories of education were captured for the basic education sector, and these include: pre-primary/Early Childhood and Care; Primary; Junior Secondary; Adult and Non-Formal; and Special Needs education.

It was the yearning of the Federal Government that the Colleges of Education must prepare teachers with knowledge and skills required to teach effectively at the various subject areas and levels of the basic education programme. As part of the effort at ensuring the actualization of the objectives of the programmes, a review exercise to update the minimum contents and retention of the 2-subject combination to allow for the preparation of would-be

teachers at higher levels and as entry requirement into Bachelor degree programmes was carried out.
Similarly, the National Commission for Colleges of Education (NCCE) in consolidating the Federal Government's aspiration, made concerted struggles in organizing conferences, workshops as well as seminars in a bid to motivationally resolve those incongruities noted by (FRN, 2012) as "existing between teacher certified qualifications and the quality of their on-the-job proficiency."In order to satisfy the requirements for the production of quality teachers for the basic education sub-sector, more schools were catered for.

Among such struggles was what gave rise to each of the categories of education possessing a distinctive and extensive approved national curriculum. The curriculum was meant to be used to prepare teachers with knowledge and skills required to teach effectively at the different areas and levels of the basic education programme (FRN, 2012). Though the minimum standard document as it is called for teacher educator contains an updated minimum contents and retaining 2-subject combinations, a critical scrutiny of the 2-subject contents with the General Education of the document shows that too many course-work-load were to be offered by prospective student teachers.

Many of such course-work-load mostly on methodology is just but only a repetition of contents. These repetitions thus hindered extension into consideration for in-depth conceptual coverage and inclusion of more concepts in the 2-teaching-subject combinations. It thus calls for the evaluation of the extent to which the intending teachers are prepared for quality in their areas of academic prowess.

With regards to the critical role of teacher education in manpower development of the country, the colleges of education like other institutions that produce teacher is expected to ensure quality delivery. The major philosophy of every course of study is to produce knowledgeable, highly motivated, professionals and effective teacher who would be capable of developing in students an appreciation and understanding of the process and principles peculiar to the course of study. This was what necessitated this investigation to probe the current course contents in colleges of education and students' carrying capacity.

Research Questions

The following research questions were asked to provide a searchlight for accurate answers:

1. What is the quantity of course work offered for quality output in a semester by students in colleges of education?
2. To what extent does the carrying capacity of students in colleges of education being affected by the quantity of courses offered?

Research Hypotheses

The hypotheses tested to ascertain the significant difference if any existing between or among the parameters investigated are:

Ho1: There is no significant mean difference in the quantity of course work offered for quality output in a semester by students in Federal and State colleges of education.

Ho2: There is no significant difference in which the carrying capacity of Female and male students in colleges of education is being affected by the quantity of courses offered.

Project Impact

The findings of this study were to:

1) empirically establish data on the quantity of course contents of offered for quality output in a semester by students in colleges of education.

2) also underscore the relationship existing between the quality of students' carrying capacity in colleges of education and the quantity of courses offered.
3) inform governmental agencies especially the National Commission for Colleges of Education, and the Ministry of Education at Federal and States, the need to critically re-examine the present Minimum Standard for the standardization of Teacher Education and
4) importantly create avenue for a check on the accomplishment of the national aspiration.

II. Literature

Good teaching is an instruction that leads to effective learning, which translate to thorough and lasting acquisition of the knowledge, skills, and values which the instructor or the institution has set out to impart. For the last decades, education literature continues to present a variety of good teaching strategies and research studies that validate them (Campbell & Smith 1997; Johnson et al. 1998; McKeachie, 1999). Among the attributes of several strategies known to be particularly effective include:

Writing instructional objectives: Instructional objectives are statements of specific observable actions that students should be able to perform if they have mastered the content and skills the facilitator has attempted to teach (Gronlund, 1991; Brent & Felder, 1997). Instructional objective has such stems as: "At the end of this [course, chapter, week, lecture], the student should be able to… or To do well on the next exam, the student should be able to…"followed by an action verb (e.g., list, calculate, solve, estimate, describe, explain, paraphrase, interpret, predict, model, design, optimize, …). It is expected that the outcome of the specified action must be directly observable by the facilitator. Felder and Brent (1999) gave illustrative phrases that might be attached to the stem of an instructional objective, grouped in six categories according to the levels of thinking they require as:

1. Knowledge (repeating verbatim): with the use of list or state.
2. Comprehension (demonstrating understanding of terms and concepts): with the use of explain or paraphrase.
3. Application (solving problems): by using calculate or solve.
4. Analysis (breaking things down into their elements, formulating theoretical explanations or mathematical or logical models for observed phenomena): by the use of derive or simulate.
5. Synthesis (creating something, combining elements in novel ways): by using design or make up. and
6. Evaluation (choosing from among alternatives): using determine or select.
7. According to Bloom's Taxonomy of Educational Objectives (Bloom, 1984) the six given categories are the cognitive domain levels but the last three categories--synthesis, analysis, and evaluation--are often referred to as the "higher level thinking skills."

It was the view of Felder and Brent that well-formulated instructional objectives would help facilitators prepare lecture and assignment schedules and facilitate construction of in-class activities, out-of-class assignments, and tests. The greatest benefit possibly comes when the objectives cover all of the content and skills the facilitator wishes to teach and they are handed out as study guides prior to examinations. These efforts substantiate the fact that the more explicitly students know what is expected of them, the more likely they will strive to meet the expectations.

III. Methodology

The study adopted a survey design which according to Bamidele, Seweje and Alonge (2002) allows a researcher to seek opinions of selected respondents

about investigative issues using questionnaire in order to obtain specific information which can be transcribed into required data for analysis and inferences.

The population targeted comprised students from colleges of education in the North Central zone of Nigeria. The sample for the study was selected from four schools out of the six common schools in colleges of education which are stratified into secondary education programmes: Adult and Non-formal, Arts and Social Sciences, Early Childhood Care, Languages, Sciences, Vocational/technical and General Education/General Studies in Education. At school levels, departments have equally been stratified and to be able to manage resources adequately a department was randomly selected from each school.

The course contents for each of the departments selected were examined alongside their credit units and proliferations. According to Dunn (2001) while providing researchers establish statistical power and effect size for sample selection in a given population, advised researchers to ensure that sample size should be large enough for a study. His expertise proposal was that a general rule of thumb needed to be applied since it is difficult to detect trustworthy differences with fewer than 30 participants and that as a study's N moves towards 100, it is ascertained that probability of rejecting a null hypothesis is enhanced dramatically. To further substantiate this fact, he opined that large samples grant that more degrees of freedom are available for t-test (p 377). Proportionately therefore, 510 respondents were randomly selected from the federal (255) and the state (255) colleges of education respectively.

Instrumentation

A "Course Contents Requisite Questionnaire (CCRQ)" was drafted based on extensive literature review by the team of researchers. The questionnaire has Section A on demographic information and Section B on items sub-grouped into two that solicited responses in the areas of: quality of course work offered per semester and students carrying capacity on courses offered. The response options provided on the items included: very correct, correct, partially correct and not correct as adapted from Likert Scale questionnaire.

As several authors have observed, a good instrument cannot be devoid of validity and reliability. This was Singh and Bajpai (2007) observed that an instrument cannot serve the purpose for which it is developed until it is certified as valid and reliable by experts. The data generated from a pilot conducted were used to ascertain the reliabilities of the instruments. The internal consistencies of the instrument's (CCRQ) reliability tested gave a Cronbach's coefficient alpha .714. The data generated from the main study were analysed through descriptive and inferential statistics and interpreted appropriately through the computation of frequency of response occurrence and percentage as well as quantitative deduction through t-test. These tools were found to be appropriate in line with Sambo (2008) submission that for comparing values of a variable measured from two samples, assumptions that satisfy the use of mean should be examined.

IV. RESULTS AND DISCUSSION

Table 1 : Percentage (%) of Quality of Courses offered

Item	VC	C	PC	NC
The courses you offer per semester are too many for proper in-depth grasping of knowledge	375(73.6)	105(20.6)	15(2.9)	15(2.9)

Due to the number of courses you offer, you do not have spare time for personal relaxation	285(55.9)	150(29.4)	45(8.8)	30(5.9)
Having attended all the lectures for the courses per day, you are exhausted to do any assignment	270(52.9)	135(26.5)	75(14.7)	30(5.9)
Virtually all periods on the time table are choked up for lectures	255(50.0)	180(35.3)	30(5.9)	45(8.8)
The scope of some courses is just too wide yet carry a unit credit unit	330(64.8)	150(29.4)	15(2.9)	15(2.9)

The results on Table 1 reveal that the courses offered per semester by students were too many for proper in-depth grasping of knowledge [375 (73.6%) for very correct (VC), 105 (20.6%) for correct (C), 15 (2.9%) for partially correct (PC) and 15 (2.9%) for not correct (NC) respectively]. Similarly, students could not spare time for personal relaxation due to the number of courses they offered [285 (55.9%) for very correct, 150 (29.4%) for correct, 45 (8.8%) for partially correct and 30 (5.9%) for not correct]. Likewise, students were exhausted to do any assignment having attended all their lectures for their courses per day [270 (52.9%) for very correct, 135 (26.5%) for correct, 75(14.7%) for partially correct and 30 (5.9%) for not correct]. Furthermore, virtually all the periods on the time-table were choked up for lectures [255 (50.0%) for very correct, 180(35.3%) for correct, 30(5.9%) for partially correct and 45(8.8%) for not correct]. It was also revealed that the scope of some courses was just too wide yet carried a credit unit [330 (64.8%) for very correct, 150 (29.4%) for correct, 15 (2.9%) for partially correct and 15 (2.9%) for not correct].

Table 2 : Percentage (%) of Options to Offer Courses

Item	VC	C	PC	NC
Your grade points are low due to too many courses you offer	345(67.6)	45(8.8)	75(14.7)	45(8.8)
From your experience, usually less than 40% of enrolled candidates graduate to time	315(61.8)	75(14.7)	120(23.5)	0 (0)
The number of carry over syndrome on courses offered are too many for students	330(64.7)	105(20.6)	60(11.8)	15(2.9)
Most courses are reduced to rote learning which jeopardize retention	270(52.9)	135(26.5)	75(14.7)	30(5.9)
Students carrying capacity could be enhanced with three term system rather than two semester system	255(50.0)	90(17.6)	45(8.8)	120(23.5)

It can be deduced from Table 2 that students grade points were low due to too many courses they offered [345 (67.6%) for very correct, 45 (8.8%) for correct, 75 (14.7%) for partially correct and 45 (8.8%) for not correct]. It was revealed that from students experience, usually less than 40% of enrolled candidates graduated to time [315 (61.8%) for very correct, 75 (14.7%) for correct, 120 (23.5%) for partially correct and 0 (0%) for not correct]. Similarly, the result shows that the number of carry over syndrome on courses offered were too many for students [330 (64.7%) for very correct, 105 (20.6%) for correct, 60 (11.8%) for partially correct and 15 (2.9%) for not correct]. This could have necessitated the outcome on the reduction of most courses to rote learning which jeopardize retention [270 (52.9%) for very correct, 135 (26.5%) for correct, 75 (14.7%) for partially

correct and 30 (5.9%) for not correct]. The result also indicated that Students carrying capacity could be enhanced with three term system rather than two semester system [255 (50.0%) for very correct, 90 (17.6%) for correct, 45 (8.8%) for partially correct and 120 (23.5%) for not correct].

The results of the hypotheses tested are as presented on table 3 and 4.

Table 3 : t-test of Quality of Course Work between Institutions

Institution	N	$\bar{x}$	sd	df	t	sig (2-tailed)
Federal	255	7.53	2.095	508	-.930	.359
State	255	8.29	2.164			

Table 3 contains a result that revealed a no significant mean difference in the quantity of course work offered for quality output in a semester by students in Federal and State colleges of education ($t_{(df=508)} = -.930$ at $p>.05$).

Table 4: t-test of Students Carrying Capacity

Gender	N	$\bar{x}$	sd	df	t	sig (2-tailed)
Female	285	8.74	3.070	508	-.348	.730
Male	225	8.40	2.414			

The result on Table 9 gave a no significant difference in which the carrying capacity of Female and male students in colleges of education is being affected by the quantity of courses offered $t_{(df=508)} = -.348$ at $P>.05$).

Discussion

It was gathered in this study that courses offered per semester were too many for proper in-depth grasping of knowledge. This cannot be far from the truth since any average student was expected to offer up to five (5) courses in each of their teaching subjects, up to four (4) from GSE and between three (3) and five (5) in General Education. The struggle for participation in all the lectures hindered the students from having spared time to relax and of course being exhausted became unable to attend to assignments required. Due to the many overloaded course contents, despite their lower credit units, students had to leave one lecture room to another virtually with no enough break to relax their mental faculty.

Bok (2017) had foreseen the present bid to increase graduation rates and levels of educational attainment to accomplish little if students do not learn something of lasting value. By concentrating so heavily on graduation rates and attainment levels, policy makers are ignoring danger signs that the amount that students learn in college may have declined over the past few decades and could well continue to do so in the years to come. Among the reasons for concern could be that College students today seem to be spending much less time on their course work than their predecessors did 50 years ago, and evidence of their abilities suggests that they are probably learning less than students once did and quite possibly less than their counterparts in many other advanced industrial countries.

It is therefore predicated that the colleges of education policy providers be aware that many students do not feel that the materials conveyed in their readings and lectures have much relevance to their lives. Such sentiments suggest either that the courses do not in fact contribute much to the ultimate goals that colleges claim to value or that facilitators are not taking sufficient care to explain

the larger aims of their courses and why they should matter.

The findings in this study also revealed that general education courses were accorded high premium while the teaching subjects became second and third course combinations. This conveyed in students mind set some bits of confusion as to which course was more important than others. This was accentuated from the fact that students had no choice than to offer all courses proposed in general education. Similarly, all the courses in GSE spanning through the three levels of study were piled on students to offer without option.

These phenomena were further established as there was no opportunity for add and drop of course options in colleges of education unlike as made possible in the faculty of institute of education in the universities. Students predicament became compounded as the number of elective courses in the departments were equally few.

This finding equally tolled the view of Bok (2017) on his Rethinking the undergraduate curriculum that "the familiar division into fields of concentration, electives and general education leaves too little room for students to pursue all of the objectives that professors themselves deem important for a well-rounded college education." According to Bok, such tripartite structure, with its emphasis on the major and its embrace of distribution requirements and extensive electives, was introduced by research universities and designed more to satisfy the interests of a tenured, research-oriented faculty than to achieve the various aims of a good undergraduate education.

It was noted that the minimum standard has become so firmly rooted that during the periodic reviews conducted by NCCE, the departments were pause to examine the tripartite division and its effect upon the established goals of colleges of education. Instead, the practice of reserving up to 54 (36 for education including TP and 18 for GSE) of the required number of credits (118) while 32 credits were allocated for the major (teaching subjects) is simply taken for granted along with maintaining a distribution requirement and preserving an ample segment of the curriculum for electives. In time past, students of school of science and vocational would only take courses from Arts and social sciences as minor or better still in GSE while those from Arts and social sciences and Languages opted for science and technology courses as minor or in GSE rather than compelled to offer all available course in GSE or Education.

Much is still required to be done about how to improve an institutional teaching program (as opposed to teaching in a single class), including the potential role of total quality management. Quality management principles are firmly rooted in common sense and their systematical application is very likely to lead to improvements in college operations. However, undertaking the wholesale application of a paradigm developed for one culture to another would always have pitfalls. Beaver (1994) laid cogent emphasis on the rhetoric of total quality management which contains terms that are offensive to many departmental members, and in this case facilitators' resentment of attempts to apply minimum standard language to their profession that provokes fierce opposition to the minimum standard based strategies.

The implications of the deductions from the findings in this study without mincing points therefore included among others:

(1) The acquisition of low grade points obtained right from 100 level to the final level due to haphazard treatment of course contents and large number of courses to contend with every semester.
(2) The inability to overcome the knowledge trodden contents by majority of the students, less than 40% of the enrolled candidates usually graduated to time, this is a loss to meeting the

teacher ratio condition of Nigerian education system in the schools

(3) Due to too many courses compelled to be offered within short period, a carryover syndrome becoming too rampart in general education, GSE and the two teaching subjects and poor retention of knowledge due to students recourse to rote learning which of course reduces the candidate to a no difference from an ordinary level school leaver (secondarian).

(4) The possible remedy to the identified shortcomings could require a spread of the courses through three (3) terms course system rather than the present two (2) semesters course system to provide an option to reduce the load carried and concomitantly boost students in-depth understanding and retentions of knowledge.

V. CONCLUSION

The study has established the implications of current course contents requisites on colleges of education students' carrying capacity. The team of researchers was able to sieve out the extent of the quality of courses offered by students' vis-à-vis the quantity and depth of coverage to be inadequate. Likewise, duplication of contents in some courses was found to hinder the inclusion of vital contents in the course of study. It was not clear where the mix-up cropped into the system whereby options were not all that available for students to select based on their ability from courses offered in GSE as well as in other courses compared with the choices in the old system.

Recommendations

(i) The number of courses offered should be spread into 3-term in to allow for in-depth coverage of enriched departmental course content, relaxation, personal study and tutorial among students

(ii) NCCE should endeavour to legitimately organize a workshop/seminar to thoroughly scrutinize the current contents of the courses presented by Minimum Standard to address the inadequacies discovered in structural organization of the contents.

(iii) Offering GSE courses should terminate at 200 level for every course of study. This will allow students to have full attention on their teaching subjects and probably provide avenue for the inclusion of vital contents in the teaching subjects which are invariably their departmental courses.

(iv) There should be a provision for add and drop of courses for students in colleges of education. This will help students to manage their capacity and in boosting their academic grading.

Limitations

The findings in this study were limited in scope to sampled colleges of Education within the North Central States of Nigeria. Despite non-randomization of sample as might be obligatory compelled by short fall on required resources, generalizations reported herein could still be assured. This is not to claim that a better study could not be carried out on this same investigation to cover wider representatives of tertiary institutions in Nigeria.

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