BRIDGING THE GAP TOWARDS POSTGRADUATE STUDIES AT THE CENTRAL UNIVERSITY OF TECHNOLOGY, FREE STATE

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Abstract

A worldwide concern are focusing on the quality of postgraduate training in higher education institutions, the length of time it takes postgraduate students to complete their studies, and the high percentage of postgraduate students who terminate there studies. Furthermore the involvement in research is making increasing quality demands on higer education institutions in terms of sustaining high-level research capability and involvement on an efficient and effective basis. It is clear that the postgraduate environment will have certain expectations as well as obstacles for the students and therefore if the undergraduate students are prepared beforehand for the postgraduate environment, they will be able to bridge the gap between undergraduate and postgraduate studies more successfully. (113 words)

Keywords: Post graduate studies, super visits

1. INTRODUCTION

According to the National Plan for Higher Education (RSA MoE 2001:76), the Ministry of Education of South Africa is concerned about the slow completion rates and the high drop out rates at Master's and Doctoral level. One of the Ministry's intented strategies to rectify this alarming tendency is to require higher education institutions to indicate the strategies to improve these graduate outputs (RSA MoE 2001:78). Higher education is regarded as a major role player in the global economy, the enhancement of a knowledge society and the development of communities (Lategan 2003:1; Enders 2004:439). In order to fulfil their roles and/or tasks in this regard, the activities of higher education institutions should rest on three pillars, namely: the generation of new knowledge (research), the transmission of new knowledge (teaching) and community service (CHE 2000:35; RSA MoE 2001; Lategan 2003:1; Lessing & Lessing 2004:73). Of these three pillars, postgraduate supervision and research training are regarded as core academic activities for most higher education institutions, where academic staff are fulfilling both their teaching and research roles (James & Baldwin 1999:3; Ngcongo 2001:53; Zhao 2003:191; CHE 2004:3).

A worldwide concern are focusing on the quality of postgraduate training in higher education institutions, the length of time it takes postgraduate students to complete their studies, and the high percentage of postgraduate students who terminate their studies (Pearson & Brew 2002:135; Van der Westhuizen & De Wet, 2003:185; Le Grange & Newmark 2003:50).

In addition, the last decade or so has been viewed as “extraordinary” especially with regard to the “change in the structure, function and financing of the higher education system” (Leonard 2001:9-10; Biggs 2003:1). This expansion, restructuring and refinancing of higher education has implied not only larger classes, but also classes “diversified in terms of student ability, motivation and cultural background” (Biggs 2003:1; Gravett & Geyser 2004:22-23).

Because of all these changes and challenges, the focus of most research into student transition related to the important transition that students face when they move from high school to first year at university. This particular transition is also the focus of much support, both in terms of workshops and academic preparation programs offered, and individual consultations (Symons nd:1). Unfortunately, it has become apparent that the transition to higher degrees can prove to be just as daunting a transition. According to Swanepoel and Moll (2004:291) numerous studies to date have been undertaken regarding the prediction of success at the undergraduate level of higher education. Hou (1998), Ting and Robinson (1998), Dawes, Yield and Smith (1999), Huysamen (2000, 2001), McKenzie and Schweitzer (2001), and Smith, Edminster and Sullivan (2001) are only a few of those who have published on this topic. However, not many researchers investigated the prediction of success on postgraduate level, especially performance in research degrees at Master's and Doctoral level.

In order to address some of these challenges, this article commences with an international and national perspective on postgraduate studies, whereafter the importance of identifying and overcoming the gap between undergraduate and postgraduate studies will be discussed.

2. BACKGROUND TO THE STUDY

According to Lessing and Schulze (2002:140) postgraduate research has an intellectual as well as a psychological component. Although it is true that internal and external conflicts influence the research process negatively, it is almost impossible to verify the psychological component in predicting whether a person will be a successful researcher (Swanepoel & Moll 2004:292). It also seems a bit simplistic to argue that students “need determination and perseverance (rather than brilliance) to complete their research” [(Smith et al. in Lessing & Schulze 2002:141), see 3.1]. While the supervisor plays a very important role in the successful completion of a dissertation or at least the time that is needed to complete it, the ability of the student surely remains the most important variable (Swanepoel & Moll 2004:292).

The focus of this article therefore links with the opinion of Whitaker and Moses (1994:76) that “being quality minded in education means caring about the goals, needs and interests of the students and other external groups”.

For purposes of this article, the focus falls on identifying the gap between undergraduate and postgraduate research studies undertaken by postgraduate students within the School of Entrepreneurship and Business Development (SEBD) in the Faculty of Management Sciences of the Central University of Technology, Free State (CUT). In order to address this issue, the researcher has identified the following three major problems that can lead to poor-quality research outputs or even to the non-completion of the postgraduate's studies: Firstly, is the postgraduate student aware of and prepared for the expectations of postgraduate studies? Secondly, is the postgraduate student aware of the importance of a professional relationship with the supervisor? Thirdly, does the postgraduate student know what level of quality is expected of him/her? (Hay, 2000; James & Baldwin, 1999; McCormack, 2004; Mouton, 2001; Phillips & Pugh, 2005).

The focus of this article therefore falls on the first aspect, namely is the postgraduate student aware of and prepared for the expectations of postgraduate studies. In being aware of and prepared for the expectations, the student will possibly be more successful.

2.1 Aims and objectives

The research aim of the case study was to undertake an investigation into the postgraduate research practices of new-generation postgraduate students at the SEBD in order to identify possible quality-improvement guidelines for postgraduate research at the CUT.

In order to achieve this aim, the following objectives were formulated:

- To undertake a comprehensive literature review on quality postgraduate research embedded in the higher education context;
- To investigate and critically analyse the existing new-generation postgraduate research environment within the SEBD; and
- To identify methods and procedures to assist these postgraduate students in working towards quality research.

For purposes of this article, the focus falls only on the relevant results of the case study related to the title.

2.2 Research design and methodology

A formative-evaluative case study design (Mouton 2001:149-150) was used to conduct an in-depth investigation into postgraduate studies (i.e. with regard to the research environment and the quality thereof as seen through the eyes of new-generation postgraduate students within the SEBD).

This in-depth investigation employed a literature review in respect of the nature of new-generation postgraduate students, the possible stumbling-blocks and solutions encountered by postgraduate students, as well as the importance of good-quality postgraduate research and the achievement thereof. The empirical investigation consisted of focus group discussions and individual interviews (mainly qualitative data collection) assisted by a quantitative data collection element (i.e. a brief profile questionnaire to fill in the gaps in respect of the respondents' personal details).

This study consisted of a purposive sample of registered MTech (N=6) and DTech (N=4) students within the SEBD for the year 2006. These respondents were included in the empirical investigation by virtue of the representativeness of the postgraduate culture within the SEBD and the respondents' first-hand experience of the phenomena under investigation (Conrad, Haworth & Lattuca, 2001; Crossley & Watson 2003; McMillan & Schumacher, 2001). In addition, these postgraduates were given the option to participate in either a focus group discussion or an individual interview, where the response rate was 71%.

3. POSTGRADUATE STUDIES: INTERNATIONAL AND NATIONAL PERSPECTIVES

South African higher education institutions are engaged in rapid transformation processes (see 1). The consequences of these transformation processes include the merging of institutions (with special reference in this study to the establishment of universities of technology); an increasing proportion of the postgraduate student body consisting of students from previously disadvantaged backgrounds and the fact that the body of academic staff has also been transformed (RSA DoE 1997; Hay 2000:56; RSA MoE 2001; CHE 2004). In general, this new generation of students has limited experience of independent research work and using the library and other research facilities (Lessing & Lessing 2004:73; Mapesela & Wilkinson 2005:1239). However, quality research needs to be maintained. Therefore it is of great importance that academics should not only possess the knowledge and skills to adapt their practice of postgraduate supervision research appropriately, but should also have the ability to create an environment conducive to postgraduate student learning and research.

3.1 International perspective on postgraduate studies

On the international scene the impact of globalisation, the changing world of work, the information era, new modes of knowledge production, legislative demands for quality and accountability and the emergence of a new learning industry continue to exercise a major influence on the expansion, restructuring and refinancing of higher education institutions (Biggs 2003:1; Leonard 2001:9-10; CHE 2000:35; Lessing & Schulze 2004:74; Grant 2005:337).

Within the postgraduate supervision process, this impact could create various hurdles for all three parties involved (for the purposes of this study, however, the focus remains on the postgraduate student). From the postgraduate student's perspective, the rationale for postgraduate studies consists of diverse reasons, which vary between those motivated extrinsically by the institution versus intrinsic, personal reasons (see 2). In this regard, literature highlights the following (McCormack 2004:330-331; Phillips & Pugh 2005:22, 25-26; Berg 2004:210; McMillan & Schumacher 2001:5, 6):

At the beginning of postgraduate studies the wish is to make a significant contribution to the chosen field (thus becoming a fully professional researcher who can distinguish between “knowing that” and “knowing how” by communicating findings clearly). Phillips and Pugh (2005:22) formulated the following points to indicate what exactly it means to become a full professional: At the most basic level, it means that you have something to say that your peers want to listen to. In order to do this, a postgraduate must have a command of what is happening in his/her subject field in order to evaluate the worth of what others are doing. Furthermore, postgraduate students must have the astuteness to determine where they can make a useful contribution, in addition to being aware of the ethics of the profession and remaining within them. It is also important to have mastered appropriate research techniques that are currently being used, and to be aware of their limitations. Finally, postgraduate students must be able to communicate their results effectively in the professional arena within an international context. In brief, most of the above-mentioned points concern the acquisition of skills, not knowledge. Thus, there are craft skills involved in becoming a full professional, which, like any skills, have to be acquired by performing the task in practice situations under supervision. Although the diverse aims of postgraduate students do not remain the same throughout the period of registration for postgraduate studies, it is important that postgraduate students eventually realise that successful research requires determination and application, rather than brilliance.

From a higher education institutional perspective, the importance of the postgraduate students is demonstrated in the following examples. For instance, the primary focus of the National Centre for Research on Europe (University of Canterbury 2006: online) remains the development of a new generation of New Zealand graduates. These new-generation graduates should be graduates with expertise in a range of European issues in order to foster New Zealand's ability to comprehend and interact with the new Europe. Another example is the National Postgraduate Committee (NPC Guidelines on Accommodation and Facilities for Postgraduate Research 2007: online) that has been functioning since 1982 in the United Kingdom. This Committee represents the interests and aspirations of postgraduate instructional and research students, and its aim is to assist in the delivery of outstanding postgraduates who will be an investment for the rest of the world.

In addition, the literature (Khafagi 1990:67; The Quality Assurance Agency for Higher Education 2004:20-21; University of Canterbury 2006: online) confirms that the graduate students are one of the largest and most important parts of the higher education institutional community as these students, for instance, help liberalise and broaden the outlook of other students by providing them with a unique and valuable perspective on the world. Furthermore, these postgraduate students could also assist supervisors with research projects and course instruction especially when capacity personnel shortages in both education and industry exist. It therefore remains crucial for higher education institutions to support these students (e.g. through offering financial support, chances for international research trips and internships, and regular contact with an international network system), in order to provide them with a supportive, challenging and academically exciting environment (Gough 1999:1-5; The Quality Assurance Agency for Higher Education 2004:7-9).

3.2 National perspectives on postgraduate studies

Since the late 1980s, when it first became evident that an end to apartheid was inevitable, the South African higher education system has been subject to enormous changes. Some of these changes have resulted from legislation enacted by the democratic government elected in 1994. Other changes, however, have arisen as a result of pressures at global level that now impact on South Africa as a member of the international community, and yet more changes result from social and economic shifts within the country itself. Given the often bewildering nature and number of changes that confront those working in the higher education system, some understanding of the contexts that have given rise to these changes is essential if academics and administrators are to adapt the practice appropriately (Gravett & Geyser 2004:1) especially for the purposes of this study on promoting quality postgraduate research.

Within this rapidly changing and transforming South African higher education context, institutions face various and pertinent challenges. Challenges that are particularly significant for postgraduate studies and research include the following (Lategan 2008:5):

- A diverse and differentiated higher education system (legislation and policy implementation are required to address these challenges).
- Internationalisation, globalisation and Africanisation (with regard to mobility and transfer within a knowledge society).
- Greater responsiveness to economics (i.e. new subsidy formula, research by and for industry/business commercialisation of research patterns, intellectual property) and social needs (i.e. pressing national needs such as cultural diversity, equity, quality of education, skills development, shortage of science, engineering and technology (SET) graduates, etc.)

In order to address these challenges, various policies and initiatives (e.g. the National Plan for Higher Education, especially with reference to Outcome 13: Research concentration and funding linked to outputs and Outcome 14: Increased graduate enrolments and outputs at master and doctoral level; the core values of a qualification identified by the National Qualifications Framework; Skills Development and Human Resource Development strategies regarding labour shortages; the Funding Formula for funding research outputs) support postgraduate studies by outlining national principles and goals to steer transformation.

For the purposes of this study, the following two proposed goals stipulated in the Education White Paper 3: A programme for the Transformation of Higher Education (RSA DoE 1997), are relevant, namely:

- A single qualifications framework for a single co-ordinated higher education system.
- Advancing research capacity.

The first proposed goal has now finally been achieved by publishing the Higher Education Qualifications Framework (Act No. 928 of 2007) (RSA 2007:1 of 27), as set out in the Schedule, as a policy in terms of section 3 of the Higher Education Act (Act No. 101 of 1997) (RSA 1997). Thus, this policy not only provides the basis for integrating all higher education qualifications (for the purposes of this study, focusing on postgraduate degrees) into the National Qualifications Framework (NQF), but also provides structures for standards generation and quality assurance (despite a diverse and differentiated higher education system) (CHE 2007:1-2). The benefits of this policy include improving the coherence of the higher education system and facilitating the articulation of qualifications (e.g. enhancing the flexibility and efficiency of mobility, which is crucial for postgraduates' academic or professional careers) [CHE 2007:1-2; RSA 2007:1].

In addition, this new single qualifications framework for a diverse South African higher education system has also been designed to meet the challenges of the 21st century by providing graduates with capabilities and skills to enrich society and to empower themselves, as well as to enhance economic and social development (RSA 2007:1). This is crucial due to the already stipulated consequences of rapid transformation processes (see 1) and problems experienced at postgraduate level in higher education institutions.

Taking the above-mentioned into consideration, the maintenance of quality postgraduate research has become a complex challenge and demand for higher education.

Furthermore, for a student to be able to maintain quality he/she should be informed about the purpose, the extend and expectations of postgraduate studies, from which stipulated by Humphrey and McCarthy (1999:383) the policy of integration adopted by many institutions may be inappropriate

4. BRIDGING THE GAP IN POSTGRADUATE STUDIES

To be a researcher implies the mastering of specific skills such as the ability to apply appropriate research techniques, to analyse data and to write reports that are coherent and show critical depth and originality (Swanepoel & Moll 2004:292). It seems especially true on master's degree level to expect a student not be merely a graudate but a real intellectual. That is a person who, according to Jansen (2001), inter alia, questions, seeks and proposes alternatives, is restless about the status quo and traces connections between the disciplines.

Are undergraduates prepared for this environment they enter? The problems faced by students making the transition to postgraduate studies were examined in 2000 at Glasglow University and are currently being compared to those faced by students at the University of Queensland (Symons nd:1). Students faced significant problems when beginning their postgraduate studies related to the worry about expectations, the “step-up” in standards, the break from study they have had due to time in the workforce, and in some cases because they are moving into a new discipline area (Symons nd:1, 2).

From the study conducted at the Central University of Technology, Free State, the researcher also identifies the following problems postgraduate students experinces: isolation (McMillan & Schumacher 2001; Mouton 2001; Van der Westhuizen & De Wet's 2003:186; Venter 2003; Phillips & Pugh 2005:73; Calicchia & Graham 2006), supervision (Zeelen 2003:140; Lessing & Lessing 2004:79, 83, 141) and general personal problems which may be either brought on or exacerbated by the degree process.

Although numerous challenges and suggestions were identified from the study conducted at the Central University of Technology, Free State, the following relevant aspects are highlighted:

4.1 Language proficiency, academic writing skills, and statistical analysis

The above-mentioned aspects were identified as problematic by all respondents. Since the majority of respondents were completing their studies in a language (English) other than their home language, this was resulting in difficulties with regard to language proficiency, research terminology and academic writing. The respondents' lack of statistical background was also impacting negatively on their progress towards the completion of their studies.

For bridging the gap, postgraduate students should be prepared, already at undergraduate level, for the research environment before entering it. It is thus proposed that, in order to overcome the above-mentioned problems, future postgraduate students at BTech level should follow an introductory course on research aspects. Another option would be to recurriculate the undergraduate courses in such a way that diploma students would start developing skills with regard to academic writing and research preparation for the postgraduate level.

4.2 Research-related workshops

The majority of respondents (employees at the CUT) were experiencing difficulty attending the scheduled research workshops, since most of these workshops were being scheduled during class contact sessions.

The respondents felt that that the Research Office was doing beneficial work by holding workshops to enrich postgraduate students, but they also felt that their inability to attend many of these workshops was impacting negatively on their knowledge and on the overall research culture. Attending all the necessary research-related workshops would enable these postgraduate students to overcome their problems with regard to language proficiency, academic writing and statistical analysis.

It is therefore recommended that other relevant needs need to be investigated, in relation with the Research Office's workshops on academic writing skills and other related research topics. In addition, the current timeframe should be addressed by perhaps offering more flexible time schedules, which could offer more opportunities for a wider population.

4.3 Supervision

From the findings it appears that liaison with the supervisor at least once monthly is required, while the appointment of a co-supervisor is a personal decision. The fact that only a few of the respondents and their supervisors were following a set timeframe is cause for concern. It is important that the postgraduate student follows a set timeframe to be able to work towards an end result.

A recommendation can be forwarded that the Faculty of Management Sciences should continue to keep record of the progress made by postgraduate students, but should also emphasise the importance of liaison between supervisor and postgraduate student. The possibility of establishing group sessions involving a few students and their supervisors should be investigated (especially with regard to the high workload issue). The importance of time management should be reiterated to both supervisors and their postgraduate students, since a set timeframe serves not only as a progress-monitoring tool for the completion of the study, but also as a quality-assurance tool when progress is followed in more detail.

It is furthermore recommended that undergraduates should be informed beforehand of the importance of the student-supervisor relationship, the expectations they will be required to meet and the importance of time management within postgraduate studies.

5. CONCLUSION

It is clear that the postgraduate environment will have certain expectations as well as obstacles for the undergraduates when entering their research field. If the undergraduate students are prepared beforehand for the postgraduate environment, they will be able to bridge the gap between undergraduate and postgraduate studies more successfully.

The authors of this article therefore decided to conduct an in-depth empirical investigation into the experiences of new-generation postgraduate students and the quality of postgraduate research within the SEDB of the CUT. One of the distinct empirical results indicated that one way of improving the research outcomes, overcoming the slow completion rates and high drop out rates of postgraduate students is via bridging the gap between undergraduate and postgraduate studies hence the focus of this article.

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