

METHODOLOGICAL EXPERIENCES AND IMPORTANT GRADUATE TRACER STUDY RESULTS FOR QUALITY ENHANCEMENT AT UGANDA CHRISTIAN UNIVERSITY

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Abstract

University graduates are a useful resource that can provide important information about the programme they studied at the university. This information could be in the form of feedback and evaluation which the university could utilize in improving academic programmes as well as running future ones. One way to obtain and make use of such strategic information is through graduate tracer studies (GTS). The Uganda Christian University (UCU) recently conducted a GTS. The experiences of the researchers are shared in this paper. The Uganda Christian University GTS referred to here as UCUTRACE, was part of a wider training on University Graduates' Tracer Study Course (UNITRACE 2.0) in East Africa (2015-2016). The training targeted university managers and academics to train in GTS processes in scientific and systematic ways, at universities in East Africa. Participants in the training were drawn from 10 public and private universities in Kenya, Uganda and Tanzania. Each university provided two researchers who planned and conducted GTS at their institutions in sync with the training process, which had a series of four training workshops and two online mentorship sessions. The overall objective of the training was to develop skills for university managers, in order to be able to design, implement and analyse graduate tracer studies, as part of internal quality assurance systems. Further to this, pragmatically, each pair of researchers designed and conducted a GTS at respective universities, this paper presents experiences of the pair at UCU. The paper presents important selected results that UCU can use for quality enhancement of teaching - learning and service delivery. The objectives of this paper are: one, to describe the methodological experiences of conducting the first GTS at UCU; and two, to present selected results that attest to how GTS results can be utilised to enhance academic programmes

and learning environments at an East African university. The relevance of these results to quality enhancement will resonate with other East African universities that are affiliated to the inter university council for East Africa (IUCEA). Researchers developed and implemented a project action plan (PAP) that was used in guiding the process of conducting the GTS. A survey design with a target group of graduates for the year 2012 was adopted. Representative employers of the graduates were also purposefully selected. Data (N=2031) was analysed using the Statistical Package for Social Scientists (SPSS) as descriptive statistics and reported in frequencies and percentages. Results show that the overall knowledge gained, relevancy of study materials, programme course content, quality of teaching and management was effective and efficient (mean=77.4%). However, weaknesses were reported regarding programmes offered and employability of the graduates. Based on the findings, the surveyed graduates offered important feedback for curriculum relevance, identification of best pedagogical teaching and learning practices and enhancement of quality education.

Keywords: *East African higher education, graduate tracer studies, ICT, methodological experiences, quality enhancement, UCU.*

Background

Since its establishment, development and operation, Uganda Christian University (UCU) like other universities in Uganda and the world has witnessed and been affected by political, economic, social, and technological changes. These changes have had repercussive influence on education and training of university students including those at UCU. New knowledge, wisdom, competencies and skills are now demanded and keep changing all the time. Not only has the philosophy of education been adjusted but the curriculum content, delivery, evaluation and review have also been re-examined. The employers, to whom graduates go for employment, now demand knowledge, skills and competencies relevant to modern times. One of the best strategies applicable to address the above is conducting a tracer study of the graduate alumni. UCU has had an obligation to take appropriate actions to remain relevant by addressing the contemporary educational changes. In tandem with this quest, the East African higher education scene fronted by commissions of university

education (National Council for Higher Education in Uganda, NCHE; Commission for University Education in Kenya, CUE; Tanzania Commission for University Education, TCU), and the umbrella body Inter University Council of East Africa (IUCEA), is relentless in this quest for quality education at universities. It must be appreciated that tracer studies inform curriculum design and review, intake figures of students, and establishment of the employment market demand which keep on changing. Based on all the above, UCU conducted a GTS from which experiences of the researchers are shared in this paper. The objectives of this paper are: to describe the methodological experiences of conducting the first graduate tracer study at Uganda Christian University; and to present selected results that attest to how graduate tracer study results can be utilised in enhancing academic programmes and learning environments at an East African university.

Research Gap

There is no recorded information about a comprehensive tracer study that has involved all faculties at UCU. This tracer study sought to fill part of this gap. Three similar studies were previously carried out, but these were faculty specific; they were done at individual faculties. This study was inclusive of all UCU academic faculties.

Literature Review

The importance of tracer studies in providing perspective on the state of university graduates in relation to the labour market has been documented (Al-Samarrai & Bennell, 2003). These perspectives guide governments, donors and other stakeholders in designing relevant and effective educational and employment policies. Momentum on tracer studies comes amidst several observations regarding the effectiveness of Africa's Higher Education System (Kaijage, 1996). Key among these observations is that a number of graduates in Africa end up in jobs or fields for which their university education did not prepare them. Consequently, the graduates fall short of the skills required for the job role. This paper on UCU GTS is instrumental in reporting heuristically whether or not Kaijage's observations hold for the case of UCU.

Tracer studies are conducted for a number of reasons, one of which is to determine whether graduates are placed in relation to their specializations. A study conducted two decades ago at the University of Nairobi indicated that majority of the employed graduates of Bachelor of Arts in Education utilized the knowledge they acquired during their university training (Kimani, 2002). Tracer studies are also aimed at ascertaining how long it takes graduates to obtain gainful employment. Ssembatia and Ngobi (2015), for example, conducted a tracer study to determine the transition rate of Makerere university graduates into higher qualifications. Similarly, Uganda's National Council for Higher Education (NCHE) traced students with a focus of establishing relevance of their education to the job market, and what employment opportunities were available to university graduates in general (NCHE, 2011). This study observes similar trends as reported by Kimani (2002) and NCHE (2011), although its main focus is not on employability, but intrinsic utilisation of the GTS results for quality enhancement of teaching and learning at UCU.

A study by the NCHE was in line with the observation that the formal sector was simply too small to absorb the thousands of students who graduate from universities and colleges every year. Questions have consequently been raised on where these graduates end up, with some observers noting that African university graduates have majorly remained unemployed (Al-Samarrai & Bennell, 2003; Kirumira & Bateganya, 2003). As one way of addressing this dilemma, it is widely being recommended that graduates need to be equipped with self-employment skills since it is the most viable means for them to earn a living (Kaijage, 1996). This paper agrees with these sentiments, and one of the points of discussion and conclusion is how universities in East Africa, UCU not an exception, should embrace a wide range of skills and competencies in their study programmes for the same reasons.

Methodologically, some tracer studies are limited to descriptive findings on the employment situation of graduates, while others explore this situation further by analysing the links between employment and education (Kothari & Garg, 2014). Schomburg (2016) suggests that whatever its purpose, for a graduate survey to be useful, it should benefit a broad range of stakeholders, explore a range of employment and work aspects, and analyse various educational features with an aim of making improvements. Egesah and Wahome (2014) identify Ministries of Education, Commissions for University Education, and University Council for East Africa as some of the external stakeholders that could be

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interested in selected results of graduate tracer studies. The researchers in the current study have in agreement, so far disseminated a wide range of results to both UCU and IUCEA.

Methodology

Uganda Christian University graduate tracer study was part of a wider training on University Graduates' Tracer Study Course (UNITRACE 2.0) that took place in East Africa between October 2015 and January 2017. The overall objective of the training was to develop skills for university managers in order to be able to design, implement and analyse graduate tracer studies as part of the internal quality assurance systems.

UCU tracer study (UCUTRACE 2.0) was Uganda specific (domesticated) from the UNITRACE 2.0. The training call targeted high level university managers who were required to apply in a team of two members per institution. The participants (two from each university) in the training were drawn from 10 public and private universities from Kenya, Uganda and Tanzania. Each pair from the 10 universities planned and conducted GTS at their institutions in sync with the training process, which had a series of four training workshops and two online mentorship sessions. The workshops involved overviews, presentations by GTS experts, and mixed methods which included discussions among the participants and with experts, case studies, individual and group feedback as well as mentoring. Extensive nature of the study required additional autonomous work from the participants. Two of the authors of this paper trained on UNITRACE 2.0, while the third author was a trainee and mentor on the programme.

Research Design

Methodological approach involved a development and implementation of a UCUTRACE Project Action Plan (PAP) that was used in carrying out the GTS. The UCU-PAP was used in parallel to participation in the UNITRACE 2.0 workshops and also along the online mentorship from the UNITRACE 2.0 trainers. The study adopted a census sampling, in order to survey all UCU graduates for the year 2012, October Cohort (N=2031). The main data collection method was a web based (online survey) UNITRACE 2.0 standardized questionnaire. To increase the response rate,

data captured from the online questionnaire was supplemented with information from interviews which were administered face to face, also through mobile telephone calls and short message services. Informal interviews with employers also provided useful information. In addition, purposive sampling of the alumni was employed, through snowball sampling - a process of selecting a sample using networks (Kothari, 2012). This technique mostly captured self-employed and unemployed graduates. The traced graduates were requested to locate other graduates from their graduating class and more eligible ones within their reach. Desk reviews of the alumni database also offered valuable information on the socio-biographic characteristics of respondents.

Data Analysis and Reporting

Data from 532 graduates ($n=532$) was analysed using both the SoSci and SPSS software. Descriptive statistics that accrued are reported in this paper in the form of frequencies and percentages. All the online mentorship and exchanges about data analysis were mounted and worked out on a MOODLE software platform. Results from the UCU are not only disseminated in this paper, but have also been shared in the IUCEA-EAQAN conference held in Dar es Salaam, Tanzania in May 2017. In addition, the authors have already shared the results with the Ugandan Christian University management and the university is already utilising some of the results to improve its services to students.

Results

Socio-biographic Characteristics of Graduates

The study targeted UCU graduates of year 2012, October Cohort. Response rate from the targeted population was 46.3 per cent, which is quite impressive by all GTS standards.

Table 11.1: Distribution of Respondents by Faculties

Faculty/College	Frequency and %
Law	n=39 (7.3%)
Science and technology	n=50 (10%)
Business and Administration	n=154 (31%)

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Social sciences	n=149 (30%)
Education and Arts	n=81 (16%)
Health Sciences	n=3 (0.6%)
Bishop Tucker	n=31 (6.2%)
None response	n=25 (4.7%)
Total	N=532 (100%)

Table 11.1 shows the number of graduates that were successfully traced in the different faculties. Overall, 54.2 per cent and 45.8 per cent of the respondents were females and males respectively. The results show that both males and females are enrolled and graduated at UCU, in nearly equal numbers.

Results also show that more than half of graduates (Table 11.2) who were surveyed had studied for their secondary education, in private secondary schools prior to joining university. This could be useful information in planning for student recruitment at admission.

Table 11.2: Student Recruitment at Admission to UCU

Type of high school/college graduated from before admission to UCU	Per cent
Public	41.5%
Private	57.3%
Other	1.2%

Mode of Teaching

The most reported mode of teaching was lectures (80.5%). Practical/fieldwork courses/attachments were also emphasized (80%), while learning through research work and mentorship were averagely rated (60%).

Employability Status of Graduates

In this section, we look at the period graduates took to secure employment as well as the influence of course content in employment status.

Period taken to secure employment: With regards to graduates who were employed, about 17.1 per cent searched for employment prior to completion of studies, 13.3 per cent did so at the time of completion of

studies, and 66.6 per cent sought for jobs after completion of studies, while approximately 3.0 per cent did not search for jobs. Most of the respondents took between 7 and 10 months to secure employment after obtaining a degree. This finding is in agreement with a previous individual faculty-based study in which majority of employers (about 58%) reported that UCU graduates are employable and have a better competitive advantage over other graduates in both private and government sectors.

Influence of course content in employment status: Results show that 70.1 per cent (n=373) of the graduates were gainfully employed. Of these, 8.5 per cent indicated that they were self-employed, 17.9 per cent had part-time employment and 41.2 per cent had full-time employment. About 32.5 per cent of the graduates declined to declare their employment status. The private sector was the main employer of the graduates (32.1%), followed by those in public service (16.9%), those employed by NGOs (7.9%), the self-employed (8.3%), and about 0.8 per cent were engaged in other jobs that did not fall in any of the above categories. Interestingly however, about 60 per cent (3 on a scale of 5) reported that the courses done while studying at UCU assisted them in getting employed (Table 3).

Table 11.3: The Usefulness of the UCU Course Content in Getting Employment

Usefulness of course content in getting my present job	Per cent
[1] Not at all	3.4%
[2]	8.7%
[3]	38.5%
[4]	33.2%
[5] To a very high extent	16.3%

Field of Study and Relevancy of Study Materials

The field of study undertaken by the graduates influenced what kind of work they undertook after graduation. In this case, as shown in table 11.4, 54.5% (30.7 + 23.8) of the respondents indicated that the field of study at the university highly related to their area of work. This means that the university offered programmes that were useful and relevant to the work environment.

Table 11.4: Relation between Field of Study and Area of Work

Field of study /Programme	Per cent
[1] Not at all	2.0%
[2]	9.0%
[3]	34.5%
[4]	30.7%
[5] To a very high extent	23.8%

Study Conditions and Study Provisions

About half of the graduates (50%; n=266) took other courses outside their fields of study to improve their chances of employment. ICT (76.6) ranked highest among the said courses (Table 11.5). This is a call for UCU to include ICT courses in curricula along the field of study that students undergo in order to enhance graduates' employability chances.

With regard to the level of satisfaction with library facilities, specifically, the availability of study materials in the field of study, majority of the graduates (86%) ranked it at the top, 12 per cent ranked it in the middle, and only 3 per cent ranked it at the bottom. As regards the relevance of these study materials, 82 per cent ranked them at the top, 16 per cent ranked them in the middle, and only 2 per cent ranked them at the bottom.

Table 11.5: Courses Taken to Improve Chances of Employment after Graduation

Courses	Per cent
ICT	76.6%
Entrepreneurship	12.0%
Leadership	3.9%
Accounting	3.1%
Languages	2.7%
Other	1.5%

In rating their participation in research projects or project-based learning, only 21 per cent ranked it at the top. The majority (69%) ranked it in the middle while 10 per cent ranked it at the bottom. These findings suggest a lower than required integration of research-based learning in the

curricula. Other study facilities and services rated to influence teaching and learning were on average rated well; these included lecture halls, accommodation, feeding, health facilities, counselling and co-curricular activities.

Knowledge Gained at UCU

Majority of the graduates (87%) reported that at the time of graduation, they had knowledge of their field or discipline of study; 8 per cent ranked it in the middle, while 5 per cent said that they did not have knowledge of their field of study or discipline. Among these respondents, 85 per cent reported that they utilized these competencies to a very high extent in their work, 13 per cent had utilised them to a small extent, while 3 per cent admitted that they did utilize the skills at all in their work.

With regard to communication skills, 85 per cent reported they had competence in this skill at the time of graduation, 11 per cent ranked it in the middle, and 4 per cent at bottom. Majority (93%) utilized this competence in their work to a very high extent, 5 per cent utilized it moderately, and 2 per cent reported that they did not utilize these competences at all in their work. On the contrary, the employers reported less than 55 per cent high ratings in creative thinking, communication and research-based skills, as well as self-confidence and leadership. The results suggest a mismatch between employers' expectation and graduates' competence in some skills. This could be an indicator of weaknesses in specific areas within UCU's teaching and learning methods. Overall, majority of the graduates (80%) reported that their programmes of study at UCU prepared them for self-employment while (10%) reported otherwise. The proposed training gaps were entrepreneurship, a balance between theory and practical training, and business management skills.

On adequacy of acquired skills and knowledge for performed jobs, a large number of graduates (87.4%) reported that university studies adequately equipped them to undertake their jobs and the training was relevant to the job they were undertaking after graduation. Notwithstanding, 8 per cent of the graduates reported that they were in jobs which were irrelevant to their studies, which means that the training they undertook at the university was not being applied while undertaking their jobs. Presumably this could be a result of graduates who are involved in jobs which may not be directly related to their area of study.

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Generally, the outstanding skills learnt that were useful to the first job of the graduates were human relations, communication skills, management skills, critical thinking and problem-solving skills. Computer and technical skills were also mentioned to a lesser extent. Overall, majority of the graduates (84.3%) were satisfied with their current employment based on skills and knowledge acquired at UCU, while about 10.6 per cent were not satisfied at all. The dissatisfaction was attributed to the fact that the graduates' current employment was not in line with their profession, had low remuneration, and lacked job security among other things. Based on the findings, skills and knowledge acquired by the graduates could generally be described as sufficient to prepare them for the jobs they are performing. Despite this, there is a need for UCU to put more emphasis in assuring quality in teaching and learning.

Table 11.6: Quality Improvement Plan Relevant for Pedagogical Practices Based on Results of the Study

Results	Quality Improvement Plan Relevant for Pedagogical Practices
57.3% and 41.5% admissions are from private and public high schools respectively and 1.2% were others	-Identify and assess areas for improvement in student recruitment at admission -Low enrolments affect growth of academic programmes, particularly those that are scientific based -Strengthen career guidance to all institutions where potential UCU students are recruited from -Initiate more forums and networks with high schools -Maintain required standard class sizes for quality learning
Except for recreational activities (student centre) (60%) and laboratories (64%), other study facilities and services (lecture halls, library, accommodation, feeding, health facilities, counselling were rated highly (74%)	-Update recreational facilities with relevant equipment to learning -Equip, expand and enhance lab resources
Lectures (80.5%), Practical/Fieldwork courses/attachment (80%) are	-Strengthen student learning by research projects and also enhance

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learning/teaching modes most emphasized, while research based learning and mentorship are reported as utilized on average (60%)	mentorship processes -Strengthen hands-on training and integration of research-based learning in the curricula
50% of graduates took up additional skills training during and soon after their degree study (ICT, Accounting, Entrepreneurship, Leadership)	-Conduct research to identify skills and competencies employers seek in graduates, in the job market -Emphasize the skills in teaching and learning in all programmes -Review academic programmes to include employability skills
Links between graduate employability and the following were rated highly: -Field of study, 84% -Relevancy of study materials, 79% -Personality of the graduates, 76.8% -UCU reputation as an institution of higher learning, 77%	-All these positions need to be sustained -Strengthen quality assurance, academic and career offices -Maintain UCU philosophy; curriculum instruction of focus on religious ethics, values and morals that moulds desirable personalities
Completion of studies and reasons for delayed completion	UCU graduates completed studies on time and this practice needs to be sustained

Discussions

Uganda Christian University undertook its first systematic graduate tracer study, whose results indicate high potential for utilisation by the university to enhance learning and teaching facilities, conditions and spaces.

The study sought to attest how graduate tracer study results can be utilised to enhance academic programmes and learning environments. NCHE (2015) demonstrated the importance of employers in graduate studies. The study was not on employability but information of employment status of the graduates was relevant because it connects well and reveals how academic programmes and teaching are utilized at UCU. The study shows that a good number of the graduate alumni (67%) get formally employed and a majority take on average less than two years to secure employment after obtaining a degree. Based on the general

employment status in Uganda (Kirumira & Bateganya 2003; NCHE 2011), this finding implies that UCU graduates have high prospects in the job market. This informs a utilization and relevancy of UCU academic programmes and teaching methods. However, about 20 per cent of the graduates are either unemployed or engaged in sectors that are not necessarily in the disciplines they studied.

Kajjage (1996) explored the contribution and participation of graduates to improvement of academic programmes and other processes that influence quality of education. Similar to these studies, findings of the current study show that the overall knowledge gained, relevancy of study materials, programme course content, and quality of teaching and management was effective and efficient (mean= 77.4%). Despite this, the results also suggest a possible gap between the quality of course content offered and its relevancy in the job market which UCU needs to bridge.

Results of high ratings of field of study as an important factor in influencing graduates' employment correlate well with those of relevancy of study programmes. This information shows that field-specific reasons influence recruitment of graduates based on different disciplines. This could be attributed to industrial and professional differences in the curricula of the programmes offered.

The high rankings of 77 per cent for personality of UCU graduates and reputation of UCU as an institution of higher learning is attributed to the institution's philosophy of a strong focus on religious ethics, as well as values and morals as part of curriculum instruction. The graduate's personalities are indoctrinated in the "UCU culture" such that they are not just instructed in learning but also in personal ethical values.

There could be various possible reasons for 50 per cent of graduates to take up additional skills training during and soon after their degree study (ICT, Accounting, Entrepreneurship, and Leadership). It could be possible that ICT knowledge acquired (teaching and learning) while at UCU is inadequate for the job market. These results could also imply that student utilization of ICT is not necessarily focused on expected instruction according to UCU curricula. The results also suggest a mismatch between employers' expectations and graduates' competence in these skills which could be an indicator of weaknesses in specific areas within UCU's teaching and learning methods.

Conclusion

The methodological approach to this study adopted a hands-on approach with a strong practical focus. The process followed a general training programme approach on University Graduates' Tracer Study Course (UNITRACE 2.0) in East Africa. A Project Action Plan (PAP) and a survey design were developed, implemented and used to decide the required steps to take in order to achieve particular goals within specific time periods. Based on the findings, a quality improvement plan relevant for pedagogical practices was established. This should be adapted as a basis for the UCU's programmes review and implementation tool to bring marked improvements in the quality of teaching and learning.

The findings reveal that UCU graduates as stakeholders offer important feedback for identification of better pedagogical practices. The graduates give an overview of the quality of programmes offered and highlight the gaps in teaching and learning. Based on the findings, UCU needs to put more emphasis on quality assurance systems in curricula relevancy and also in teaching and learning. The results provide useful information in identification of strategies for providing a mix of academic and practical experiences that students need in order to be employable.

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