

Theorising Intercontinental PHD Students' Experiences: The Case of Students from Africa, and Asia

Kehdinga George Fomunyam¹

¹Center for Learning and Development, Mangosuthu University of Technology, South Africa

Correspondence: Kehdinga George Fomunyam, Center for Learning and Development, Mangosuthu University of Technology, South Africa.

Received: February 4, 2020

Accepted: April 14, 2020

Online Published: April 18, 2020

doi:10.5430/ijhe.v9n3p232

URL: <https://doi.org/10.5430/ijhe.v9n3p232>

Abstract

The doctorate degree ranks third on the academic hierarchy, and is commonly viewed as an approval on a student by an institution, to conduct original research in at least one academic discipline. Several motivations drive the need to acquire a doctorate degree, and they include intrinsic interest, employment considerations, personal, and professional development. To achieve this feat, some students pursue their PhD abroad for several reasons as discovered by this study. Using a quantitative approach, this paper reports on the findings of an online survey distributed to 1901 Asian and African students pursuing their PhD to investigate their experiences, and determine their satisfaction, and its relationship with their personal and professional growth. Findings reveal that most students were satisfied with their decision to pursue a PhD in another continent, but were dissatisfied with some properties that made up the process. This included their relationship with their supervisors, their study-work-life balance, and its effects on their mental health. As you are reporting on a study that has already happened, write in past tense.

Keywords: PhD, intercontinental, international students, experiences, Africa, Asia

1. Introduction

Ranking third in the academic hierarchy, and usually available to students who have obtained a Bachelor's and Master degree in a particular field of study, the *PhD* is an abbreviation originating from a Latin word *Philosophiae* (lover of wisdom) doctor, meaning Doctor of Philosophy. Doctoral education has long been recognized as an important driver for a competitive and knowledgeable society, but there are several other motivations for students pursuing a *PhD* programme. In times past, a doctorate was widely seen as preparation for career in academics, but in recent times, this is no longer the case as not everyone can have a career in academics (Herrera & Nieto, 2016). There are various other factors that influence the pursuit for a *PhD*. While some students are personally motivated due to intrinsic interest, personal development, personal fulfillment, and the joy of acquiring the degree, others are motivated by the need for professional development, vocational requirements, and acquisition of research skills so as to take advantage of employment opportunities (Tarvid, 2014). Regardless of the source of motivation, a doctorate degree is of great value to the individual, and the society at large.

Historically, the *PhD* represented an elite award given only to students selected for further study by faculty, because they offer the greatest academic promise. The *PhD* can be likened to a stamp of approval of a student by an institution, to conduct original research in at least one academic discipline. According to Isaac, Quinlan, & Walker (1992), the *PhD* serves two principle goals to faculty; to demonstrate skills, and to train research skills. Not only does it impart professional skills in the student, it validates a student's advanced research capabilities. *PhD* students are required to undertake formal research training, including substantial transferable skills training, in order to enhance employability. Some of these trainings cover areas such as communication skills, team-work and networking skills, career management, research management, personal effectiveness, and research skills and techniques (Evans & Stevenson, 2011). The requirements include the completion of coursework, exams, and a thesis or dissertation. To achieve this feat, some students choose to study for their doctorate degree in a foreign country for several reasons. The internationalization of higher education has become a common phenomenon with various benefits ranging from increasing the quality of education, and contributing to the economies of the host countries, to fostering international communication and understanding (Evans & Stevenson, 2011).

Compared to all other degrees, the rate of completion in doctoral studies is the lowest financial investments from individuals, families, the government, and sometimes employers (Maldonado, Wiggers, & Arnold, 2013). These

investments and expectations partly pressure the student, including the fact that the pursuit for this degree is in an unfamiliar terrain. This paper investigates the experiences of African and Asian students who pursued their PhD programmes in foreign countries. The major destinations for these students include Europe and America, with several career intentions and programmes, which they did or did not satisfy. This paper explores from the student's perspectives, the challenges, expectations, and experiences faced on this intercontinental doctoral journey and offers a baseline for future research on intercontinental student satisfaction.

2. Literature Review

Globalization of education is a viable means of preparing students to deal with dynamic, economic, political, and religious realities present in today's world (Zhang, 2016). This is why students who have limited higher education opportunities in their home countries go abroad to seek higher education. The choice to pursue a PhD abroad is a two-stage process; first, the student makes a decision to pursue a doctorate degree, and second, the student then decides on where to study. The first stage of this process is usually influenced by employment options in the home country, and the availability of quality doctoral training programmes in the home country. Considerations include weighing the benefits against the cost of pursuing a *PhD* abroad, as the second stage of this process is mostly influenced by finances. For some students whose home country provides financial assistance for *PhD* abroad, support may not be a major issue to determine their choice location for doctoral studies. Other considerations such as housing costs, timing, associated uncertainty of applying for and receiving visa for study in destination country, separation from family and friends, and living in an unfamiliar environment that may be difficult to adjust to, especially when language proficiency comes into play.

Factors that shape the experiences of doctoral students includes the application procedures, visa requirements, language, accommodation, study programmes, staff and students in the host institution, the campus environment, place of work, and work hours. The excitement of coming into a foreign country is often dimmed by the feeling of uncertainty, and the expectations, and orientation of the new environment and culture (Ramachandran, 2011; Yilmaz, 2017). While some students quickly adjust and find their way around their new environment without issue, others struggle with these challenges which often affect their academics and social lives. According to OECD (2016), the number of doctoral degrees awarded annually has increased worldwide in the past decade. International students encounter unfamiliar teaching practices, communication barriers, and identity issues. Further studies on doctoral students highlight issues such as inadequate career guidance, indifferent mentoring relationships, cultural insensitivity by academic advisors, and research supervisors (Campbell, 2015; OECD, 2016).

Africa is a developing continent, and it is the dream of many living in Africa to experience life in developed countries in Europe, and America. The education sectors in these developed economies have been heavily influenced by trans-border movement, with many students coming from Africa. Despite the expansion of the higher education system in Africa, most African countries cannot cope with the growth of students at the postgraduate level, leaving these candidates searching for higher education opportunities abroad, especially in European and American universities. Nigeria for example, had approximately 71,350 degree-seeking students abroad as of 2013. It has also been projected that the UK will host 28,800 postgraduate students, while the USA will host 7,600 postgraduate students from Nigeria in 2024 (Schulmann, 2017). As of 2013, African students comprised 10 percent of all internationally mobile students around the world, and this figure increased to 24 percent in 2014. Schulmann (2017) further reveals that some 43,148 Moroccan students enrolled abroad, 25000 went to France, and 5,700 went to Spain and Germany. Cameroon had 23,131 students enrolled in Germany, France, Italy, Belgium, and the United States. While Algeria has about 20,493 students studying in France, Zimbabwe, Kenya, Senegal, Angola, Ghana. Most African countries have a considerable amount of students pursuing postgraduate degrees in the UK, US, Australia, Brazil, Portugal, and South Africa (Schulmann, 2017). The under capacity of African institutions to handle the volume of these students stems from challenges such as poor funding, collapsed infrastructure, staff shortages, governance and management difficulties, and declining research productivity, affecting their ability to realize their mandates, which includes research and doctoral training (Albert, 2015). A 2015 survey by Okahana & Allum revealed that out of 16,724 students from sub-Saharan Africa who applied for postgraduate studies, 34 percent were interested in doctoral degrees (Kigotho, 2016).

For Asia, the pursuit of postgraduate degrees including the doctorate degree abroad results from several influences such as, economic factors, increased participation rates and demand-supply gaps in higher education, demographic trends, and the rising demand for English language education (Mani & Trines, 2018). The 2015 SEVIS reports show that 77 percent of all international students in the US are from Asian countries, and 4 percent from Africa. The largest numbers of international students are from China, India, and Korea (OECD, 2012). China alone had 662,100 students studying abroad in 2018, which is 8.83 percent up from the year earlier, and over 5.86 million Chinese have

pursued studies abroad from 1978 to 2018 (Shuo, 2019). More recently in July 2018, 30 percent of all foreign students in the US were from China, and 15 percent of these students are pursuing a doctorate degree (Zhou, 2018). Studies reveal that for Indians, the choice destination for further studies is the US, and the UK. Although recently, there has been an increase of student mobility towards Canada and New Zealand, because they offer prolonged stays after graduation (Hercog & Van de Laar, 2016). This implies that the possibility of future migration also influences the choice of doctoral students to school abroad, as some Asian and African students view it as a common path for relocating from their countries of origin. Regardless of the rationale behind the choice of Asian and African students to pursue a doctorate degree abroad, it is pertinent to grasp their opinions and analyze their experiences so as to evaluate their satisfaction. To this end, this study posed the following research questions;

- a) From the perspective of the intercontinental student, what has been the general personal experience in the academic system they chose to pursue their *PhD*, and how satisfactory personally has this been?
- b) What is the relationship between this experience, and their personal and professional growth?

3. Research Design and Methodology

3.1 Instrument

A quantitative approach was utilized to explore the opinions of doctoral students on their experiences during their study. This is an approach that deals with the process of collecting, analyzing, interpreting, and writing the results of the study (Creswell, 2008). Data was collected through an online survey run by the *Nature* team using their database, and analysed by *Shift Learning* in 2019. The *Nature* team has run a biennial *PhD* career survey since 2011 on relevant topics that resonate with graduates from all over the globe. Prior to the survey administration, an initial qualitative phase took place, where interviews were carried out with random participants to ensure the questions covered with the survey were relevant, and resonated with the goal of the survey. This online survey was developed by *Nature*, and sent to their database and subscribers via a number of channels. The survey was distributed to cohorts of intercontinental students currently running their *PhD* in several regions, and it was live for approximately six weeks. This approach allowed for a numeric description of intercontinental students' opinions as it concerned their personal experiences, in their bid to achieve the goal of obtaining a doctorate degree abroad, as well as their satisfaction of the program undertaken. The use of qualitative data from a fewer number of intercontinental students may have been more detailed, but the goal of this research was to obtain a set of data across a larger population (Creswell, 2008). This study was available only to intercontinental students currently running their *PhD* program in foreign countries. Even though this type of non probability sampling does not clearly state that the sample is representative of the population, it can offer valuable information in line with the purpose of this study.

3.2 Data Collection

The population of this study included 1901 intercontinental students, who were pursuing a doctorate degree as at the time of this study. The data was derived from an existing survey by *Nature*, which had pre-established validity and reliability, as the *Nature* team had run a biennial *PhD* career survey since 2011. To enhance and boost the response rate in specific regions which have been previously under-represented, the survey was translated into four languages. These languages included Mandarin Chinese, Portuguese, Spanish, and French, in addition to English. The survey included up to 56 questions, and respondents who provided poor quality responses were removed from the data set, in addition to those with missing data. The survey questions were formed in the light of literature to feed the major research questions, and the questionnaire was divided into five major sections.

Questions in the first section were introductory in nature, so as to obtain details about the participant's origin, why they chose to pursue a *PhD* abroad, and what country they chose to study in. The second section focused on discovering the participants' personal experiences, in order to obtain details about their high and low moments in the course of their study. Questions in this section were designed to obtain details about their concerns, and satisfaction with their course of study. The third section was designed to collect data on their individual programmes, their interaction with faculty members, and their opinions on the organization of the academic system they studied in. The next section was sensitive in nature as it obtained data on their mental health, and their experiences with discrimination in their study environment. The final section obtained data on participants' future career plans, career expectations, and career support. Questions in this section were also reflective in order to determine their current state of mind considering their experiences with pursuing a doctorate degree abroad.

3.3 Participants

Responses were obtained from 1901 doctoral students (n=1901), of which 49 percent were males, 50 percent were females, and 1 percent chose not to say.

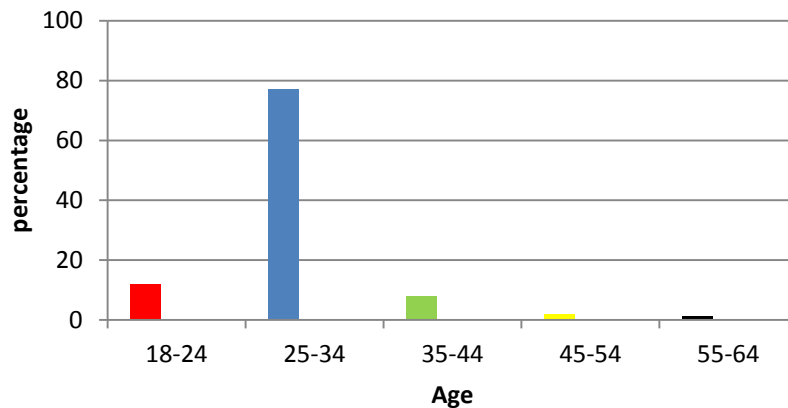


Figure 1. Demographic Breakdown of Participant's Age

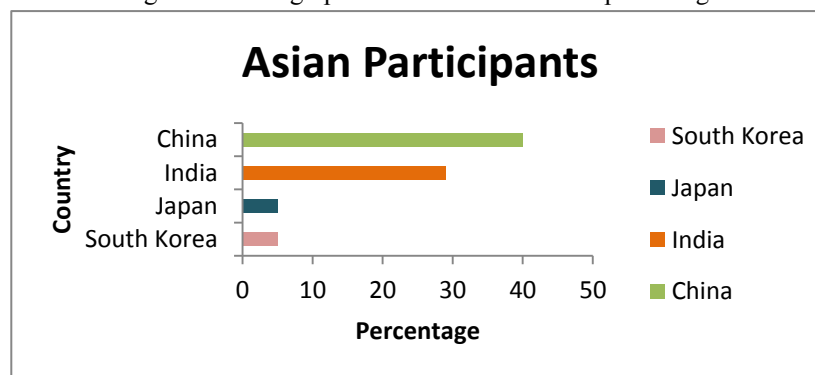


Figure 2.

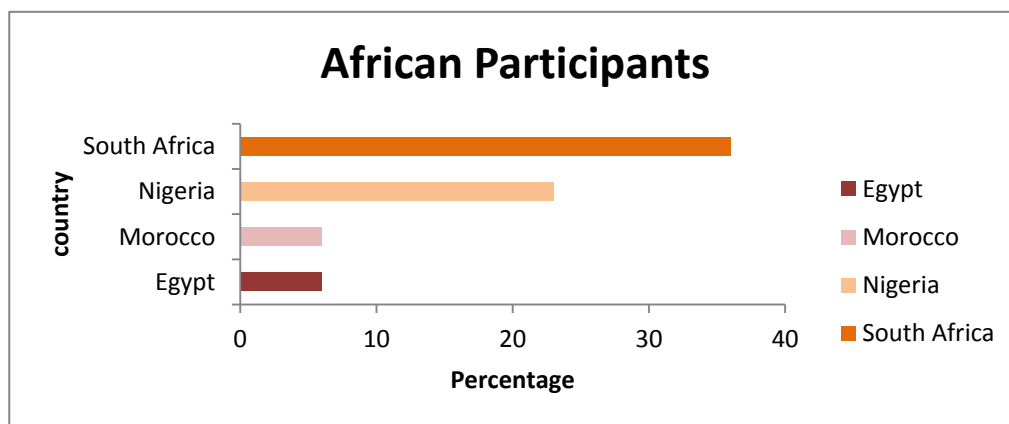


Figure 3.

As depicted in Figure 1 above, the participant's age ranged from 18 to 64, and more than half 77 percent of the participants were between the ages of 25-34 years old. The regions of origin in the sample represent the regions from the target population drawn, with 1743 respondents from Asia, and 158 respondents from Africa. As shown in figure 2, 40 percent of Asian respondents were from China, 29 percent from India, 5 percent from Japan, and 5 percent from South Korea. Figure 3 shows that 36 percent of African respondents were from South Africa, 23 percent from Nigeria, 6 percent from Morocco, and 6 percent from Egypt. All participants were assured confidentiality as their names were not required, and responses on other personal information details asked would only depict the composition of the sample. The most important limitation of this research was lack of face-to-face communication, and the difficulty in corresponding to all participants as this limited the possibility of a deeper analysis. Each section of the questionnaire was filled with open ended questions, so as to obtain additional views of the participants in order to compensate for this limitation.

4. Findings and Discussion

Before presenting and discussing the findings of this study, it is pertinent to note some of the features of the backgrounds of the respondents, as these were found to have influenced their responses. Although 78 percent of respondents had no caring responsibilities, 11 percent answered yes to caring for an adult, 2 percent answered yes to caring for a child over 12 years old, while 11 percent answered yes to caring for a child under 12 years old. Also, approximately a fifth of students were employed concurrent their studies. These demographics depict that respondents were not entirely dedicating all their time to their studies alone, and as such had other factors that influenced their experiences while studying. The data generated and analysed by this study were categorized into various segments exemplifying and epitomizing the dynamic experiences of these doctoral students. The segments were further merged to form two themes (1) Investigating Students' Satisfaction with the Choice of Academic Environment Based on their Experience; (2) Identifying the Relationship between Doctoral Students' Experience and their Future Career Projections. These themes are elaborately discussed below.

4.1 Investigating Students' Satisfaction with the Choice of Academic Environment based on Their Experience

This theme emerged from the first research question which was: From the perspective of the intercontinental student, what has been the general personal experience in the academic system they chose to pursue their *PhD*, and how satisfactory has this been? To answer this question, several feeder survey questions were asked to first determine the respondents' reason for choosing to pursue a *PhD* programme e.g. which was the most important reason you decided to enroll in a *PhD* programme? Other questions were designed to find out the respondent's country of origin, what country they choose to pursue a doctorate degree, and why? Findings revealed that 37 percent of respondents were not studying in the country they grew up in, 52 percent were most likely to complete their *PhD* in Europe, while 25 percent will do so in the United States. Apart from experiencing a new culture, the main motivator for studying outside their country of origin were funding, and employment considerations. Only a few participants implied that they chose to study abroad for political reasons. Dominant for most African and Asian students was the issue of the lack of funding opportunities in their home country. The availability of resources, particularly funding was a central ingredient for the completion of a doctoral degree (Pyhalto, 2012). The presence of financial security, clear and long-term financing through out the duration of a doctorate programme impacted upon the experience of the doctoral student positively.

In Africa, the predominant focus of many funding schemes is on the Master Degree training, and doctoral funding represents a small part of the overall scholarship portfolio (Harle, 2013). This is because there is a high level of demand for Master's level training, and the doctoral awards are considered unattractive to the funder due to the risk of non-completion. In fact, many doctoral awards advertised are only partially funded. Africa is a developing continent and its education system is also developing, thereby constraining the flourishing of postgraduate and particularly *PhD* education. More importantly, most African institutions lack the provision of quality *PhD* programmes. Infrastructure for research in universities in Africa except South Africa is weak and obsolete. Research institutions lack the resources to update and maintain their research centers, laboratories, libraries, and work spaces. This makes most African students consider pursuing their *PhD* in other continents, where these resources that facilitates a quality programme are present. This also affects Asian students as they equally seek better research funding, and infrastructure abroad. According to Hercog & Van da Larr (2017), the primary reason for Asians going abroad for studies is the possibility of schooling, and eventually working in a good environment that operates with new highly advanced technological facilities.

Data analysis by *Shift Learning* revealed that, 74 percent of respondents were satisfied with their decision to pursue a *PhD*, and 71 percent of respondents were completely satisfied with their choice to pursue a *PhD* abroad. 57 percent of respondents from Africa were particularly dissatisfied with funding availability, while 56 percent were dissatisfied with the stipends they received. For Asian students, 39 percent were dissatisfied with vacation time, 23 percent were dissatisfied with the opportunities available to attend meetings, while 42 percent were dissatisfied with their benefits. Students were most likely to enjoy the intellectual challenge of being a *PhD* student (38%), and working with interesting people(18%). They were least likely to enjoy the social life of a *PhD* student (1%). Other areas of enjoyment mentioned by respondents included flexibility, the positive impact of their work, independence, travel and personal development. Factors which appear to correlate strongly with overall satisfaction include relationship with supervisor, and guidance from advisor in laboratories. Students' relationship with supervisor did seem to have a particular impact on their overall satisfaction because, 53 percent of respondents who are dissatisfied with their overall *PhD* experience are dissatisfied with this relationship.

The complexity of the relationship between a supervisor and a doctoral student cannot be overemphasized. This is because the implications of its effectiveness, or ineffectiveness directly affects the outcome of the student's doctoral journey (Prazeres, 2017). A study by Vydrova, Ticha & Flegl (2015) revealed that the main reasons for dissatisfaction

were related to the time supervisors devote to their students, communication problems, and the impossibility of solving study-related problems with supervisors. This study concurs with Vydrova, Ticha & Flegl (2015) as over 50 percent of respondents suggest that they receive less than an hour contact time with their supervisors per week. Prazeres (2017) further likened this relationship to one that exists between a physician, and their patient. He stated that satisfaction was dependent on the interaction between supervisor and student. To improve satisfaction, the doctoral student and supervisor must be willing to negotiate and agree on a practical, and achievable research path. This would require smooth communication, and the investment of quality time, to encourage the progression of the research and the doctoral study (Prazeres, 2017). Put simply, an effective and efficient relationship between the *PhD* student and their supervisor, will yield positive results, while a negative one may lead to academic failure.

4.2 Identifying the Relationship between Doctoral Students' Experience and Their Future Career Projections

The above theme emerged from the research question; What is the relationship between the *PhD* student and their supervisor, and their personal and professional growth? The question aimed to investigate the influence of the participant's current experiences on their general wellbeing, career plans and expectations. Only 10% of respondents believed their *PhD* programme exceeded their expectations, whereas 37% believed their *PhD* programme hasn't met their expectations. The latter opinion particularly reflected those based in India (55%). Reasons given as to why their experience fell short of their expectations connect to their benefits, career pathway guidance, and their work-life balance. 27 percent of respondents reported that they spent 41-50 hours on their *PhD* programme per week, and 25 percent reported that they spent 51-60 hours. 85 percent of respondents who spent over 41 hours a week on their *PhD* were dissatisfied with their hours worked. According to Abbott (2013, Pg. 44), "work-life balance is a state where an individual manages real or potential conflicts, between different demands on his/her time and energy, in a way that satisfies his/her needs for well-being and self-fulfillment."

The concept of 'study-work-life-balance' emerged in relation to work-life-balance, but takes into cognisance the experiences of students who had to combine activities in their private lives, work obligations, and the demands of their studies. A study by Pookaiyaudom (2015) explored the effects of work-life balance on some international students at a university in Thailand revealed that the workload and working hours of the student had a significant impact on their study-work-life-balance. Pookaiyaudom insist that international students who are away from their family and friends and cannot access their support, found it difficult to manage their personal life, study, and work demands. An effective study-work-life-balance improves the well-being of the student, and facilitates stress control as they try to manage the different demands they are expected to meet. Evwerhamre (2019) also explored the issue of work-life balance for selected *PhD* students studying abroad, and concluded that institutional support such as assistantship roles from the university, contributed to the stress faced by international *PhD* students as it affected their work-life balance. Most of these students were not aware of any work-life balance initiatives by the university, while some did not use these initiatives despite their awareness as it did not meet their individual needs. According to a respondent, the academic system was described as "Negative and toxic. People are stressed and many seem on the edge of a mental break down. There is huge pressure to work long hours and to overachieve. The pressure to publish seems to result in rushed science and papers, which could jeopardise their quality."

Data analyzed revealed that 36 percent of respondents sought help for anxiety or depression issues caused by their doctoral study. 43 percent of these respondents sought help via their institution, even though 26 percent didn't find it helpful. 9 percent of respondents indicated that they did seek for help from their institution, but none was available. Qualitative interviews indicate that mental health support within universities were usually available, but not promoted and most times inaccessible due to long waiting times, lack of counselors, and at a high cost. Depression and anxiety are mental issues that should not be ignored as they can negatively affect the well-being of the student leading to psychological distress. Depression can be defined as a mood that includes a feeling of hopelessness, helplessness, or worthlessness (Liu et al., 2019; Shete & Garkal, 2015). Anxiety is an emotion characterized by unpleasant inner feelings, which leads to complaints, caution, worry, and nervousness (Liu et al., 2019; Shete & Garkal, 2015). Doctoral students worried about their finances, employment opportunities, thesis writing, publishing, and their relationship with supervisors. These causes pressure and stress, which in turn affected their mental health. Findings from this study also revealed that discrimination and bullying by respondents also affected their mental health, especially when these incidents were played down to protect the university's reputation. 21 percent of respondents experienced bullying, discrimination and harassment during the course of their doctoral journey, and half of these students were unable to speak out about their experiences for the fear of repercussions as they could not do so anonymously. These forms of discrimination as discovered were political, cultural, socio-economic, and xenophobic in nature. Approximately 48 percent of respondents stated that the common perpetrators of such behaviours were their supervisors, while 38 percent indicated that they experienced such from students.

Respondents also indicated that work-life balance was a barrier to pursuing an academic career after their studies. The obvious choice of many doctoral graduates was an academic career in research and higher education, and this study supported this finding. This is because over 56 percent of respondents ranked academia as the sector they would most likely work in on completion of their *PhD*. 67 percent of respondents believed their *PhD* would improve their job prospects either substantially or dramatically. This increased to 78 percent when exploring results from African respondents specifically. In the past, most doctoral graduates who sought employment opportunities in academia, experienced a smooth transition from doctoral and post doctoral work, to a full-time position as an academic professor in an institution of higher learning. This is no longer the case as the supply of doctorate degree holders have now exceeded the demand for them (Etmanski, Walters, & Zarifa, 2017). The job market is now highly competitive, forcing *PhD* holders to consider other employment options. Findings reveal that 28 percent of respondents are considering working in the industrial sector after studies, while other respondents consider the medical, government, and non-profit sectors as options. Reflecting on their experiences during their doctoral journey, 8 percent of respondents insist that if given the chance to start over again, they would not consider pursuing a doctorate degree. Most participants wished they had been fully aware of the funding, and financial requirements before commencing their program. While others indicate that gaining insight on the career options outside of academia, and the impact of the doctoral journey on their wellbeing, and mental health, prior to the commencement of their program would have been beneficial.

5. Conclusion

This study contributes significantly to existing literature by investigating the experiences of Asian and African doctoral students who chose to study abroad, and exposes the impact of these experiences on their general wellbeing, and their career prospects. Findings reveal that these students who move to other continents to pursue a *PhD*, do so in order to experience a new culture, and for funding and employment considerations. The stress which originates from the demands from their personal lives, workload, and study demands affects their mental health, causing some of these students to suffer depression and anxiety. This study also found that another cause of mental issues suffered by some of these students stems from discrimination and harassment, which they suffer from supervisors, and other students they encounter in the academic environment they choose to study. It is also worthy to note that this discrimination, and in some cases bullying are political, cultural, socio-economic, and xenophobic in nature. Most students do not speak out about their experiences, causing more damage to their mental health as they bottle up these issues. Majority are unaware of mental health support from their institutions of learning, and those who are, experience difficulty in their bid to access these counselors. To remedy the issue of mental health while pursuing a *PhD*, a 'study-work-life-balance' is of great importance.

This study suggests that international institutions of higher learning should pay more attention to international doctorate students. *PhD* supervisors should spend quality time with their students, provide them with useful information as it concerns their research, and better communicate and provide support where needed. Further research on the effects of study-work-life balance on the mental health of doctorate students, and its influence on their career satisfaction, expectations and projections should be explored.

References

- Abbot, P. (2013). Work/Life Balance. *Accountancy SA*, 44-45. Retrieved From: <http://www.accountancysa.org.za>
- Albert, I.O. (2015). Beyond Moral Panic: Negotiation Theory and the University Strikes in Nigeria. *Journal of Global Initiative*, 9(2), 81-98. Available at <https://digitalcommons.kennesaw.edu/jgi/vol9/iss2/8>
- Campbell, T.A. (2015). A Phenomenological Study on International Doctoral Student's Acculturation Experiences at a US University. *Journal of International Students*, 5(3).
- Creswell, J.W. (2008). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. London: Sage.
- Evans, C. & Stevenson, K. (2011). The Experiences of International Nursing Students Studying for a *PhD* in U.K: A Qualitative Study. *BMC Nursing*, 11(10). <https://doi.org/10.1186/1472-6955-10-11>
- Evwerhamre, F. (2019). *Work-Life Balance Experiences in the UK Higher Education: A Focus on International PHD Students*. Conference Paper: International Journal of Arts and Sciences (IJAS) Conference.
- Hercog, M. & Van de Laar, M. (2016). Motivations and Constraint of Moving Abroad for Indian Students. *International Migration and integration*.
- Herrera, L. & Nieto, M. (2016). *PhD Careers in Spanish Industry Job Determination in Manufacturing Versus Non-Manufacturing Firms. Technological Forecasting and Social Change*, 113(part B), 341-351. <https://doi.org/10.1016/j.techfore.2015.09.019>

- Issac, P.D., Quinlan, S.V & Walker, M.M. (1992). Faculty Perceptions of the Dissertation. *Journal of Higher Education*, 63, 241-268. <https://doi.org/10.2307/1982014>
- Kigotho, W. (2016). Very Low Numbers of African Graduate Students in US. *University Worldnews, African Edition*. Published 29 January, 2016. Retrieved from <https://www.universityworldnews.com/post-mobile.php?story=20160126>
- Lauchlan, E. (2019). *Nature PhD Survey 2019*. Retrieved From: <http://www.shift-learning.co.uk>
- Le, T. & Gardner, S.K. (2010). Understanding the Doctoral Experiences of Asian International Students in the Science Technology, Engineering, and Mathematics. *Journal of College Students Development*, 51(3), 252. <https://doi.org/10.1353/csd.0.0127>
- Liu, C., Wang, L., Qi, R., Wang, W., Jia, S., Shang, D., Shao, Y., Yu, M., Zhu, X., Yan, S., Chang, Q. & Zhao, Y. (2019). Prevalence and Associated Factors of Depression and Anxiety Among Doctoral Students: The Mediating Effect of Mentoring Relationships on the Association Between Research Self- Efficacy and Depression/Anxiety. *Psychology Research and Behavior Management*, 12(195). <https://doi.org/10.2147/PRBM.S195131>
- Maldonado, V., Wiggers, R. & Arnold, C. (2013). *So You Want to Earn a PhD? The Attraction, Realities, and Outcomes of Pursuing a Doctorate*. Toronto: Higher Education Quality Council of Ontario Issue paper No.15.
- Mani, D. & Trines, S. (2018). *Education in South Korea*. World Education News and Reviews. Retrieved from: <https://www.wenr.wes.org>
- OEDC (2012). *How Many Students Study Abroad and Where do they go?* In Education at a Glance 2012: Highlights, OEDC Publishing, Paris.
- Pookaiyaudom, G. (2015). Assessing Different Towards the Importance of a Work Life Balance: A Comparable Study Between Thai and International Programme Students. *Procedia- Social and Behavioural Sciences*, 174(2015), 267-274. <https://doi.org/10.1016/j.sbspro.2015.01.657>
- Prazeres, F. (2017). PhD Supervisor-Students Relationship. *Journal of Advance in Medical Education and Professionalism*, 5(3), 213.
- Pyhatlo, Keno, Vekkaila, J. & Keskinen, J. (2012). Exploring the Fit Between Doctoral Students and Supervisors Perceptions of Resources and Challenges Vis-à-Vis the Doctoral Journey. *International Journal of Doctoral Studies*, 7. <https://doi.org/10.28945/1745>
- Ramachandran, N, T. (2011). Enhancing International Students Experiences: An Imperative Agenda for Universities in the UK. *Journal of research in International Education*, 10(2), 201-220. <https://doi.org/10.1177/1475240911413204>
- Sato, T. & Hodge, S. (2009). Asian International Doctoral Students Experiences at Two American Universities: Assimilation, Accommodation and Resistance. *Journal of Diversity in Higher Education*, 2(3), 136-148. <https://doi.org/10.1037/a0015912>
- Schulmann, P (2017). African Students Mobility: Regional Trends and Recommendation for U.S. *HEIS*. Retrieved from: <http://wenr.wes.org/2017/03/african-students-mobility-insights-and-recommendation-for-u-s-heis>.
- Shuo, Z. (2019). Chinese Students Studying Abroad up 8.83. *China Daily*. Retrieved from <https://www.chinadaily.com.cn/a/201903/28/ws5c9c355da3104842260b30ed.html>
- Tarvid, A. (2014). Motivation to Study for PhD Degree: A Case of Latvia. *Procedia Economics and Finance*, 14(2014), 585-594. [https://doi.org/10.1016/S2212-5671\(14\)00747-3](https://doi.org/10.1016/S2212-5671(14)00747-3)
- Vydrova, H.V., Ticha, I. & Fleg, M. (2015). *PhD Student-Supervisor Relationship-is there a problem?* Conference paper: 12th International Conference on Efficiency and Responsibility in Education 2015, at prague, Czech.
- Yilmaz, D.V. (2017). Studying Abroad. Experience of international Students in a Turkish University. *Journal of Higher Education*, 8(1), 23-32. <https://doi.org/10.2399/yod.17.027>
- Zhang, Y. (2016). International Students in Transition: Voices of Chinese Doctoral Students in a U.S. Research University. *Journal of International Students*, 6(1), 175-194.
- Zhou, Y. (2019). The Impact of Chinese Students in the U.S, Charted and Mapped. *Quartz*, Published October 2, 2018. Retrieved from <https://qz.com/1410768/the-number-of-chinese-students-in-the-us-charted-and-mapped/>