

## Professionalisation of Higher Education and Graduates' Employability in State Universities in Cameroon

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### ABSTRACT

*The study centered on the professionalisation of Higher Education and graduates' employability in State Universities in Cameroon. The study aimed to sought responses for two objectives which were: To examine the extent to curriculum content of programmes and infrastructural resources, affect graduates' acquisition of employability skills. The study was guided by two hypotheses. The survey research design using qualitative and quantitative approaches was adopted for the study. Data were collected from 361 graduates, 385 final year undergraduate students who were rounding up with their degree programme and 56 academic staff in the Universities of Buea and Bamenda. Questionnaire and semi-structured interview guide were the instruments used for the study. The reliability statistics for graduates and final year undergraduate students from the University of Buea were 0.876 and 0.827, respectively while that for graduates and final year undergraduate students from the Universities of Bamenda were 0.871 and 0.894. Data from close ended questions were analysed using SPSS 23.0, with the aid of descriptive and inferential statistical tools while open ended questions were analysed thematically. Findings revealed that curriculum content ( $r$ -value = 0.760\*\*,  $p$ -value = 0.000) and infrastructural resources ( $r$ -value = 0.782\*\*,  $p$ -value = 0.000) have a strong, positive and significant effect on graduates' acquisition of employability skills. Despite these significant and positive effects, a significant proportion of graduates, final year undergraduate students and academic staff showed the infrastructural resources are inadequate and curriculum not professionally oriented. Therefore, it was generally recommended that adequate measures should be implemented to improve curriculum contents and on infrastructural resources for effective professionalisation of programmes in State Universities to enhance graduates' acquisition of employability skills while internships, practicum and field work be intensified.*

## **INTRODUCTION**

Employability of graduates has been taken as a key performance indicator in many countries to measure University quality and their programme performance. Universities have to design programmes while ensuring that adequate educational infrastructure, human resource and relevant curriculum are put in place to enable students to experience quality education/training (Mavrino & Mingaleva, 2017). Quality education is one of the most crucial requirements for developing and sustaining careers and escaping from poverty. According to the Sector Wide Approach (2006), the Higher Education system in Cameroon is suffering from inadequacy in teaching programmes, infrastructural resources, funding and teachers' quality. According to UNESCO (2005), one of the objectives of Universities and Higher Education Institutions (HEIs) is to educate highly qualified graduates and responsible citizens to meet the needs of all sectors of human activity. Maharasoa and Driekie (2001) have stated that Universities that do not contribute to graduate employability are wasting government resources and students' time and energy. Their view was confirmed by the students they interviewed and the findings revealed that employability was one of the main factors influencing their choice of programme to study. Singh (2019) stated that Higher Education (HE) plays an important role in terms of economic development of the country. It supplies trained and skilled manpower to the different sectors of the economy. But, for this to effectively occur, high quality training in the presence of sufficient resources, relevant curriculum and adequate educational infrastructural resources are needed.

### **Background to the Study**

In the context of Cameroon, professionalisation of HE is not something new. After the independence, Cameroon faced an immediate need to train senior civil servants to fill some of the positions that had hitherto been occupied by expatriates. The Federal University of Cameroon which evolved from the National Institute for Universities Studies established in 1961 and later renamed the University of Yaoundé had as urgent goal to meet the needs of the nation. Many of the reform objectives were designed to address the challenge of providing a quality education. The decongestion of the University of Yaoundé, the granting of more academic and management autonomy to Universities, the provision of more varied programmes (which are more professional, adapted and responding to the needs of the job market), the provision of a conducive environment for teaching and research, and the provision for selection of students were geared towards ensuring quality in the academic domain (Njeuma et al., 1999).

The prime goals of the University reforms of 1993 were the decongestion of the University of Yaoundé and the professionalisation of University studies to train graduates relevant to the private sector and the needs of the country as a whole. Its specific objectives were to: reducing the overcrowding at the University of Yaoundé supported by the creation of six Universities, with four of them based at the University centres created in 1977, each with a specific mission directed towards an overall national development viewpoint; providing all Cameroonians with equivalent chances of obtaining University education. This was to be attained by the geographical location of each of the Universities and also provision for common programmes to be offered in most of the Universities; make programmes more varied, professional, adapted and responsive to the needs of the job market, by providing more programmes that would enable graduates find employment in the private sector as and be self-employed; make Universities more reachable to local, regional and international communities; make more balanced and best use of existing infrastructure, facilities and services, especially those already existing in the University centres; broaden and increase the participation of different stakeholders in the financing and management of Universities; grant Universities more academic and management autonomy by providing basic infrastructure and finances; provide a more conducive environment for teaching and research by creating a better atmosphere for teachers, teaching and research; revive and maximise inter-university and international co-operation; and motivate staff and improve living conditions of staff and students through better remuneration.

From these 10 specific objectives, the need for infrastructural improvement while ensuring maximum

use of existence ones, provision of finance, making programmes more varied to response to the demands of the labour market (curriculum relevance) and need for staff improvement were clearly articulated. All these were aimed toward the professionalisation of University studies to train graduates who could be relevant to the private sector and the country. After the 1993 reforms, the other major reform policies shaping the professionalisation of Higher Education include: The Bologna Process; the New University Governance 127 policy; the 2001 law on the orientation of Higher Education in Cameroon; The Poverty Reduction Strategy Paper, Growth Employment Strategy Paper; the Education Sector Strategy and the Global Reform of Higher Education launched in the 1999 UNESCO Conference in Budapest.

Since 1993, professionalisation of programmes in HE has been mentioned in almost every key Higher Education text. Professionalisation of HE has been heard from public speeches by some government officials. This is because the President's speech (2015) to youth blamed unemployment of graduates on the delay in directing Higher Education towards professionalisation. Also, one of Cameroon former Prime Minister Philemon Yang (2018) in his speech opined that government need to intensify activities aimed at promoting quality assurance in public and private Universities by professionalising University Education.

The Law of Orientation to HE 2001, article 6: sub (1) of the law of orientation of HE 2001, states that the basic mission of the Higher Education realm stipulated in article 2 above shall have the following goals: the mission for excellence in all domains of knowledge; the promotion of science, culture and social progress; social promotion, with the participation of competent national bodies and socio professional circles, especially as concerns the drawing-up of programmes as well as the organization of theoretical courses, practical and internships; assistance to development of activities; the training and further training of senior staff; the deepening of ethics and national consciousness; the promotion of democracy and the development of a democratic culture; and the promotion of bilingualism. According to the BUN (2008), the ultimate aim of these reforms is to produce graduates who can succeed socially and economically in the globalized world, a world driven by a knowledge-based economy. Despite all these reforms and 2001 law of orientation of HE, professionalisation of programmes still remains the watchword and need to be supported with adequate resources for transformative education.

### **Statement of the Problem**

In many years now, Higher Education in Cameroon has witnessed several reforms. The primary drive of these reforms are to address the issue graduate unemployment. Article 4.1 of the 1998 law, in its section 2, it stated that education is to develop creativity, a sense of initiative and the spirit of enterprise in learners. Despite this, in the Sector Wide Approach (2006), it stated that only 37% of HE graduates are able to conveniently integrate into the job market. With the high rate of graduates' unemployment and the inability for many to conveniently integrate themselves in the labour market, there are several implications on the economic cost which involve reduction in gross domestic product of any nation, reduction in economic welfare, reduction in output and erosion of human capital potentials. Furthermore, with the high unemployment rate among graduates, personal and social costs as a result to the unemployment are also bound to occur which include severe financial hardship and poverty, debt, homelessness and housing stress, family tensions and breakdown, boredom, alienation, shame and stigma, increased social isolation, crime, erosion of confidence and self-esteem, the weakening of work skills and health.

From the perspective of Human Capital theory of Becker (1964), Universities are seen as a means of providing higher level of knowledge and skills within the population. However, for such to occur, there is need for a proper curriculum of academic programmes and adequate infrastructures that fulfill standard for quality assurance to enable students acquire specialized knowledge and practicalise their training. Professionalisation of HE demands not only to design more programmes and call them professional but, it also need adequate resources. Adequate infrastructural resources permit quality teaching and training and ease transformative education and a good curriculum as well

permit the acquisition of specialized knowledge, competences and skill. Therefore, the study aimed at investigating the effect of professionalisation of programmes in public Universities on graduates' acquisition of employability skills.

### **Research Objectives**

Specifically, this study was aimed at investigating the following:

1. To find out the extent curriculum content of programmes affect graduates' acquisition of employability skills.
2. To examine the extent infrastructural resources affect graduates' acquisition of employability skills.

### **Research Questions**

Specifically, this study is guided by the following questions:

1. To what extent does the curriculum content of programmes affect graduates' acquisition of employability skills?
2. To what extent do infrastructural resources affect graduates' acquisition of employability skills?

### **Hypotheses**

**Ho<sub>1</sub>:** Curriculum content of programmes does not significantly affect graduates' acquisition of employability skills.

**Ha<sub>1</sub>:** Curriculum of programmes significantly affects graduates' acquisition of employability skills.

**Ho<sub>2</sub>:** Infrastructural resources do not significantly affect graduates' acquisition of employability skills.

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## **LITERATURE REVIEW**

### **Graduates' Employability**

Much of the attention of Higher Education over the recent years strongly relates to the issue of graduates' employability. Even though in the context of this study, employability might be considered too narrow and limited to graduate success, which could limit the functions of Higher Education as a direct facilitator of labour market needs. It can hardly be avoided in the discussion of competence development. Employability has been presented as an aspect of quality of Higher Education and as a benefit of University academic programmes for career and work (Storen & Aamodt, 2010). The concept of graduate employability is not new. McQuaid and Lindsay (2005) have given a historical evolution of employability from the beginning of 20<sup>th</sup> century. In its evolution, the concept has moved from dichotomic, deterministic and mechanical view towards multidimensional humanistic aspirations. The evolutionary perspective of the concept compares well with the evolution of human resources management concerns theory from Taylor's Scientific Management in 1930 towards newer paradigm focusing on individual needs, motives and network organisations reflecting the problems and realities of increasingly segmented labour markets (Choo & Bontis, 2002). Another evolutionary perspective on employability in line with the above is described by Thijssen et al., (2008). They describe the phenomena on the societal need, company and individual level as a framework for the identification of general development. They described how the concept has chiefly been used historically. In the 1970s predominantly for resolving problems with school leavers and underprivileged people with political ambitions to attain full employment and cut public losses; in the 1980s for restructuring companies with corporate ambitions to attain efficient human resource management and, in the 1990s for individual as motives for developing successful career opportunities in segmented and ever more flexible labour market.

Narrowing the issue of employability down to the probability of getting any job after graduation becomes insufficient for the development of Higher Education management systems and policies. Employability of graduates in the context of this study is not only about getting any job after graduation but it also capitalizes on graduate's ability to create jobs for themselves (self-employment). Concurrently, Higher Education Institutions are to respond to the differentiating

demand by offering courses beyond the main-stream (Weligamage, 2009). Employability is to ensure a strong and secured link between Higher Education and external practice. There are several criticisms about Higher Learning Institutions concerning their primary goals, curriculum design, implementation, assessment, duration of the programmes offered, and the cost of education and linearized learning. HEIs are expected to respond to societal transformations for their continued successful service.

To Overtoom (2000), employability is a set of important skills instilled in each individual in order to produce workforce that is productive, but according to Griffin and Annulis (2013), this goes hand in hand with individuals who possess strong characteristics such as high sense of self, who are innovative, skillful, competitive, have a strong sense of determination, and are creative in facing the challenges of the nation as well as globalization in the 21st century. The expansion of Higher Education and the Bologna Process have reframed the political debate and placed the smooth transition from school-to-work and the employability of graduates at the forefront of education policy (Schomburg & Teichler, 2011). Therefore, Higher Education is called upon to prepare graduates for the world of work and Universities have to meet standards of employability.

### **Professionalisation of Academic Programmes in HE**

HE has been called not only to play a major role in sustainable development but, also in enhancing graduates' acquisition of 21<sup>st</sup> century skills to ease their integration in the job market. To attain this, Universities are expected to adapt to the changing demands of the labour market by improving on curricular relevance that include the knowledge and skills required for the current economic, political, social and environmental context (Pillay, 2011). Kiani (2011) opined that there is a high correlation between the Higher Education programmes and development of an economy. In fact, professionalisation of academic programmes have been seen as a way in resolving the problem of graduates' unemployment. The fact cannot be denied that a good quality human resource-base is extremely important in today's greatly competitive setting (Khare, 2016).

The investment in education to develop human capital and its contribution to economic development and growth are evidenced in many authors (Becker, 1964). Well-educated and good quality of human capital leads to a country's development by placing it an edge in the global economy. Therefore, this necessitates the importance of well-educated graduates endowed with employability skills. The "Market Model" of the professionalisation was inspired by the Humboldtian model and Leroux (2014) opined that professionalisation in this view does not detract Higher Education from its one key mission which is to provide general education. Professional training and acquisition of specialized knowledge are therefore seen as important role that HE is expected to play in this 21<sup>st</sup> century.

Engell and Dangerfield's (1998) market model holds that market signals are monitored and translated into new curricula and programs. This implies that Higher Education should help its graduates to better find their place in the socio-professional world but, in achieving this, there is need for professional education, practical training and acquisition of specialized knowledge. The sustainable development in its objective four has emphasised on the need for quality education for youths empowerment and empowerment of marginalized groups. Furthermore, there has been a strong argument to strengthen the links between Higher Education and the world of work (Growth and Employment Strategy Paper (GESP) for 2010-2020; Government of Cameroon, 2010). These documents demanded University training with a professional focus, professional training and prioritizing the satisfaction of local needs.

Given that GESP (2010) and Education Sector Strategy (2006) have also attributed high unemployment to training, MINESUP is expected to improve the quality of training by sustainably strengthening the interaction between Universities and professional circles, matching University training to the real needs of the economy and also making sure that adequate resources are put in place to help practicalise training and acquiring specialized knowledge. In a study carried out by Etomes (2019) on graduates' employability and career opportunities, the suggestion gave by many of

the graduates and employers is the need for Higher Education to engage in professionalization as a way to curb graduates' unemployment. According to the agenda 2063 framework, Africa needs to significantly improve its human capital in order to achieve the economic transformation envisaged under Agenda 2063. HE is the highest provider of Labour force in the economy and providing adequate resources for teaching is of paramount importance.

### **Arguments for Higher Education to be Involved in Professionalisation**

Harvey (2001) stated that the primary role of Higher Education is to train students by enhancing their knowledge, skills, attitudes and abilities and to empower them as lifelong, critical and reflective learners. According to Speigel (2007), Higher Education certainly should play an important role in helping to provide students with resources, knowledge and skills they need to be successful in today's economy before employers can come in to further employee's skills and knowledge on the job and Maharasoa and Driekie (2001) argue that universities that do not contribute to graduate employability are wasting government resources and students' time and energy. This view was confirmed by the students they interviewed with findings showed that employability was one of the main factors influencing their choice of programme. Pham (2008) and St. George (2010) also have stated that the major purpose of Higher Education is to prepare students for work. According to the National Centre for Universities and Business (NCUB), survey found that 92% of students are asking to be trained for employability. In Cameroon, an official in the Minister of Employment and Vocational Training said that "we have hundreds of thousands of our youths who do not find jobs because they don't have the skills. They don't have the skills because they have not been trained yet they have acquired Higher Education certificates".

Singh (2019) stated that Higher education plays an important role in terms of economic development of the country. It supplies trained and skilled manpower to the different sectors of the economy. Out of four major factors of production that is men, money, machinery, and material, we may only have competitive advantage over the men that is our human resource or manpower, because quality manpower may provide tremendous output. Hence, the development of the country depends on its quality manpower. Singh further opined that it is very much important for the government to invest in Higher Education, its training, and skill development programmes as a whole to supply quality manpower in the different sectors but, at the same time, government must take initiatives to measure and control the institutions' training, and skill development programmes to control the quality supply of skilled manpower.

In a survey conducted by ASSO-CHAM (2016) on employability in India, it depicted a very discouraging scenario with findings showed that 97 percent of graduating students in several programmes want core function job, whereas merely 3 percent have suitable skills to be employed, and only 7 percent may handle the core function job. This statistics indicated that many graduates lack employability skills of which the study stipulated that most of the time; the problem is not the availability of the job, but the mismatch or lack of skills to carry out a particular job. In South Africa, similar concerns have been raised about the number of graduates who do not find employment (Van der Berg & Van Broekhuizen, 2012). However, it has been widely observed that the many education and training systems do not produce graduates that meet the needs of the private sector. Some of the findings from this study were that Universities did not produce the required labour skills for the economy and that graduates lack knowledge about the realities of the labour market. This mismatch in skills has led to a larger number of unemployable graduates in society and Cameroon cannot be excluded from such dilemma.

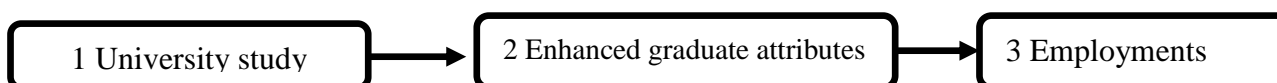
Poropat (2011) describes employability as a major educational goal. Kruss (2004) argued that employers expected that graduates be prepared for not only employment but employability (ability to create jobs and self-employment). The transition from the world of education, particularly Higher Education, to that of work is of tremendous significance to stakeholders in both worlds. Higher Education is an important form of human capital investment. It has the potential of being the driving force of economic development in Africa. In fact, Higher Education has been described as the engine

of development in the new world economy. Therefore, the quality of Higher Education should be of great concern. With the increasing demand for Higher Education across the globe by many, the nature of its programmes should be of great concern. Harbison (1973) as cited in Mbua (2002) emphasized that human resource and not capital, income or material resources constitute the ultimate basis for the wealth of nations. Human resources are the active while capital and natural resources are the passive factors of development. He pointed out that a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy will be unable to develop anything else.

Schwab (2010) equally said that in today's fast globalizing economy, a country's competitiveness and movement up the value chain beyond simple production processes and products is highly a function of its quality of Higher Education and training. Thus, for individuals their employability quotient is both a resultant and a determining factor of the quality of their Higher Education sector. Higher Education should contribute significantly in the development of human capital by expanding the size and skills of the work force. Argument for why HE should be involved in professionalisation to increase graduate's employability skills is captured on figure 1 below.

Figure 1:

***Employability – A Linear Progression***



**Source: Graduate employability in Sub-Saharan Africa (2014).**

The assumption on figure 1 is that a linear causal relationship exists between the input of University study and the attributes graduates take into the job market. Below, we try to examine how infrastructure and curricular content is relevant in the context of professionalisation. Practical teaching does not take place in a vacuum. It needs adequate educational resources to ensure its realization.

**Curriculum Content as a Determinant of Professionalisation of Academic Programmes in Higher Education for Graduates' Acquisition of Employability Skills**

Changes brought about by the transition to a knowledge economy have created a demand for higher skill levels in most occupations. Thus, countries wishing to move towards the knowledge economy are challenged to undertake reforms to raise the quality of education and training through changes in content and pedagogy. The skills and experiences gained by graduates through college curriculum are sometimes not sufficient for entry-level positions (Pauw, Bhorat, Goga, Mucube, Oosthuizen, & Van der Westhuizen, 2006). In a study carried out by Etomes (2019) findings revealed that (67.8%) of employers noted that University academic programmes do not prepare graduates for employment with majority of the employers stated that Cameroon Higher Education system is too theoretical, too examination oriented and lack technical skills. Based on this finding, (96.4%) of the employers strongly agree and agree that University academic programmes need to change and the reasons they gave was that the University system of education is not entrepreneurial oriented.

According to Mantz, Yarke and Knight (2012), good learning and employability intention needs to be supported by learning, teaching and assessment approaches that are consistent with curricular intentions. Davies (2002) opined that programmes and their curriculum should be designed with employability policy in mind. In the Cameroonian context, professionalisation of Higher Education is defined as a strategy to modernize curriculum and its related technologies (teaching and learning) to socio-professional needs and applicability (Doh, 2012). The viewpoints on professionalisation as a foundation of Universities have been varied. In response to this, and according to the Draft Document on Sector Wide Approach to Education (2006), apart from the programmes for primary level which have been elaborated following a competent approach which many persons still disagreed, the rest of the Cameroon educational system is suffering of inadequacy between the teaching programme and

the needs of a productive system on the one hand and on the other hand from its maladjustment to scientific and technological evolutions. This explains why products of the system find it difficult to integrate into the production sector.

Drawing reference again from the Draft Document on Sector Wide Approach to Education (2006) in Cameroon, in response to improve on the quality of our academic programmes in its objective 3 there is a plan to develop an effective partnership. This objective was to study the real needs of the labour market and then enhance the creation of framework and mechanism of consultations between the school, socio-economic and professional milieu for the elaboration of curricular including the dimensions of self-employment and non salarised employment. In response to this 20% of every course was supposed to be professionalise as cited by Titanji (2016). Citing the research work of Mbah (2014), one of the endogenous factors responsible for graduate unemployment was the absence of course relevance. The absence of practical skills to be addressed in our curriculum for HE education programmes is alarming. Even in academic programmes so called “professional” there is a high degree of theory with little or no practical skills addressed. In addition to revealing students’ desire to see University Education as relevant to local and global markets, Mbah (2014) study suggested that such relevance can be enhanced when practical components are associated with curriculum of each academic programme. Universities should include more practical elements into their curriculum.

Engaging students in practical activities tends to give them the opportunity to apply classroom knowledge in a real world or practical situation and this has the potential to prepare them for life after studies. According to Dewey (1938), experience enhances learning by promoting reflective and critical thinking. This is the moment for real change in our Higher Education system by revitalizing their curriculum to enhance graduate’s prospects for employment and/ or self-employment. Butcher et al. (2011) said that the best way to get started is by enhancing curriculum of Higher Education academic programmes. In practice Universities interact with socio-professional actors through student internships, University hosted business forums, research and teaching collaborations. However, these interactions may seem to be at its infancy and the full benefits are yet to be seen. The basic assumption of policy makers is that Higher Education ought to play a decisive role in society and contribute to sustainable growth and job creation (COM, 2011). Therefore, Higher Education Institutions should be aware of the needs of the economy and subsequently adjust their curriculum to ensure greater compatibility.

#### Infrastructural Resources as a Determinant of Professionalisation of Academic Programmes in Higher Education for Graduates’ Acquisition of Employability Skills

Bhola and Dhanawade (2017) said that the poor infrastructure which institutes and Universities provide leads for further challenges before employability of graduates. Public Universities in Cameroon are not left out as they are face with inadequate infrastructural resources to effectively support the quality of training offered to students to enable them acquire adequate skills for employability. School buildings, libraries, classrooms, computer centres, technology, machinery, tools, laboratories and equipment are education infrastructures which are crucial elements of learning environment in schools and Universities (Janssen, 2017). Janssen (ibid) said there is strong evidence that high quality infrastructural resources facilitates better instruction, improves students’ outcomes, reduces dropout rates and among other benefits. Within the context of professionalizing HE programmes, the importance of adequate and well equipped infrastructural resources cannot be over emphasized. Inadequate infrastructural resources in Universities are an out-and-out key factor in effective teaching and learning.

In conformity with this, education stakeholders at the level of University need to invest financially to bring about the improvement in infrastructural resources. Bhunia, Kumar and Duary (2012) said when there are adequate infrastructural resources; the individuals (teachers) will be able to carry out their job duties in an appropriate manner that will lead to progression of educational institutions. As a result of this, the government of Cameroon in the quest to provide quality training to students in HEIs



need to ensure that they bring about improvements in infrastructural facilities on a continuous basis. While the 1993 reforms in Cameroon prescribed that Universities should admit students depending on available infrastructural resources (laboratories, libraries, teaching materials and classroom space) as well as available human and financial resources), the demand for University education in Cameroon is continue to increase which super pass even investments in infrastructural resources. Although public Universities in Cameroon have the autonomy to set their own in-take levels, they are under enormous social and political pressure to admit students in excess of these capacities.

Jonathan and Kayode (2010) opined that one imperative infrastructural aspect that needs to be vigorously developed is the educational infrastructural resources. University’s infrastructural resources are aimed to support, enable and enhance the work of its faculty, staff, and students. In the quest professional training, is vital for the government to first address the issue of large class size which compromise teaching quality, assessment standard and teaching method. The issue of large class size is not new to public Universities in Cameroon. It started far back in the late 80s due to limited infrastructure and this issue was one of the objectives of the 1993 reforms which aimed to be addressed. However, despite the 1993 reforms and 2001 law of orientation of Higher Education in Cameroon, the same situation of inadequate infrastructure still prevails due to the increasing demand for Higher Education in public Universities. Professionalisation of programmes in Higher Education in Cameroon will be difficult to realize if materials/physical resources for sustainable teaching and learning are not adequately addressed across faculties/schools/colleges. No school can operate in a vacuum. The buildings, furniture, teaching aids, and several other materials are vital especially in the professionalisation of Higher Education programmes to empower students with skills for employability.

**Table 1: Distribution Showing Academic Infrastructure by Universities, 2015**

Universities	Workshop block		Pedagogic block		Amphitheater		Laboratories		ID rooms		Others		Total	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Bamenda	5	5178	-	-	2	950	1	-	-	-	7	228	15	6356
Buea	6	2850	7	1825	8	4384	16	780	-	-	6	3325	43	13164
Douala	41	1986	52	19740	27	12683	43	2139	24	1440	18	3066	205	41054
Dschang	3	115	5	673	15	6514	71	535	10	-	159	6926	263	14763
Maroua	-	-	2	2400	7	1444	4	600	-	-	40	3593	53	8037
Ngaoundere	2	140	77	5830	3	1900	28	582	12	267	7	416	129	9135
Yaoundé I	18	1022	133	9331	47	13868	72	1092	29	1635	30	1560	329	28511
Yaoundé II	1	-	1	8	15	5411	-	-	4	3400	21	0	42	8820
<b>Total</b>	<b>79</b>	<b>11292</b>	<b>277</b>	<b>39807</b>	<b>124</b>	<b>47154</b>	<b>235</b>	<b>5731</b>	<b>79</b>	<b>6742</b>	<b>288</b>	<b>19114</b>	<b>1079</b>	<b>129840</b>

Source: Annuaire statistique du ministere de l’ enseignement superieur, 2015

**Table 2: Distribution Showing Academic Infrastructure by Universities, 2016**

Universities	Workshop block		Pedagogic block		Amphitheater		Laboratories		ID rooms		Others		Total	
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**Table 3: Distribution Showing Academic Infrastructure by Universities, 2017**

Universities	Workshop block		Pedagogic block		Amphitheater		Laboratories		ID rooms		Others		Total	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Bamenda	5	5178	-	-	2	950	1	-	-	-	7	228	15	6356
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Maroua	-	-	2	2400	7	1444	4	600	-	-	40	3593	53	8037
Ngaoundere	2	140	77	5830	3	1900	28	582	12	267	7	416	129	9135
Yaoundé I	18	1022	133	9331	47	13868	72	1092	29	1635	30	1560	329	28511
Yaoundé II	1	-	1	8	15	5411	-	-	4	3400	21	0	42	8820
<b>Total</b>	<b>79</b>	<b>11292</b>	<b>277</b>	<b>39807</b>	<b>124</b>	<b>47154</b>	<b>235</b>	<b>5731</b>	<b>79</b>	<b>6742</b>	<b>288</b>	<b>19114</b>	<b>1079</b>	<b>129840</b>

Source: Annuaire statistique du ministere de l' enseignement superieur, 2017

In combined interpretation, statistics on table 1, 2 and 3, showed that there has been no increase in the number of academic infrastructures for all the State Universities with the total number of academic infrastructures stand out 1079 with a total student's capacity of 129840.

**Table 4: Comparative Analysis between Total Academic Infrastructures by Students' Population**

Universities	Total academic infrastructure and capacity for 2015, 2016 and 2017		2015	2016	2017	Total surplus of students (above the stipulated academic infrastructure capacity)		
			Total students' enrolment	Total students' enrolment	Total students' enrolment			
	Number	Capacity	2015	2016	2017			
Bamenda	15	6356	9756	11538	13790	3400	5182	7434
Buea	43	13164	19004	20732	18083	5840	7568	4919
Douala	205	41054	42333	44154	51378	1279	3100	10324
Dschang	263	14763	26622	26637	27616	11859	11874	12853

Maroua	53	8037	12210	16391	21336	4173	8354	13299
Ngaoundere	129	9135	19173	20319	21302	10038	11184	12167
Yaoundé I	329	28511	48933	55231	53169	20422	26720	24658
Yaoundé II	42	8820	36183	39567	37826	27363	30747	29006
<b>Total</b>	<b>1079</b>	<b>129840</b>	<b>214214</b>	<b>234569</b>	<b>244500</b>	<b>86389</b>	<b>106745</b>	<b>116677</b>

Statistics on table 1, 2 and 3 showed that for each of the State Universities, from 2015 to 2017, the students' enrolment surpass the stipulated capacity of the academic infrastructures to the extent that the surplus of students for 2016 and 2017 is almost equal to the stipulated capacity of the academic infrastructures for University of Bamenda Dschang, Maroua, Ngaoundere, and Yaoundé I. This situation is even worst for University of Yaoundé II and Bamenda with the surplus of students observed to be far above the capacity estimated notably for 2017 in the University of Bamenda and 2015-2017 in the University of Yaoundé II. A Summary of this information with the Universities of interest is presented on the figure below.

Based on these statistics on table 1, 2 and 3, it is clear that there is inadequacy of infrastructural resources which would definitely have serious negative effect on the quality of training offer in each programme. Aside this inadequacy of infrastructural resources, there is also large class size which would obviously cause even the qualified lecturers to compromise the method of teaching and evaluation standard thus, leading to low quality of training offered to students. Agreeing with Bhunia, Kumar and Duary (2012) they said when there are adequate infrastructural resources; the individuals (teachers) will be able to carry out their job duties in an appropriate manner that will lead to progression of educational institutions. Similarly, Brühwiler and Blatchford (2011) said teachers' commitment is strengthened and students benefit from quality training when Universities have adequate infrastructural resources. Therefore, the government of Cameroon has to provide more academic infrastructures to permit not only teachers to execute their duties properly but, also to enable the students to benefit from quality training that will permit them to acquire substantial skills for employability. All these necessitate the reasons for the study.

## **THEORETICAL REVIEW**

### **Modernization Theory (Weber, 1920)**

Modernization theory is used to explain the process of modernization within societies. Modernization refers to a model of a progressive transition from a pre-modern or traditional to a modern society. Modernization theory originated from the ideas of German sociologist Max Weber (1864–1920) which provided the basis for the modernization paradigm developed by Harvard sociologist Talcott Parsons (1902–1979). The theory looks at the internal factors of a country while assuming that with assistance, traditional countries can be brought to development in the same manner like more developed countries have been. Modernization theory was a dominant paradigm in the social sciences in the 1950s and 1960s (Knöbl, 2003). Modernization theory both attempts to identify the social variables that contribute to social progress and development of societies and seeks to explain the process of social evolution.

Modernization theory stresses not only the process of change but also the responses to that change. It also looks at internal dynamics while referring to social and cultural structures and the adaptation of new technologies. Modernization theory maintains that traditional societies will develop as they adopt more modern practices. Proponents of modernization theory claim that modern states are wealthier and more powerful and that their citizens are free to enjoy a higher standard of living. Historians have link modernization to the processes of urbanization and industrialization and the spread of education. The Modernization theory (Weber, 1920) is relevant to the study because the world has evolve and that type of University education, skills and knowledge in the past cannot

longer effectively serve the needs of the modern era/labour market.

It is for this reason that Universities in developing countries like Cameroon have to work in close collaboration with other stakeholders like employers, parents, educationists from other advanced countries enjoying huge benefits from their University education systems in designing academic programmes and curriculum to enhance relevance while taking into consideration the contextual realities of the economy (Cameroon). In support of this, Doh (2012) defined professionalisation as a strategy to adapt curriculum, its related technologies and teaching and learning resources (human and infrastructural) to socio-professional needs and applicability. While there is need for improvement in human resources, the infrastructural resources also need to be improved upon to ease the acquisition of the 21<sup>st</sup> century skills that UNESCO for instance is expected from Higher Education outputs (graduates). In addition to enhancing curriculum relevance, our infrastructural resources also have to be look at. Teaching learning process does not take place in a vacuum. Modern and adequate infrastructural resources is very important to enable teachers properly execute their duties and students learning effectively.

## **METHODOLOGY**

**Research Design:** The survey research design using the convergent mix method was adopted for the study. This design enables the researcher to collect adequate data for the study to better explore the variables under investigation.

**Population of Study:** The study population is made up students in their final year and graduates from the Universities of Buea and Bamenda.

**Target Population of Study and Sample:** The target population is made up of final year students and graduates from education (field of teaching), chemistry, banking and finance, Agriculture and Veterinary Medicine and College of Technology. The sample size is made up of 385 final year students 365 graduates and 56 teachers interviewed for the study.

**Sampling Technique:** Two sampling techniques were adopted for the study which are purposive and snow ball sampling technique. The purposive sampling technique was used because final year undergraduate students from the University of Buea and Bamenda were purposively selected for the study. The reason for purposively selecting these final year undergraduate students with the exclusion of other undergraduate students of level 200 and 300 was because: first, these final year undergraduate students were students anticipating for graduation 2019 to enter into the job market and second, these students have participated in internship programmes in different companies, schools, industries and other organizations. Therefore, they stand a chance to judge whether or not they have acquired skills that would enable them to fit well into the job market, create jobs and be self-employed as well. As for graduates, due to the difficulty involved in getting them from the programmes of study chosen for the study, the snow ball sampling technique was used. With the snow ball sampling technique, the few graduates that were identified by the researcher were asked to link the researcher to other graduates within the neighbourhood whom they know are graduates from the University of Buea or Bamenda.

**Instruments:** Questionnaire and semi structured interview guide were the instruments used for data collection which consisted of both close and open ended items. The questionnaire was for students and graduates while interview guide for teachers. The questionnaire consisted of 22 close items while the interview guide consisted of 3 open ended questions. The test items were rated using a five point Likert Scale ranging from Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

**Reliability of Instrument:** The reliability analysis of the questionnaire was tested using the Cronbach Alpha test and the reliability coefficient for graduates from the University of Buea stood at 0.867 and 0.871 for Bamenda. Concerning the final year students, the reliability coefficient for those from the University of Buea stood at 0.827 and 0.894 for Bamenda.

**Method of Data Collection:** The data for the study was collected using the direct delivery technique

and electronically as in the case for graduates because of the difficulties involved in getting them. During the process of data collection, participants were briefly educated on the purpose of the study. Questionnaire administered directly to the final year undergraduate students and graduates were collected on the spot upon completion while those answered online were downloaded after the number required was gotten. The answered instrument for academic staff was collected subsequently upon completion while some after.

**Data Analysis Techniques:** Before the quantitative data were analysed, a pre-designed EpiData Version 3.1 (EpiData Association, Odense Denmark, 2008) database which has an in-built consistency and validation checks was used to enter the data with both the demographic information and the test items coded with numbers. After the data was thoroughly checked for possible errors, the quantitative data was analyzed using the descriptive and inferential statistical tools. The descriptive statistical tools used were frequency count, percentages and multiple responses set which aimed at calculating the summary of findings for each variable where applicable. The hypotheses of study were tested using a non-parametric Spearman’s Rho test. This test was used because the data for the variables were not approximately normally distributed as revealed by the Shapiro-Wilk test and the Komogorov test of significance with P-values all less than 0.05. On the other, the qualitative data derived from open ended questions and semi-structured interview guide were analysed using the thematic analysis approach with the aid of themes, groundings/frequency and quotations. Finally, findings were presented using frequency distribution tables and thematic tables with all inferential statistics presented at 95% level of confidence interval with alpha set at 0.05 levels, accepting 5% margin of error.

## FINDINGS

### Objective One: To Investigate the Extent To Which Curriculum Content of Programmes Affect Graduates’ Acquisition of Employability Skills.

To address this objective, responses were sought from graduates, final year undergraduate students and academic staff.

**Table 5: Graduates’ Perception on Curriculum Content of Programmes (N=361)**

Test items	Collapsed	
	Strongly Agree/Agree	Disagree/Strongly Disagree
The curriculum for my degree programme was too theoretical.	315 (87.3%)	46 (12.7%)
The curriculum for my degree programme should be designed with stakeholders like employers.	326 (90.3%)	21 (5.8%)
The curriculum of my degree programme requires substantial change.	276 (76.5%)	69 (19.1%)
The curriculum for my degree programme never promoted technical skills such as creativity, innovativeness, problem solving abilities, etc.	243 (67.3%)	118 (32.7%)
The curriculum for my degree programme was too examination oriented.	265 (73.4%)	96 (26.6%)
What I was taught in my degree programme is not relevant to job market.	69 (19.1%)	280 (77.6%)
My academic programme never provided detailed information on career opportunities.	161 (44.6%)	200 (55.4%)
The curriculum of my degree programme offered less practical skills/opportunities for practical.	251 (69.5%)	110 (30.5%)
<b>Multiple response set</b>	<b>1906 (67.4%)</b>	<b>940 (32.6%)</b>

In summary, 67.4% of the graduates expressed dissatisfaction with the curriculum of their Degree programme while 32.6% of the graduates expressed satisfaction with their curriculum. To be more specific, 315 (87.3%) of the graduates agreed that the curriculum for their degree programme was too

theoretical. 326 (90.3%) of the graduates proposed that curriculum for their academic programmes should be designed in collaboration with stakeholders like employers. 276 (76.5%) of the graduates indicate that the curriculum of their degree programme requires substantial change while 69 (19.1%) of them disagreed. Furthermore, 243 (67.3%) of the graduates were of the opinion that the curriculum of their degree programme never promoted technical skills such as creativity, innovativeness, problem solving abilities, etc. while 118 (32.7%) of them disagreed. 265 (73.4%) of the graduates indicate that the curriculum of their degree programme was too examination oriented. To elucidate, 161 (44.6%) of the graduates indicate that their academic programme never provided detailed information on career opportunities, 200 (55.4%) of the graduates disagreed. Finally, 251 (69.5%) of the graduates accepted that the curriculum of their degree programme offered less practical skills/opportunities for practical while 110 (30.5%) of them disagreed.

**Table 6: Graduates’ Description of Curriculum for their Degree Programme**

Themes	Sampled Quotations
<b>More of theory than practical</b>	“The curriculum has insufficient practical procedures”. “The curriculum of my programmes allow for practical only at the 2 <sup>nd</sup> and 3 <sup>rd</sup> year where internships are done which to me is not adequate in this modern dispensation”. “The curriculum of my degree is supposed to be more of practical than theory but that is not the case”. “It is too theoretical so more practical skills need to be implemented”. “The curriculum of my programme is however addressing theoretical aspects and less effort being stressed on the practical areas thus creating limitations in career development”. “Too theoretical with little or no practical work”. “My training is too practical and we have no opportunity for practical”.
<b>Curriculum perceived to be adequate</b>	“The curriculum is good”. “The curriculum is well structured and organized in a way that will be of interest to you and the job market”. “The curriculum of my programme promotes technical skills and targets the job market”. “The curriculum of my degree programme is good because I was been trained practically and theoretically I got the knowledge due to help of my lecturers”.
<b>Examination oriented</b>	“The curriculum it’s been taught in a manner which makes students focus solely on exams”. “The curriculum of my degree programme is too examination oriented”. “Going back to the University reforms especially 1993 and 2001 law of orientation of Higher Education which all lay emphasis on professionalization of classical programmes yet, the programmes are more examination oriented”.
<b>Curriculum perceived to be outdated</b>	“The curriculum is obsolete”. “The curriculum of my degree programme is outdated and need to be revised”. “The curriculum needs to be revisit for a substantial modification in certain areas”. “The curriculum of my degree programme should be revised to incorporate the contemporary demands of the job market”.
<b>Curriculum not addressing employability</b>	“The curriculum should be re-structured for employability”. “The curriculum does not tie with the market demands”. “Every degree programme main objective is to empower it students and graduates for employment but our curriculum in most programmes does not meet up with the said objectives because upon graduation, most of the students can’t fit in the job market”.
<b>No contextualization of the curriculum</b>	“My curriculum was more oriented towards the management of problems more prevalent in the Western world rather than on Africa or Cameroon”. “The curriculum is more empirical (foreign) or colonial”. “The curriculum that we are still using is borrowed curriculum”.
<b>Inadequate promotion of technical skills</b>	“The curriculum of my programme needs to be revised in terms of creativity, innovation and problem solving”.

Furthermore, graduates’ own description of the curriculum of their degree programme was grouped

into seven (07) categories with findings on table 66 showing that while some of the graduates said the curriculum of their degree programme is adequate, others hold a contrary view which was based on the premise that the curriculum of their degree programme is more theoretical than practical, examination oriented, outdated and not addressing employability skills. Other graduates said that the curriculum is not contextualized as it is more western oriented, neglecting the needs of the Cameroonians and that the curriculum does not adequately promote technical skills such as innovativeness, problems solving, and creativity.

**Table 7: Final Year Undergraduate Students’ Perception on Curriculum Content of Programmes (N=385)**

Test items	Collapsed	
	Strongly Agree/Agree	Disagree/Strongly Disagree
The curriculum for my degree programme is too theoretical.	339 (84.5%)	56 (14.5%)
The curriculum for my degree programme should be designed with stakeholders like employers.	350 (90.9%)	35 (9.1%)
The curriculum of my degree programme requires substantial change.	308 (80.0%)	77 (20.0%)
The curriculum for my degree programme promote technical skills such as creativity, innovativeness, problem solving abilities, etc.	147 (38.2%)	238 (61.8%)
The curriculum for my degree programme is too examination oriented.	262 (68.1%)	112 (29.1%)
I am worried that what I have been taught in my degree programme will not enable me to fit well in the job market.	185 (48.1%)	200 (51.9%)
My academic programme does not provide detailed information on career opportunities.	133 (34.5%)	252 (65.5%)
The curriculum of my degree programme offered less practical skills/opportunities for practical.	253 (65.7%)	132 (34.3%)
<b>Multiple response set</b>	<b>1853 (64.2%)</b>	<b>1102 (35.8%)</b>

In aggregate, 64.2% of the final year undergraduate students’ express dissatisfaction with the curriculum of their degree programme while 35.8% of them were not. Specifically, 339 (84.5%) of the students indicated that the curriculum of their degree programme is too theoretical. 308 (80.0%) of the students agreed that the curriculum of their degree programme required substantial change while 77 (20.0%) of them disagreed. Also that 238 (61.8%) of the students disagreed that the curriculum of their degree programme promote technical skills such as creativity, innovativeness, problem solving abilities, etc. Findings also show that 262 (68.1%) of the students agreed that the curriculum of their degree programme is too examination oriented while 112 (29.1%) of them disagreed. Furthermore, while 200 (51.9%) of the students disagreed that what they have been taught will not enable them to fit into the job market, 185 (48.1%) of the graduates agreed. 133 (34.5%) of the students agree that their academic programme does not provide detailed information on career opportunities while 252 (65.5%) of the students disagreed. Finally, findings also show that 350 (90.9%) of the students also agreed that curriculum of their degree programme should be designed with stakeholders like employers while 35 (9.1%) of the students disagreed.

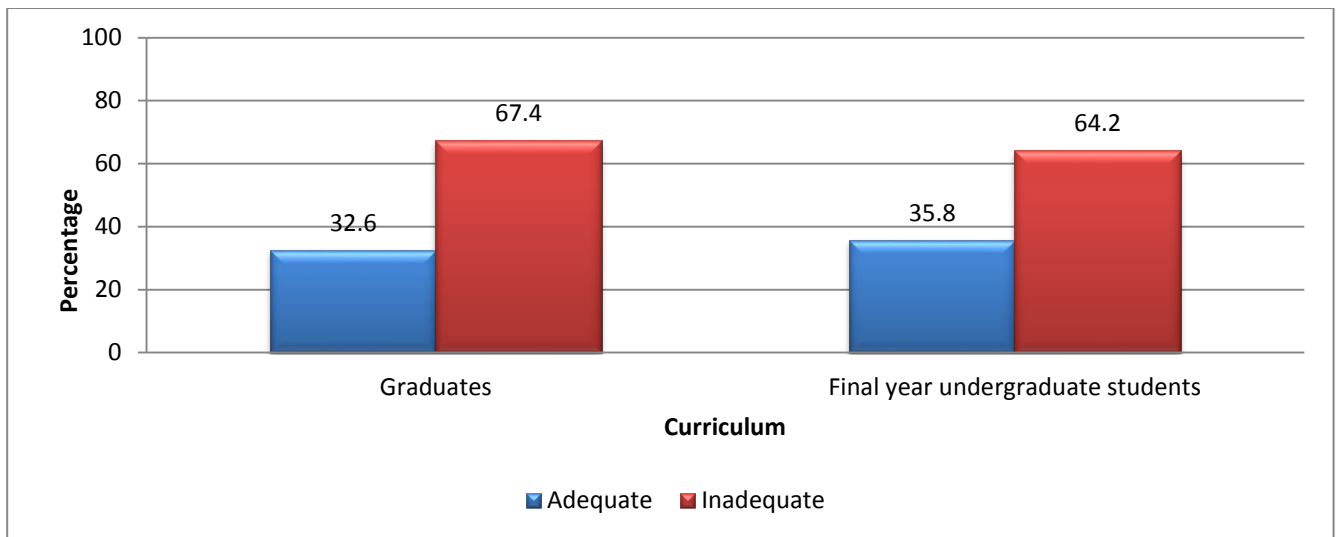
**Table 8: Final Year Undergraduate Students' Description of University Curriculum**

Themes	Sampled Quotations
<b>Programme more of theory than practical</b>	<p>“Academic programmes are more theoretical than practical oriented. They groom students for examination/certificate”.</p> <p>“The academic programmes in our Universities are more of theory and this hinders creativity in the students thus employability is a problem”.</p> <p>“Most of the programmes should be done practically especially in the faculty of Chemistry because most of their job requires practical skills”.</p> <p>“Most programmes in the University are not practical and provide less or fewer job opportunities to graduates”.</p> <p>“Most of the academic programmes are not practical and that makes it difficult for graduates to fit into the job market”.</p> <p>“The degree programme offers less practical skills or an opportunity for practical hence affects employability of graduates negatively”.</p>
<b>Programme not professional</b>	<p>“Most of the employers now go for professionalism and most of the programmes are not professional”.</p> <p>“Very poor because the education is not professionalise thus many students turn out been unemployed”.</p> <p>“The programmes are not professionalise and the sad thing is that programmes which professional are even professionalise”.</p> <p>“The degree programme should be based on professionalization given that 1993 reforms for Higher Education and 2001 law of orientation of Higher Education are all emphasizes on that”.</p>
<b>Programme perceived to be of good quality</b>	<p>“The degree programme has created the opportunity for me to be an entrepreneur. I can create jobs for myself without doing what I learnt in school”.</p> <p>“The programme is good because it has provided with vast knowledge on the field of study”.</p> <p>“The degree programme has prepared me for employability”.</p> <p>“The curriculum of the degree programme to a greater extent prepared students for the job market and I belief that upon my gradation which is coming soon, I will be able to fit myself into the job market”.</p>
<b>Programme rated as examination oriented</b>	<p>“The University programmes are too examination oriented which train students with first class degree with no practical skills”.</p> <p>“The degree programme is good at preparing students only to pass exams and nothing else”.</p> <p>“The degree programme is too examination oriented and certificate oriented and pays less attention on the acquisition of skills”.</p> <p>“From the way many lecturers comes and teach in class, one can observed that the University education is more of examination oriented”.</p>
<b>Programme not related to contextual realities</b>	<p>“Most of the programmes are not fashioned to meet the need of the Cameroonian society. It suits the western world kind of job”.</p> <p>“The curriculum we have to day for most of our degree programme does not reflect the needs of our society”.</p> <p>“Every country has an agenda to use it educational system to bring development to the country as a whole but from my experience and from what we are being taught, most of the aspects are focusing on western world which I belief their needs are different from ours”.</p> <p>“I am proposing that let those who are in charge with the designing of our curriculum should be thinking of what will be good at most for the Cameroonian youths”.</p>
<b>Addition of more courses</b>	<p>“I think more course should be added in skills development and information should be given on career opportunities in that field of studies”.</p> <p>“More courses that offer specific skills should be added to the programme.”</p>

Final year undergraduate students' own description of the curriculum of their degree programme was grouped into six (06) categories. While some of the final year undergraduate students said the curriculum of the degree programme has no problem, a good number of them frequently mentioned that their degree programme is more theoretical than practical, not professionally oriented, examination oriented and not related to contextual realities. Findings equally show that some of them said more courses should be added to their degree programme



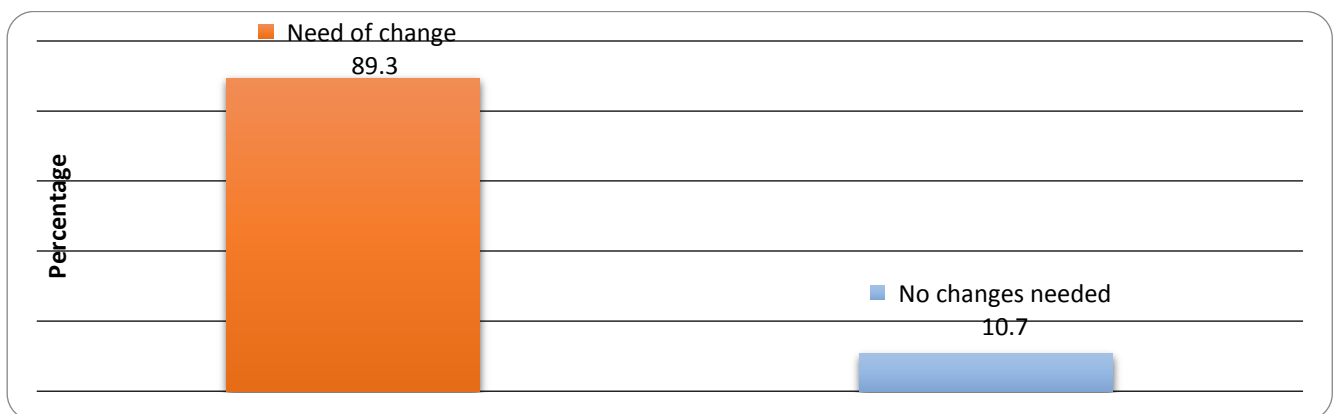
**Figure 2: Comparing Graduates’ and Final Year Undergraduate Students’ Opinion on Curriculum**



Comparatively, a majority of the final year undergraduate students 64.2% and graduates 67.4% said the curriculum for their degree programme is inadequate.

**Academic Staff Opinion on Curriculum (The need for change)**

**Figure 3: Academic Staff Opinion on Curriculum**



In the opinion of academic staff, a majority of them 50 (89.3%) indicated that the curriculum of their programme required changes while 5 (10.7%) of them disagreed.

**Table 9: The Kind of Changes Teachers Required from the Curriculum**

Themes	Sampled Quotations
<b>Incorporation of more practical training</b>	“The curriculum should be more practical rather than theoretical”. “The curriculum should be more of field work than class work”. “Students should be given the opportunity to carry out more practical”. “The curriculum for most programmes is too theoretical than practical”.
<b>Contextualisation of the curriculum</b>	“The curriculum should be adapted to the realization of our country objectives”. “The curriculum should be adapted to our environment and our needs”. “Changes to suit local industries”. “It needs to be more transformative, more practical meeting the realities of our contextual problems and resources oriented for creativity”.
<b>Professionalisation</b>	“Professionalism” “The curriculum should be more professional to enable quick

	employment”. “The programmes should be oriented toward professional activities”. “The programmes should be more professional so that graduates can create jobs or be employed upon graduation”.
<b>Designed programmes in collaboration with employers</b>	“Changes to meet up with the demands of employers. This will mean designing programmes together with the employment community”. “The curriculum should match with what obtains in the industry hence; it should be design in collaboration with employers and other stakeholders”. “The curriculum should be designed with key stakeholders who are there to absorb graduates in the job market so that teaching and learning will meet the needs of the job market”.
<b>Student centered learning</b>	“Students centered learning”.
<b>Hands on training</b>	“To emphasis on hands on training especially in professional schools and in the University”.
<b>Internship placement</b>	“Industrial internship placement”.
<b>Industrial training</b>	“More infrastructures for industrial training and stage needed”.
<b>Changes in teaching methods</b>	“Change in teaching method and strategies”.

Furthermore, academic staff opinions on the kind of changes they expect to be made on the curriculum were grouped into nine categories (09). Incorporation of more practical training, contextualisation of the curriculum to reflect national needs, professionalization, and designing the curriculum in collaboration with employers were the frequently mentioned changes expected. Promotion of student centered learning, hands on training, internship placement, industrial training, and changes in teaching methods were also mentioned.

**Verification of Hypothesis One (Ho<sub>1</sub>): Curriculum Content of Programmes Does Not Significantly Affect Graduates’ Acquisition of Employability Skills.**

**Table 10: The Effect of Curriculum Content of Programmes on Graduates’ Acquisition of Employability Skills**

	Test Statistics	Curriculum Content of Programmes	Graduates’ Acquisition of Employability Skills	Pseudo R-Square (Cox and Snell)
Spearman's rho	r-value	1	.760**	81.6%
	p-value	.	.000	
	n	361	361	
**. Correlation is significant at the 0.01 level (2-tailed).				

Statistically, curriculum content of degree programme significantly and strongly affects graduates’ acquisition of employability skills ( $p < 0.001$ , far less than 0.05). The positive sign of the relationship ( $r\text{-value} = 0.760^{**}$ ) implies that graduates are more likely to acquire employability skills when curriculum content of their degree programme is well designed and relevant and this effect is supported with a high explanatory power of 81.6%. Therefore, the alternative hypothesis that states that curriculum content of programmes significantly affects graduates’ acquisition of employability skills was accepted.

**Objective Two: To Find Out the Extent To Which Infrastructural Resources Affect Graduates' Acquisition of Employability Skills.**

To address this objective, responses were sought from graduates, final year undergraduate students and academic staff.

**Table 11: Graduates' Perception of Infrastructural Resources (N=361)**

Test items	Collapsed	
	Strongly Agree/Agree	Disagree/Strongly Disagree
During my stay in the University, the class size in my department was large and that negatively affect learning quality.	290 (80.1%)	72 (19.9%)
During my stay in the University, students sometimes listened to lectures by standing in my department.	223 (61.8%)	138 (38.2%)
My department was lacking in material resources to facilitate teaching and learning.	295 (81.7%)	66 (18.3%)
During my stay in the University, the material resources available for my programmes were outdated.	277 (76.7%)	77 (21.3%)
The lack of material resources negatively affected teaching quality in my department.	328 (90.9%)	33 (9.1%)
During my stay in the University, for students that went to lab for practical, their laboratories were not well equipped.	261 (72.3%)	80 (22.2%)
During my stay in the University, the library was well equipped with current books in my degree programme.	174 (48.2%)	187 (51.8%)
<b>Multiple response set</b>	<b>1848 (74.1%)</b>	<b>653 (25.9%)</b>

In aggregate, 74.1% of the graduates indicated that infrastructural resources were inadequate as opposed to 25.9% of them who said it was adequate. Specifically, 290 (80.1%) of the graduates agreed that class size in their department was large during their stay in the University and that negatively affected learning quality. Also, 223 (61.8%) of the graduates agreed that during their stay in the University, students sometimes in their department listened to lectures by standing. 295 (81.7%) of the graduates agreed that their department was lacking in material resources to facilitate teaching and learning. 277 (76.7%) of the graduates also agreed that materials resources available for their programmes in their department were outdated. Furthermore, 328 (90.9%) of the graduates indicate that lack of material resources negatively affected the quality of teaching. 261 (72.3%) of the graduates also agreed that laboratories for students and for others during their stay in the University were not equipped. Finally, while 187 (51.8%) of the graduates disagreed that the University library was well equipped with current books in their degree programme, 174 (48.2%) of the students agreed.

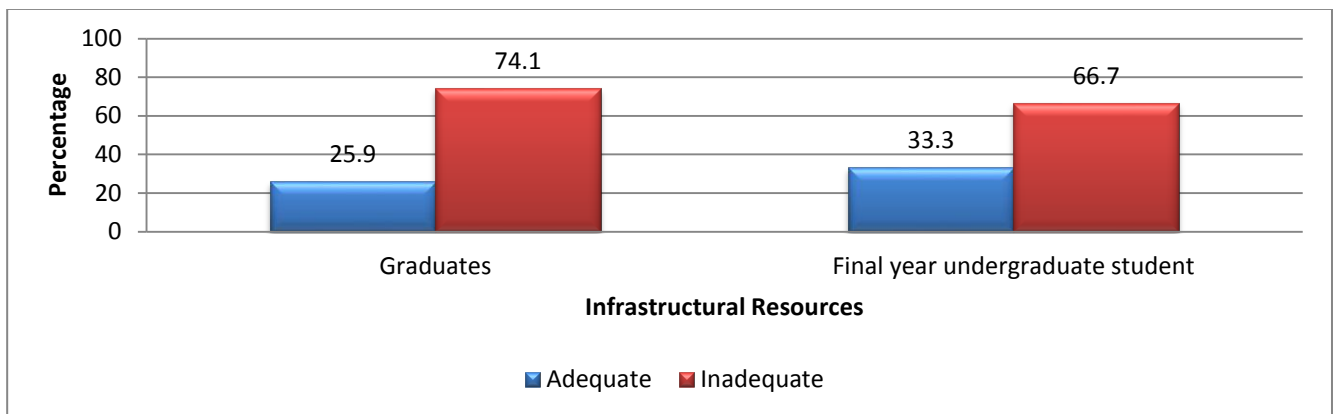
**Table 12: Final Year Undergraduate Students' Perception of Infrastructural Resources (N=385)**

Test items	Collapsed	
	Strongly Agree/Agree	Disagree/Strongly Disagree
The class size for my degree programme is large and this negatively affects learning quality.	301 (79.2%)	84 (21.8%)
In my degree programme, students sometimes listen to lectures by standing.	245 (63.6%)	140 (36.4%)
My degree programme is lacking in material resources to facilitate teaching and learning.	329 (85.5%)	56 (14.5%)
The material resources available for my degree programme are outdated.	322 (83.6%)	63 (16.4%)
The lack of material resource negatively affects teaching quality.	357 (92.7%)	28 (7.3%)
Our laboratories are not well equipped for science students and others.	329 (85.5%)	56 (14.5%)
The University library is well equipped with current books in my degree programme.	165 (45.6%)	210 (54.4%)
<b>Multiple response set</b>	<b>1799 (66.7%)</b>	<b>896 (33.3%)</b>

In aggregate, 66.7% of the final year undergraduate students indicated that infrastructural resources

are inadequate as opposed to 33.3% of them indicated it is adequate. To be more specific, findings show that 329 (85.5%) of the students agreed that their department lacks material resources to facilitate teaching and learning and that the material resources available for practical in their degree programme are outdated. Also, 245 (63.6%) of the students agreed that sometimes, students in their degree programme listen to lectures by standing while 301 (79.2%) of the students agreed that class size in their degree programme is large which negatively affects the quality of teaching. 357 (92.7%) of the students agreed that the lack of material resources negatively affects teaching quality in their degree programme, with 329 (85.5%) of the students also agreeing that laboratories are not well equipped for science students and others. Finally, while 210 (54.4%) of the students agreed that University library is not well equipped with recent books in their degree programme, 165 (45.6%) of the students agreed

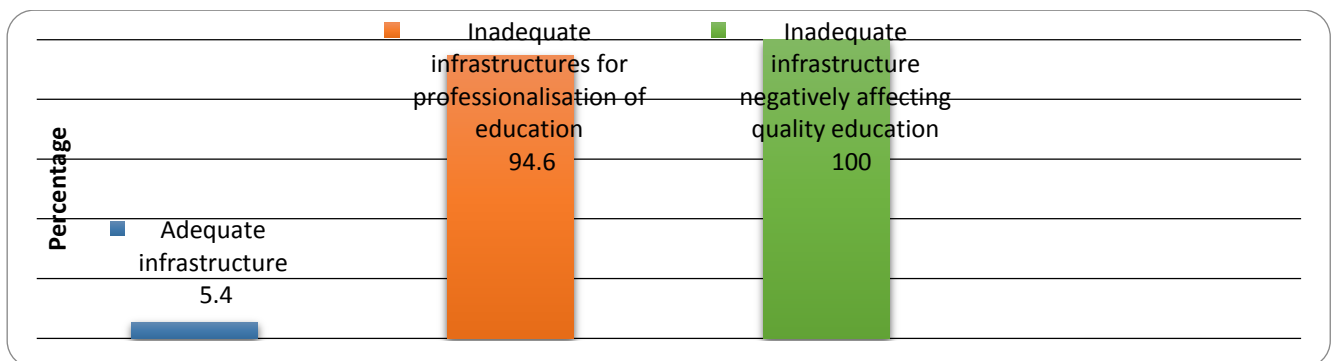
**Figure 4: Comparing Graduates’ and Final Year Undergraduate Students’ Opinion on Infrastructural Resources**



Comparatively, a majority of the final year undergraduate students 62.6% and graduates 72.9% indicated that infrastructural resources are inadequate while 25.9% of the graduates and 33.3% of the final year undergraduate students said infrastructural resources are inadequate.

**Academic Staff Opinion on Infrastructural Resources**

**Figure 5: Academic Staff Opinion on Infrastructural Resources**



In the opinion of academic staff, a majority of them 50 (94.6%) indicate that infrastructural resources are inadequate while 3 (5.4%) said is adequate. And, all the academic staff said that lack of adequate infrastructural resources negatively affects the quality of training offered to students.

**Table 13: Academic Staff Description on the Situation of Universities’ Infrastructural Resources**

Themes	Sampled Quotations
<b>Lack of laboratories</b>	“A lot of the training is theoretical and not practical” “Faculties do not have laboratories and necessary equipment to train well grounded professionals in agriculture”. “We do not have laboratories talk less of equipments”. “Inadequate laboratories for practical work”.
<b>Insufficient classrooms</b>	“Shortage of lecturer halls”. “Students at times do not have space to sit during lectures that is, the classes are overcrowded”. “Our classrooms are not adequate”. “The number of classrooms for teaching and learning is inadequate”. “It does not because when you look at access, the student’s population is more than the available classes”. “Insufficient classrooms”. “Classrooms infrastructure is lacking”.
<b>Lack of equipment</b>	“For example, the faculty of science has laboratories which are not well equipped”. “We need high technological equipment to provoke reflection and critical thinking in students”. “Lack of modern professional equipment to train the students”. “Equipment for teaching is largely lacking”.
<b>Library not well equipped</b>	“Our library is not well equipped with recent books”.
<b>No access to internet on campus</b>	“Lecturers do not have access to internet on campus”.
<b>Lack of instructional materials</b>	“Lack of materials for training that can be used for producing goods that can be marketed”.
<b>No resource center</b>	“A teaching laboratory/resource center/demonstration room for the faculty of education should be provided”.

Based on academic staff description of the situation of infrastructural resource, many of them complaint of lack of laboratories, insufficient classrooms for lectures and lack of equipment to support teaching. Some of the academic staff also said that the libraries are not well equipped, no internet access on campus, instructional materials are lacking and that there is no resource center.

**Verification of Hypothesis Two (Ho<sub>2</sub>): Infrastructural Resources Do Not Significantly Affect Graduates’ Acquisition of Employability Skills.**

**Table 14: The Effect of Infrastructural Resources on Graduates’ Acquisition of Employability Skills**

	Test Statistics	Infrastructural Resources	Graduates’ Acquisition of Employability Skills	Psuedo R-Square (Cox and Snell)
Spearman's rho	r-value	1	.782**	87.3%
	p-value	.	.000	
	n	361	361	
**. Correlation is significant at the 0.01 level (2-tailed).				

Statistically, infrastructural resources significantly and strongly affect graduates’ acquisition of employability skills ( $p < 0.001$ , far less than 0.05). The positive sign of the relationship (r-value = 0.782\*\*) implies that graduates’ are more likely to acquire employability skills when Universities have adequate infrastructural resources to support their training and this is effect is supported with a high explanatory power of 87.3%. Therefore, the alternative hypothesis that states that infrastructural resources significantly affect graduates’ acquisition of employability skills was accepted.

**DISCUSSION**

The findings showed that curriculum content of degree programme have a significant, positive and very strong effect on graduates’ acquisition of employability skills. Despite the importance of a well-

designed curriculum of academic programmes to graduates' employability skills, findings further showed that a majority of the final year undergraduate students and graduates of almost equal proportion said the curriculum for their degree programme is inadequate while a few of them did not find any weaknesses in the curriculum of their programme of study. Among a good number of the graduates and final year undergraduate students who expressed dissatisfaction with their curriculum, their reasons were that the curriculum of their programme of study is more theoretical than practical, not professionally oriented, examination oriented, not related to contextual realities, does not promote technical skills such as innovativeness, problems solving, and creativity. On the side of academic staff, a majority of them indicated that the curriculum of their programme required changes while a few of them disagreed. For many of the academic staff who demanded changes in their curriculum of their programme, incorporation of more practical training, contextualisation of the curriculum to reflect national needs, professionalization, and designing the curriculum in collaboration with employers were the frequently mentioned changes expected. Promotion of student centered learning, hands on training, internship placement, industrial training, and changes in teaching methods were also mentioned. With this kind of expectations academic staff holds about curriculum for academic programmes in Higher Education, it is clear that a high rate of unemployment among graduates over the years is also attributed to the quality of curriculum for University academic programmes. The findings of this study corroborate with that of Tinashe, Willie and Chinyamurindi (2018) who conducted a study on perceptions of factors that affect employability amongst a sample of final year students at a rural South African University with findings revealing that aside other factors identified, curriculum issues was among. Also, in another study carried out by Palanichamy and Veeramani (2013), they recommended that for Higher Education Institutions to suitably enhance their educational system to meet the needs of the society, an operable approach to accommodate changes in educational curriculum and enhance academic standards to serve the society is required. In a study carried out by Etomes (2019) on graduates employment and career opportunities, findings revealed that a majority of the employers noted that University academic programmes do not prepare graduates for employment with a majority of the employers stating that Cameroon Higher Education system is more theoretical, more examination oriented, not entrepreneurial and professional oriented and lack technical skills. This implies that adjustments in the curriculum of degree programme especially with the increasing call for professionalisation will go a long enhance relevance in the curriculum of our degree programmes.

With reference to infrastructural resources, the findings showed that it has a significant, positive and very strong effect on graduates' acquisition of employability skills. Despite the importance of infrastructural resources to student learning, findings further showed that a majority of the final year undergraduate students and graduates indicated that infrastructural resources are inadequate while a few of them indicated that infrastructural resources are adequate. Also, from the perspective of academic staff, a majority of them also opined that infrastructural resources required to support teaching and learning are inadequate. Findings of this study is in line with that of Tezera and Yadesa (2017) who conducted a study on the assessment of material resource utilization practices and its challenges: the Case of Wollega University with results indicating that material resources have a significant effect on the quality of training of graduates. Similarly, in a study carry out by Akomolafe and Adesua (2016) on the impact of physical facilities on students' learning, results showed that there was a significant relationship between physical facilities and students' learning. Based on the results of their study, they recommended that more priority should be given to the allocation of funds to make the schools conducive for teaching and learning. School buildings, libraries, classrooms, laboratories and equipment are education infrastructures which are crucial elements in the learning environment in schools and Universities (Janssen, 2017). Therefore, there is strong evidence that high quality infrastructure facilitates better instruction, improves students' outcomes, reduces dropout rates and other benefits. Within the context of professionalizing Higher Education programmes, the importance of adequate and well equipped infrastructure cannot be over emphasized. Inadequate school infrastructure is an out-and-out key factor in effective teaching and learning.

## CONCLUSION

In conclusion, findings have shown that curriculum content of programmes, and infrastructural resources significantly affect graduates' acquisition of employability skills. That is when curriculum content is relevant and infrastructural resources are adequate, graduates stand a better chance to benefit from quality training that will enable them to gain employability skills and ease their integration in the world of work. Thus, the implication of these findings is that if Higher Education programmes are not adequately professionalized, resources provided and relevance enhance, with the constant increase in the demand for University education, unemployment rate among graduates will drastically increase leading us to a situation that might be worse when compared to the motives for the 1993 reforms and 2001 laws of orientation to Higher Education. A completion of a degree programme should signify skills acquired by students and not only certificate. With key interest to professionalisation as an agenda to improve on graduates' employability in state Universities, adequate finance is required to address issues of infrastructural development, and curricular relevance.

## RECOMMENDATIONS

Based on the findings of the study, it specifically recommended that

- All universities should have modern and virtual libraries.
- Internet access should be improved.
- More classrooms, laboratories be constructed and equipment and accessories for the 21<sup>st</sup> century classroom should be provided.
- Entrepreneurship should be taught at all levels of study. The curriculum for academic programmes should address technical skills to enhance employability of graduates.
- Curriculum for academic programmes should also be contextualized by taking into consideration the need of the economy before opening to the world at large.
- Internship/placement, field work and industrial training should be actively incorporated in the curriculum for each degree programme where applicable while effective follow up, supervision and monitoring should be accompanied.
- Finally, a technology-based education, that is ICT, should be integrated in the teaching of every course.

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