

GTEC Regulations on Class Size: Access Implications to Technical University Education in Ghana

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Abstract: This paper primarily seeks to look into GTEC/NCTE regulations on class size and the access implications to Technical University Education in Ghana. Specifically, the paper seeks to compare total enrolment with available classroom space and to formulate a policy on residential accommodation. The study used secondary sources as the basic source of information comprising of data from the annual report of the planning office of the University, and the Strategic Plan Implementation and Oversight Committee Report (2016 -2020). Primary data was collected from the various faculties in the University. Conclusively, it was realized that 12, 200 students will be able to use the classrooms in a day as against the 16, 373 student population that the University has. Projecting this into the coming year due to the introduction of free SHS, more students will be enrolled. Therefore, due to the increase in enrolment, students will exceed the current facilities in terms of classroom space and accommodation which if care is not taken, majority of students will be denied access to admission because there will not be enough classroom space to contain teaching and learning to foster Technical education. Hence, access to technical education will be limited. In view of this, it is recommended that management should engage owners/operators of private hostels in order to ensure good deals and prevent exploitation of students who would be accommodated in these private hostels.

Keywords: access, classroom space, class size, educational planning, enrolment rate, Ghana Tertiary Education Commission (GTEC), Technical education.

1. INTRODUCTION

The National Council for Tertiary Education (NCTE) Act, 1993 (Act 454) established the Council to among other things advise the Minister of Education on the development of tertiary education institutions in Ghana. Act 454 also enjoins the Council to recommend national standards and norms including standards and norms on staff, costs, accommodation and time utilisation for approval of the Minister of Education; to monitor the implementation of any approved national standards and norms by the institutions; and to publish information on tertiary education in Ghana. In an effort to make adequate and reliable data and information available for research, policy formulation and planning for tertiary education in Ghana, the GTEC collects, collates, analyses, and reports on data from all accredited Tertiary Education Institutions (TEIs) in Ghana including enrolment.

Gross Enrolment Ratio (GER) is defined as the number of pupils or students enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. For tertiary level, the population age group is between age 19 and 23, and this 5-year age group starts from the official

International Journal of Novel Research in Interdisciplinary Studies

Vol. 8, Issue 3, pp: (53-57), Month: May – June 2021, Available at: www.noveltyjournals.com

secondary school graduation age. The Gross Enrolment Ratio shows the general level of participation in a given level of education. It also indicates the capacity of the education system to enrol students of a particular age group.

According to the UNESCO Institute of Statistics, a high GER generally indicates a high degree of participation, whether the pupils belong to the official age group or not. A GER value approaching or exceeding 100% indicates that a country is, in principle, able to accommodate all of its school-age population, but it does not indicate the proportion already enrolled. The achievement of a GER of 100% is therefore a necessary but not sufficient condition for enrolling all eligible children in school.

The demand for access to higher education has been rising consistently in the past few years with huge numbers of students applying regularly with each succeeding year. However, these high proportions of applications are not unique applicants and do not truly reflect the exact number of candidates seeking university education.

Takoradi Technical University (TTU) has a vision of becoming a University of choice devoted to excellent delivery to produce competent human resource. The Ghana Tertiary Education Commission (GTEC); formally called National Council for Tertiary Education (NCTE) and the National Accreditation Board (NAB) have provided acceptable level of indicators that serve as guides to all tertiary institutions in their efforts to provide quality tertiary education in the country. The indicators considered in this research were Enrollments, Student Facility Ratio (SFR) and Student Accommodation, were investigated to ascertain whether or not they meet minimum credit hours as prescribed by their employer.

Some of the strategies adopted by institutions include the introduction of new programmes, distance learning, outreach programmes, admitting students into prior programmes among others. In the struggle to increase enrolment, has the provision of quality education been compromised? Our challenge is to compare enrolment rate with available classroom space and formulate a policy on residential accommodation. The problem of the study is to find out whether or not TTU is conforming to the standards of her regulatory bodies in the provision of quality tertiary education on class size allocation and enrolment figures.

Objectives of the Study

This paper primarily seeks to;

1. To compare total enrolment with available classroom space
2. To formulate a policy on residential accommodation

Research Questions

1. What is the total enrolment with available classroom space?
2. What are some feasible policy recommendations on residential accommodation?

Significance of the Study

This study will help tertiary institutions particularly technical universities to know the past, current and future enrolment rate in order to make future projections on students' access. Also, it will serve as a policy document that will help match access rate with available classroom space. This will help to regulate yearly intake of fresh students. The study also brings to light some feasible measures on residential accommodation and students' intake. This policy document will serve as a guideline to provide alternative ways in terms of residential accommodation for existing and fresh students who gain admission into the University. This paper will serve as a source of literature for any individual or institution that wants to undertake a study in same or related area. Lastly, this paper adds to the body of knowledge.

Delimitations of the study

The study was mainly on GTEC regulations on class size with specific emphasis on total enrolment with available classroom space. The study also explored all students of Takoradi Technical University and their enrolment data. Again, the various faculties and departments within the University was used in the study.

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Limitations of the study

The major hurdle was limited time to the researcher considering the period within which the study was conducted. However, this limitation did not affect the findings of the study. The total number of the present SHS 3 (2020) students and the total number of SHS 3 students in 2019 were difficult to find, fortunately the total number of the first batch (2017) free SHS education students was known. As a result of the above, some assumptions were made in a paper published on 'students' enrolment growth and implications for educational planning' by (Kwegyiriba, Agyepong & Mensah, 2021).

2. METHODOLOGY

Secondary data was basically used for the analysis. Data on enrolment was taken from the 2018/2019 Annual Report of the Planning Office, and the Strategic Plan Implementation and Oversight Committee Report (2016 -2020). The paper used a descriptive research design and content analysis.

Primary data on facilities was collected from the Faculties of Engineering, Applied Arts and Technology, Built and the Natural Environment, Applied Sciences and the Secretaryship and Management Studies Department of the Faculty of Business Studies. The total credit hours taught by the teaching staff were taken from the Deans of Faculties. The Faculties and the Department mentioned have a lot of practical works in their curriculum.

3. ANALYSIS OF DATA AND DISCUSSION

Data on Space for Lectures

Available space for lectures was investigated for the increased enrolment. Table 1 below shows the number of classrooms available and their capacities.

The number of classrooms for lectures and the various room capacities were found as:

Table 1: Summary of Class Size of Takoradi Technical University

Room Capacity	Number of Rooms	Total No. of Students/lecture	GTECH Requirement
30	1	30	20
40	2	80	80
50	11	550	550
60	8	480	480
70	7	490	490
100	10	1000	800
120	1	120	80
150	3	300	240
Total	43	3050	2740

Source: (Planning Unit, TTU, 2019)

According to GTEC standards, for Competency-Based Training the class size is supposed to be a maximum of 20 students, for practical learning, whiles the class size requirement is a maximum of 40 students and for theory class, the requirement is a maximum of 80 students. The above indicates a total of 43 classrooms with a capacity of 3050 per period currently being practiced in Takoradi Technical University. However, the GTEC requirements only allow a total of 2740 per period. Considering optimum usage of the classrooms for the period 7.00am – 5.00pm, with a total of 10 hours, courses should be allocated such that a maximum of 10 hours per classroom per day would be utilized by the Regular students. The use of a classroom for a maximum of 10 hours indicates an optimum utilization of the facility for the Regular stream.

Several ways of utilizing the facility could be allocated as follows:

For 2 Credit Hours (CRH); (7am – 9am, 9am – 11am, 11am – 1pm, 1pm – 3pm, 3pm - 5pm) = 10 hrs = (Maximum utilization).

3 CRH; (7am -10am, 10am – 1pm, 1pm – 4pm) = 9hrs = (below the Maximum utilization)

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Vol. 8, Issue 3, pp: (53-57), Month: May – June 2021, Available at: www.noveltyjournals.com

A combination of 2 & 3 CRH; (7am – 10am, 10am – 12pm, 12pm - 2pm, 2pm – 5pm) = 10hrs = (Maximum utilization)

Several combinations of the 2 and 3 could equate to a Maximum utilization leading to an optimum use of the facilities.

Student Accommodation and the Projected Enrolment Figure

The number of beds available for use by students was investigated to ascertain the University's readiness for the expected increased enrolment and also help to plan for them.

The total number of beds at the University Hostels is shown in Table 2

Table 2: Number of Beds in Halls of Residence

HALL OF RESIDENCE	NUMBER OF BEDS
HALL 1	648
HALL 2	280
HALL 3	132
HALL 4	80
HALL 5	530
TOTAL	1670

Source: (Planning Unit, TTU, 2019)

A total number of 1670 of beds would be available to serve an expected enrolment of 17,949. This implies only 9% of the students can be accommodated by the university next academic year. Even if a policy is rolled out to the advantage of only first year students, 1670 out of the expected 8501 first year students would have the university accommodation. The figure represents about 20%. The implication is that 80% will have to find accommodation elsewhere. The need to bring private businesses together for harmonious charges to avoid exploitations is relevant.

4. FINDINGS

1. No classroom will be empty from 7am -9pm which means that a lot of pressure is been exerted in the classroom and each class is occupied for 10 hours and this will make the infrastructure not to last long.

2. Since all programmes of Faculties do not have equal credit hours, a combination of the credit hours (1, 2 and 3) that will optimize the use of the classrooms to a maximum 10 hours is preferred. The current practice of using 43 classrooms with 3050 student capacity per period and the period 7am – 5pm, each classroom would be occupied a maximum of 4 times implying that (3050*4) 12,200 students would be engaged each day. This is not supposed to be the case as the table indicates that according to GTEC standards the real capacity is supposed to be 2740 students per period. This means the 43 classrooms which currently accommodate 12,200 is supposed to accommodate only 10,960 for lectures each day which is 1,240 more than the required number. The total expected student population of 16,373 in the 2020/2021 academic year will require additional 67 classrooms to accommodate them each day to meet the GTEC requirements.

It is indicative that, there is an accommodation deficit of 91% of the total student enrolment. There is a pressing need to address this by engaging with private partners to construct new hostel structures to address this challenge. This partnership is salient to ensure harmonious charges to avoid exploitations. In the meantime, private hostels already in existence should be brought under the auspices of the Dean of students of the University. This will enable the Dean of students to officially allocate students to these hostels, provide security, and ensure these hostels meet the sanitation requirements.

5. CONCLUSION

Based on the findings of the study, we realized that 12, 200 students will be able to use the classrooms in a day as against the 16, 373 student population of the University. Projecting this into the coming years due to the introduction of free SHS, more students will be enrolled. Therefore, due to the increase in enrolment, students will exceed the current facilities in terms of classroom space and accommodation which if care is not taken, majority of students will be denied access to admission because there will not be enough classroom space to carry on teaching and learning of Technical education. Hence, access to technical education will be limited or denied.

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The year under review witnessed marginal improvements over the previous year's ratios and rates of the key indicators. The observations could be attributed to Management's effort in responding to the recommendations of the 2018/2019 Annual Report of the Planning Office. It is worth mentioning, however that, despite the improvements in the key indicators, Technical Universities still fall short to the norm that practical class has a minimum class size of twenty (20) students and a maximum class size of forty (40) students whereas non-practical class has a minimum of sixty (60) students and a maximum of eighty (80) students. Moreover, in the midst of covid-19, it is appropriate for students to ensure covid-19 safety protocols, as a result, physical and social distancing needs to be observed. In view of that adequate facilities are needed to ensure spacing and a covid-free environment. Management should therefore put in the necessary and vigorous measures to correct the deviations.

6. RECOMMENDATIONS

The under listed were recommended based on the findings:

1. Considering the percentage increase in enrolment from the 2019/2020 to 2020/2021 academic year and the total number of classrooms and facilities with their respective capacities, Management should ensure the optimal usage of the classrooms and other facilities by the students.
2. Comparing the available number of beds in the University's halls of residence (1670) to the expected enrolment of 16,373 students, it implies that over 80% of the students cannot be accommodated in the University halls of residence. To this end, management should engage owners/operators of private hostels in order to ensure good deals and prevent exploitation of students who would be accommodated in these private hostels.
3. With regards to more access, management should put in place measures to ensure increases in classroom facilities by engaging stakeholders in tertiary education to provide more classrooms to enable students access to technical universities education programs since technology is the way to go now. Government of Ghana should invest in Technical universities education by providing more classrooms and laboratories for teaching and learning for Technical education access which in effect will increase the GER of Ghana. Management should therefore put in the necessary and vigorous measures to correct the deviations.

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