

7- CURRICULAR STRUCTURE OF UNIVERSITIES AND PROFESSIONALSKILLS DEVELOPMENT IN NIGERIA

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Abstract

One of the problems Nigerian universities are facing today is inability to produce graduates with adequate professional skills. The purpose of the study was to investigate the influences of curriculum structure of Nigerian universities on students' professional skills development. The study was a survey conducted in Rivers State of Nigeria. Descriptive research design was adopted. The research question was "In what ways does the curriculum structure of Nigerian universities in terms of credits hours for theory and practical work, duration for undergraduate academic programme and Students Industrial Work Experience Scheme (SIWES), influence students' development of professional skills. The population included Nigerian public university graduates between 1995/1996 to 2005/2006 sessions, experts/professionals from universities and employers of labour. 1, 200 subjects were drawn using random sampling technique. Research instruments were Questionnaire, Structured Interview Schedules (SIS) and Focused Group Discussions (FGD). Mean, Graphs, Histogram, Frequency and percentage were used for data analysis. The findings revealed that credit hours for practical work has been inadequate for professional skills development as expressed by 72% of the graduate respondents while 52% of them indicated some levels of adequacy for theory work. 53% of graduate respondents expressed levels of adequacy for duration of undergraduate academic programmes and 47% indicated levels of inadequacy for duration of period for SIWES. Findings of FGD and SIS confirmed the above findings. A review of the university curriculum to reflect a balance between credit hours for theoretical and practical work and an increase in undergraduates' academic programme and students industrial experience were recommended.

Key Words: Curriculum Structure, Professional Skills, Universities.

Résumé

L'un des problèmes auxquels font face aujourd'hui les universités nigérianes est l'incapacité de produire des diplômés avec des qualifications professionnelles adéquates. Le but de cette étude était de vérifier les influences du curriculum des universités nigérianes sur le développement des qualifications professionnelles des étudiants. L'étude est une enquête conduite dans le Rivers State du Nigeria. La recherche descriptive a été adoptée. La question de recherche était la suivante : « en quoi le curriculum des universités nigérianes en terme d'heures pratiques et théoriques, de durée du programme académique en année de

licence et du schéma du travail industriel des étudiants (SIWES) influence le développement des qualifications professionnelles des étudiants ? ».

La population de l'étude était composée de diplômés nigériens d'universités publiques entre 1995/1996 à 2005/2006, d'experts/professionnels des universités et des employeurs. 1, 200 sujets ont été impliqués en utilisant la technique d'échantillonnage aléatoire. Les instruments de recherche étaient le questionnaire, les programmes structurés d'entrevue (SIS) et les discussions de groupe focalisés (FGD). Les moyens, les graphiques, l'histogramme, la fréquence et le pourcentage ont été employés pour l'analyse de données. Les résultats révèlent que les heures accordées pour les travaux pratiques ne conviennent pas au développement des qualifications professionnelles comme l'ont affirmé 72% des diplômés pendant que 52% d'entre eux indiquent que le niveau des travaux théoriques est adéquat. 53% des diplômés ont dit que les niveaux sont adéquats pour la durée des programmes scolaires d'étudiant préparant une licence et 47% ont indiqué les niveaux sont insuffisants pour la durée de la période pour SIWES. Les résultats de FGD et de SIS ont confirmé les résultats ci-dessus. Une évaluation du curricula de l'université a été recommandée pour refléter un équilibre entre les heures de crédit pour le travail théorique et pratique et une augmentation d'heures sur le programme académique des étudiants en année de Licence et les élèves ayant une expérience industrielle.

Mots clés : curricula, compétence professionnelle, universités.

Introduction

University education is the highest conscious effort made by many African countries to educate their citizenry. Every university programme of study has its specialized skills which the learners should acquire. University graduates are expected to have sufficient skills to live comfortably in a given society (Yu lung, 2007). These skills are conceived by the researchers as professional skills, which are acquired from various disciplines in the universities. They are saleable skills or skills acquired for employment which could be exchangeable for sustaining livelihood. The online dictionary defines skill as proficiency or dexterity that is acquired through training. It is a word used to describe what students achieve in their subjects (Uk Centre for Legal Education 2007).

The issue of students' professional skills acquisition is central to the other roles of higher education and cannot be over emphasized. If pertinent life problems are not skilfully resolved, the achievement of all other roles of higher education would be jeopardized (Obinaju, 2005). Derived from the different disciplines of Nigerian universities are such skills as, Managerial Skills, Communication skills, skills of Ethics and Human Relations, Scientific and Technological skills which constitute the index of professional skills for this study. University graduates are expected to

acquire some measures of employable skills in their respective professions to contribute to the society.

I. The Research Problem Statement

One of the major problems Nigerian Universities are facing today noted Babalola (2007a), is their inability to produce graduates with relevant professional skills. Dabalén and Oni (2000) probed the levels of graduate preparedness for productive employment by questioning the adequacy of education received by university graduates in Nigeria. Many Nigerian graduates roam the streets jobless and those employed very incompetent in skill performance. The critical emerging concern is whether graduates acquired the needed professional skills in school. There are certainly, gaps in the curriculum which could contribute to the lack of or insufficient acquisition of professional skills among Nigerian university graduates.

The curriculum structure is an issue of concern, considering skill development in the learners (Ogwo, 2000 and Ugwu, 2003). Where curricular activities are not well structured to address appropriate skills that will ensure development, the difficulties that these pose is to find graduates ready for the job market. From the above observations a number questions arise as follows:

II. Research Questions:

General

In what ways does the curriculum structure of Nigerian universities in terms of, hours for theory and practical work, duration for academic undergraduate programmes and SIWES, influence students' development of professional skills?

Specific

-What is the impact of theory and practical hours on skills development?

-To what extent can the duration of internship and attachment impact on skill development?

-What is the impact of duration of academic programme on skills development?

III. Purpose of the Study

The aim of the study was to investigate the influences of curriculum structure of Nigerian universities, on students' professional skills development, with a view to providing relevant inputs for policy

consideration in the current Nigerian Education Reforms Agenda.

Specific Objectives

In specific terms the objectives of the study are to investigate the impact of:

- credit hours for theory and practical work on skills development,
- duration of academic programme for undergraduate studies on skills development
- duration of Student Industrial Work Experience (SIWES)/ internships/ industrial attachment programme on skills development

IV. Justification of Study

This study is in tandem with the current educational reforms in Nigeria. In response to the on-going adoption of international goals of development – the Millennium Development Goals (MDG), Nigeria has adopted the National Economic Empowerment and Development Strategy (NEEDS), with critical consideration on, using education as a tool for empowerment among other issues (National Planning Commission, 2004). This confirms the need for a study of the nature and dimension which provide relevant inputs to achieve the goals of the educational reform agenda and that of NEEDS and of the MGD at the long run.

Based on the findings of this study, Higher education policy formulation instruments and their implementation mechanisms including, the Federal Ministry of Education and the National University Commission, would be sensitized to advocate for re-structure of universities' curriculum to enhance creativity and development of productive skills in the various professions within Nigerian universities.

V. Conceptual Framework

The UK Centre for Legal Education (2007) reports that, profession is an area of operations which is associated with the type of work one does for a living. It is a paid occupation from which one derives life sustenance. Okon (2004), defines a professional as an expert with specialized knowledge and skill in an area of study with competencies that distinguish him from the layman operating in the same field. A professional depicts one who possesses or is consummated by skills which might be acquired through training to be functional in the society and for sustainability. It is seen as training to keep current with changing technology and practice in a profession or in the concept of life long learning (Ekong, 2000).

Though curriculum has been viewed by various authors, we observed that these varied in the earlier years as there still are today. Obinaju (2005) confirmed that, there is no one generally agreed and fully accepted definition of curriculum. Let's examine some earlier definitions. The concept of curriculum as envisaged by earlier authors such as, Beauchamp, (1962), Fafunwa (1971), etc, as reflected in Oladitan and Ali (1997) focused on the curriculum as element of the subjects or courses taught in schools as well as the expected and/or intended outcomes of instructions. Many authors in recent years still view the curriculum in line with the earlier perspectives. Olaitan and Ali (1997) defined curriculum as a systematic group of courses and planned experiences required for graduation for certification of learners under the guidance of a teacher. Many other experts in more recent years see curriculum beyond the course content to all the school does. Mark and Smith (1996) define curriculum as a programme of all activities undertaken by teachers and students. This paper considers the wholesome curriculum which depicts all the planned experiences provided by the school to assist the students in attaining the designated learning outcomes.

The Principle of validity of learning experiences

This study is based on the principle which states that only learning experiences which will actually contribute towards the achievement of the learners' desired outcomes should be considered in the curriculum (Umoh and Etuk 2003). This principle agrees with the theory of learning which states that the drive for further achievement results from the satisfaction of past achievements. It therefore follows that if the Nigerian youths' experiences gained from the curriculum in school are valid and satisfactory, the graduates would be motivated to further convert those experiences into useful professions in the society.

VI. Methodology

Research Organization

The geographical limit of this study was restricted to Rivers State of Nigeria, The curriculum products (from 1995/1996 to 2005/2006 graduates only) were targeted. Derived from the different disciplines of Nigerian universities are such skills as, Managerial, Communication, Ethics and Human Relations, Scientific and Technological skills. Professional skill as envisaged by the researchers is categorized based on the disciplines and courses existing in Nigerian universities as reflected in the Joint Matriculation Examination Brochure, 2007. The skills are interdisciplinary. (See Figure. 1)

Figure 1 : Skill Categorization for Nigerian University Education. (Types of skills expected to be acquired by undergraduate students).

Discipline (faculties)	Managerial Skills	Communication Skills	Skill of ethics and Human Relation	Science and technology Skills
Agriculture	*			*
Art/ law / Humanities	*	*	*	
Social Science	*		*	
Education	*	*	*	*
Pure / Applied Science				*
Medical/ Health				*
Pharmacy				*
Environmental Engineering /Technology				*

Source : Extracted from Joint Matriculation Examination Brochure, 2007

Study Design and Site

The study was a survey which adopted qualitative and participatory approach. It employed descriptive and comparative research designs. Rivers State of Nigeria where the study was conducted is an oil producing state. There are several industries and investments in the area, for which reason it was chosen as the area of the study. Nigerian graduates from various universities work in these industries. Rivers State produces especially crude oil, gas and agricultural products. The state is one of the 36 states of Nigeria with Port Harcourt as the capital. The state is bounded on the South by the Atlantic Ocean, on the North by Imo and Abia States, on the East by Akwa Ibom State and on the West by Bayelsa and Delta states.

Population, Sample Size and Sampling Technique

The population consisted of three groups; 1.) Graduates of Nigerian Universities from 1995/1996 to 2005/2006 sessions working in Rivers state. They were chosen because the impact of the curriculum is directly on them as the curriculum product. 2.) Lecturers (Professionals/experts) of Nigerian Universities in the area of study, because they are the ones involved in curriculum implementation. 3.) Employers of labour (Directors/Managers/Heads of Departments etc) were included because they feel the direct impact of graduates working under them and can rightly assess their performances in terms of their professional skills or productivity.

The sample was made up of one thousand two hundred (1,200) subjects. These included: eight hundred (800) Nigerian graduate workers, two hundred (200) Experts/professionals in the indicated skill categories and two hundred (200) employers of labour. Random sampling technique was used for selection of research participants in the first and second research groups while the employers of labour were purposively drawn.

Research Instruments

Three (3) validated instruments were used for data collection. The first was a structured questionnaire with a four points rating scale, divided into two parts. Part one of the questionnaire was structured to collect demographic data of respondents. The items in part two were statements framed to address the curriculum structure of Nigerian universities as it influences skills acquisition. The questionnaires were administered to experts/professionals.

The second instrument was structured interview guides for university graduate workers who graduated between sessions 1995/1996 and 2005/2006. This instrument addressed curriculum structure as it influences professional skills development. The third instrument was a check list for moderation of Focused-Group-Discussions (FGD) with Employers of labour with respect to gaps in the curriculum structure and suggested remedies.

An inter-rater validation model was used. The instrument was subjected to content, context and construct validation by a team of education professionals (experts) drawn from universities in the area of study. An average percentage of 89 were deemed high enough to confirm the instrument as valid in all respects. A test-retest reliability proof was used to establish the reliability of the instrument. The instrument was administered on 100 respondents including subjects drawn from the population but not

the direct respondents within the research population. Pearson Product Moment Correlation Coefficient (r) was used for calculation of the reliability index which ranged from 0.7 to 0.8 for all the instruments. The indicated index justified the instruments as being reliable.

Data Collection

Questionnaire was administered directly to experts/professionals in groups as well as individually while graduates were visited in their places of work for data collection using interview guides. Without discrimination, graduates from the Nigerian public universities within the indicated years (1995/1996 to 2005/2006 sessions) were interviewed in groups. Ten (10) FGD sessions were held with employers of labour without sex discrimination. Heads of department, managers and directors, were gathered in not less than fifteen (15) discussants in each sessions, which lasted for 15 minutes only. Data was successfully collected from one thousand one hundred and fifty (1150) respondents for the study, representing about 95% of the sample. The final distribution of respondents was therefore 800 for graduates, 197 for experts (professionals) and 153 for employers.

Documentary data were obtained from university and faculty handbooks in the area of study. Descriptive statistics including mean, graphs, charts and frequencies were used for data analysis.

Presentation of data, analysis and discussion of results

This section presents information on characterization of research participants as well as findings on variables under consideration in the study

Table 2: Frequency of Skills Categories for Graduate Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MS	242	30.25	30.25	32.4
	CM	185	23.13	23.13	54.4
	EHRIS	190	23.75	23.75	78.1
	S&TS	183	22.87	22.87	100.0
	Total	800	100.0	100.0	

Key MS = Managerial Skill - CM= Communication Skill
EHRIS= Ethics and Human Relation Skills
S&TS= Science and Technology Skills

The skill groups that graduate respondents belonged to, were identified and are shown in table 2, as 242, 185, 190 and 183 for MS, CM, EHRS and S&TS respectively.

Table 3: Features of Curriculum Structure of Nigerian Public Universities

Disciplines/Faculties	Type of professional Skills Applicable	Approximate Percentage of credit hours for Theory/ Practical work per Semester	Average Period of Academic programmes	Total Periods for IT/ SIWES/ Internship
Agriculture	MS, S&T	82/18	5 yrs	6 months
Art/ Humanities	MS, EHRS	90/10	4 yrs	6 months
Law	MS,CS,EHER	86/24	5 years	1 years
Social Science/ Management studies	MS, EHRS	95/05	4 years	6 years
Education	ST,MS, CS, EHRS	80/20	4 years	6 years
Pure / Applied Science	S&T	80/20	4years	6 years
Medical/ Health	S&T,EHRS	70/30	6/5 years	1 year/6 months
Pharmacy	S&T	80/20	5 years	6 months
Architecture	S&T		6 years	6 months
Environmental /Engineering /Technology	S&T	78/22	5 years	6 months

(Compiled from Nigerian universities' handbooks - 2007)

Key:IT = Industrial Attachments

SIWES = Students Industrial Work Experience Scheme.

Table 3 shows the features of Nigerian university curriculum representative of Nigerian situation. Nigerian universities have relatively similar curricular structure and content for under-graduate programmes, with minimum standards as specified by the Nigerian University Commission (NUC).

Table 4 shows that items in S/N 1 to 10 were accepted aspects of curriculum structure which influence students' development of professional skills in Nigerian universities. The ranking revealed the grievousness of the influences with the highest mean at 3.96, on lack of balance between theory and practice in S/N 1, seconded by misappropriation of instructional facilities for effective professional skills development' with a mean of 3.80 in S/N 10, followed by insufficient contact hours with the course facilitators for effective skills acquisition, with a mean of 3.79 in S/N 3. Insufficient period allotted for students' occupational/industrial experience, in S/N 6 and students' exposure to inappropriate learning experiences in S/N 2, among other aspects of the curriculum structure were also identified to have negative influences on students' professional skills development.

Table 4: Mean Responses of Experts on Influences of Curriculum Structure on Students Acquisition of Professional skills.

N= 197

S/N	Items of Curriculum Structure as it influences Students Development Professional Skills	Mean	Rank	Remark
1	There is lack of balance between theory and practice in my discipline which negatively affect skills acquisition.	3.96	1 st	*
2	University students in my discipline are exposed to inappropriate learning experiences which negatively influences effective professional skills development.	2.70	8 th	*
3	There are not sufficient contact hours with the course facilitators to allow for effective skill acquisition.	3.79	3 rd	*
4	Duration of undergraduate academic programmes are not adequate for effective professional skills development.	3.20	6 th	*
5	Curriculum in my area of study does not provide adequate skill oriented goals for students' acquisition of professional skills.	2.99	7 th	*
6	The periods allotted for students industrial experiences in my area of specialization is not enough to promote effective professional skills development.	3.63	4 th	*
7	Specified objectives do not address professional competences for skills development.	2.16	9 th	*
8	The principle of variety is not reflected in the provided curriculum experiences to enhance professional skills acquisition.	2.08	10 th	*
9	Integration of interdisciplinary approach in curriculum designs are not adequately emphasized for expanded skill development.	3.47	5 th	*
10	Instructional facilities for effective curriculum delivery are not well used for professional skills development.	3.80	2 nd	*

* Accepted aspects of curriculum structure as it influences students' development of professional skills.

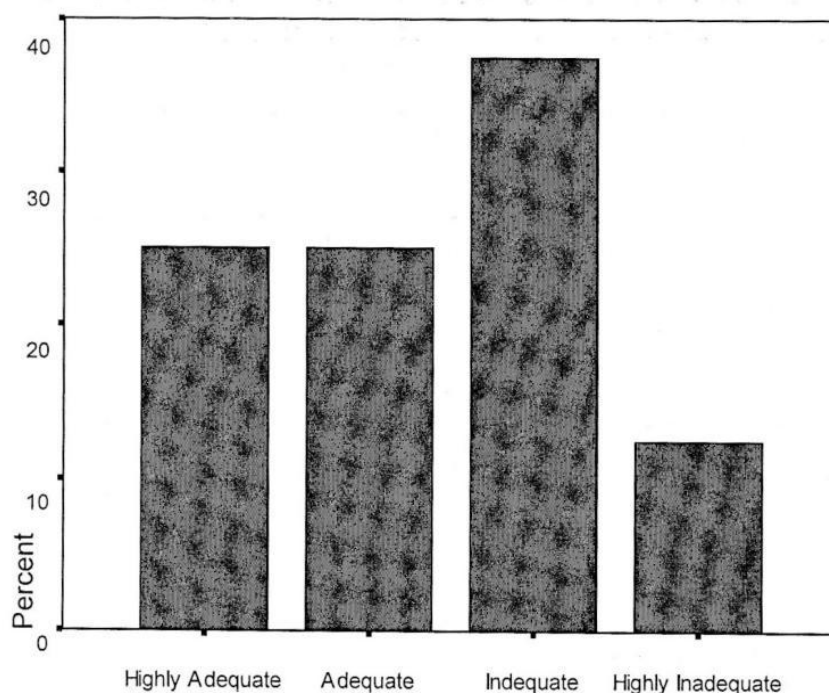


Figure 1: Bar chart on Nigerian graduates' responses on adequacy of provided credit hours for theory work

Figure 1 shows Nigerian graduate workers responses on adequacy of provided credit hours for theory work to gain professional experience. It shows 52% (26 +26) expressed levels adequacy while 48% (10+38) indicated levels of inadequacy.

Table 5: Frequency of Graduate Response on Adequacy of Credit Hours for Practical Work in Nigerian Universities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly adequate	48	6.0	6.0	6.6
	Adequate	167	20.8	20.8	27.2
	Inadequate	251	31.4	31.4	58.4
	Highly inadequate	334	41.8	41.8	100.0
	Total	800	100.0	100.0	

Table 5 shows graduate workers' responses on adequacy of credit hours for practical work in Nigerian Universities as it relates to professional skill development. Over 31% of respondents said the provided credit hours were inadequate while about 42% said it was highly inadequate for professional skill development

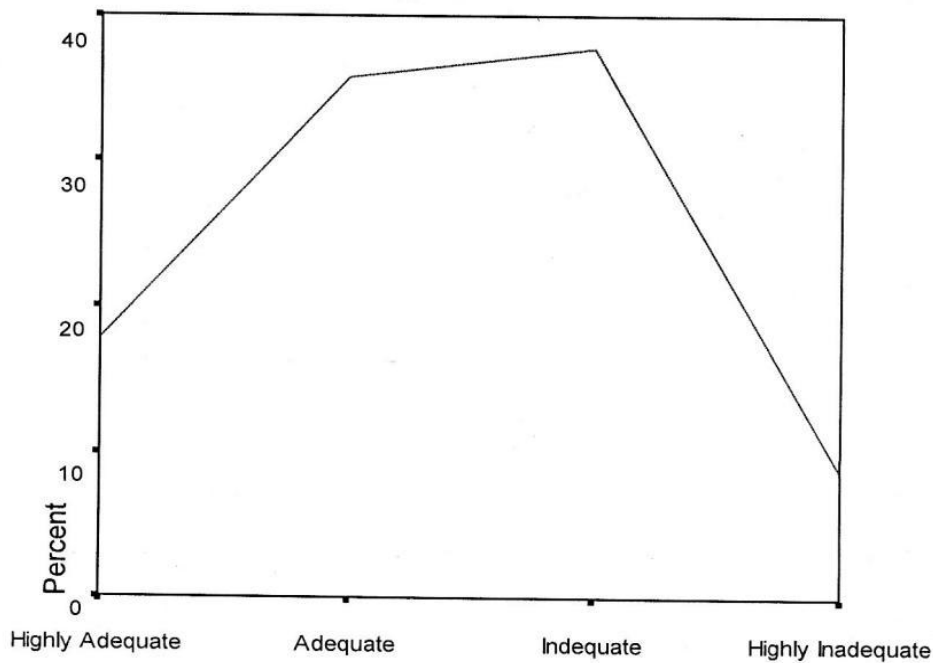


Figure 2: Nigerian Graduate Workers' Responses On The Adequacy Of Duration For Undergraduate Academic Programmes

Key: P = Programme

Figure 2 shows Nigerian graduate workers' responses on the adequacy of duration for undergraduate academic programmes. The graph shows that only 17% of them expressed that duration for academic undergraduate programmes was highly adequate and 36% of the graduates agreed that it was adequate while 38% indicated inadequacy and about 9% indicated that the period was highly inadequate.

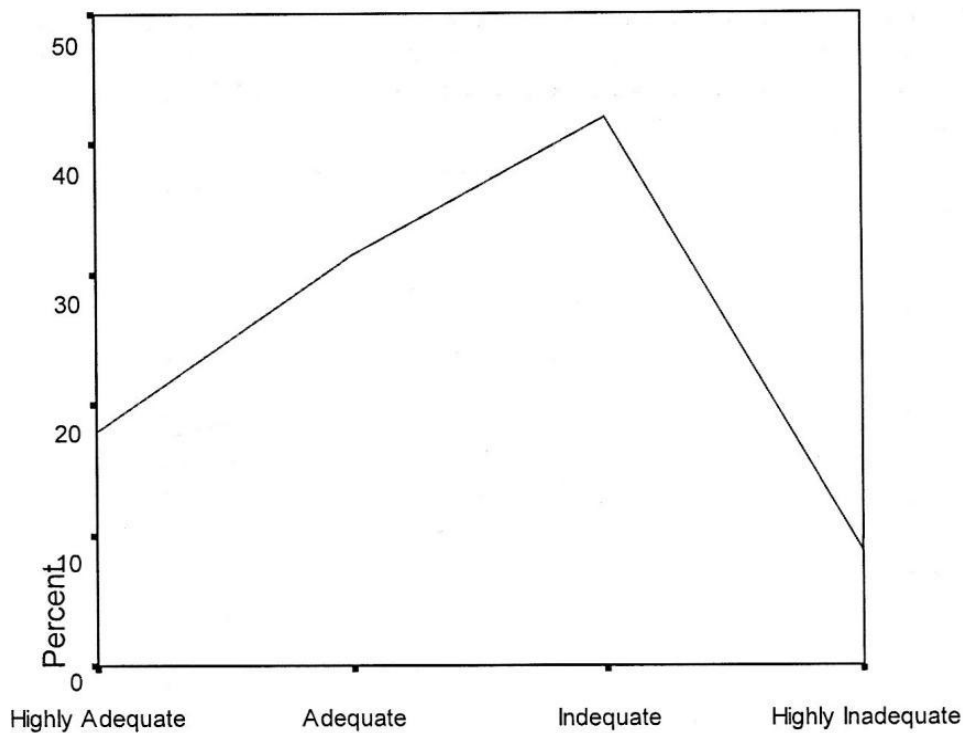


Fig. 3: Nigerian Graduate Workers' Responses On The Adequacy Of Stipulated Period For Students' Industrial Experience/Internship

Key

SIWES = Students' Industrial work Experience

IT = Industrial Attachment

Intern = Internship

In figure 3, Nigerian Graduate workers' responses on the adequacy of stipulated period for students' industrial experience/internship indicated that about 43% of Nigerian graduates respondents agreed that the period have been inadequate and 10% of them expressed that the period was highly inadequate as against about 30% that indicated that the period was adequate and 17% agreed the period was highly adequate.

Discussion

The results of this study are in consonance with the findings of the Federal Ministry of Education (2003), in consultation with employers of labour which disclosed that Majority of university students learn through

lectures and academic text books and are academically sound but they have limited opportunities of acquiring practical experience by using machinery, equipment and practical technique associated with the profession which has been the reason for lack of professional skills development. The emphasis in the SIS and FGD actually confirm the quantitative results. Students were found not to have sufficient contact hours with course facilitators due to shortness of under graduate programme. The stipulated period of four years for most courses and five for some other professions (see Table3) were seen to be inadequate by employers of labour and the professionals.

About 92% of employers of labour commenting on the conditions of Nigerian graduates noted the graduates' situation in Nigeria is deplorable. They were found to be degenerating in their development of professional skills. They were assessed not to have acquired enough professional skills in the universities for which reasons they have initial difficulties in work performances

Some aspects of the curriculum structure including, stipulated time frame for theory work, practical work, students' work experience and duration of undergraduate academic programmes have been found to be inadequate as confessed by Nigerian university curriculum products, and their lecturers. Lack of balance between theory and practice and insufficient contact hours with the course facilitators to allow for effective skill acquisition have been affirmed in Nigerian universities. The responses from experts reveal that most skills learnt in various disciplines are not transferable into a wide range of occupations for development of professional skills. About 88% of the employers agreed to have need to re-train the graduates before deployment, a few others expressed that graduates given some time of training, demonstrate competencies in skill areas. Gaps within Nigerian university curriculum structure which deters professional Skills development amongst students as confirmed by Okon (2006) includes;

most skills learnt in various disciplines are not being transferred into a wide range of occupations or professions.

The need to expose university students to more occupational experiences in school was also emphasized

University students are poorly trained with a loped-sided curriculum which had more of theory than practical work for skill development.

The findings of this study imply that the structure of Nigerian university curriculum is defective, and the evils of these defects are manifested in the curriculum products which are the graduates. To promote educational

reform, there is need for restructuring of the Nigerian university curriculum structure to achieve the goals of NEEDS and of the MDG at the long run.

Conclusion and Recommendations

Conclusion

It is hereby concluded based on the findings of this research that, the Nigerian university curriculum structure is faulty. There are evident gaps which need to be bridged in the Nigerian university curriculum structure as reflected in this study. Most university graduates lack professional skills and remain unemployed or non functional in the society but rather constitute a nuisance. This investigation further confirms the findings of an analysis of available labour statistics and interviews with managers from 55 public enterprises which indicated that, university graduates are poorly trained and unproductive on their job and that graduates skills have steadily deteriorated over the decade (FME 2003). Riordan and Rosas (2003), indicate that employers are seeking for employees who have acquired relevant knowledge and skills and are able to flexibly adapt, apply and transfer their knowledge to different context, under varying conditions.

Recommendations

This paper calls on the Education Reform Agenda Committee in Nigeria to consider the findings of this study for possible re-construction of the university curriculum for enhancement of professional skills development.

Curriculum planners and higher education policy makers should consider a review of the university curriculum, to have a balance between credit hours for theoretical work and practical work for improved professional skill development. An increase in terms of the number of contact hours with course facilitators and duration for SIWES/IT/Internship is recommended.

An analysis of contemporary societal skill needs should be considered, such that skills acquired in Nigerian universities would be transferable to the numerous available occupational opportunities in the society.

Finally, all stakeholders in university education including, parents, guardians, and community leaders etc, to support the Nigerian university education system directly and indirectly, in their attempt to improve professional skills development.

Bibliography

- American Heritage. (2009). *Dictionary of the English Language*. Fourth Edition. retrieved February, 2007. U.S. Houghton Mifflin Company. Houghton Mifflin Company. <http://www.thefreedictionary.com/skill>,
- Babalola, J. B. (2007a). *Reforms and Development in Nigeria's Tertiary Education: Focus on the Obasanjo's administration: Abuja. Nigeria*. NAEAP Publications.
- Beauchamp, G.A. (1975). *Curriculum Theory*, (3rd ed.) www.jstor.org/stable/40364981, Retrieved 5th February, 2007.
- Dabalen, A., Oni, B. & Adekola, O. (2000). *Labour Market Prospects of University Graduates in Nigeria: A Background Study Conducted to Inform the Design of the Nigerian University System Innovation Project*. http://www.valuefronteiraonline.com/public_upload/file/edu1.pdf Retrieved 5th February, 2007.
- Ekong, A. O. (2000). Educational Programmes for Improving Agriculture Teacher: Preparation for Effective Role Performance in Occupational Skill Development of Youths. *International Journal of Educational Development*. 3 (1) pp. 93-98
- Fafunwa, A. B. (1971). *Stimulating Improvement through Curriculum Reform: bafceyoleng.org/Profiles%20-%20Babs%20Fafunwa%20CV.html*. Retrieved December, 2006.
- Federal Ministry of Education, (FME). (2003). *Education Sector Status*. Report: Abuja: FME. Nigeria.
- Federal Republic of Nigeria, (FRN). (2004). *Views and Comments of the Federal Government of Nigeria on the Report of the Commission on the Review of Higher Education of Nigeria*. Nigeria: Abuja, FME.
- Mark, C. & Smith, M. (1999). *Curriculum Definitions: www.infed.org/biblio/b.curr.htm* retrieved 23rd June 2008.
- Micro Soft Word First Draft Doc. *NEEDS National Economic Empowerment and Development Strategy*. www.https://docs.google.com/viewer?a=v&q=cache:w xqmhLWV16cJ:www.cenbank.org/out/publications/guidelines/rd/2004/needs.pdf+National+Economic+Empowerment+and+Development+Strategy+.
- National Planning Commission, (NPC). (2004). *National Economic Empowerment and Development Strategy (NEEDS)*. Abuja, Nigeria: NPC.
- Obinaju, Q.I. (25 - 27 Septembere 2005). *The Curriculum of Higher and Sustainable Development in Developing Nations*. Paper Presented at the ETF Capacity Building Workshop for Nigerian university Lecturers in South South zone of Nigeria.

- Ogwo, B. A. (2003). *Curriculum Development and Implementation*. Nigeria, Onitsha. Totan publishers.
- Okon, U. A. (2004). Defects in Designs and Implementation of Agriculture Education Curriculum in Nigerian Secondary Schools. Need for reforms. *Nigerian Journal of Curriculum Development. Journal of Curriculum Association (CON)*. 12 (2), 198-202.
- Okon, U. A. (2006). Professional Standard Development in Vocational Education: Teacher Instructional Management Role. *International Journal of Educational Developments(IJED)*.7 (2), 16.
- Olaitan , S. O. & Ali. (1997). *Curriculum Development Process and Evaluation*;Onitsha,Nigeria: Cape Publishers International Limited.
- Online Dictionary. <http://www.merriam-webster.com/dictionary/curriculum>
Retrieved 26th, February, 2007.
- Riordan, T. & Rasa, G. (2003). *Core work Skills: ILO perspective*. Retrieved on August 3, 2005, [www.ILO.org/employ/ Skill](http://www.ILO.org/employ/Skill).
- Ugwu, C. (2003). Strategy for Relating Curriculum to Productive Work in Nigeria. *Nigerian journal of Curriculum Studies*.10 (1), 13-14.
- UK Centre for Legal education. www.uk/resources/dn/definitions.html Retrieved May, 2007.
- Umoh, M. & Etuk, L.A. (2003). *Principle of Curriculum Development in Agricultural education*. Abuja, Hil-Aex venture.
- Yu lung, W. Advanced. *Learning Technologies*. www.ieeexplore.org/xplore/login
Retrieved 28th June, 2007.