Exploring the lived experiences of undergraduate education students in conducting research projects

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ABSTRACT: The undergraduate degree program in Education at the University of Namibia includes a compulsory module in Educational Research at the third year level. The module aims to equip students with basic knowledge and skills of planning, conducting and reporting on educational issues. Educational research module is a prerequisite for the research project at the fourth year level. At the time of this study, fourth year students were conducting their research project under the guidance of their respective supervisors and most of them were experiencing challenges in completing their project. Therefore, it is important to explore the challenges that students experience in conducting research projects and ways to overcome them. In this paper, we used a phenomenological case study design to describe the challenges that the selected undergraduate education students were faced with when conducting their research projects. The data were gathered through focus group discussions. By exploring the challenges facing students when conducting research, this paper provided insights for bridging the gaps between studying research module and conducting research projects. The findings of this study have implications on teaching strategies and ways to improve students' research project supervision.

Key words: lived experiences; research projects; educational research

INTRODUCTION AND BACKGROUND

This section starts with a short introductory review of literature and ends with a brief description of the Educational Research module. A number of literature reviews have documented that Education students at the undergraduate level of studies get feelings of stress and uneasiness when taking research methods classes (Murtonen & Lehtiner, 2003; Wilson, 2001). Papanastasiou (2006:1-2) who conducted a study on students majoring in Education concluded that "students tend to believe that research methods are overwhelming and that it is almost impossible to get through

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them, although in most cases, they are not really aware of what research methods are all about." Since research methods courses are general courses that every student takes, students are also not sure of the relevance and usefulness of those courses to either their future career situations or to their everyday lives (Pan & Tang, 2004; Braguglia & Jackson, 2012).

Ball and Pelco (2006:147) point out that courses on research methods are "challenging to teach because the technical complexity of the course material is quite high while students' interest in this material can unfortunately be quite low." Schulze (2009:993) concurs that methodology courses are acknowledged as 'problem courses' at many universities and are often seen as a "source of student annoyance." This is perhaps due to the reason that most of these research methods are delivered through lecturing methods and are too grounded in theory rather than based on practical and hands-on learning activities (Benson & Blackman, 2003). Adding to this complexity is the fact that students are having difficulties of connecting what they are learning in research methods classes to other modules or simply to apply them to their real life situations (Lipsitz, 2000). Leston-Bandeira (2013:19) stresses that, "the value of nurturing the link between research and teaching becomes particularly meaningful when students are able actively to experience this link; when students become the vehicle to develop research while learning."

The undergraduate degree program in Education at the University of Namibia includes a compulsory 12-credit module of Educational Research at the third year level of studies and is offered in the first semester. The module is taught three hours per week for 14 weeks. The module aims to equip students with basic knowledge and skills of planning, conducting and reporting on educational issues in their undergraduate research projects and beyond. The Educational Research module is a prerequisite for the research project at the fourth year level. The materials for the course include a prescribed textbook, selected journal articles, PowerPoint class notes placed on students' portals, a calculator and a memory stick. A minimum of two assessment tasks are required. The exit learning outcomes for this research module expect students to:

- discuss types and purposes of educational research;
- identify and formulate research problems;
- demonstrate the ability to do a research literature review;
- plan and design research investigations in education;
- develop an understanding for appropriate data analysis techniques;
- apply appropriate referencing techniques; and prepare an outline for a research proposal.

STATEMENT OF THE PROBLEM

Students at the undergraduate level of study generally experience enormous challenges when conducting research-related activities (Murtonen & Lehtiner, 2003; Wilson, 2001). There have been concerns from both students and supervisors at the University of Namibia that students are not adequately prepared in research methods classes to conduct research projects. As lecturers teaching this module, our study was motivated by one main concern - the challenges that undergraduate Education students face when conducting their research projects. It was thus against this background of worry that this study was conducted in order to describe the students' lived experiences with regard to challenges they face when conducting research projects. The following research question was addressed: "What are the challenges experienced by undergraduate Education students when conducting research projects?"

RESEARCH METHODOLOGY

Research Approach and Design

We located our study within the phenomenological approach, and applied a qualitative case study designed to describe undergraduate Education students' lived experiences in conducting their research projects. Phenomenological approaches are mostly effective at bringing to the fore the lived experiences and perceptions of persons from their own viewpoints (Greene, 1997). Unlike a scientific study which deals with facts, a phenomenological case study is based on lived experiences of a social phenomenon from the "perspectives of people involved" (Welman & Kruger, 1999:189). Broadly, this type of research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem (Creswell, 2009). It allows for the study of things as they exist naturally (McMillan & Schumacher, 2006). Using a phenomenological case study research design enabled us to retain the holistic and meaningful characteristics of real-life events such as understanding the challenges that undergraduate Education students are faced with when conducting their research projects, from the individuals' own perspectives (Yin, 2009). Specifically, this type of approach allows an assessment of "the ways in which people experience, conceptualise, perceive, and understand a phenomenon from their own perspectives" (Marton, 1981:177), thus providing a richer and more in-depth understanding of what is experienced and how it is experienced.

Sampling Procedures and Description of Participants

The target population of this study consisted of all UNAM Hifikepunye Pohamba (HP) campus undergraduate Education students. Considering that there are four research focus areas at HP campus, namely, Maths and Sciences, Languages, Social Sciences, and Lower Primary, students were purposefully sampled from each of these focus areas. These were students who had passed the Educational Research module and were currently conducting their research projects. The idea was to purposefully select informants, who would best answer the research questions and who were "information-rich" (Patton, 1990: 169). We asked the Registrar's Office to provide us with a list of names for students who were currently registered for research projects in the specified research focus areas. From the list, we randomly selected four (4) participants to represent each research focus area. A total of sixteen (16) participants were then sampled.

Instruments, Data Collection and Analysis Procedures

The data were gathered through focus group discussions. Focus groups aim to gather information about a specific topic of interest (Litchman, 2013) in a group environment, allowing for discussions and interaction with the participants. The purpose of conducting a focus group discussion was to seek for a more in-depth understanding of our research problem. Focus group discussion provides an excellent opportunity to listen to the voices of the participants, explore issues in depth and obtain insights that might not occur without the discussions. A schedule was developed to guide the discussions which were audio-recorded. The data generated were transcribed for direct quoting and sent to participants for verification before data reduction and organization in search for significant patterns (Ary, Jacobs, Sorensen & Walker, 2014). We then identified text segments that contained meaning units and created a label for a new category into which the text segments were assigned (Thomas, 2005). Categories were then expanded, combined and developed into more meaningful themes which contributed to a high degree of data reliability. This process of labelling, categorising and identifying themes provided us with an opportunity to become immersed, and thus more familiar, with the data.

FINDINGS

In answering the main research question, "What are the challenges experienced by undergraduate Education students when conducting research projects?", a total of three broad key themes, closely related to the research question were evident in the data and were categorized as follows: (1) students' experiences with the research module, (2) students' experiences with

research projects supervision and, (3) institutional support of research activities. Each of these themes is discussed and, where possible and necessary, described with supporting direct excerpts from focus interview transcripts to illustrate these key findings. The presentation of findings in the next sections takes each of these themes in turns.

Students' Experiences with the Research Module

Students reported that the module was not hard and their experience was good. The only problem for most of students was the size of class groups. Students complained that the class size was too big and they were unable to get individual attention from the lecturer. Also, because of the large class group, students were not able to understand all what was being presented during lectures. They described their situations and experiences as follows:

...the module was not that bad; it was fine. The problem is only that, we were a lot, and then we just pass on it's only one lecturer (sic) and it is like we are a lot and we can't be given enough attention. Maybe if we were having that talent to study while we are in large class, we might perform better and I might end up getting a D., etc. When you are learning in a large group, you do not capture anything - what you do is you memorize for the sake of passing your examination. At the end of the day, when you are doing the proposal you do not even understand what is research all about.

Participating students also did not have any prior learning experiences with research, thus having nothing to relate the module to. They indicated that to pass the examination, they simply memorized the content without any understanding. One participating student noted,

For research, it was just taking everything new and just taking in everything. So there was nothing you could relate to.... Even you are taught face to face, somehow you don't really connect and click it out that, ok! yes this is it. We just studied for the matter of studying, memorizing and get over it.

What also emerged from the data under this theme was that the participating students' approach to the module was more influenced by what they heard from the senior students. According to participating students, before they registered for the module they had already heard from the senior students that the research module was difficult and one should just study for the sake of passing and get done with it. Participating students recalled what was said by the senior students, "The module is difficult and you cannot make it, if you make it with this one, the next one you won't make it...."

Students' Experiences with Research Project Supervision

The second theme that emerged from the study was students' experiences with research project supervision. Out of the thirteen participating students, ten were still at the proposal stage and only three had collected data and were busy writing their research project reports. One issue under this theme that was evident was the supervisor-student relationship. Participating students reported that they were not getting the necessary guidance from their supervisor. One participant clearly acknowledged this in this statement: "You already have a few ideas on what to do because ... and now you are sitting there with your lecturer and the lecturer will throw words like: 'what did your research lecturer do? How did you pass the [research] module?'" Some students said their supervisors did not look at their proposals; they were simply told that they were perfect. Moreover, their supervisors informed them that they do not mark proposals, only reports. This participating student illustrated this point,

I handed in my proposal, but nothing was corrected, just the topic and then what he told me is, 'you are perfect. I am not even going to mark the proposals I only mark the report....' Now I don't know what to do as I am seeing other students being corrected like, hmmm... for example my references were not in alphabetical order but nothing was corrected'.

Participating students expressed disappointment with the type of feedback they received from their supervisors. They said, for example, "Your supervisor will tell you, 'this topic is not researchable...' but she does not tell you which direction to go or do this. She just tells you, 'go edit your topic', she doesn't tell you how and in which way...." The feedback was not only disappointing, but it did not come on time. For example, one student said, "supervisor takes too long to give feedback and when you receive the feedback, it is frustrating." Interestingly, when students receive feedback, it is sometimes not in line with what they have been taught. They commented that, "what you are teaching us in research is different to what we are observing from the supervisor and the comments that they are giving us sometimes it will frustrate you even to give up, then thinking I don't want to do research, I will try it again next year...."

The feedback given to students was neither helpful nor constructive as they claimed that they were sent back and forth with no direction to follow. These sentiments expressed by participating students demonstrated this experience:

Your supervisor will tell you, 'give me three topics', and then you actually send the topics and then she will tell you, 'this topic is not researchable', but does not tell you the direction to follow or tell you, 'do this', ... you will just keep giving the supervisors topics. She just tells you, 'go edit your topic.' He/she does not tell you how, in which way. So when you end up with the topic, it's just a whole different thing and then start with the proposal, then she will tell you, 'the background is not like this', then you go back to the research module to read and try to understand what is going on and what should I do. I mean, the research, what is found in the notes and what the supervisor is telling you is just a whole different thing and then when you go to someone, for example another student to explain to you, you understand, but then when you do it, your supervisor rejects it and says, 'it's not like this.' Just being sent back a million times, that is just frustrating and I just don't know what to do, and they actually don't direct you, 'don't do this, actually do AB and C.' Then they don't correct you, they just say, 'this is wrong. They don't say, 'go do this this and that'. If this is wrong, do I turn left or what do I do now?

In addition, the student-supervisor relationship seems to be influenced by the information students heard from other students who did research projects in the past academic years. It appeared there were some supervisors that students feared and believed to frustrate them during the research process. One participating student summarized it by saying,

I don't know whether it's a tradition or a belief... I don't know.... But, people know that if you are allocated to this lecturer for a research project; forget about it... you will graduate after 3 years. So when you go there you already go there with fear... even if you want to ask questions you are scared and if you ask a question, you are told to keep quiet, 'let me talk and you listen'.

The second issue under this theme had to do with motivation and interest in carrying out research. All participating student teachers indicated that they were interested in their research topic because the problem they had selected was the actual problem they had at the school where they conducted their School Based Studies (SBS). However, they felt they were not motivated to carry out their research projects. One participant remarked, "No motivation.... No motivation... because I am not guided.... I am just on my own.... There is nobody to correct me; I am just doing my things on my own".

Participants felt de-motivated by their supervisors' comments. Some of the supervisors' comments listed by the participating student teachers were as follows:

- '... It is error free, you have copied.'
- 'You are too broad, your topic is not researchable.'
- 'Not clear.'
- '... Your proposal is up to Masters Standard or something like that, it's not for degree level '
- 'Who do you think you are to tell me that Dr who or Miss who was saying this? ... He or she will have different ideas, not the same as mine.'
- '... purposeful sampling is not for BEd degree, it's for Masters what-what....'
- "... You are perfect... I cannot mark proposals."

The third issue under this theme was the source of information for conducting students' research. The majority of participating student teachers relied on fellow students, persons who graduated, and family members for guidance on carrying out their research. Only one participant indicated to combine the information from the supervisors, other lecturers and textbook readings and class notes. To support this, one participant noted, 'Sometimes we use to go to some other lecturers to ask.... You have to go to two or three.'

Institutional Support for Research Activities

Participating students complained about the lack of adequate support from their institution. They indicated that there was a lack of resources. For instance, they had limited access to internet as the 3G devices provided to them did not function properly and the Wi-Fi connection was also weak. Students also felt that there were few books in the library and their attempt to borrow books from other campus libraries was at times turned down.

In addition, lack of finances was another challenge faced by students, more specifically in terms of data collection and making copies for research data collection instruments and the printing and binding of research project reports. For example, one student said,

... I am not getting enough support since we are supposed to get resources like finance. For one to go to a certain school where you want to do your project, you need money for hike ... you need money to make copies ... I mean to print out the questionnaire and all those things.

DISCUSSION OF FINDINGS

The findings of this study provided interesting insights into the lived experiences of 16 student teachers who were facing challenges in conducting research projects. The study revealed that what students learned from the research module was relevant, not difficult and their learning experience was good. However, being taught in a large group was more of a challenge and was further complicated by the fact that they did not have any prior knowledge of research. With large groups, lecturers can hardly engage students in hands-on activities. These findings concur with

Merkel (2003) who maintains that involving students in hands-on research experience has been a challenge for many institutions.

Furthermore, students felt insecure, unsure of the relevance of the module to their lives, and fearful of this uncharted journey that they were about to take. Previous research has confirmed that when students are taking research courses, they become more overwhelmed with the learning materials, they experience feelings of stress and anxiety, and sometimes they do not see the immediate relevance and application of the course to real life situations (Murtonen & Lehtiner, 2003; Wilson, 2001; Ball & Pelco (2006); Papanastasiou (2006); Schulze (2009). In the same vein, Lipsitz, (2000) alludes that students are having difficulties of connecting what they are learning in research methods classes to other modules or simply to apply them to their real life situations. These findings have implications on teaching strategies as this requires lecturers to devise new ways of teaching in order to enhance students' learning not only theoretically but also practically.

The findings further revealed that there is no good relationship between students and their research supervisors. Students felt that the feedback that they got from their supervisors was not guiding, not constructive, not motivating and moreover did not come on time. These, in many cases, discouraged students from doing their research projects successfully and complete on time. Research projects can only be done successfully if supervisors sustain human and intellectual connections with their students in the quest for knowledge and understanding as suggested by Lopatto (2004). This is also in line with Merkel (2003) who describes undergraduate research as a partnership between students and their supervisors through which students apply knowledge gained in the classroom to explore new problems and increase intellectual capacity. This suggests that there is a need for a positive relationship between students and their supervisors in order for research projects to be successful and be completed within the stipulated time.

The findings show that there is a lack of resources such as limited access to internet, lack of books in the library and lack of finances within the institution. Students indicated the difficulty of completing quality research without the necessary resources. The preceding findings are similar to Shumba (2004) and Pearce (2005) which indicated that students' capacity to conduct research is constrained by institution-related challenges such as: lack of internet services, lack of exposure to computers and lack of (library) materials. For enhancing students' research project completion, supervisors should be more resourceful by accessing and providing students with relevant reading materials.

CONCLUSION

This study contributes to this line of research because it produced similar findings that some challenges faced by students in conducting research are module related, student-supervisor related, as well as institution related. It provided insights for bridging the gap between studying research modules and conducting research projects at the university's undergraduate program. The findings of this study have implications on teaching research modules and ways to improve students' research project supervision. People finding themselves in similar situations can look at the recommended specific interventions and strategies for teaching in particular, handling research methods courses and supervision of research projects.

RECOMMENDATIONS AND FUTURE DIRECTIONS

Though no generalisations can be made from this study due to the sample size and nature of the study being a phenomenological case study, some insights and lessons can be learned and shared. Thus, the authors recommend that:

- Supervisors need to be trained on how to supervise research projects.
- There should be a timetable for consultation and a calendar schedule for submitting students' work and time for receiving feedback.
- All supervisors should use and provide the same guidelines for research projects.
- Students should be allocated student mentors for research projects.
- Students should be provided with counselling sessions during the research project process.
- Supervisors should communicate to students on issues related to research projects through emails.
- There should be strict monitoring of students' progress.

A similar study to ascertain the lived experiences of lecturers with student project supervision might produce interesting and thought provoking outcomes in comparison with the results from the students only. By conducting this study, the findings have provided us as lecturers teaching the research module course a platform to discuss and debate the role of this research module and projects within the curriculum of teacher education in the Faculty of Education at the University of Namibia. We aim to capitalise on these findings by using the recommendations given by the participating teachers in order to develop an appropriate comprehensive strategy for teaching and supervising research modules and projects. While this might be a long term process, short term goals would be identified to address the immediate needs.

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