# Role of Research in Teaching: Analysis of PhD Programs and PhD Graduates at the Open University of Tanzania

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## ABSTRACT

*Africa still has low numbers of Doctor of Philosophy (PhD) graduates. PhD programmes avail opportunities to doctoral students pursuing research by thesis or course work. Although existing literature is available on postgraduate students but the numbers of PhD graduates is still insufficient. Furthermore, there are limited studies that have conducted research on PhD programmes and PhD graduates. Therefore, the aim of this paper was to explore PhD programmes and PhD graduates at the Open University of Tanzania (OUT). The specific objective was to examine PhD programmes on offer and the output of PhD graduates. This paper uses literature review method as the source of information for PhD programmes and PhD graduands, and adopts the Scholarly Personal Narrative (SPN) approach. Content analysis and descriptive statistics were used to provide findings. The findings of this paper showed that although PhD programmes are offered by OUT, the numbers of PhD graduates are inadequate due to reasons such as management style within departments. The outcome of low PhD graduands ranging between 7 to 14 per graduation ceremony for the period 2016 to 2018 implies low output of PhD graduates meaning that ultimately there is less research in terms of research output and therefore, OUT will continue to have study material dependency on other educational institutions instead of research generated within OUT for purposes of teaching and further research. Future research can explore the relationship between research and challenges for Masters' students in higher education.*

**Keywords:** PhD programs, PhD graduates, Tanzania

## INTRODUCTION

Doctor of Philosophy (PhD) graduates in Africa are low compared to other countries like China and the US. The British Council (2018) noted that China and the US were among the top ten producing countries of PhD graduates in the world while Bunting, Cloete and Van Schalkwyk (2014) stated that Africa has low and inconsistent PhD capacity attributed to inadequate funding and supervisory capacity. In Africa, Cloete and Bunting (2013) emphasized on the need for African Universities to increase knowledge production through constant supply of PhD graduates. Existing literature such as Larson, Ghaffarzadegan and Xue (2013) and Prasad (2013), have highlighted the persistent problem of challenges encountered by postgraduate students. In addition, there are limited studies that have conducted research on PhD programmes and PhD graduates. The limited studies include Lariviere (2011), Larson, Ghaffarzadegan and Xue (2013), Jackson (2013), and Wamala and Ssembatya (2013). Other scholars are also in line with the need to supply more PhD graduates in Africa. For instance, Kakumba (2020) was interested on research and innovations for socioeconomic impact through bringing the gowns to town.

Kakumba (2020) stated that low research output is due to low numbers of PhD graduates particularly for Uganda. This further shows that the issue of PhD graduates is critical hence more research is necessary in order to understand the reasons for low PhD graduates in the African continent. Similarly, there are very few studies in Tanzania that have mentioned education issues related to PhD programmes in higher education institutions and these limited studies include Jones (2013), Fisher (2014), and Mkwizu (2015, 2020). Mkwizu (2020) opined that the tourism programmes offered need diversity in terms of study location and research topics. Therefore, due to the persistent problem by postgraduate students and limited research on PhD programmes and PhD graduates, this study was motivated to explore PhD programmes and PhD graduates in Tanzania. The specific objective was to examine PhD programmes on offer and the output of PhD graduates at the Open University of Tanzania (OUT). The questions posed by this paper were i) *which are the PhD programmes on offer at OUT?* ii) *what is the output of PhD graduates at OUT?* iii) *what are the PhD programmes on offer in relation to output of PhD graduates?*

## LITERATURE REVIEW

### PhD Graduates

PhD graduates are students who are registered in postgraduate training for doctorate (Komba, 2016). PhD graduates are doctoral students who aim to gain a PhD which is considered to be a unique and highly personal experience (Lepp, Remmik, Karm & Leijen, 2013). In this paper, PhD graduates are defined as students in PhD programmes by thesis and are graduands.

### PhD Programmes

PhD programmes are those that target individuals who pursue an academic career but also produce graduates who go into professional careers in various fields (The Association to Advance Collegiate Schools of Business, 2013). Another study defines PhD programmes by merging Doctoral programmes and success (Bagaka, Badillo, Bransteter & Rispinto, 2015). In Bagaka *et al* (2015), successful Doctoral programmes are those that will produce effective scholars in a given discipline. Conley and Onder (2014) looked at PhD programmes from an economic perspective and mentioned that economics PhD programmes are primarily designed to produce research economists. The purpose of PhD programmes is to form new researchers who can contribute to the advancement of knowledge (Lariviere, 2011). Students who complete PhD programmes are eventually awarded with a PhD. A PhD or doctorate degree is the highest academic qualification a university can award (The Quality Assurance Agency for Higher Education, 2011). For purposes of this study, PhD programmes are Doctor of Philosophy programmes by thesis offered to PhD graduates at the Open University of Tanzania.

### The Open University of Tanzania

In Tanzania, The Open University of Tanzania (OUT) which is based on distance learning mode of education has grown (in terms of offered programmes and students) and expanded in Tanzania and outside Tanzania as per prospectus of 2017 and 2020. This is a commendable achievement. The OUT prospectus (OUT, 2017, 2020a) also highlights the established regional centres for purposes of providing education to aspiring students including PhD graduates via the offered PhD programmes. Therefore, research is needed in order to explore PhD programs and PhD graduates in the context of OUT.

### Theoretical Review

This paper utilised the Personal Construct Theory (PCT) developed by George Kelly in the 1950s to guide the analysis of PhD programmes offered and the

output of PhD graduates at OUT. PCT by George Kelly assumes that individual's beliefs and world view by his/her personal construct aims to explain the understanding of events that happen to him/her and is able to predict from experience what is likely to happen in the future (Paszkowska-Rogacz & Kabzinska, 2012). Furthermore, in PCT, Kelly assumes that the individual is an active scientist who constantly analyzes the surrounding reality (Paszkowska-Rogacz & Kabzinska, 2012). The advantage of PCT is on the ability to uncover tacit knowledge which is used by individuals but very hard to verbalise. Although PCT has been critique but there seems to be tacit agreement amongst cognitive psychologists that the meaning of a person's thoughts is best understood within a personal context of relatedness (Blowers & O'Connor, 1995). The application of PCT is evident in various fields such as clinical, education and organization (Walker & Winter, 2007). Other scholars have utilised PCT in their research (Pope & Shaw, 1981; Yassim, 2011).

For instance, Yassim (2011) used PCT to research on the role of emotions in game experience by linking emotions, game experience and return intentions. The study was conducted in the UK and used quantitative approach with correlation scores which indicated that happiness had the highest correlation (0.535) with regards to game experience (Yassim, 2011). A PhD graduate is an individual pursuing a PhD programme and therefore, this paper assumes that as an individual, the PhD graduate has beliefs and views as their personal constructs in analysing their surrounding reality which is the PhD programme to explain the understanding on the output of PhD graduates so as to predict what is likely to happen in the future. Hence, this paper used PCT in exploring PhD programmes and PhD graduates by specifically examining PhD programmes on offer and the output of PhD graduates with the preposition that: *Are PhD programmes on offer in relation to output of PhD graduates?*

**Empirical Literature Review**

There is limited research by African Universities (Cloete & Bunting, 2013). For example, a study in the USA, indicated that initially PhDs were earned by men and over time the percentage rate of women PhD holders increased thereby narrowing the gender gap (Chiswick *et al.*, 2010). Rogers *et al* (2014) did a study of US universities, and examined graduate students from the employee perspective. Rogers *et al* (2014) applied descriptive statistics as well as correlation analysis and found that graduate student employees had higher levels of personal and professional support. From other parts of Africa, a recent study conducted in Uganda intended to provide empirical evidence by rethinking the sense of

urgency and timeliness in business school employees who are actively involved in management activities such as PhD programmes (Matama & Mkwizu, 2018). Matama and Mkwizu (2018) used a qualitative approach and thematic analysis from the collected data and one of the findings indicated that staffs in business school settings are mostly concerned about whether upcoming change benefits themselves as individuals first and foremost. Another study conducted in Africa showed that eight universities produced only a total of 367 doctoral graduates in 2011 (Cloete & Bunting, 2013). This is low output of PhD graduates in Africa compared to other continents in Europe, America and Asia. For instance, the British Council (2018) revealed that in 2015 there were 68,923 PhD graduates in the United States (US) while other top ten countries of PhD graduates such as Russia and Germany had PhD graduates amounting to 29,632 and 29,218 respectively. In addition, according to the Organisation for Economic Co-operation and Development (OECD), Germany had the highest percentage score of doctoral or equivalent level of men and women tertiary graduation rate of 1.74% for men and 1.60% for women in 2018 compared to other European countries like Switzerland with 1.25% for men and 1.12% for women (OECD, 2020).

Additionally, the British Council (2018) noted that the report by Bunting, Cloete and Van Schalkwyk (2014) clearly showed there is low or inconsistence of PhD capacity in Africa due to attributes of funding and supervisory capacity. This implies that the low output of PhD graduates is due to reasons such as funding and supervisory capacity at the Africa level. Further report by Cloete, Bunting and Van Schalkwyk (2018) conducted in 8 African Universities (University of Ghana in Ghana, Makerere University in Uganda, University of Nairobi in Kenya, University of Dar es Salaam in Tanzania, University of Mauritius in Mauritius, Eduardo Mondlane University in Mozambique, University of Botswana in Botswana, and University of Cape Town in South Africa) revealed that doctoral graduates vary in the selected universities. For example, Makerere University had 55 PhD graduates in 2010 to 64 in 2015 which is an increased of 16%, and University of Dar es Salaam had 23 PhD graduates in 2010 to 61 in 2015 which is an increase of 165% while University of Nairobi had 43 PhD graduates in 2010 to 100 in 2015 which is an increase of 133%. Further studies are needed in other universities like OUT in order to add literature on PhD graduates. From the reviewed literature, it is evident that at a global scale and within Africa, there is literature on PhD graduates but the studies or reports which exist do not highlight PhD graduates from the perspective of PhD programmes and the output of PhD graduates within the context of Tanzania and in particular OUT. Hence, this study addresses this deficiency by exploring PhD programmes and PhD graduates, and

specifically by examining PhD programmes on offer and the output of PhD graduates at OUT.

## METHODOLOGY

### Research design

The study area for this paper is OUT located in Tanzania. This paper used literature review method to examine PhD programmes on offer and the output of PhD graduates. The literature review approach enabled this study to adopt the literature available on PhD programmes and PhD graduands of OUT. This study selected the literature available on OUT website ([www.out.ac.tz](www.out.ac.tz)) and their use of the external source ([www.scribd.com](www.scribd.com)) for display of list of PhD graduands as in OUT (2017a, 2017b, 2017c). The sampled information was based on the criteria for the themes of interest being PhD programmes and PhD graduates which was accessed from "OUT prospectus", and "Facts and Figures" because it provides data on PhD programmes and PhD graduands at OUT. A mixed method of literature review approach followed by Scholarly Personal Narratives (SPN) sampled from a researcher was used in order to further understand reasons that could explain the varying output of PhD graduates at OUT. Lousilie (2016) pointed out that SPN which was developed by Nash (2014) is considered as a new approach to research and recognises researcher's personal experiences as a valid object of study. Furthermore, the application of SPN in this study provides a qualitative approach to understand PhD graduates at OUT.

### Analysis

Content analysis was used as the analysis tool in coding, summarising and interpreting the information gathered from the literature reviewed on PhD programmes and PhD graduates as well as information obtained from SPN. Descriptive statistics assisted by Statistical Package for the Social Sciences (SPSS) Version 20 was applied to describe in percentages the compiled data from the literature.

## FINDINGS AND DISCUSSION

The findings from literature revealed that there are 5 PhD programmes offered at OUT and the PhD programmes are from 5 Faculties that specialise in arts and social sciences (encompassing areas such as languages, tourism and hospitality), business management, education, law, science, technology and environmental studies as per Table 1. The findings suggest that there are 5 PhD programmes offered under 5 Faculties with various departments ranging from tourism and

hospitality to life sciences. This further suggests that PhD programmes offer research opportunities to PhD graduates who are eventually expected to produce research work that will contribute to knowledge for purposes of teaching, future research and have socioeconomic impact.

**Table 1: PhD programmes at OUT**

| SN | Faculty/Department(s) | PhD Programmes |
|----|----------------------|----------------|
| 1 | Faculty of Arts and Social Sciences (FASS) Departments: Centre for Economics and Community Development, Economics, Geography, Journalism and Media Studies, Linguistics, Political Science and Public Administration, Sociology and Social Work, Tourism and Hospitality, History | Doctor of Philosophy (PhD) |
| 2 | Faculty of Business Management (FBM) Departments: Accounting and Finance, Leadership and Governance, Marketing and Entrepreneurship | Doctor of Philosophy (PhD) |
| 3 | Faculty of Education (FE) Departments: Curriculum and Instructions, Educational Foundations, Policy Planning and Administration, Psychology and Special Educations | Doctor of Philosophy (PhD) |
| 4 | Faculty of Law (FL) Departments: Civil and Criminal Law, Constitutional and International Law, Economic Law | Doctor of Philosophy (PhD) |
| 5 | Faculty of Science, Technology and Environment Studies (FSTES) Departments: Environmental Studies, Home Economics and Human Nutrition, Information and Communication Technologies, Physical Sciences, Life Sciences | Doctor of Philosophy (PhD) |

Source: Compiled from OUT, (2017d, 2020b)

There were 7 PhD graduands in February 2018 as per Table 2. These findings suggest that there was only output of 7 PhD graduates for early portion of 2018. These findings support previous studies of Bunting, Cloete and Van Schalkwyk (2014) and Cloete, Bunting and Van Schalkwyk (2018) that there is low PhD capacity in African universities.

**Table 2: List of PhD Graduands at OUT for February 2018**

| Registration Prefix by Faculty | Faculty | Gender/Year of PhD Graduands | Region |
|---|---|---|---|
| HD/A | FASS | 1 Male/February 2018 | Iringa |
| HD/B | FBM | N/A | |
| HD/E | FE | N/A | |
| HD/L | FL | N/A | |
| HD/S | FSTES | 1 Male/February 2018 | Dar es Salaam |
| PG (This is a new registration prefix) and does not specify a particular Faculty | | 3 Male/February 2018 <br> 1 Male /February 2018 <br> 1 Female/February 2018 | Dar es Salaam <br> Rwanda <br> Kilimanjaro |
| | | **Total:7 PhD Graduands** | |

Source: Adopted and customised from OUT, 2018

For PhD graduates, there were 14 PhD graduands in November 2017 as shown in Table 3. These findings suggest that there was output of 14 PhD graduates for end portion of 2017. These findings support previous studies of Bunting, Cloete and Van Schalkwyk (2014) and Cloete, Bunting and Van Schalkwyk (2018) that there is low PhD capacity in African universities.

**Table 3: List of PhD Graduands at OUT for November 2017**

| Registration Prefix by Faculty | Faculty | Gender/Year of PhD Graduands | Region |
|---|---|---|---|
| HD/A | FASS | 4 Male/November 2017 <br> 1 Female/November 2017 | Dar es Salaam <br> Morogoro |
| HD/B | FBM | 2 Male/November 2017 <br> 1 Female/November 2017 | Dar es Salaam <br> Dar es Salaam |
| HD/E | FE | 1Female/November 2017 | Dar es Salaam |
| HD/L | FL | I Female/November 2017 | Kenya |
| HD/S | FSTES | N/A | |
| PG | | 3Male/November 2017 <br> 1Female/November 2017 | Dar es Salaam <br> Dar es Salaam |
| | | **Total:14 PhD Graduands** | |

Source: Adopted and customised from OUT, 2017c

Further on PhD graduates revealed that there were 9 PhD graduands in February 2017 as in Table 4. These findings suggest that there was output of 9 PhD graduates in early 2017. These findings support previous studies of Bunting, Cloete and Van Schalkwyk (2014) and Cloete, Bunting and Van Schalkwyk (2018) that there is low PhD capacity in African universities.

**Table 4: List of PhD Graduands at OUT for February 2017**

| Gender/Year of PhD Graduands | No. Of PhD Graduands |
|---|---|
| 7 Male/February 2017 | 7 |
| 2 Female/February 2017 | 2 |
| **Total** | **9** |

Source: Adopted and customised from OUT, 2017b

The analysis on PhD graduates revealed that there were 8 PhD graduands in November 2016 as in Table 5. These findings suggest that there was output of 8 PhD graduates end of 2016. These findings also support previous studies by Bunting, Cloete and Van Schalkwyk (2014) and Cloete, Bunting and Van Schalkwyk (2018) that there is low PhD capacity in African universities.

**Table 5: List of PhD Graduands at OUT for November 2016**

| Registration Prefix by Faculty | Faculty | Gender/Year of List of Graduands | Region |
|---|---|---|---|
| HD/A | FASS | 1 Male/November 2016 | Kenya |
| | | 1 Male/ November 2016 | Dar es Salaam |
| HD/B | FBM | 1 Male/November 2018 | Dar es Salaam |
| HD/E | FE | 1 Female/November 2016 | Dar es Salaam |
| | | 1 Male/November 2016 | Dar es Salaam |
| HD/L | FL | 1 Male/ November 2016 | Dar es Salaam |
| HD/S | FSTES | N/A | |
| PG | | 1 Male/November 2016 | Rwanda |
| | | 1 Male/November 2016 | Dar es Salaam |
| | | **Total: 8 PhD Graduands** | |

Source: Adopted and customised from OUT, 2017a

The descriptive statistics in terms of the characteristics of PhD graduates as PhD graduands revealed that gender distribution were mostly male PhD graduates for February 2018 (85.7%), November 2017 (64.3%), February 2017 (77.8%) and November 2016 (87.5%) as per Table 6. The findings of this study on fewer females overtime differ from a study by Chiswick *et al* (2010) but similar to OECD (2020) on more men than women in doctoral graduation rate for countries such as Germany and Switzerland. The substantial differences in gender, faculty affiliation and regions imply that although PhD programs are offered at OUT, the number of PhD graduates are not enough (range between 7 to 14 PhD graduands from November 2016 to February 2018). This means that even the production of research publications is inadequate due to few PhD graduates. The low output of PhD graduates may be attributed to lack of education policy on guidance for target numbers of PhD graduates in African universities including in Tanzania. This further means that universities are producing PhD graduates with no target guidelines and this may explain why there is still low output in PhD graduates. Hence, OUT will continue to depend on other higher educational institutions for research publications and study materials. These findings of few PhD graduands are consistent with the study by Cloete and Bunting (2013). The output in terms of low numbers of PhD graduates also suggests that there must be more reasons for the low output of PhD graduates when pursuing PhD programmes.

**Table 6: Summary of PhD Graduands at OUT**

| Year/Total | Gender/Percentage (%) | | Region/Percentage(%) | |
|---|---|---|---|---|
| February 2018/ 7 PhD Graduands | Male | 85.7 | Dar es Salaam, Tanzania | 42.9 |
| | Female | 14.3 | Iringa in Tanzania | 28.6 |
| | | | Kilimanjaro in Tanzania | 14.3 |
| | | | Outside Tanzania (in Rwanda) | 14.3 |
| November 2017/ 14 PhD Graduands | Male | 64.3 | Dar es Salaam in Tanzania | 85.7 |
| | Female | 35.7 | Morogoro in Tanzania | 7.1 |
| | | | Outside Tanzania (in Kenya) | 7.1 |
| February 2017/ 9 PhD Graduands | Male | 77.8 | Not Accounted for as no regions were shown from the data source. | |
| | Female | 22.2 | | |
| November 2016/ 8 PhD Graduands | Male | 87.5 | Dar es Salaam in Tanzania | 75 |
| | Female | 12.5 | Outside Tanzania (in Rwanda) | 25 |

Source: Adopted and customised from OUT, 2017a, 2017b, 2017c, 2018

With findings on PhD graduates indicating low output ranging from 7 to 14 PhD graduands, this study involved an SPN approach to assist in understanding the reasons for low output of PhD graduates. In the SPN, among other narratives noted as per Table 7 was that "time management" in terms of returning PhD thesis drafts to the PhD graduate were not given the "sense of urgency" and "timeliness". This finding further suggests that in relating PhD programmes to PhD graduates, it is important for PhD graduates to have good learning experiences of PhD programmes such as timely returns of PhD thesis drafts. Hence, it is crucial that the element of time management on the part of supervisors in returning PhD thesis drafts timely to PhD graduates is seriously instilled as an essential attribute of a good supervisor. The SPN adding that

> "*time management can be achievable from the perspective of newly appointed supervisors who displayed the quality of time management which is one of the catalysts for accomplishing the PhD programmes in the course of pursuing PhD programmes*".

Another SPN that manifested is the "unfairness" of the panelists during departmental presentations such as failure by the panelists including discussants to acknowledge students efforts in addressing comments by simply generalising that the student has not incorporated comments and thus leading to delays in accomplishing a PhD programme. The SPN also narrated the issue of management style within departments. The SPN further commented that

> "*A shift to another Faculty under another department combined with newly appointed supervisors helped to remove the unfairness experience within the department and thus motivated the PhD graduate*".

This shows that capacity of management style within departments should not be overlooked and that other departments perform poorly while other departments are better at handling PhD graduates. Therefore, in moving forward and providing improvements, the SPN added that

> "*the solutions that worked was a change of supervisors and have newly appointed supervisors, and also change of Faculty in order to ensure fairness and ultimately accomplish the PhD programme along with research publications which are useful in teaching and future research*".

**Table 7: SPN by PhD Graduand at OUT**

| Year | SPN |
|---|---|
| 2018 | Time management |
| | Sense of urgency |
| | Timeliness |
| | Management Style within Departments |
| | Unfairness by panelists in departmental presentations |
| | Lack of acknowledging PhD students efforts |

Although there are various PhD programmes on offer, it shows that in relation to PhD graduates, there is low output of PhD graduates. The low output of PhD graduates can be explained by the SPN narratives such as "time management", "sense of urgency", "timeliness", "unfairness in panelists' departmental presentations" and "lack of acknowledging PhD students efforts". These findings support the use of PCT as a guide in examining PhD programmes on offer and output of PhD graduates in the context of OUT for purposes of exploring PhD programmes and PhD graduates in Tanzania.

**Conclusion, Implications and Recommendations**

The aim of this paper was to study PhD programmes and PhD graduates at the Open University of Tanzania (OUT). The specific objective was to examine PhD programmes on offer and output of PhD graduates. The findings indicated that there were 5 PhD programmes on offer under 5 Faculties with various departments thus affording PhD graduates the opportunity to pursue PhD studies in a number of areas such as tourism and hospitality to life sciences. The findings also showed that although PhD programmes are offered as opportunities available to PhD graduates, the output of PhD graduates noted as PhD graduands are low. This finding imply that the output of PhD graduates is low and may be attributed to lack of policy guidelines in higher education on the target output of PhD graduates annually. Therefore, a policy implication to be considered by educational institutions is to introduce guidelines for target output of PhD graduates both in the short term and long term basis. Further findings from an SPN approach revealed that issues of "time management", "sense of urgency", and "timeliness" are not fully exercised in relation to returning PhD thesis drafts to the PhD graduate. From the SPN, the narrative of "unfairness" was noted during departmental presentations. The mentioned PhD graduate experiences can be used by Universities to improve the delivery of PhD programmes by ensuring

that PhD thesis drafts are returned to PhD graduates on time and that there is fairness by panelists when PhD graduates do presentations at departmental level. Whilst previous studies recommended efforts be made by Universities to engage research method courses to PhD graduates, this paper suggests that there is lack of courses on improving the reading speed capacity of PhD thesis drafts by supervisors and therefore, crash courses be provided to supervisors with the aim of enhancing their reading speed capacity skills and thereby ensure timely return of PhD thesis drafts to PhD graduates. There should also be special courses to department academic staffs on how to encourage and create a better environment for PhD students during departmental presentations so as to build good learning experiences for PhD graduates.

Further practical implications of the analysis from this study mean that although there are various PhD programmes on offer, there are not enough PhD graduates, and therefore, this can lead to less research production within OUT for purposes of teaching and further research. Hence, the educational institutions should aim at having output targets for PhD graduates. This paper recommends that in order to improve the output of PhD graduates within Tanzania and Africa, it is important that future research is conceptualised, funded, implemented and utilised by Africans for Africa. To achieve this goal, it is crucial to increase the number of PhD graduates and ensure their engagement in PhD programmes is geared towards finishing their PhD programmes successfully by providing an environment which considers time management, sense of urgency, timeliness, and fairness during presentations at department levels. This is vital because PhD graduates are the future producers of research that will enhance teaching, database for further research as well as impact socioeconomic development.

**Suggestions for Further Research**

Future research can explore the relationship between research and challenges for Masters' students in higher education.

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