



**BUSITEMA
UNIVERSITY**
Pursuing excellence

EMPLOYABILITY OF GRADUATES

Directorate Of Quality Assurance
TRACER STUDY FOR THE 2010-2018 GRADUATES

Volume 1, June 2021





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TABLE OF CONTENTS

FOREWORD	i
PREFACE	ii
THE DIRECTORATE OF QUALITY ASSURANCE	iii
EXECUTIVE SUMMARY	iv
1.0 Background	1
1.1 Tracer studies	5
1.2 Objectives	5
2.0 Methodology	6
2.1 Sampling frame	7
3.0 Findings	7
3.1 General characteristics of the respondents.....	7
3.2 Pathways to employment	21
3.3 Satisfaction with the current job	23
3.4 Employers of graduates.....	25
3.5 Transferable skills.....	27
4.0 Respondents' overview of the training programme at Busitema University	31
4.1 Strong points	31
4.2 Weaknesses	31
4.3 Suggestions	31
5.0 Recommendations	32
5.1 Busitema university destinations	32
5.2 Transition rate into higher qualifications	32
5.3 Transferable skills.....	32

FOREWORD

I am very pleased to foreword the first Busitema University Tracer Study of Graduates as of 2018. The University focuses on relevant and critical study programs in Engineering, Science Education, Health Sciences, Natural Resources and Environmental Sciences, Agriculture and Animal Sciences, Management Sciences and Vocational Education. Busitema University receives about 3,500 qualifying applicants every year to a range of academic programmes at undergraduate and postgraduate levels. The multi-campus nature of Busitema University gives opportunity to students for hands on training and to fully explore their potentials so as to prepare them for the dynamic world of work.

It is significant that unemployment level among the youth in Uganda is rising and has posed a boundless apprehension to us. For this cause therefore, we extremely take the obligation to produce graduates that can stand out as entrepreneurs as well as job creators. With regard to theoretical and practical facets of the respective academic programmes, Busitema university is enthusiastic to producing furnished graduates who possess desirable transferable skills and these among others include but not limited to; Problem Solving, Teamwork, Leadership, Technology Literacy, Critical Thinking, Research and Communication skills.

The sustained success of every Busitema University graduate will remain a fundamental aspect of what the university endeavors to execute and we hope that these encouraging results will strengthen our commitment to pursuing excellence as we prepare quality graduates for the prospective employers.

Finally, I would like to express my gratitude to the Directorate of Quality Assurance for conducting the first graduate tracer study of Busitema University.

Prof Paul Waako.
Vice Chancellor
Busitema University

PREFACE

An aspect of quality in higher education is the quality of the outcomes achieved. Higher education adds value by developing job-related skills and competencies. Busitema University is responsible for ensuring the quality of training she offers to students is relevant. The tracer study is one among the methods the university uses to monitor the quality of the programmes and trainings offered. Busitema University tracer study is a survey of university graduates which takes place at least two years after graduation. The focus of the tracer study include questions on students' experiences during studies, study progress, the transition to work, work entrance, job career, use of learned competencies, current occupation, and bonds with Busitema University. Therefore tracer study is a means by which Busitema University seeks feedback from its graduates for the purpose of continuous quality improvement. The results of Tracer studies are used in maintaining curriculum relevance and continuous improvement of the support services the university provide the students. In addition, it is required by NCHE that the universities provides empirical evidence regarding the professional relevance of the study programmes being implemented.

Busitema University currently graduates about 30% of its enrolment every year. It is a prime interest for the university to cast light on the status of its graduates shortly after they graduate. The university has conducted her first tracer study for its graduates as of 2018 in order to illuminate the complex transition from secondary school through university into the world of work.

The sponsors, future employers and the graduates themselves have several expectations at the end of the training cycle. Employment is a key expectation for the graduates and their sponsors. The employers on the other hand hope for the right people for the jobs they want to fill. This tracer study will provide key information to Busitema University, employers, students and their sponsors on the various factors that are crucial for successful transition from the academic life to the world of work.

We thank the Vice Chancellor and the entire management of Busitema University for their support during the exercise.

We acknowledge the support of the Research Assistants for administering the questionnaires; we thank the Academic Registrar for proof reading this report. We finally thank the staff of the Directorate of Quality Assurance for their support and coordination of this study.

Dr. Saphina Biira,
Deputy Director Quality Assurance Directorate,
Busitema University

THE DIRECTORATE OF QUALITY ASSURANCE

About the Directorate

Directorate of Quality Assurance was established with a mandate of improving the quality of the university's academic and non-academic offerings at all levels. It cuts across the entire university spectrum.

The Directorate of Quality Assurance develops and implements Internal Quality Assurance (IQA) instruments such as policies, standards, guidelines, and procedures. The Directorate also carries out or coordinates audits of the university's teaching and learning through, internal and external assessment of academic programmes, external examinations, student evaluations, teaching and learning environment audits, tracer studies, graduate exit surveys, and employer satisfaction surveys. The Directorate of Quality Assurance is a conduit between the university and regulatory bodies including the National Council for Higher Education (NCHE), which is responsible for both institutional and programme accreditations in Uganda.

Our mandate

The Directorate of Quality Assurance exists for the purpose of coordinating and spearheading the quality assurance processes (systematic monitoring and evaluation, and ensuring that mechanisms are in place, and are functional to ensure that standards are being met) in the University in line with the set National, East African Community and International standards.

Our mission

To establish and enhance academic and service quality at all levels in the University.

Our Vision

To promote academic excellence through quality assurance practices in all the University systems

Our Core values

- Quality
- Integrity
- Excellence
- Inclusiveness
- Professionalism
- Compliance

EXECUTIVE SUMMARY

Busitema University is a multi-campus model public University located in the Eastern Region of Uganda. The University is composed of six operational campuses namely; Busitema, Nagongera, Namasagali, Arapai, Mbale and Pallisa. Established by Statutory Instrument in 2007, the University focuses on relevant and critical study programs in Engineering, Science Education, Health Sciences, Natural Resources and Environmental Sciences, Agriculture and Animal Sciences, Management Sciences and Vocational Education. The university has constituted adaptive mechanisms to allow for feedback and continual improvement across the spectrum of its provisions. Some of the mechanisms include external examination, peer reviews, benchmarking, employer expectation survey, tracer studies, graduate exit surveys and students' evaluation of teaching. These mechanisms are utilized to adapt the university provisions to the requirements of its stakeholders.

The university conducted the first tracer study in order to illuminate the complex transition from secondary school through university into work. This tracer study was conducted following the five sequential generic procedures for conducting tracer studies: Contact tracing; Compilation of sample frame; design of the questionnaire; administering the questionnaire and data capturing; cleaning and analysis. The total number of respondents from Faculty of Engineering and Technology (FOET) was 228 against the total sample frame of 1177 representing 19.4% response rate. The total number of respondents from Faculty of Management Sciences (FMS) was 10 out of 22 (representing 45.5%) and 42 out of 206 for Faculty of Natural Resources and Environmental Sciences (FNRE) representing 20.4%.

The major findings from this study were:

1. Most respondents have not obtained further qualifications;
2. The majority of the respondents would consider re-enrolling at Busitema University. Distance from the graduates' places of work and not having a variety of postgraduate programme in graduates was highlighted as one of their obstacles.
3. Most impediments to further study are financial;
4. The total number of graduates who indicated that they were fully employed (spent at least 40 hours a week on the same job) constituted 79% (FOET), 70% (FMS) and 76% (FNRE) of the respondents;
5. Graduates reported the need to increase on the delivery of practical aspects and hands on training in curriculum;
6. The total number of unemployed graduates was 16%, 30% and 24% for FOET, FMS and FNRE respectively;
7. The respondents were employed in about 63 private and 30 public entities. This indicates that graduate employment is strongly coupled with private sector job opportunities;
8. Advertising was the major source of information on job opportunities for respondents from FOE representing 44% of the sources of information, followed by those head hunted by employer at 19%, 17% social network, 14% directly contacted the employer while 6% through relatives. For FMS, the major source of information on job opportunities was social network with 50% while that of FNRE was advertising with 57.1%

Key recommendations from this study are:

To the University

1. Matching of graduates with jobs is crucial in decreasing the graduate unemployment. University – Industrial links need to be strengthened through a comprehensive internship program. These linkages will in turn support the integration of stakeholder expectations into the curriculum of the university.
2. The curricula and teaching methods should reflect a fair balance between Practical training and Theory. For example, the students can be made to go out into the community to identify a problem and develop strategies to solve that problem – this approach to training enables the students to be more practical and apply their skills.
3. In view of the diverse soft skills required of graduates for different jobs, it is desirable that the University should equip students with analytical minds and critical thinking that will make them more adaptable to changing work environments. This may require re-orientation of lecturers to participatory teaching techniques such as the use of case studies and student group work.
4. Busitema University should increase its capacity to train graduate students since most respondents who had intentions to pursue further studies, revealed that they would consider rejoining the institution for graduate studies;
5. All transferable skills were rated above average mark. Communication skills were ranked highest whereas Entrepreneurial skills were ranked lowest. Across-cutting course in entrepreneurial skills should be developed and embedded in curricula across disciplines; this course should include aspects of negotiation, analytical and decision-making skills;
6. Students should be encouraged to engage in personal development schemes to reinforce the acquired transferable skills to meet the requirements at world of work.

To the Government and Employers

7. Most of the respondents have continued to acquire jobs through advertisements. Public and Private sectors should be encouraged to advertise jobs in various media including the emerging social media; Radio and TV.
8. Most respondents indicated the highest impediment to their pursuit of further higher education qualifications were lack of financial support. Government should consider increasing the funding for graduate studies to increase the transitional rates of undergraduate studies.
9. An Employer Expectations Study should be carried out to gather feedback from employers regarding university outcomes or contributions. The findings would be used to assess the needs for new graduates and undergraduate programs and assist in the proposed review of current curriculum.

10. Since University cannot include all the diverse knowledge and skills areas of interest to various employees, it is desirable for employers to consciously organize in-service training for their graduates so as to equip them with the specific knowledge and skills required in their jobs.

1.0 Background

Busitema University is a multi-campus model public University located in the eastern region of Uganda. The main campus is at Busitema and other campuses at Nagongera, Namasagali, Arapai, Mbale and Pallisa. The University focuses on relevant and critical study programs in Engineering, Science Education, Health Sciences, Natural Resources and Environmental Sciences, Agriculture and Animal Sciences, Management Sciences and Vocational Education.

Vision: A Centre of academic and professional excellence in science, technology and innovation

Mission: To provide inclusive high standard Training, quality research and outreach for industrialization and sustainable development.

Motto: Pursuing Excellence.

Core Values: Respect, Professionalism, Customer First, Innovativeness and integrity.

Strategic Objectives;

1. Strengthening Excellence in Education and student life.
2. Increasing High Impact Research, Innovation and Entrepreneurship.
3. Strengthening partnerships and Engagement for Growth.
4. Increasing productivity through Effective Leadership, Governance and Management.
- 5.

Discipline Taxonomy: Busitema university

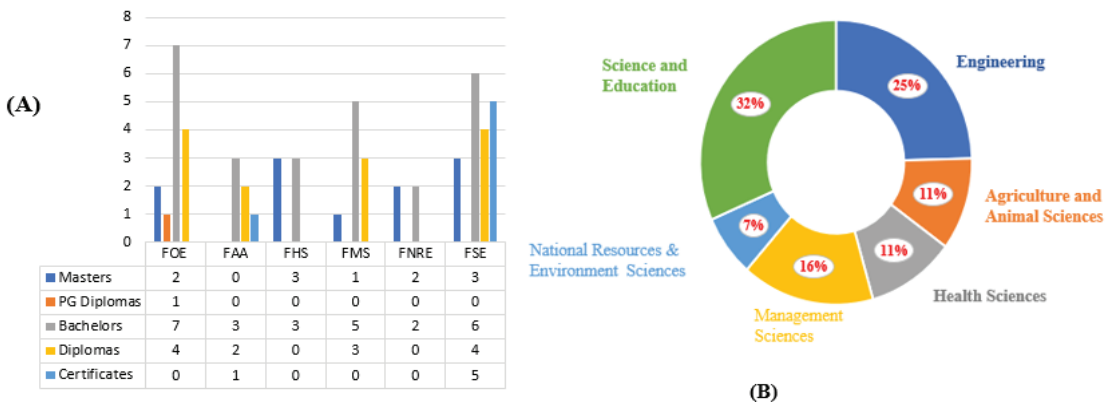


Figure 1: Busitema University percentage share of curriculum among Disciplines as for February 2021.

Busitema University has a student population of 3983(December 2020) and graduates about 30% of its enrolment every year; for instance, the university graduated 1037 (32%) students in 2016 against an enrolment of 3252. The graduation numbers for the last 10 years are presented in Figure 2.

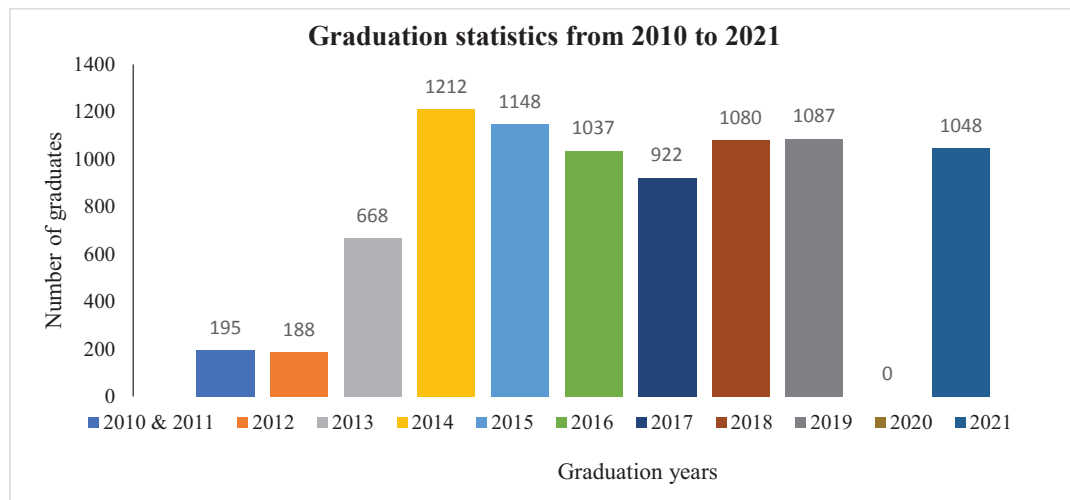


Figure 2: Busitema University graduation statistics from 2010 to 2021

Busitema University consists of six Faculties located in different places. The table below shows the six different faculties and the respective academic programmes offered.

Table 1: Faculties and their respective programmes

S/N	FACULTY	ACADEMIC PROGRAMMES AT BUSITEMA UNIVERSITY
1	FOET	<p>Master’s programmes (2)</p> <p>MASTER OF COMPUTER FORENSICS</p> <p>MASTERS OF SCIENCE IN IRRIGATION AND DRAINAGE ENGINEERING</p> <p>PG Diploma programmes (1)</p> <p>POSTGRADUATE DIPLOMA IN COMPUTER FORENSICS</p> <p>Bachelor’s programmes (7)</p> <p>AMI-BACHELOR OF AGRICULTURAL MECHANIZATION & IRRIGATION ENGINEERING</p> <p>APE-BACHELOR OF SCIENCE IN AGRO-PROCESSING ENGINEERING</p> <p>BCT-BACHELOR OF COMPUTER ENGINEERING</p> <p>BEE-BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING</p> <p>MEB-BACHELOR OF SCIENCE IN MINING ENGINEERING</p> <p>TEX-BACHELOR OF SCIENCE IN POLYMER, TEXTILE & INDUSTRIAL ENGINEERING</p> <p>WAR-BACHELOR OF SCIENCE IN WATER RESOURCES ENGINEERING</p> <p>Diploma programmes (4)</p> <p>DAG-DIPLOMA IN AGRICULTURAL ENGINEERING</p> <p>DCE-DIPLOMA IN COMPUTER ENGINEERING</p> <p>DEE-DIPLOMA IN ELECTRONICS AND ELECTRICAL ENGINEERING</p> <p>DGI-DIPLOMA IN GINNING AND INDUSTRIAL ENGINEERING</p>
2	FAA	<p>Bachelor’s programmes (3)</p> <p>APM-BACHELOR OF ANIMAL PRODUCTION & MANAGEMENT</p> <p>BAB BACHELOR IN AGRIBUSSINESS</p>

	BSA-BACHELOR OF SCIENCE IN AGRICULTURE
	Diploma programmes (2)
	DAP-DIPLOMA IN ANIMAL PRODUCTION & MANAGEMENT
	DCP-DIPLOMA IN CROP PRODUCTION AND MANAGEMENT
	Certificate programmes (1)
	CGA-CERTIFICATE IN GENERAL AGRICULTURE
3 FHS	Master's programmes (3)
	MASTER OF MEDICINE INTERNAL MEDICINE
	MASTER OF MEDICINE (PAEDIATRICS AND CHILD HEALTH)
	MASTER OF PUBLIC HEALTH
	Bachelor's programmes (3)
	BNA-BACHELOR OF SCIENCE IN ANESTHESIA
	BNS-BACHELOR OF SCIENCE IN NURSING
	MED-BACHELOR OF MEDICINE AND BACHELOR OF SURGERY
4 FMS	Master's programmes (1)
	MASTER OF BUSINESS ADMINISTRATION
	Bachelor programmes (5)
	BBA-BACHELOR OF BUSINESS ADMINISTRATION
	BBW-BACHELOR OF BUSINESS ADMINISTRATION (WEEKEND)
	BTT-BACHELOR OF TOURISM AND TRAVEL MANAGEMENT
	ENM- BACHELOR OF ENTREPRENEURSHIP DEVELOPMENT & MANAGEMENT
	BPM-BACHELOR OF PROCUREMENT & SUPPLY CHAIN MANAGEMENT
	Diploma programmes (3)
	DBA-DIPLOMA IN BUSINESS ADMINISTRATION
	DRI-DIPLOMA IN RECORDS & INFORMATION MANAGEMENT
	DTT-DIPLOMA IN TOURISM AND TRAVEL MANAGEMENT
5 FNRE	Master's programmes (2)
	MASTER OF SCIENCE IN CLIMATE CHANGE AND DISASTER MANAGEMENT
	MASTER OF SCIENCE IN ENVIRONMENTAL ECONOMICS
	Bachelor's programmes (2)
	FWR-BACHELOR OF SCIENCE IN FISHERIES & WATER RESOURCE MANAGEMENT
	NRE- BACHELOR OF SCIENCE IN NATURAL RESOURCES
6 FSE	Master's programmes (3)
	MASTER OF EDUCATIONAL LEADERSHIP AND MANAGEMENT
	MASTER OF SCIENCE IN INDUSTRIAL MATHEMATICS
	MASTER OF SCIENCE IN PHYSICS
	Bachelor's programmes (6)
	BEP-BACHELOR OF EDUCATION PRIMARY
	BIT- BACHELOR OF INFORMATION TECHNOLOGY
	ELS-BACHELOR OF EDUCATION LANGUAGES (ENGLISH & LITERATURE IN ENGLISH)
	SCE-BACHELOR OF SCIENCE EDUCATION
	SCS-BACHELOR OF SCIENCE IN COMPUTER SCIENCE
	SPE-BACHELOR OF SCIENCE EDUCATION (PHYSICAL EDUCATION)
	Diploma programmes (4)
	SLB-DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY (BIOLOGY)
	SLC-DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY (CHEMISTRY)
	SLP-DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY (PHYSICS)
	DEP-DIPLOMA IN EDUCATION PRIMARY
	Certificate programmes (5)
	HBA-HIGHER EDUCATION ACCESS CERTIFICATE IN BIOLOGY AND AGRICULTURE
	HBC-HIGHER EDUCATION ACCESS CERTIFICATE IN BIOLOGY AND CHEMISTRY
	HEL-HIGHER EDUCATION ACCESS CERTIFICATE IN ENGLISH LANGUAGE AND LITERATURE
	HMC-HIGHER EDUCATION ACCESS CERTIFICATE IN MATHEMATICS AND CHEMISTRY
	HPM-HIGHER EDUCATION ACCESS CERTIFICATE IN PHYSICS AND MATHEMATICS

Table 2: Graduation rates for the three faculties of Busitema University.

Year of Graduation	Female	Male	Total	Enrolment per year	Enrolment	Graduation Rate
Faculty of Engineering and Technology						
2011	13	75	88	2007/8	93	95%
2012	15	97	112	2008/9	157	71%
2013	24	108	132	2009/10	173	76%
2014	32	112	144	2010/11	206	70%
2015	30	128	158	2011/12	234	68%
2016	49	156	205	2012/13	303	68%
2017	44	117	161	2013/14	257	63%
2018	52	125	177	2014/15	223	79%
2019	63	141	204	2015/16	233	88%
2020	0	0	0	2016/17	209	0%
2021	52	125	177	2016/17	209	85%
Faculty of Management Sciences						
2018	10	12	22	2014/2015	30	73%
Faculty of Natural Resources and Environmental Sciences						
2013	16	23	39	2009/2010	56	70%
2014	11	22	33	2010/2011	41	80%
2015	21	30	51	2011/2012	59	86%
2016	9	18	27	2012/2013	39	69%
2017	11	21	32	2013/2014	32	100%
2018	8	16	24	2014/2015	32	75%

Table 3: FOE admission and graduation statistics per programme

Faculty of Engineering and Technology									
Year of admission	2007	2008	2009	2010	2011	2012	2013	2014	
Year of graduation	2011	2012	2013	2014	2015	2016	2017	2018	
BCT	62	99	81	74	74	76	51	32	
	56	67	66	54	44	61	40	29	
	90%	68%	81%	73%	59%	80%	78%	91%	
APE	0	0	0	30	18	24	20	39	
	0	0	0	20	15	22	14	32	
	N/A	N/A	N/A	67%	83%	92%	70%	82%	
AMI	30	51	47	41	37	36	31	25	
	25	32	30	31	40	19	24	15	
	83%	63%	64%	76%	108%	53%	77%	60%	
WAR	0	0	0	0	45	64	83	53	
	0	0	0	0	22	31	40	44	
	N/A	N/A	N/A	N/A	49%	48%	48%	83%	

TEX	0	0	28	24	24	27	12	13
	0	0	18	14	16	19	7	11
	N/A	N/A	64%	58%	67%	70%	58%	85%
MEB	0	0	0	0	0	35	17	21
	0	0	0	0	0	23	10	14
	N/A	N/A	N/A	N/A	N/A	66%	59%	67%

1.1 Tracer studies

This tracer study is a survey of graduates from Busitema University, which takes place at least two years after graduation. The main topics include questions on study progress, the transition to work, work entrance, job career, and use of learned competencies, current occupation, and bonds to Busitema University. An aspect of quality in higher education is the quality of the outcomes achieved. Higher education adds value by developing job-related skills and competencies. It is also not known to what extent; graduates' competence goes in line with the demands of the employers. This study was to assess the employability and competency of graduates.

Busitema University has instituted adaptive mechanisms to allow for feedback and continual improvement across the spectrum of its provisions. Some of the mechanisms include external examination, peer reviews, benchmarking, employer expectation surveys and tracer studies. These mechanisms are utilized to adapt the university provisions to the requirements of its stakeholders.

Tracer studies provide an avenue to analyzing data on university graduates in relation to the labour market. Tracer studies provide information regarding not only the employability of the graduates but also the type of employment they gain; a match or mismatch between educational qualifications and the required work skills and shortfalls of an educational program which helps in aligning the university trainings to the needs of the economy (Mgaiwa, 2021; Woya, 2019)

1.2 Objectives

The overall objective of conducting the tracer study was to illuminate the complex transition from secondary school through university into work.

The specific objectives were to determine:

- (i) Busitema University graduate destinations in relation to the world of work;
- (ii) The rate at which Busitema University graduates move to acquire higher qualifications;
- (iii) The perception of the graduates about transferable skills acquired during their training;
- (iv) The transition factors affecting the rate at which graduates move to the world of work.

2.0 Methodology

The tracer study for Busitema University graduates was conducted following four sequential generic procedures for conducting tracer studies: compilation of sample framework; design of the questionnaire; administering the questionnaire and data capturing, cleaning & analysis. The sample frame consisted of all graduates that were awarded first degrees and masters; and compiled using information obtained from the University Registry. Contacts (telephones and E-mail addresses) were used to reach out and administer the questionnaire to a sample of respondents.

The questionnaire was designed focusing on the following features: the notion of the different pathways from study to work, student & parental educational backgrounds, and desire for further studies. The questionnaire was chronological in nature and filtered responses to situational questions. The questionnaire also captured transition factors from university education to work such as levels of education of parents or guardians and internships undertaken by students prior to graduation.

The questionnaire was administered in two sequential phases. It was first pre-tested to 25 respondents to ascertain whether the questions were clear and precise to the respondents and captured all the information desired by the researchers. The pretesting results were later used to adjust the questionnaire. The second phase involved administering the questionnaire to three different faculties and for Faculty of Engineering and Technology, a research sample of 269 had 112 responses, FNRE had a research sample of 46 and got 21 responses while FMS had a research sample of 22 and got 10 responses. The data was screened to avoid duplications and later merged for analysis.

Table 4: Work plan for tracer study 2021.

No.	Task Name	Duration	Jan	Feb	March	April	May	June
1	Conceptualization and development of the questionnaire	From 4 th to 29 th January 2021						
2	Development of contact database for the Alumni	From 4 th to 29 th January 2021						
3	Digitalization of the tracer study questionnaire	From 1 st to 15 th February 2021						
4	Rolling out the tracer study questionnaire to graduates	From 15 th February to 30 th April 2021						
5	Data screening & analysis	From 20 th April to 10 th May 2021						
6	Report writing	From 26 th April to 28 th May 2021						
7	Dissemination of the tracer study report	From 28 th May to 25 th June 2021						

2.1 Sampling frame

The sample sizes for the tracer study were extracted from the population of graduates of the three faculties, namely Faculty of Engineering and (FOET), Faculty of Management Sciences (FMS) and Faculty of Natural Resources and Environmental Sciences (FNRE). Using the contacts in the Academic Registry at the university, from fellow graduates and heads of departments the graduates were asked to respond to the online questionnaire by sharing a Google form link.

The sample size for the FOET was extracted from the population of graduates of the years (2010 - 2018) and a total of 1177 degrees and diplomas were awarded in this period. These awards were across 6 undergraduate programs, 1 Master's program and 3 undergraduate diplomas. A total of 228 respondents attempted the survey from the sample frame of 1177.

For the FNRE, the sample size was extracted from the population of graduates of the years (2013-2018) and a total of 206 degrees were awarded. A total of 42 respondents answered the survey from the sample frame.

For the FMS, the sample size was extracted from the population of graduates of the year 2018 and a total of 22 degrees was awarded. 10 responses were collected from the sample frame.

3.0 Findings

This section covers the discussion of information provided by respondents in this tracer study

3.1 General characteristics of the respondents

Gender Composition

The proportion of female among the respondents was 14.3% and 85.7% for male in the population of graduates from Faculty of Engineering and Technology whereas for Faculty of Management Sciences, the proportions were 30% female; 70% male and for Faculty of Natural Resources and Environmental Sciences, the proportion of female was 48% and 52% for male.

In general, the proportion of female was lower than the male in all the faculties with the Faculty of engineering having the lowest, 14.3% as shown Figure 3 (a), (b) & (c).

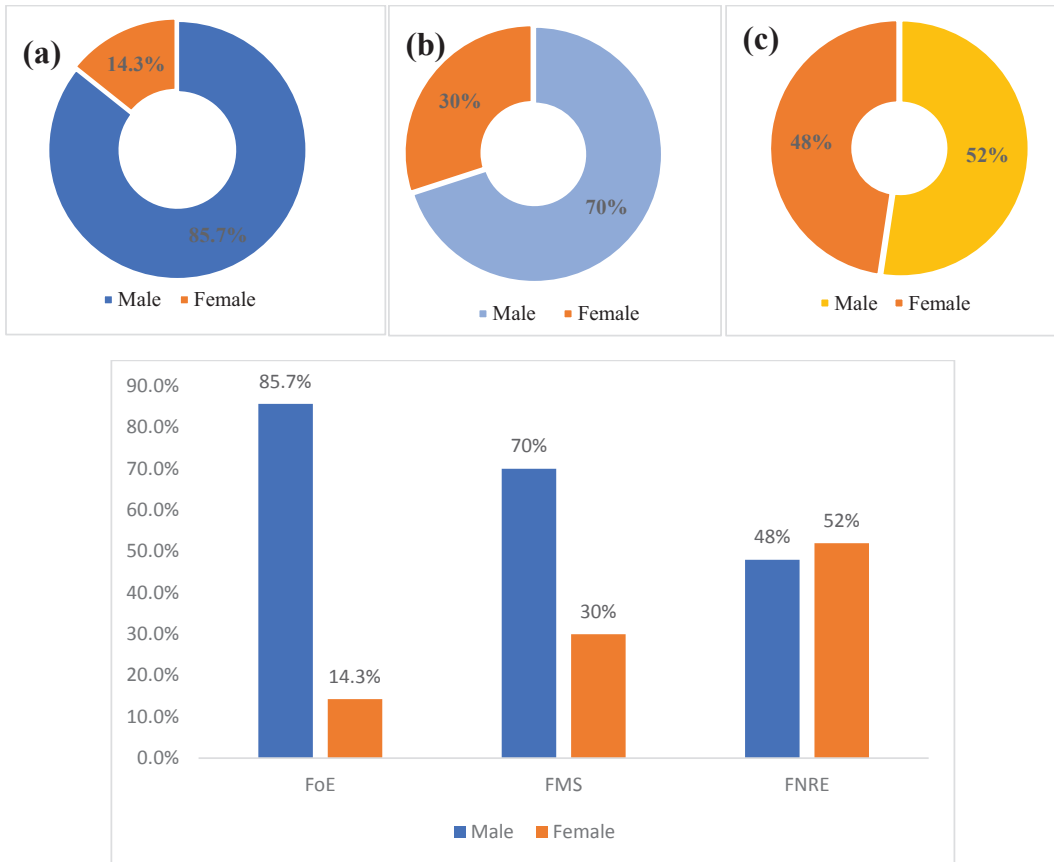


Figure 3: Gender distribution of the respondents from the Faculty of (a) Engineering, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

Age Distribution

Majority of respondents were aged 26-30 years at the time of data collection in all the three faculties with 56%, 70% and 71% of respondents for faculty of Engineering, faculty of Management Sciences and faculty of Natural Resources and Environmental Sciences respectively as shown in Figure 4 (a), (b) & (c).

Only 6% of the respondents from faculty of engineering were aged above 35 years whereas none of the respondents from the other two faculties was aged above 35 years.

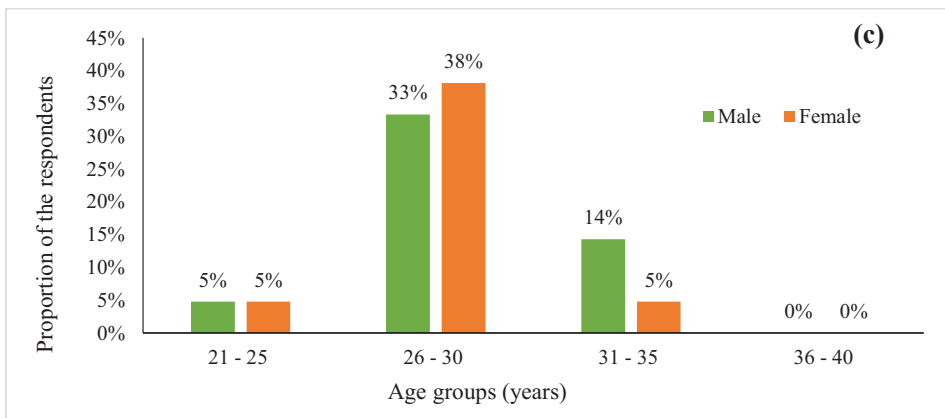
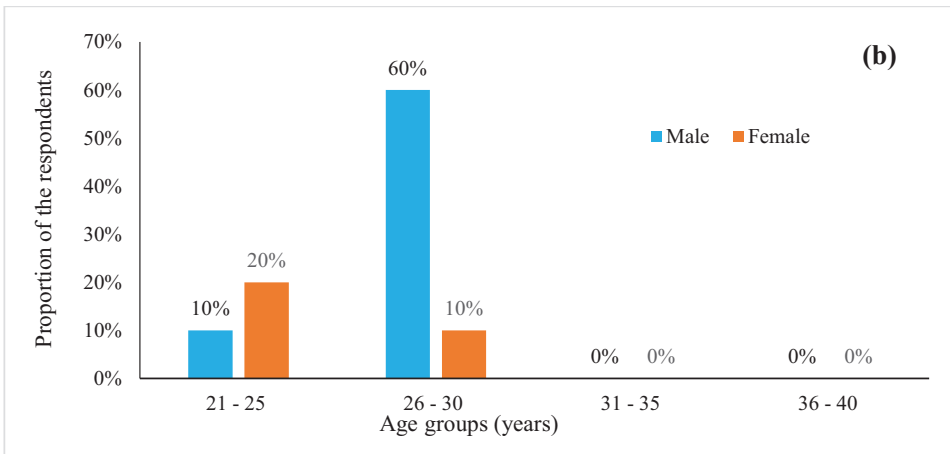
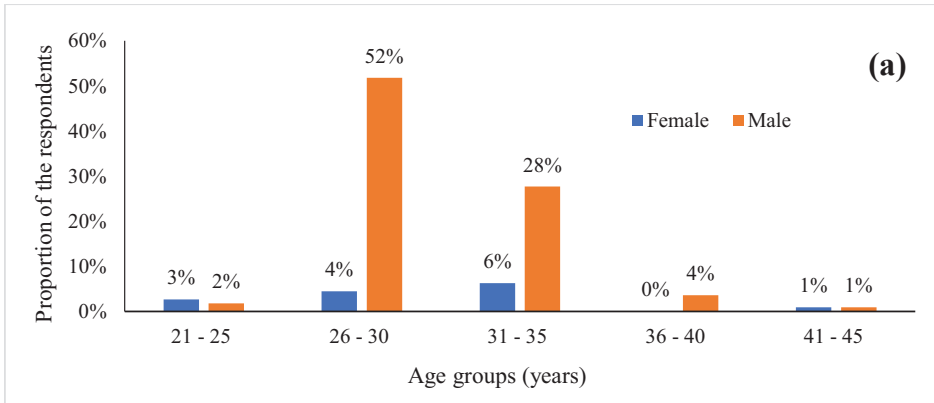


Figure 4: The age distribution of the respondents from Faculty of (a) Engineering and Technology, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

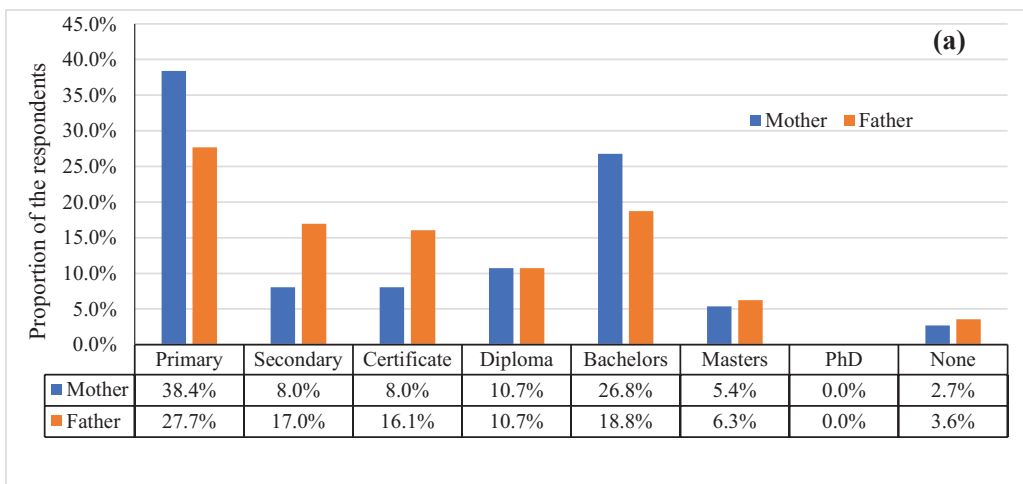
Education of the parents

The relationship between the education of the parents and student achievement has received attention by scholars. The involvement of parents in the education of their children starts from early childhood. Key transformative factors include the choice of schools, support with homework, creating safe home environments and neighborhoods and playing inspirational roles in the lives of the children. In addition, dinner table conversations are likely to reflect benefits associated with acquiring university qualifications.

‘Their financial status and education do have an important influence on the personality of a child. Educated parents can better understand the educational needs and their children’s aptitude. They can help their children in their early education, which affects their proficiency in their relative area of knowledge. Belonging to strong financial background, parents can provide latest technologies and facilities in a best possible way to enhance educational capability of their children’.

In this tracer study, Mothers of the respondents from all the faculties were more educated at Bachelors and Primary levels with faculty of engineering having the highest values of 26.8% and 38.4% respectively whereas the fathers of the respondents were more educated at Secondary and Certificate levels with faculty of Management Sciences having the highest value of 60% for fathers at certificate level.

There were no parents educated at PhD level and in general, mothers were more educated than the fathers as seen in Figure 5 (a), (b) & (c).



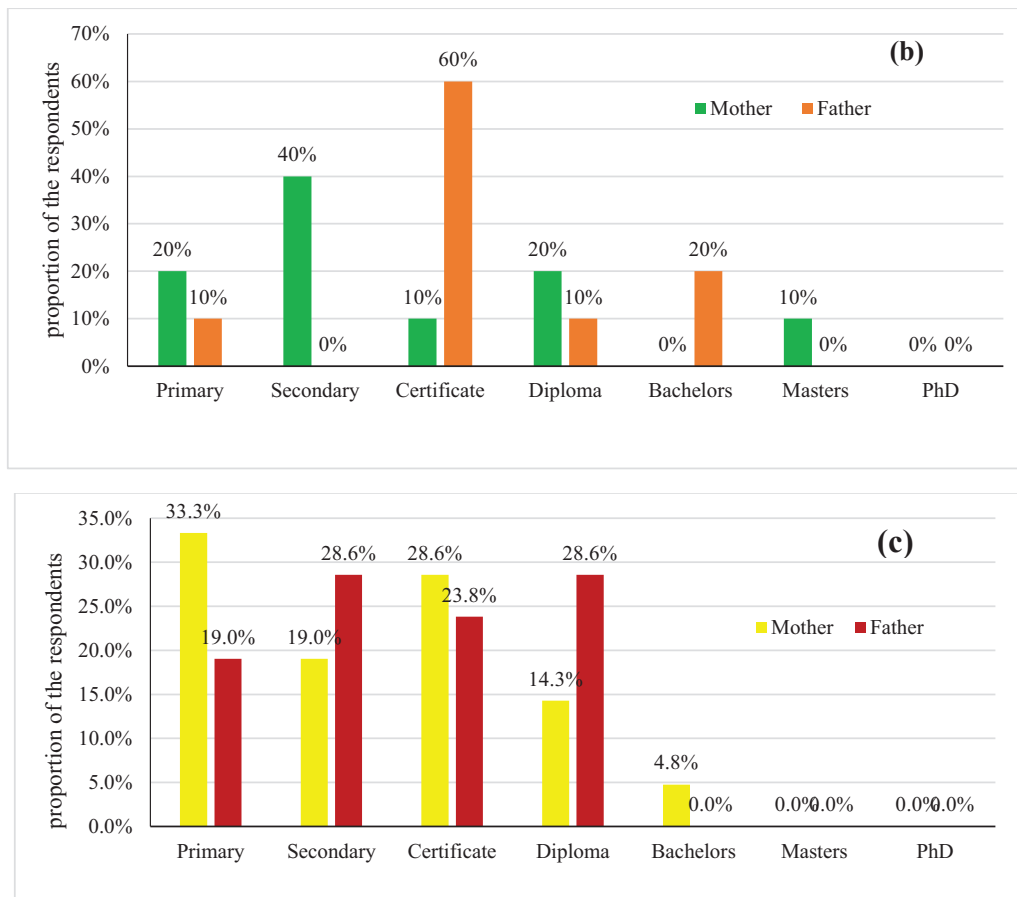


Figure 5: Education of the parents of respondents from Faculty of (a) Engineering and Technology, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

Marital status of the Respondents

Is marriage and starting a family the very next item on the list after obtaining a university degree? Majority of the respondents, 51% and 90% from FOET and FMS respectively were single whereas majority of the respondents, 52% from faculty of natural resources and environmental sciences were married as shown in Figure 6.

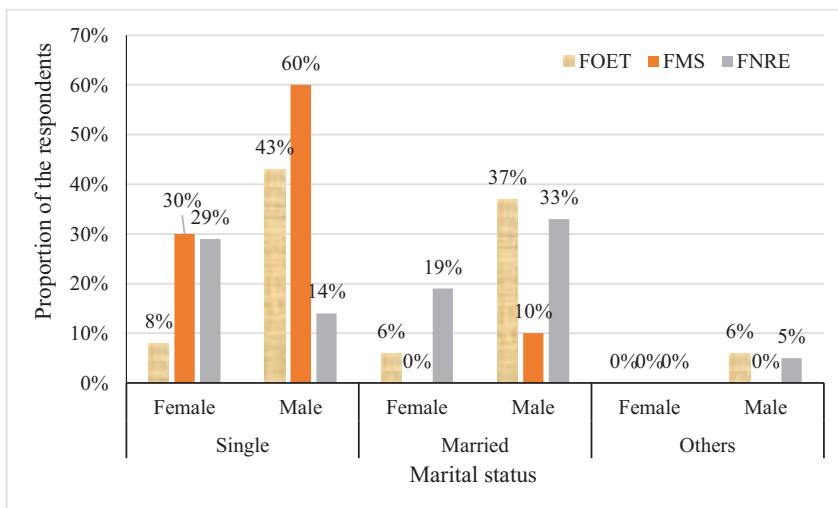


Figure 6: Marital Status of the respondents.

Class of Degree awarded

Majority of the respondents, 53.5% and 50% from FOET and FMS respectively had obtained lower second degrees whereas majority of respondents, 43% from faculty of natural resources and economics had obtained upper second degrees. FNRE had the highest percentage of first-class degrees, 33% followed by FMS with 20% and FOE had the lowest with 10.7% as shown in Figure 7.

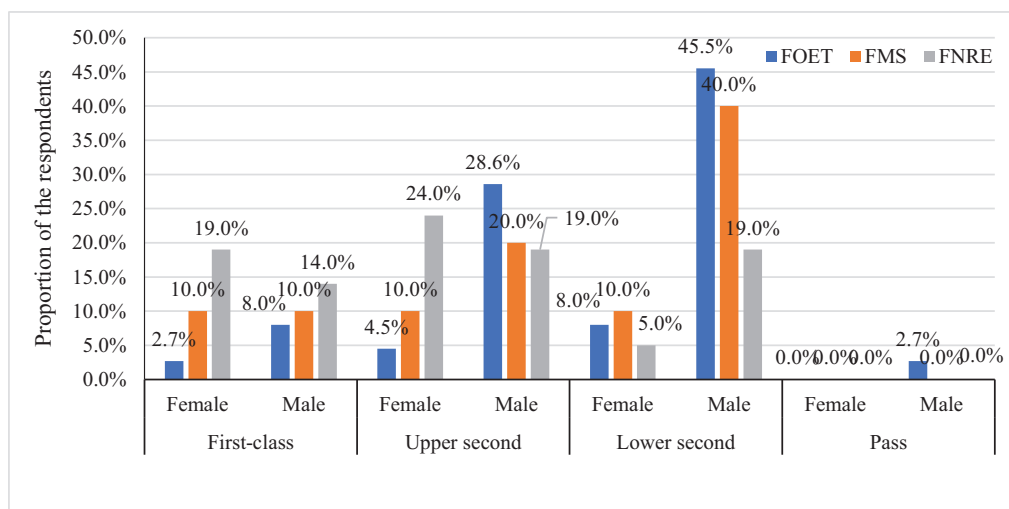


Figure 7: Class of Degree obtained by the respondents.

Type of A-level School

As indicated in Figure 8, majority of the respondents, 63% and 60% from FOET and FMS respectively studied at government aided schools whereas majority of respondents from FNRE, 62% studied at private aided schools compared to 38% who studied at government aided schools.

In general, government aided schools still dominate enrollment at Busitema University.

Majority of the A-level Schools attended by respondents are located in the following districts; Kampala, Mbarara, Soroti, Wakiso, Bushenyi, Iganga, Busia, Mukono, Kasese, Mbale and Jinja, this is illustrated in the sketch map on pg. 13.

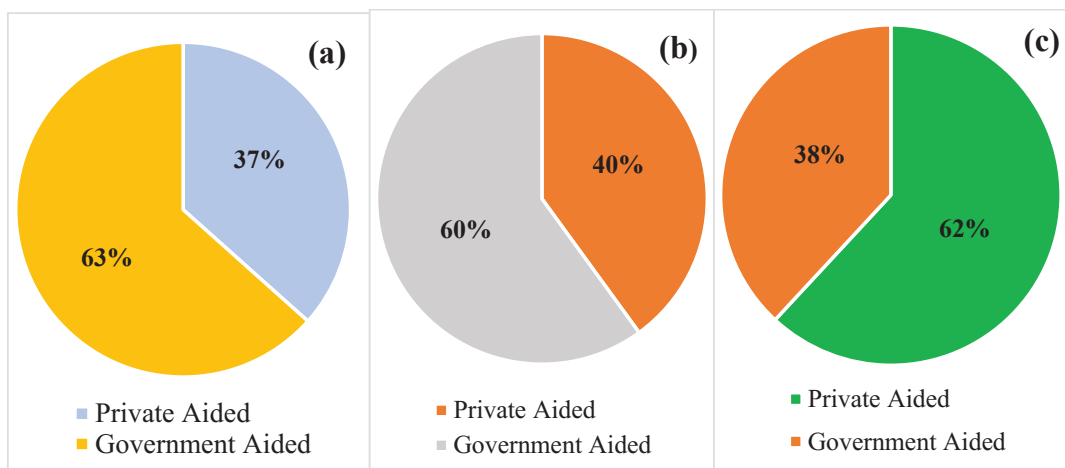
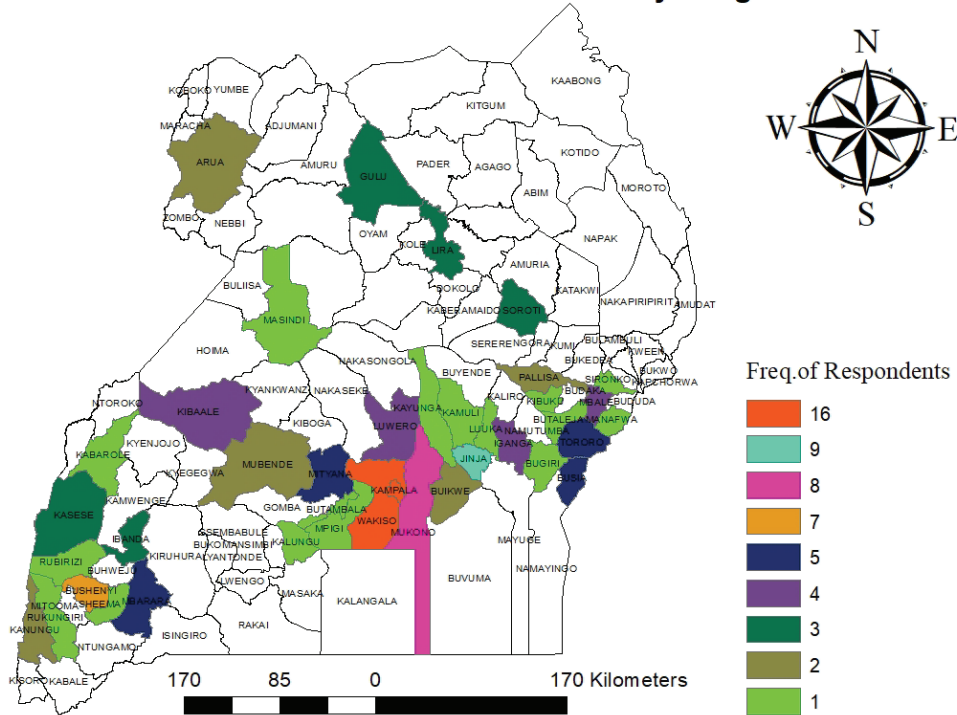


Figure 8: Type of A-level school attended by respondents from Faculty of (a) Engineering, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

Location of A-Level school attended by the graduates



Tertiary-level qualification before enroll

An overwhelming majority of respondents had no tertiary qualifications before enrolling at Busitema University. Majority of the respondents from FOET (86%), FMS (90%) and FNRE (86%) had no tertiary qualifications before enrolling at Busitema University.

The respondents that had tertiary level qualifications before enrolling to FOE (14%), FNRE (14%) and FMS (10%) provided the details; Diploma in Electrical Engineering-Busitema National College of Agricultural Engineering, Diploma in water engineering-Uganda technical college Lira, Ordinary Diploma in Water Engineering By UNEB in 2008, Cisco CCNA & CCNP certificates-Makerere University, Diploma in Computer Science-Bethel training institute, CompTIA A+, certificate of computer maintenance and repair-Bethel training institute, Diploma in Biomass energy technology, Certificate in computer application. Diploma and certificate in Forestry.

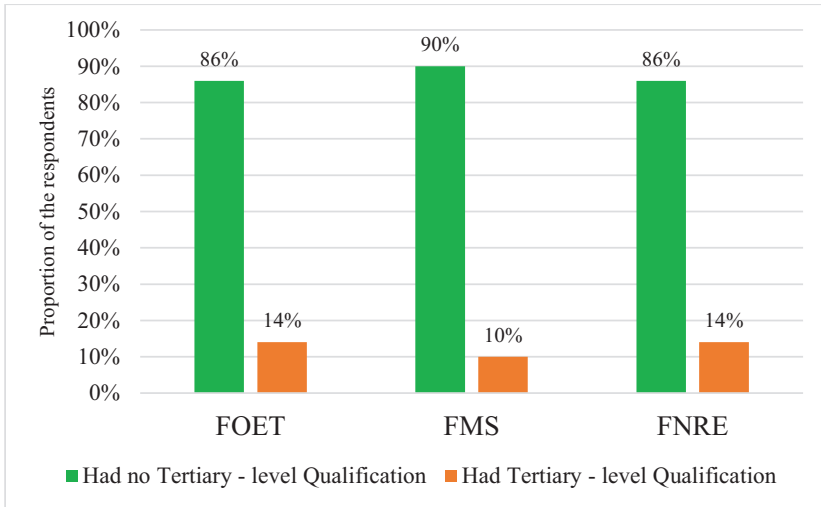


Figure 9: Tertiary Qualification before enroll.

Mode of access to University Education

The major mode of access to the university by the respondents from the three faculties was through the A- level or Equivalent scheme with 91% of FOET, 100% of FMS and 90% of FNRE whereas 9% and 10% of the respondents of FOET and FNRE respectively joined through Diploma entry as shown in Figure 10.

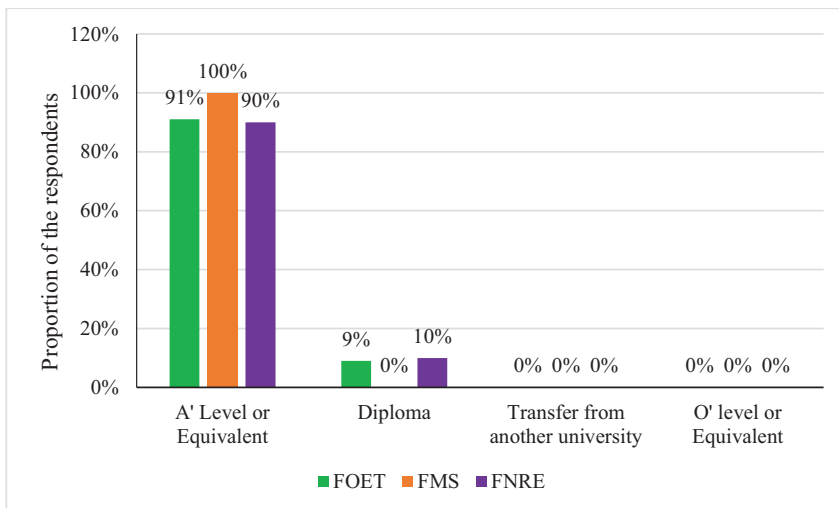


Figure 10: Mode of Access to university education.

Higher qualification after graduation

Majority of the respondents from the three faculties; 79% (FOET), 90% (FMS) and 81% (FNRE) hadn't completed a higher qualification at the time of data collection whereas 21%, 10% and 19% respectively had completed a higher qualification after graduation from the three faculties as shown in Figure 11 (a), (b) & (c).

The FOET had the largest of respondents, 21% that had completed a higher qualification while FMS had the smallest proportion of 10%.

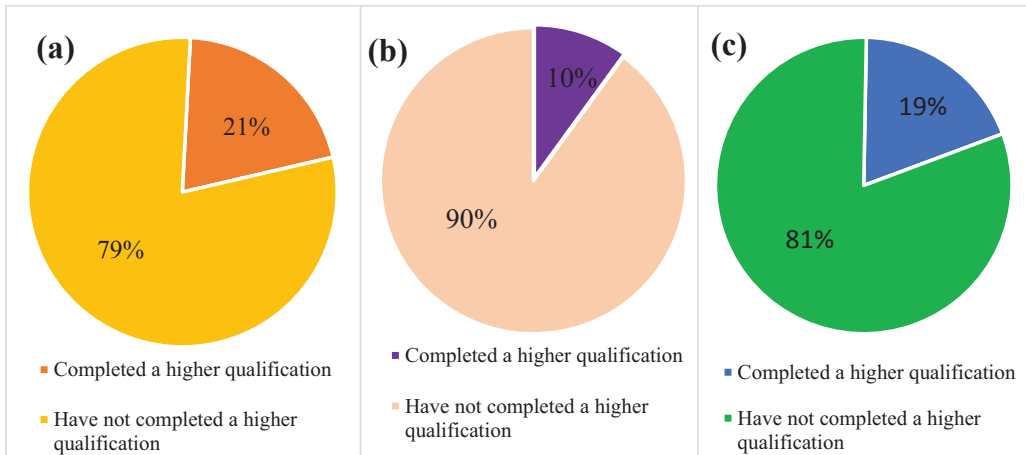


Figure 11: Higher qualification attained after graduation from faculty (a) Engineering and Technology, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

Intentions to pursue further studies

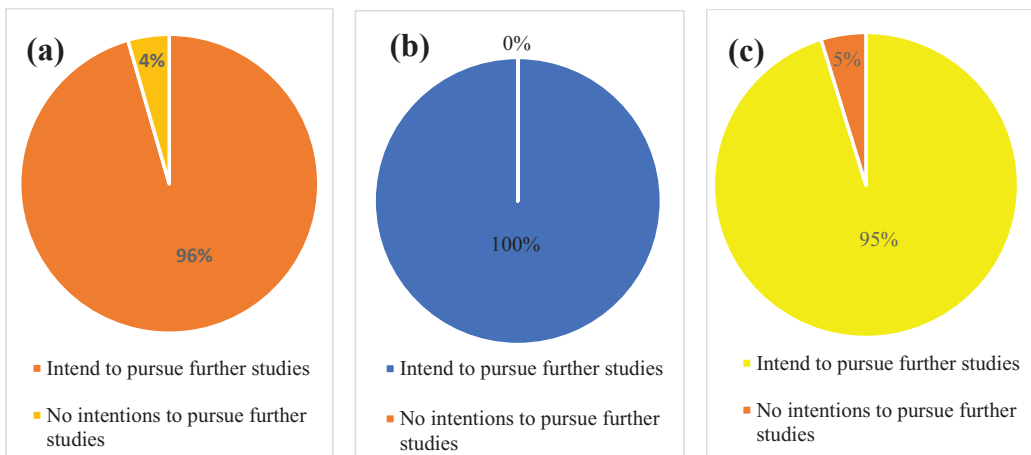


Figure 12: Intentions of respondents from faculty (a) Engineering and Technology, (b) Management Sciences and (c) Natural Resources and Environmental Sciences to pursue further studies.

Majority of the respondents; 96% (FOET), 100% (FMS) and 95% (FNRE) had intentions to pursue further studies as shown in Figure 12 (a), (b) &(c).

Desired level of study

Majority of the respondents; 50% (FOET), 50% (FMS) and 57% (FNRE) indicated that they intended to study up to PhD level whereas 42%, 40% and 57% respectively intended to study up to master’s level as shown in Figure 13.

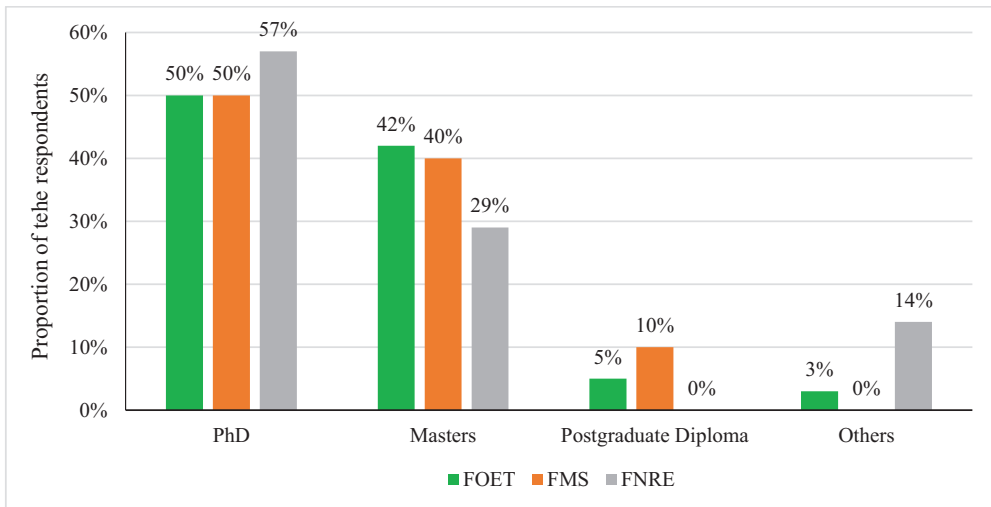


Figure 13: Desired level of study for the respondents.

Enrolment considerations

Majority of the respondents; 62% (FOET), 70% (FMS) and 86% (FNRE) had intentions to enroll at Busitema University for further studies and they gave the reasons why; Good conducive environment for studies, the relevance of the courses in Uganda, one of the best universities offering Agricultural related programmes in the country, the cost of living is low around the university, state of the art laboratories and quality teaching because of low lecturer student ratio.

Respondents that had no intentions to enroll at Busitema University; 38% (FOET), 30% (FMS) and 14% (FNRE) also gave their reasons; The University is far from my work place, the desired courses are not at the university, geographical Location creates a mobility problem and lack of weekend program.

In general, majority of the respondents intend to enroll for further studies at Busitema and therefore, the university should plan to introduce more postgraduate programmes.

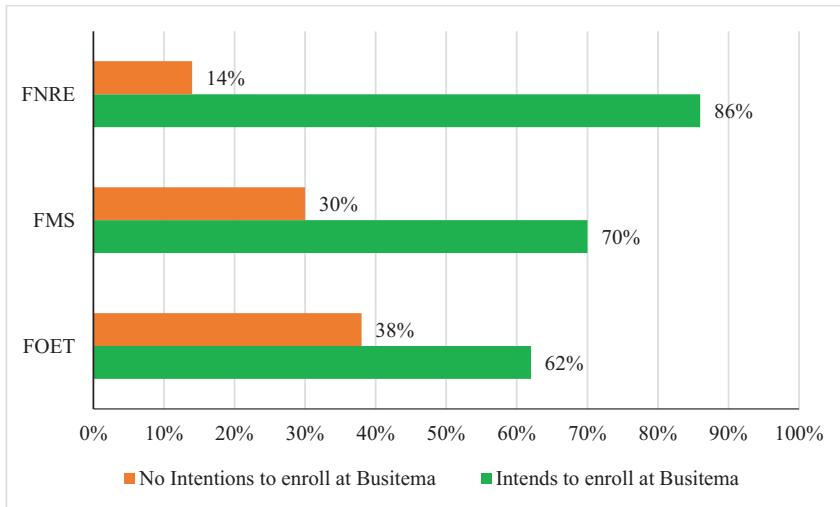


Figure 14: Enrolment considerations for further studies at FOET, FMS and FNRE.

Intentions to pursue further studies in the same discipline

Majority of the respondents; 78% (FOET), 100% (FMS) and 67% (FNRE) had intentions to pursue further studies in the same discipline of the previous qualification achieved whereas 22%, 0% and 33% respectively had no intentions to enroll in the same discipline as shown in Figure 15.

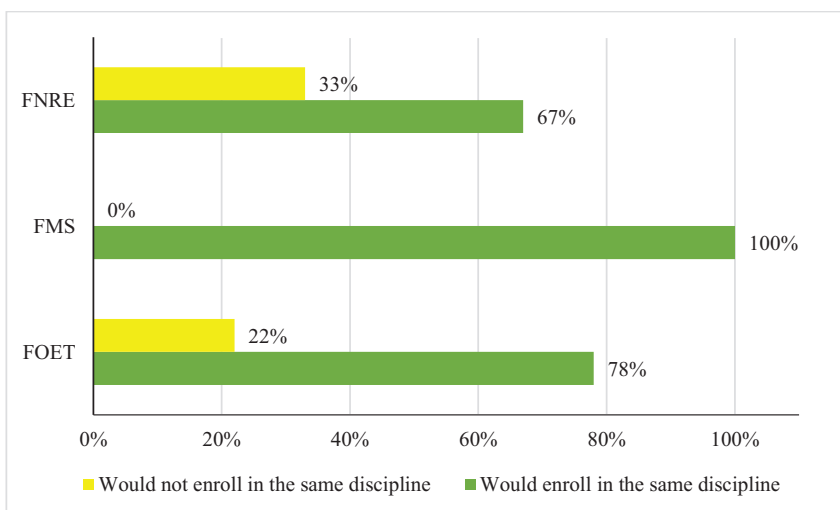


Figure 15: Intentions to enroll in the same discipline for further studies.

Impediments to further studies

Majority of the respondents; 70% (FOET), 71% (FMS) and 70% (FNRE) indicated that their impediment to further studies was financial whereas those that indicated “Others” were undertaking further studies at the time of data collection.

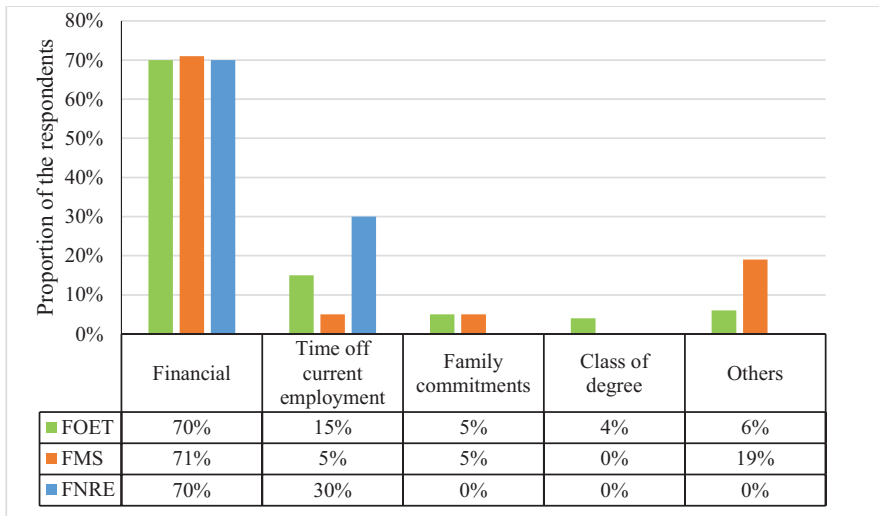


Figure 16: Impediments to further studies.

Employability of graduates

Majority of the respondents; 63% (FOET), 60% (FMS) and 66.7% (FNRE) took less than one year to get their first job after graduation from Busitema University whereas only 6% and 10% of the respondents from FOET and FMS respectively have taken 5 years but still searching for a job as shown in Figure 17.

The respondents also gave the following reasons for the time gap in seeking employment after graduation; No experience but only theoretical knowledge, the courses are not known to the employers, the industry preferred people who had certifications, limited job opportunities, there was lack of employable skills needed in the real World, class of degree and segregation the job market. The University should consider publicizing its programmes so that they get known to the job market.

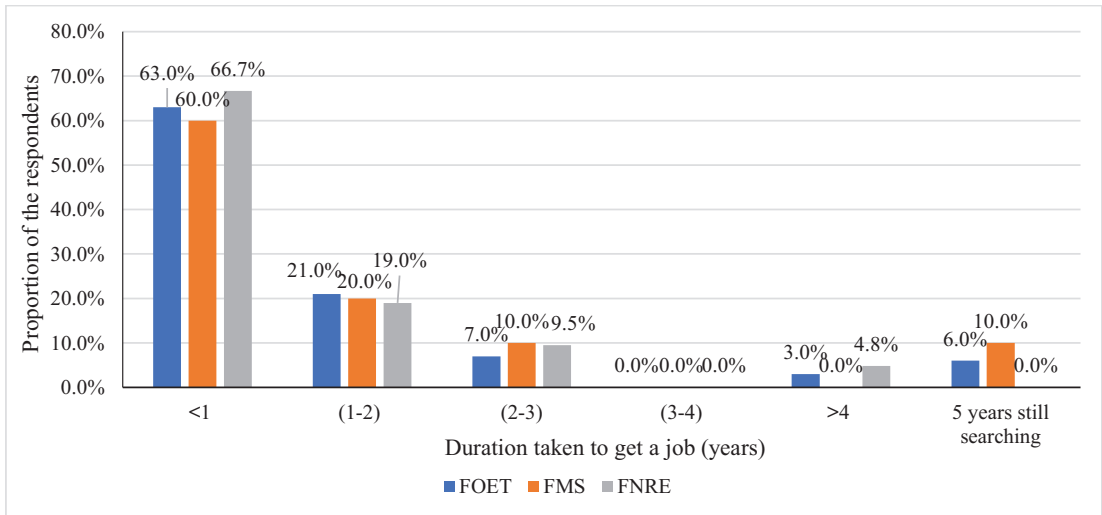


Figure 17: Duration taken to get the first job by the respondents from the three faculties.

For Faculty of Engineering, the proportion of respondents per programme that got their first job in less than a year was captured and WAR had the highest percent of 77% whereas APE had the lowest of 46% as shown in the Figure below.

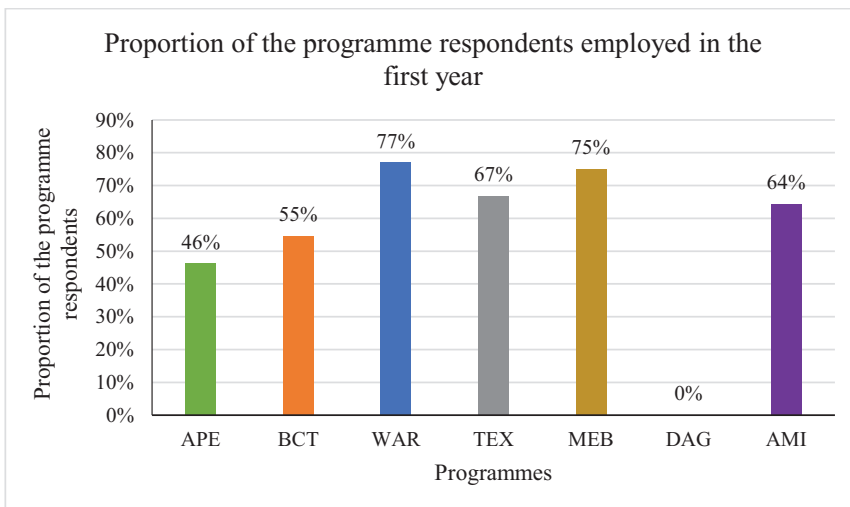


Figure 18: Proportion of the programme respondents from FOET employed in the first year

3.2 Pathways to employment

Generic pathways for university graduates to the world of employment have been identified as journeys individual graduates take from the universities to work. The original description was adopted to the tracer study carried out by the Cape Higher Education Consortium (Ssembatya & Ngobi, 2019)(Kinash, Crane, Capper, Young, & Stark, 2017); in this, seven pathways were recognized:

1. Employed graduates who entered the labor market for the first time after graduation at full employment;
2. Employed graduates who were employed prior to studying for the award of interest;
3. Self-employed graduates;
4. Unemployed graduates;
5. Continuing higher education training;
6. Graduate employees in informal sector;
7. Unemployed graduates not looking for work.

The respondents of this study were classified within these pathways as indicated in the table below. The pathways do not form mutually exclusive categories.

Working full time: This is one of the most curious parameters in this tracer study since it drives the objectives of higher education from the National standpoint of creating a knowledgeable and skilled Human Resource able to exploit and use resources gainfully and sustainably. The total number of graduates who indicated that they were fully employed (spent at least 40 hours a week on the same job) constituted 79%, 70% and 76% of the respondents for FOET, FMS and FNRE respectively.

The respondents that were self-employed; 14% (FOET) and 10% (FMS) gave reasons why; passion for entrepreneurship, segregation in the job market, class of degree and limited job opportunities. The average graduate unemployment rate for low-income countries in Africa was reported 16% (Friesenhahn, 2014). The total number of graduates who reported not to be employed by the time of the survey was within was 16%.

Table 5: Pathways to Employment of respondents from the three faculties

Faculty of Engineering		
Pathways to employment	Number of respondents	Proportion
Employed graduates full time	178	79%
Self employed	32	14%
Unemployed and looking for work	36	16%
Continuing with Higher Education Studies	90	40%
Employed in the informal sector	14	6%
Graduates who were employed prior to studying for the award of interest	58	26%
Continued in the same area of employment after graduation	46	21%
Faculty of Management Sciences		

Pathways to employment	Number of respondents	Proportion
Employed graduates full time	7	70%
Self employed	1	10%
Unemployed and looking for work	3	30%
Continuing with Higher Education Studies	4	40%
Employed in the informal sector	1	10%
Graduates who were employed prior to studying for the award of interest	6	60%
Continued in the same area of employment after graduation	5	50%
Faculty of Natural Resources and Environmental Sciences		
Pathways to employment	Number of respondents	Proportion
Employed graduates full time	32	76%
Self employed	0	0%
Unemployed and looking for work	10	24%
Continuing with Higher Education Studies	16	38%
Employed in the informal sector	2	5%
Graduates who were employed prior to studying for the award of interest	8	19%
Continued in the same area of employment after graduation	4	10%

Information source for current job

Majority of the respondents from FOET (43.8%) and FNRE (57.1%) indicated advertising as the information source for current jobs whereas majority from FMS indicated social network (50%). Only 18.8% from FOET and 10% from FMS were head hunted by employer as shown in Figure 19 below.

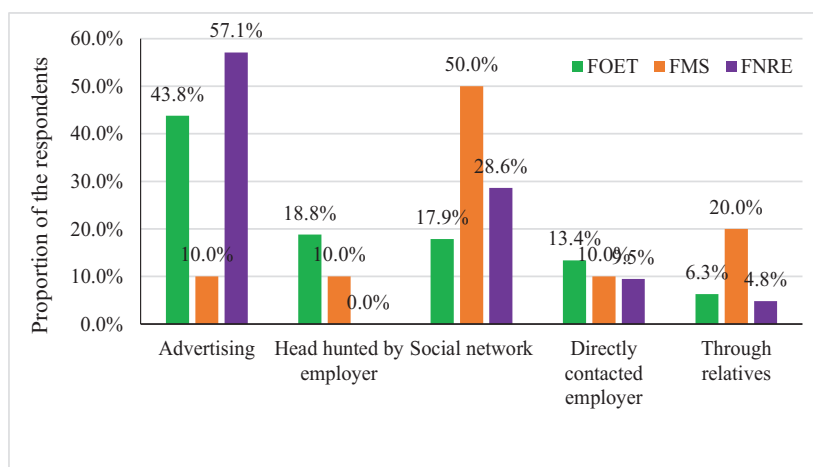


Figure 19: Information source for current job.

3.3 Satisfaction with the current job

Majority of the respondents from FOET (62.5%) and FNRE (52.4%) were satisfied with their current jobs whereas majority of the respondents from FMS (70%) were not satisfied with the current jobs as shown as in Figure 20 (a), (b) & (c).

The respondents that weren't satisfied with their current jobs gave reasons why; not my profession but just doing it for survival, less pay, no exposure to field work, am not putting my full potential to use, looking for better offers and growth, no promotions, and I need to be self-employed.

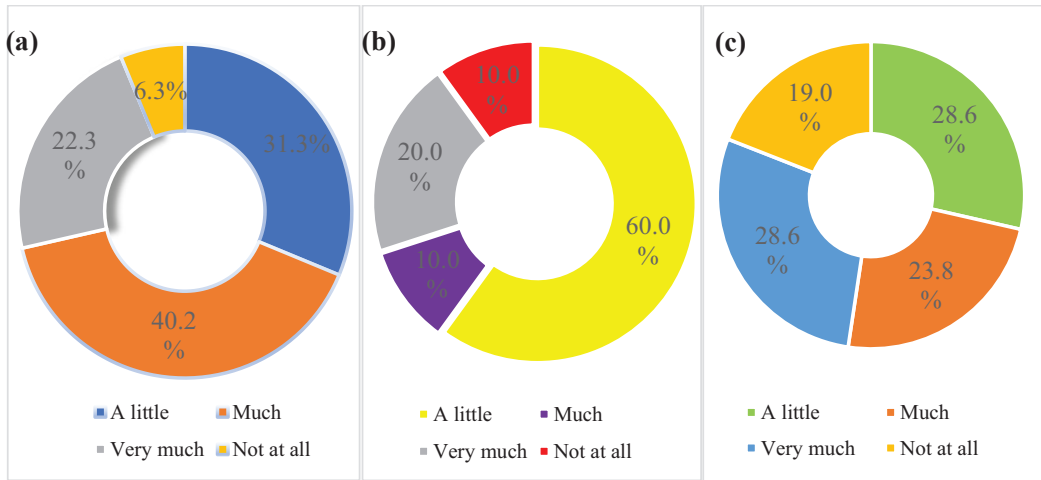


Figure 20: Satisfaction with the current job by respondents from faculty of (a) Engineering, (b) Management Sciences and (c) Natural Resources and Environmental Sciences.

Intentions to stay in the same job/profession

Majority of the respondents from FOET (64%) and FMS (67%) had intentions to stay at the current job whereas majority of FNRE respondents (60%) intended to move from the current jobs.

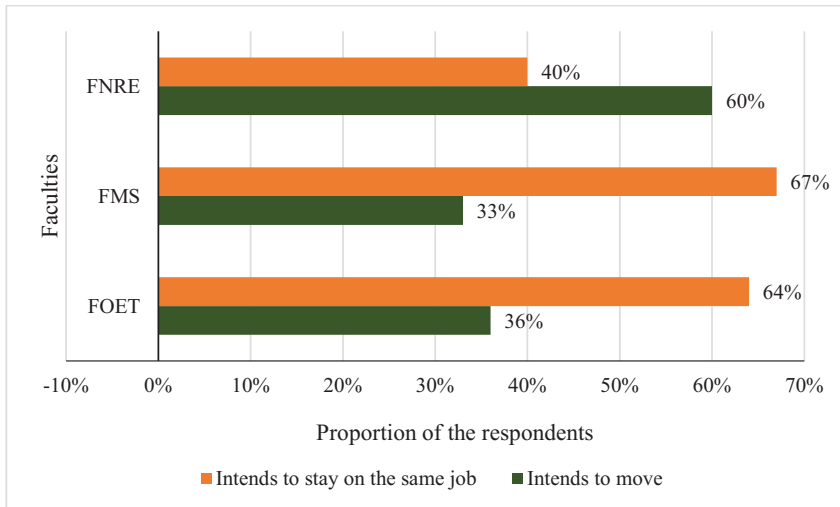


Figure 21: Intentions to stay at the current job.

Usefulness of the skills and knowledge attained

Majority of the respondents; 78% (FOET), 60% (FMS) and 76% (FNRE) indicated that the acquired knowledge and skills were useful at their work places whereas 3% and 5% of the respondents from FOET and FNRE respectively indicated that the knowledge and skills weren't useful.

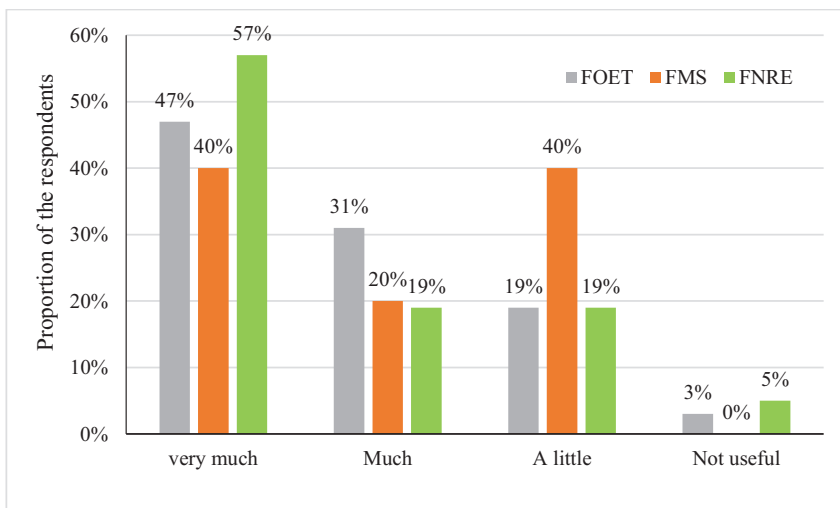


Figure 22: Usefulness of the knowledge and skills acquired.

3.4 Employers of graduates

The private sector employed majority of Busitema University graduates according to this survey. Respondents in this tracer study were employed in 63 private entities. The leading employers in the private sector were Adritex Uganda Limited and Sugar Corporation of Uganda Limited.

The total number of Public sector employers of the respondents was 30. The top employer in this category was Busitema University.

Table 6: Private Sector Employers for the respondents from the three faculties.

Private Sector Employer	Frequency
ADRITEK UGANDA LIMITED	5
SUGAR CORPORATION OF UGANDA LIMITED	3
WATER & PUMPS INTERNATIONAL LTD	2
KARF AQUA ENGINEERING SOLUTIONS LTD	2
I.A.G INTERNATIONAL LLC, MOGADISHU, SOMALIA	2
SMART IRRIGATION SOLUTIONS LIMITED	1
SADRINE CONSULTING GROUP LIMITED	1
THE GOOD SHEPARD (TGS) WATER LTD	1
AFRICAN VENDING SYSTEMS LIMITED (PAYWAY)	1
NANZEKHO ENTERPRISES IN NAIROBI	1
HUMANITARIAN OPENSTREETMAP TEAM	1
PAC S.P.A ITALY, UGANDA BRANCH	1
SAMTA MINES AND MINERALS U LTD	1
ENGINEERS WITHOUT BORDERS-USA	1
RAKAI HEALTH SCIENCES PROGRAM	1
HARISS INTERNATIONAL LIMITED	1
OXFAM NOVIB, UGANDA PROGRAM	1
IRRISOL ENGINEERING LIMITED	1
GOLDENDROPS ENGINEERING LTD	1
ARLINGTON ACADEMY OF HOPE	1
TESLA SERVICES LIMITED	1
NISI ORGANIC FARM TECH	1
VILLAGE OF HOPE UGANDA	1
CHINA CIVIL ENGINEERING CONSTRUCTION CORPORATION	1
EAST AFRICAN POWER-EAP	1
KAZO TECHNICAL SCHOOL	1
W. WATER WORKS LIMITED	1
MADRAAM ENGINEERS LTD	1
CONSTRUCTION COMPANY	1
MAELEZO HOLDINGS LTD	1
KAMWENGE DISTRICT LG	1
ANJANA PROJECTS LTD	1

CHALLENGES UGANDA	1
PEACE WINDS JAPAN	1
JESA FARM DIARY	1
CENTENARY BANK	1
TULIMA SOLAR	1
MAP UGANDA	1
FUNDI BOTS	1
BRIGHTLIFE	1
MAMIDECOT	1
PRIVATE	1
PAC SPA	1
SMSONE	1
UNICEF	1
JPCT	1
SHERATON SHARJAH BEACH RESORT AND SPA	1
ALLIANCE FORUM FOR DEVELOPMENT (AFOD)_UGANDA	1
BUILDING TOMORROW	1
GYPSUM CEILING DESIGNERS	1
MOSAI INVESTMENT LTD	1
AIRTEL UGANDA	1
EDUCATE!	1
WORLD VISION TORORO PROGRAMME AREA	1
MOUNTAINS OF THE MOON UNIVERSITY	1
EQUAL OPPORTUNITIES COMMISSION	1
UGANDA YOUTH DEVELOPMENT LINK	1
DARA CHRISTIAN HIGH SCHOOL	1
DANISH REFUGEE COUNCIL	1
AUTO MAGIC BODY SHOP	1
KABIRA COUNTRY CLUB	1
CENTENARY BANK	1
NYTIL	1
KARL	1

Table 7: Public Sector Employers for the respondents from the three faculties

Public Sector Employers	Frequency
BUSITEMA UNIVERSITY	9
MINISTRY OF WATER AND ENVIRONMENT	3
MAKERERE UNIVERSITY	1
UGANDA REVENUE AUTHORITY	1
PUBLIC PROCUREMENT AND DISPOSAL OF PUBLIC ASSETS AUTHORITY	1

MUKONO MUNICIPAL COUNCIL	1
MINISTRY OF AGRICULTURE ANIMAL INDUSTRY AND FISHERIES	1
MINISTRY OF SCIENCE TECHNOLOGY AND INNOVATION	1
GULU INSTITUTE OF SCIENCE AND TECHNOLOGY	1
NATIONAL WATER AND SEWERAGE CORPORATION	1
UGANDA NATIONAL BUREAU OF STANDARDS	1
BULAMBULI DISTRICT LOCAL GOVERNMENT	1
UGANDA REGISTRATION SERVICES BUREAU	1
UGANDA PEOPLE'S DEFENCE-AIR FORCES	2
MANAFWA DISTRICT LOCAL GOVERNMENT	1
MINISTRY OF EDUCATION AND SPORTS	2
UGANDA TECHNICAL COLLEGE - LIRA	1
UGANDA CIVIL AVIATION AUTHORITY	2
GOMBA DISTRICT LOCAL GOVERNMENT	1
HOIMA DISTRICT LOCAL GOVERNMENT	1
UGANDA PRISONS SERVICE	1
UGANDA HEART INSTITUTE	1
TORORO GIRLS SCHOOL	1
KABALE UNIVERSITY	1
LOCAL GOVERNMENT	3
CITY COUNCIL	1
MAAIF	1
UIRI	1
NIRA	1
MOROTO MUNICIPAL COUNCIL	1
MASAKA DISTRICT LOCAL GOVERNMENT	1

3.5 Transferable skills

All transferable skills were rated above the average mark in all the three faculties. For FOET, communication skills were ranked highest whereas Entrepreneurial skills were ranked lowest as shown in Figure 23. For FMS, Time management skills were ranked highest whereas creative thinking was ranked lowest as shown in Figure 24 and for FNRE, Analytical and learning efficacy skills were ranked highest whereas Time management skills were ranked lowest as shown in Figure 25 below.

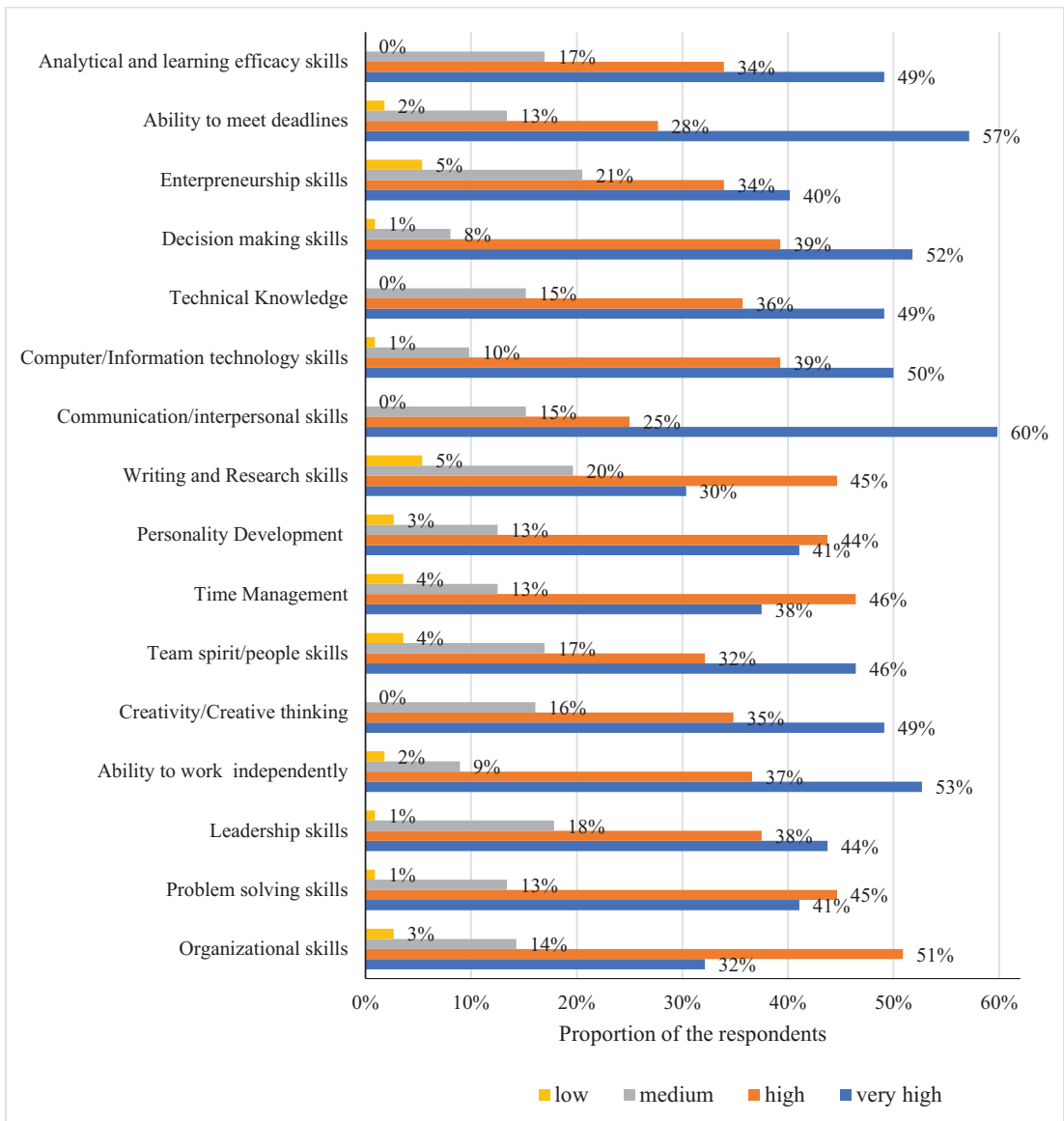


Figure 23: Rating of transferable skills acquired at FOET.

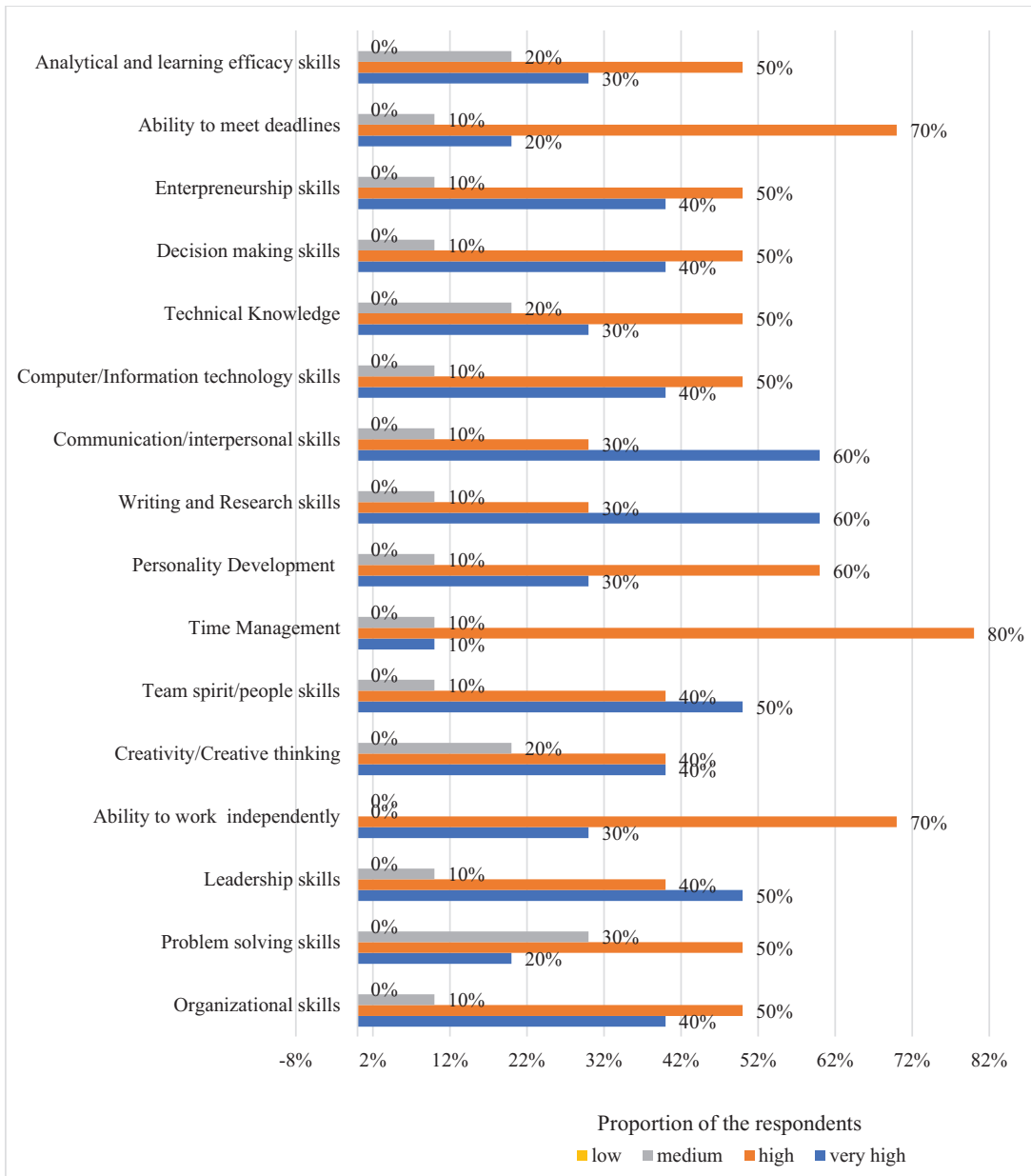


Figure 24: Rating of the transferable skills gained at FMS.

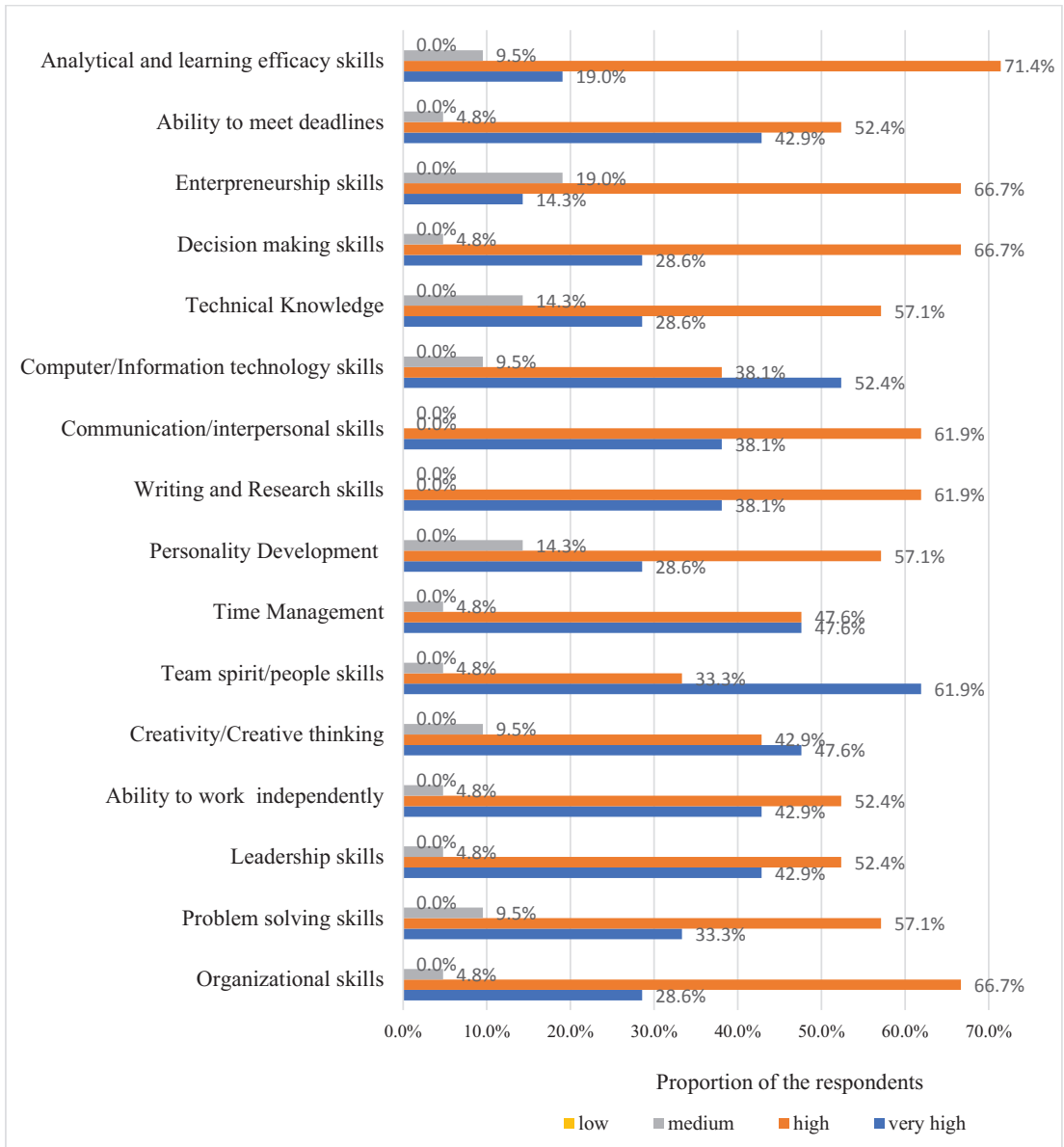


Figure 25: Rating of the transferable skills attained at FNRE.

4.0 Respondents' overview of the training programme at Busitema University.

This section summarizes the respondents' overview of their training programmes.

4.1 Strong points

Good learning environment

About 65% of the respondents from the different programmes indicated that the conducive environment around the university that is far from town favors the learning process since there is less noise and disruption. This point was highlighted across all the three faculties.

Dedicated lecturers and low lecturer to student ratio

The commitment of the lecturers was equally appreciated by the respondents as about 70% of the respondents indicated that the lecturers were hard working and devoted to teaching the students. They also indicated that the lecturer to student ratio is low and this gives ample time to students to interact with their lecturers.

4.2 Weaknesses

The respondents indicated the weaknesses in their training programmes;

Lack of laboratories

The absence of laboratories was cited as one of the weaknesses as about 60% of the respondents indicated that they didn't have laboratories to carry out lab experiments during their training programme at Busitema University. This point was highlighted by respondents from FOET and FNRE.

Inadequate training facilities

Majority of the respondents, about 55% indicated that they didn't have enough facilities at the university during their training programme. This point was also highlighted across the three faculties.

Theoretical programmes.

About 50% of the respondents from FOET and FMS indicated that their programmes of study were too theoretical and didn't provide the required hands-on skills in the employment sector.

4.3 Suggestions

The respondents to this tracer study made the following suggestions to the University for improvements of the courses they offered;

Review the course outline

The respondents from FOET that belonged to the APE programme suggested that the course outline of the programme be reviewed and include more engineering course units.

Establish laboratories

Majority of the respondents about 60% from FOET and FNRE suggested that laboratories be set up so that students can do a number of lab experiments during their training programme.

About 55% respondents from FNRE suggested that university should construct proper functional laboratories equipped with all the necessities, ensure full time access of library, open up an online library and update all the research dissertations.

Review the programme title and curriculum

Some respondents from FOET that belonged to the WAR programme suggested that the programme title be changed to Bachelor of Science in Civil and Water Resources Engineering.

About 30% of the respondents from FMS suggested that the University should consider incorporating current accounting online systems like quick books and tally in the curriculum and also register with ICPAU.

5.0 Recommendations

5.1 Busitema university destinations

- 1) Matching of graduates with jobs is crucial in decreasing the graduate unemployment. University-Industrial links need to be strengthened through a comprehensive internship program. These linkages will in turn support the integration of stakeholder expectations into the curriculum of the university;
- 2) Most of the respondents acquired jobs through advertisements. Public and private sectors should be encouraged to advertise jobs in various media including the emerging social media;

5.2 Transition rate into higher qualifications

- 1) Most respondents indicated the highest impediment to their pursuit of further Higher Education qualifications was lack of financial support. Government should consider funding graduate studies to increase the transition rates from undergraduate to graduate studies;
- 2) Busitema university should increase its capacity to train graduate students as most respondents, among those who had intentions to pursue further studies, revealed that they would consider rejoining the institution for graduate studies;

5.3 Transferable skills

- 1) All transferable skills were rated above the average mark. Entrepreneurial skills were ranked lowest. A crosscutting course in entrepreneurial skills should be developed and embedded in curricula across disciplines; this course should include aspects of negotiation, analytical and decision-making skills;
- 2) Students should be encouraged to engage in personal development schemes to support the acquired transferable skills to meet the requirements at the world of work.

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