Faculty of Education

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Instructional strategies used in large classes at the University of Namibia: The case of

Hifikepunye Pohamba Campus

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DOCTOR OF PHILOSOPHY IN CURRICULUM AND INSTRUCTION

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DEDICATION

I dedicate this work to my family

My beloved husband Arvo and precious sons Chinu and Mwahafa

and

my parents, Emirich Kamati, Saija Ndashilwa Mushaandja

and my late dad in- law Josia Haindongo Mufeti, who passed on during the last semester of my studies

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STATEMENT OF ORIGINALITY

This thesis is titled 'Instructional strategies used in large classes at the University of

Namibia: The case of Hifikepunye Pohamba Campus'. The work contained in this thesis

was completed by the author at the University of Botswana between July 2013 and July

2017. I declare that this is my own work, and has not been submitted for another

qualification to any other institution. I am the principal researcher responsible for

designing, conducting and writing up qualitative elements of the study. Wherever other

authors' ideas and concepts were used, I have duly acknowledged that. However, some

parts of this write up will be used for conference presentation and for various journal

articles and/or book chapter publications.

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APPROVAL PAGE

This thesis has been examined and approved as meeting the required standard of scholarship for the fulfilment of the requirements for the Degree of Doctor of Philosophy in Education (Curriculum and Instruction).

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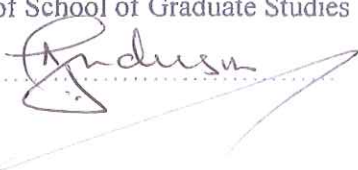
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LIST OF ACRONYMS

UNAM   University of Namibia

HPC   Hifikepunye Pohamba Campus

TERP   Teacher Education Reform Project

NSFAF   Namibia Student Financial Assistance Fund

BETD   Basic Education Teachers Diploma

OCE   Ongwediva College of Education

WCE   Windhoek College of Education

RCE   Rundu College of Education

CCE   Caprivi College of Education

KC   Khomasdal Campus

RC   Rundu Campus

KMC   Katima Mulilo Campus

ZPD   Zone of Proximal Development

MKO   More Knowledgeable Other

PBL   Problem Based Learning

TRSM   Ted Rogers School of Management

CIAS   Curriculum, Instruction and Assessment Department

CCTV   Closed Circuit Television

ISS   Integrative Studies in Social and Behavioural Sciences

ABSTRACT

Large classes have become common worldwide especially in developing countries where tertiary education is considered important to national development. Teaching or lecturing in large classes can be of grave concern to anyone because of the various challenges involved. This study sought to investigate the instructional strategies used in large classes at the University of Namibia, Hifikepunye Pohamba Campus (HPC). The key research question that guided the study was: How do the teacher educators facilitate the teaching and learning process for prospective teachers in large classes at HPC? It is generally believed that the effective use of meaningful instructional strategies is very important in any educational institution as it enables lecturers to successfully teach their classes, especially in situations where the numbers of students in any one class is large.

The study adopted a qualitative approach and exploratory case study design and used criterion purposive and purposive random sampling strategies. The participants for the study were three teacher educators who teach classes with one hundred students or more, nineteen student teachers and three campus management members. Data were collected through face- to- face semi-structured interviews, focus group interviews, non-participant classroom observations, and document analysis. The data were analysed by means of thematic and content analysis.

The study was guided by Vygotsky's social constructivism theory and the Five E instructional model. The constructivist/interpretivist research paradigm was adopted. The results revealed that large class size hinder the implementation of active teaching approaches and strategies, large class impact on the learning activities, assessment tasks and feedback given to student teachers. Such class sizes also impact on classroom management and control due to various challenges. The findings further showed that

committed, innovative and strategic teacher educators and student teachers were able to cope with large classes. The study therefore recommended that the university should employ more teacher educators and provide appropriate resources that would enable teacher educators to cope with large classes. The study also recommends that student-teacher contact hours should be increased especially for large classes.

CHAPTER ONE

INTRODUCTION AND BACKGROUND

Introduction

Large classes at universities have become familiar worldwide, especially in developing countries where tertiary education and access are considered important elements for national development. This has resulted in an increase in the number of students at higher institutions of learning. For developed countries, Mulryan-Kyne (2010) and Chapman and Ludlow (2010) found out that large classes are an endemic part of several courses at higher education institutions in Ireland and the USA respectively. This influx of students is attributed to people being motivated to go for further studies as a result of countries' policies on access to higher education. However, some universities admit a high number of students without recruiting more lecturers. For developing countries, large classes are common in Africa. For example, Jaffer, Ngimbi and Czernierniewics (2007) investigated students' perspectives on large classes in South African universities, while Garg, Lee, Anderson, Eyitayo, and Ayo (2008) studied the teaching and learning process in large computer science classes at the University of Botswana.

Upon the establishment of University of Namibia (UNAM) in 1992, the enrolment was 1, 200. It increased to 3, 751 in 1999 and to 17, 500 by 2013 (Ihemba, 2013). From the above figures, it is evident that enrolment numbers in higher institutions of learning are steadily increasing over the years. There are various reasons for the increase in enrolment at UNAM. First is the Namibian government's goal of achieving Vision 2030. Vision 2030 is a strategic plan adopted by the Namibian government in 2004 (Republic of Namibia, 2004), which clearly states that education is one of the driving forces for realising the

objectives of Vision 2030. In response to the call of Vision 2030, the Namibian

government also came up with the Education Training Sector Improvement Programme

(ETSIP) policy. As a result, there has been an increase in student funding for tertiary

education through the Namibia Student Financial Assistance Fund (NSFAF) (Nakale,

February, 2014). This makes it possible for students who do not have financial means to

study at tertiary institutions to be able to pay for their studies. Another reason for the

increase in enrolment at UNAM has been the only public university in the country. There is

one private university, The International University of Management and then there is the

Polytechnic of Namibia which was accorded university status in 2015. Also, satellite

campuses are now more accessible to populations that did not have access to UNAM main

campus due to long distances. This was in line with the four Namibian educational goals:

access, equity, quality and democracy (Ministry of Education and Culture, 1993).   Thus

UNAM as the only public institution has witnessed large intake of students, resulting in

large classes especially at undergraduate level (Iipinge, 2013).

Teaching or lecturing in large classes can be of grave concern because of the various

challenges involved. The researcher's experience as a lecturer indicate particular problem

areas including difficulty in knowing individual students' strengths and weaknesses, class

disruptions, high absenteeism, minimal learning interaction between students and between

students and lecturers. Again, various scholars such as Jungic, Kent and Menz (2006), Kerr

(2011) and Iipinge (2013) have conducted research on large classes and argue that it is

challenging to maintain teaching and learning quality in such classes. This situation

inspired an investigation on the phenomenon to find ways of improving the teaching and

learning environment in large classes at university or college levels. The current research

also investigates the phenomenon of large classes at Hifikepunye Pohamba Campus (HPC) of UNAM.

As mentioned earlier, large classes are a feature of Hifikepunye Pohamba Campus of UNAM. For this reason, the researcher felt it important to investigate the instructional strategies being used by teacher educators at the university. It is believed that effective use of meaningful instructional strategies is very important in any educational institution as it enables lecturers to facilitate effective instruction. The researcher is of the opinion that most of the teacher educators at the campus have the important goal of facilitating effective teaching and learning. Further, facilitation can take place only through the use of various effective instructional strategies. It is therefore of importance that an investigation of instructional strategies utilised by the teacher educators in large classes at the Hifikepunye Pohamba Campus of UNAM be conducted.

Synopsis of Large Classes

The difficulty in defining the term 'large classes', is compounded by varying perceptions of the term from context to context. Various institutions and situations give different definitions of what they consider as a large class. Garg et al. (2008) make it clear that the basis on which a large class definition is made is very important. They define large class for their study as theory classes with 100 or more students. Buchanan and Rogers (1990) define a large class as a class that has 80 students or more. They argue that when 80 students are enrolled in a course, traditional teaching techniques are no longer workable and new ones have to be tried. Davis and Mcleod quoted in Biggs (2003, p. 104) define large classes as having 40 students or more because "it is at this point that the close contact with students cannot be managed and students feel anonymous". Additionally, Greyling,

Kara, Makka, and van Niekerk (2008) define a large class as a class that has more than 60

students. In the context of this study, the researcher defines a large class as a class that has

100 students or more. The first reason for choosing this definition is because the researcher

feels that when students are 100 or more in one class it is more challenging to involve them

actively in the lesson. Furthermore, most classrooms at Hifikepunye Pohamba Campus

accommodate less than a 100 students. When a certain class has a 100 or more students,

then, they are placed in lecture halls or in the assembly or dining halls which can

accommodate them. In addition, Ayaya (2001) in her study on large classes at UNAM main

campus also defined large classes as classes that have 100 or more students and

recommended for classes at the Faculty of Education to be reduced to less than 80 students.

However, the numbers of students per class continue to increase.

Contextual Background of the Study

Namibia is a country on the south-western part of Africa and shares borders with

Botswana in the east, South Africa in the south, Angola in the north and Zambia and

Zimbabwe in the north- east. It was a German colony from 1885 to 1919, and used to be

known as German South West Africa. At the end of World War I, Namibia was ceded to

South Africa by the United Kingdom as a mandated territory. South Africa was given

mandatory power of former German colonies to prepare them for independence. Ironically,

instead of preparing Namibia for independence, apartheid South Africa instead colonized

Namibia. Under the South African government, education for native Namibians was

inferior to that of whites as carried out through the Bantu Education Act of 1953 (Vatuva-

Uugwanga, 2015). However, Namibians fought for their independence from South Africa,

and finally became independent in March 1990. Since independence, the Namibian

government has tried to reform its educational system from an autocratic, teacher-centred

education and inferior education to a more learner-centred education. Autocratic education in this context is the type of education that puts an emphasis on rote memorization or repetition of information (Zeichner & Ndimande, 2008). In other words, autocratic education is more teacher-centred or traditional, as students are not given a chance to be actively involved in the learning process, and their prior experiences or interests are not taken into consideration (Du Plessis & Muzaffer, 2010). A learner-centred education, on the other hand, allows learners to be active participants in the learning process. Their experiences in and outside school are respected as a contributing factor in the education process. Zeichner and Ndimande (2008, p. 338) maintain that the purpose of the new education system was to "provide a high quality education to all Namibians rather than only to an elite few as had been the case for many years of colonial rule and apartheid government". In agreement with Zeichner and Ndimande, Dahlstrom (2002) acknowledged that the main purpose of the new Namibian government educational reforms was to undo the legacy of the colonial regime which was characterised by inequity and inequality. Therefore, it has been established that basic education in Namibia, and indeed teacher education, is now based on learner-centred education philosophy.

Furthermore, in 1992, a new teacher education reform was initiated through a project called Teacher Education Reform Project (TERP). TERP brought about the development of a new three year pre-service teacher education programme. This teacher education programme was called the Basic Education Teachers Diploma (BETD) programme and it was offered at Teacher Training Colleges in Namibia (Zeichner & Ndimande, 2008). The main goal of the BETD programme was to provide a national and common teacher preparation programme based on the needs of basic education in Namibia. The reform was based on the ideology of the liberation struggle as led by South West

Africa People's Organisation (SWAPO) which was anchored on critical learning,

constructivism and reflective practice in teaching and learning (Bhola, 2000). This was

done in relation to the four Namibian national educational goals: namely, access, equity,

quality and democracy (Ministry of Education and Culture, 1993). The BETD programme

emphasized the preparation of teachers as reflective practitioners who are able to actively

participate in working out the details and necessary adaptations that are needed to give

meaning to the broad principles guiding the reforms in education.

Due to its commitment to the education of its citizens, the government of the

Republic of Namibia through ETSIP strategic plan appointed a Consultancy Team in 2009

to develop guidelines on teacher education reform in Namibia. It was this team that

proposed the merger between the former teacher training colleges and the Faculty of

Education at the UNAM. Various reasons were given for the proposed merger such as:

1. A mix of concerns about the way in which the colleges were managed within
    the Ministry of Education;
2. The way in which the colleges were funded, the lack of clear management
    structures, responsibilities and support and;
3. Lack of quality assurance mechanisms implementation (Republic of Namibia,
    2009, p. 1).

The main purpose of the merger was to improve the quality and relevance of teacher

education at all levels of education in Namibia. As a result of the proposal, the former

teacher training colleges were merged with the Faculty of Education of the University of

Namibia in April, 2010. The four former Teacher Training Colleges that were merged with

the University of Namibia were Ongwediva College of Education (OCE), Windhoek

College of Education (WCE), Rundu College of Education (RCE) and Caprivi College of

Education (CCE). After the merger, OCE was renamed as Hifikepunye Pohamba Campus

(HPC) after the second President of the Republic of Namibia, WCE as Khomasdal Campus

(KC), RCE as Rundu Campus (RC) and CCE as Katima Mulilo Campus (KMC) (Republic

of Namibia, 2009).

The researcher's focus for this study is on HPC. The reasons for choosing HPC was

firstly motivated by the merger, which created the highest enrolment figures among all the

other former colleges, secondly, HPC was the only satellite campus in addition to the main

campus also offering secondary school teacher education and lastly, of its accessibility to

the researcher. Equally important is the increasing enrolment in the other satellite

campuses, which is however not at the same rate as HPC. Table 1 present the various

satellite campuses' enrolment figures.

Table 1:

Satellite Campuses Enrolment Figures 2013-2015

Campus	2013	2014	2015
HPC	989	1399	1521
RC	458	881	1152
KC	617	842	866
KMC	306	530	728

Adapted from University of Namibia Annual Reports, 2013, 2014 and 2015

Until the end of 2010, colleges ran the programmes they had been providing before the merger. By January 2011, the former colleges started to implement the same programmes as the Faculty of Education at UNAM, the Bachelor of Education Degree instead of the former Basic Education Teachers Diploma programme. Various teacher educators who were used to lecturing to 30 to 40 students in a class started to lecture to hundreds of student teachers in lecture halls and in the assembly hall (Note that HPC has only one assembly hall).

To further highlight the issue of the continuing large enrolment, below is a Table 2 presents recent statistics of the number of students per various modules taught by one teacher educator each at HPC.

Table 2:

List of Modules and Student Teacher Enrolment

Name of the Module	Number of students
Agriculture Education 2	120
Child Development	265
English for Teachers 2	435
English Language Education 1	110
Environmental Education 3	80
Guidance and Counselling 2	259
Integrated Media and Technology Education	110
Professional and Community Development	330
Integrated Natural Science and Health Education	110
Introduction to Mathematics Education	79
Mathematics Education 1B	140
Mathematics Education 3	112
Oshindonga Language Education 1	88

Adapted from HPC Semester Two (2015) Enrolment Figures and Nov 2015 Examination Timetable

Statement of the Problem

Student teachers need to be trained in ways that train them to be effective teachers. However, the context in which student teachers at HPC learn cannot be viewed as ideal. Facilities are inadequate and the carrying capacity of classes cannot sustain the increasing number of students (University of Namibia, 2015). Students learn in large class groups whereby it is difficult for teacher educators to model good practice for them. The University of Namibia's budgetary constraints have a great impact on the tasks of the

university and the quality of service delivery. From preliminary talks with teacher

educators and students at HPC, it is clear that many teacher educators complain of large

numbers in classes, which makes it difficult for teacher educators to have one-on-one time

with the students. Likewise, there is a tendency of cheating by students in large classes

when they are writing tests, lack of suitable teaching venues as well as the difficulties in

hearing what the lecturer is saying in some venues. The marking of many students' work

also puts a strain on teacher educators. Most importantly, the UNAM policy on teaching

workloads does not allow the lecturers to manipulate actual contact time by dividing

classes into smaller class groups. Such conditions make it difficult for teacher educators to

implement active teaching strategies for large classes. Despite the Namibian government s

emphasis on learner or student centred education, it remains a challenge for teacher

educators to practice student-centred teaching methods in large classes at HPC because

they do not have a background in teaching large classes. The above challenges make it

imperative that a solution that would enhance the teaching and learning process at the

institution be found.

Consequently, the researcher felt it was critical to identify and describe the

instructional strategies used in large classes to uncover teacher educators and student

teacher' experiences. The researcher's main concern was the question of how teacher

educators at HPC facilitate the teaching and learning process in large classes and prepare

future teachers to become effective teachers if previous researchers as well as experience

have indicated that there are negative effects involved in the teaching of large classes.

Purpose of the Study

The overall purpose of this study was to explore how teacher educators facilitate the

teaching and learning process in large classes. This was done by investigating the

instructional strategies employed by teacher educators at the University of Namibia,

specifically at HPC. The researcher developed and proposed a model designed to assist

teacher educators in managing their large classes in future.

Research Objectives

The objectives of the study were to:

1.   identify instructional strategies that teacher educators at HPC use in their large classes.

2.   identify the challenges associated with the use of those instructional strategies in the large classes.

3.   identify the challenges that student teachers face as a result of the strategies used by the teacher educators.

4.   suggest ways to address the challenges faced by both the teacher educators and student teachers in the teaching and learning process in large classes.

Research Questions

The main research question that guided the study was: How do teacher educators

facilitate the teaching and learning process for prospective teachers in large classes at

Hifikepunye Pohamba Campus of the University of Namibia? The sub-questions under this

key question were as follows:

1.   What instructional strategies are used by the teacher educators in large classes?

2.   What are the challenges associated with the use of those instructional strategies?

3.   What challenges do the student teachers face as a result of the strategies used by the teacher educators?

4.   How can the challenges faced by the teacher educators and student teachers in the teaching and learning process in large classes be addressed?

Significance of the Study

In terms of policy, active teaching approaches identified through the study can help in addressing some of the problems that are currently being experienced in large classes that train future teachers. Through this study, university academic management will be aware of instructional strategies that work for large classes, and the challenges that teacher educators and student teachers face in large teacher education classes. This will hopefully lead to the making of better plans in the future. Policy makers in Namibia might also find the information useful for planning and education policies formulations. Other stakeholders in education in Namibia such as the Ministry of Education would also benefit from this work as it is the body that establishes legislations and measures that govern the education system in the country.

In terms of practice, the findings of the study will add value to the information that educators already have on instructional strategies that facilitate the learning process in large classes. This is critical, bearing in mind that student teachers in large classes are expected to learn just as effectively as students who are in small classes. As student teachers are being prepared to become teachers, their professional development, as well as their training, must equip them to become effective teachers. The results will be documented and disseminated through various publications and presentations to educators who face similar challenges and settings especially in developing countries.

The results of the study contribute to scholarship that seeks to increase an understanding of appropriate instructional strategies that can be employed in large classes specifically for prospective teachers. The results therefore will also benefit school principals and education officers in increasing their awareness of the challenges facing student teachers and teacher educators, consequently preparing them to help teachers in the

field. Ultimately, future teachers will be more aware of various effective instructional

strategies that they can use in their classrooms to enhance both the teaching and the

learning processes.

The study will contribute to the knowledge base for future research on large classes

in teacher education in Namibia and beyond. To the knowledge of the researcher, there is

only one reflective paper on large classes (Iipinge, 2013) and one research study on large

classes at UNAM main campus (Ayaya, 2001).

Theoretical Framework

This study adopts a theoretical framework based on social constructivism theory

and the Five Es model of instruction. The Five Es is an instructional model based on the

constructivist approach to learning (Bybee, Taylor, Gardner, Van Scotter, Powell,

Westbrook & Landes, 2006). Further, Ergin (2012) indicates that there are five phases of

the Five Es instructional model namely: engage, explore, explain, elaborate and evaluate.

According to Ismat (1998, p.2) "constructivism is an epistemology, a learning or meaning

making theory that offers an explanation of the nature of knowledge and how human

beings learn" . Exploring constructivism as a learning theory may reveal insights into

instructional strategies that can help lecturers to better understand constructivism as

pedagogy. Richardson (1997) also indicates that constructivism is a descriptive theory of

learning that explains the way people learn or develop and not the way people should learn.

Constructivism is not new since its views are based on the work of Piaget (1969)

and sociocultural constructivism which is based on Vygotsky's (1978) description for

developing truth through social interaction. Piaget (1969) on the one hand, introduced the

idea that children construct their own knowledge rather than memorizing information

offered by the teacher. He further suggested that children begin at a very early stage to construct various sets of ideas about their learning environment. However, Piaget believed that children had to reach an appropriate stage before being cognitively ready to learn specific things and accomplish certain tasks. This type of constructivism is called cognitive constructivism. On the other hand, Vygotsky (1978) did not subscribe to this age and stage model and argued that if appropriate instruction is provided, the child will be ready to learn and demonstrate this learning at any age. The learner's understanding can be extended far beyond what they could achieve on their own if appropriate guidance is provided through what he identified as The Zone of Proximal Development (ZPD). The ZPD concerns each child's potential to make sense of the world depending on the teachers or "expert others" support (Stuart, Akyeampong & Croft, 2009). This means that the teachers' task is to give their students activities that are within their zones of development or slightly above, and the teacher has to guide the student. A common application involves instructional scaffolding. Instructional scaffolding is a process whereby the teacher initially does most of the work and as the students develop the intended skills, the teacher gradually reduces the support (Schunk, 2012). This type of constructivism is referred to as social constructivism, whereby learning is seen as one's ability to participate with others in meaningful activities.

Dewey (1944) also contributed to constructivism theory and noted that education is a social process. As such Dewey asserted that learning should involve the learners' previous experiences, and teachers should act as facilitators. All these ideas drive towards the same fact that the teachers' role in a constructivist classroom is to provide a learning environment which is conducive to help the students to explore their learning process through working together with other students, and through their own personal experiences.

Given the above explanations, the researcher felt that social constructivism was appropriate for the study. The researcher believed that while learners and students bring various experiences to class, the teacher educators need to guide the students to build the new information using their previous knowledge. Vygotsky's ZPD is appropriate for the study since the teacher educators need to be aware of the tasks that students can perform on their own and the ones that they need assistance of the More Knowledgeable Other (MKO). The MKO is someone who is perceived to have better skills or understanding of a task or process (Schuck, 2012). Related to the study, the MKO was the teacher educator who is supposed to facilitate the teaching and learning process in large classes.

The social constructivism theory was also relevant to assist in researching instructional strategies because when the strategies are based on the constructivist theory, the students are expected to express their thoughts and feelings well since they learn by reflecting on what has been taught in order to effectively construct their own meanings. The teaching/learning environment is supposed to be conducive whereby the student teachers and the teacher educators work together as a community; and student teachers are free to assist each other (Windschil, 2002).

Winitzky and Kauchak (1997) classify the constructivism theory into an epistemology and pedagogy. Constructivism as an epistemology is about the nature of knowledge and how knowledge develops with multiple interpretations. The first general view of constructivism as an epistemology is the view that students must construct knowledge for themselves; and the second view is that learning is a by-product of participation in a community (Nuthall, 2002). Constructivism as pedagogy is the way in which knowledge is put into practice in education. In terms of training future teachers, teacher educators need to help their student teachers to learn to think. Holt-Reynolds

(2000) maintains that student teachers need to learn through creative activities and by answering critical questions. Similarly, Hileman and Knobloch (2005) support the idea by indicating that teacher educators need to plan instructional strategies that promote diversity of thought and action. This means that teacher educators should pay special attention to activities that are practical, engaging and reflective.

The following descriptors of constructivist teaching behaviours provide a usable framework within which teachers can experiment with the constructivist approach (Brooks & Brooks, 1993). A constructivist teacher plays an important role in encouraging and accepting student autonomy and initiative. Students are also to be encouraged to interact and engage in dialogue. Furthermore instructional strategies are supposed to be shifted in order to give students enough time to think about questions and come up with answers. As far as the current study is concerned, student teachers in large classes need the teacher educators to facilitate the teaching and learning process in a meaningful way that involves them actively and prepares them to become constructivist teachers as well. The learning activities are supposed to be prepared in such a way that they encourage the student teachers' inquiry through open ended questions.

Richardson (2003) indicates that constructivist pedagogy and other representations of the process involve the following characteristics:

- Attention to the individual and respect for students background and developing understandings of and beliefs about elements of the domain (this could also be described as student centred);
- Facilitation of group dialogue that explores the element of the domain with the purpose of leading to the creation and shared understanding of the topic;

- Planned and often unplanned introduction of formal domain knowledge into the conversation through direct instruction, reference to text, exploration of the Web site or other means;

- Provision of opportunities for students to determine, challenge, change or add to existing beliefs and understandings through engagement in tasks that are structured for this purpose and;

- Development of students' meta-awareness of their own understandings and learning processes (p. 1626).

Instructional strategies under the constructivist pedagogy involve collaboration between the teacher/lecturer, students and other stakeholders such as parents with a purpose of meeting the students' needs. The students' ideas are supposed to play a major role in constructivist teaching. Nuthal (2002, p 48) asserts that "the teachers' role is to avoid providing students with knowledge or solutions when it is possible for them to work them out for themselves". Similarly, Windschil (2002) contends that constructivism in practice allows students to be given opportunities to engage in meaningful and problem based activities. To the researcher this means that teachers and teacher educators need to use instructional strategies that can help students to participate in the teaching and learning process by using reasoning and sharing their experiences with one another.

Furthermore, Winitzky and Kauchak (1997) specify that constructivist teaching typically involves more student-centred, active learning experiences, more student-student and student-teacher interaction, more work with concrete materials and in solving realistic problems. Some of the instructional strategies that teacher educators can use through constructivist pedagogy are: debates, group discussions, peer- tutoring, team teaching, presentations, class discussions, role play, project work and so on. These strategies are not supposed to be an end in themselves, but means to help the student teachers to think critically, to question and analyse the information they get from their teacher educators.

The implication for the teacher educators is that they need to value the student teachers'

points of view, and pose problems that are relevant to the student teachers' experiences.

Assessment can be best achieved through teaching when students interact with each other

and with the teacher educators.

   This practically means that when the teachers are designing instructional strategies,

they need to align the curricular content and learning objectives into the teaching and

learning activities based on the students' prior knowledge and experiences. Alignment is

about getting the students to take responsibility for their own learning. However, trust

between the teacher educator and student teachers needs to be established (Houghton,

2004). As a result of the previous statements, the researcher believes that constructivist

teaching involves more student involvement fostered by active learning experiences. By

drawing on this theoretical perspective, further themes will emerge that both address the

research questions and give light to alternative instructional strategies that teacher

educators can use. Based on the explanations of Vygotsky's social constructivism learning

theory, a summary of the theory as related to the study is shown in Fig 1. The Figure 1

simply shows that for teaching and learning environment to be constructive, teacher

educators need to make sure that they base new information on what the students already

know. Furthermore, learning activities must promote students collaboration under teacher

educator facilitation through scaffolding. Assessment activities can be an ongoing process

in class and not only relegated to tests and examinations at the end of the learning themes

or at the end of the semester.
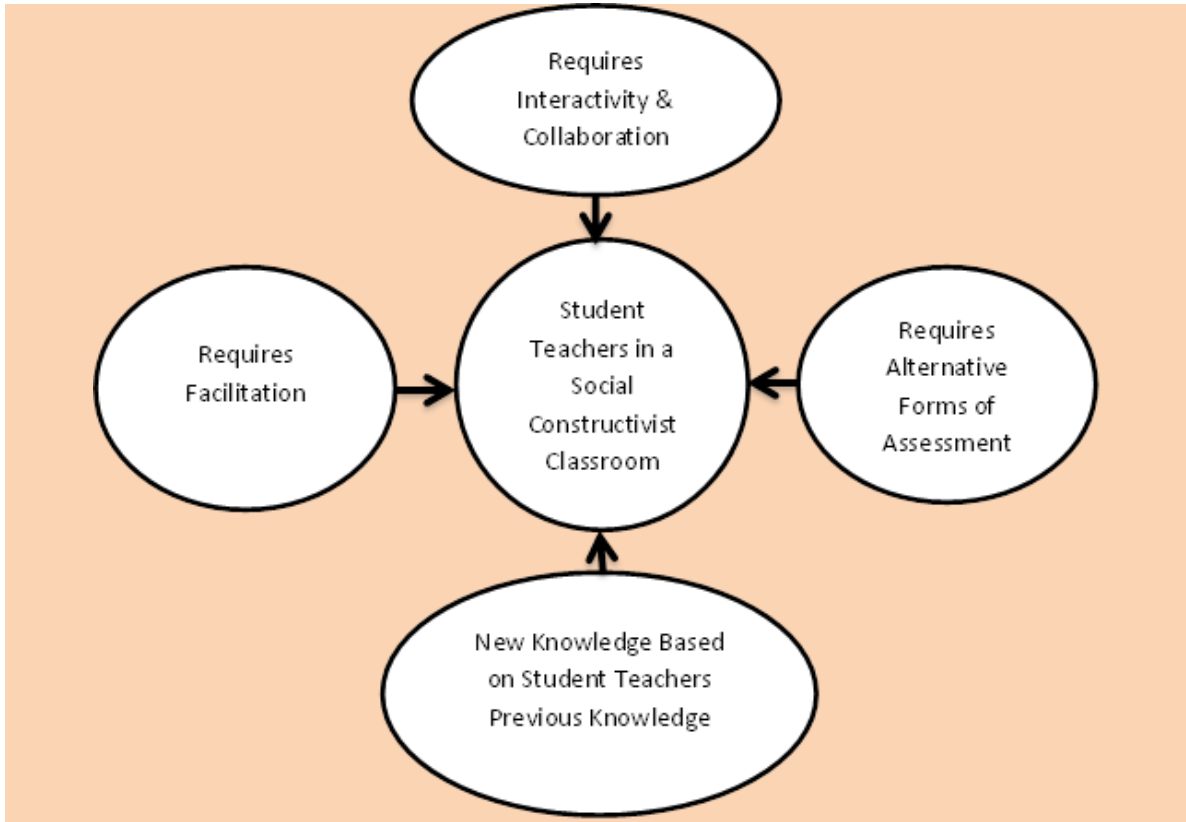
Figure 1: Social Constructivism Theory adapted from Akar (2003)

Critics of the social constructivism theory of learning have argued against the

effectiveness of the theory in educational settings. Mayer (2004) argues that constructivist

teaching methods should not only be restricted to pure discovery methods. Therefore,

Mayer (2004) recommends the combination of direct instruction and hands on activities for

effective instruction. Furthermore, Kirchner (2006) argues that, constructivism has been

accompanied by the assumption that teachers and lecturers commit themselves to project

work and ignore instructions based on the facts. As a result, students who are already

privileged will be at an advantage to learn than `underprivileged students. Students can be

privileged in such a way that they are active and fast thinkers and can dominate the group

discussions.

In the case of instructional strategies employed at UNAM, the researcher based the study on social constructivism theory not with the purpose of teacher educators providing only direct instruction or minimal instruction, but optimum level of instruction (Taber, 2011). It might be difficult for the teacher educators to balance their roles as facilitators. However, they need to guide the students' learning process. The teachers or teacher educators' role in the classroom is very important for effective teaching and learning. Taber (2011) states that social constructivism as a learning theory on which teaching can be based suggest that, effective teaching is supposed to be both teacher-centred and student-centred. It is because of this that the literature on both the teacher-centred and learner-centred teaching approaches is reviewed. The social constructivism theory is relevant for the study as it provided guidance in exploring the instructional strategies used in large classes at UNAM.

The Five Es Instructional Model

The Five Es instructional model rests on the foundation of the constructivist approach to teaching and learning. It is a descendant of the learning cycle of Atkin and Karplus (1962) which was proposed in the early 1960s. The model can be used with students of all ages, including adult students. According to Bybee et al. (2006), the Five Es instructional model can be traced to the philosophy of the early 20th century and to Johann Herbart. Herbart was a German philosopher who came up with one of the first systematic approaches to teaching based on the idea that education is the development of character and the process begins with the students' interests (Bybee et al. 2006). Herbart's instructional model involved four phases namely preparation, presentation, generalization and application.

Furthermore, the Five Es instructional model begins with the students' prior

knowledge and the new ideas that relate to the current knowledge. Bybee et al. (2006)

further explain that even though the model was originally developed for improving science

education, it is now adapted and used to improve instruction in other areas. The model aids

the teacher to structure learning experiences for the students in a systematic way. For

example, the teacher/lecturer/teacher educator needs to brainstorm ideas from the students

before the presentation for the new topic. For example, Ergin (2012) points out that there

are five phases of the Five E instructional model. These are shown in Figure 2. It can be

observed from Figure 2 that all the phases start with the letter 'E': Engage, explore,

explain, elaborate and evaluate. According to Ergin: the engage phase starts the process by

making the connections between the past and present knowledge; the explore phase

provides the students with various learning experiences by identifying and developing

concepts; the explain phase encourages students to explain the concepts that they have

explored in the second phase; the elaborate phase helps students to apply new learning to

new situations and improve their skills.
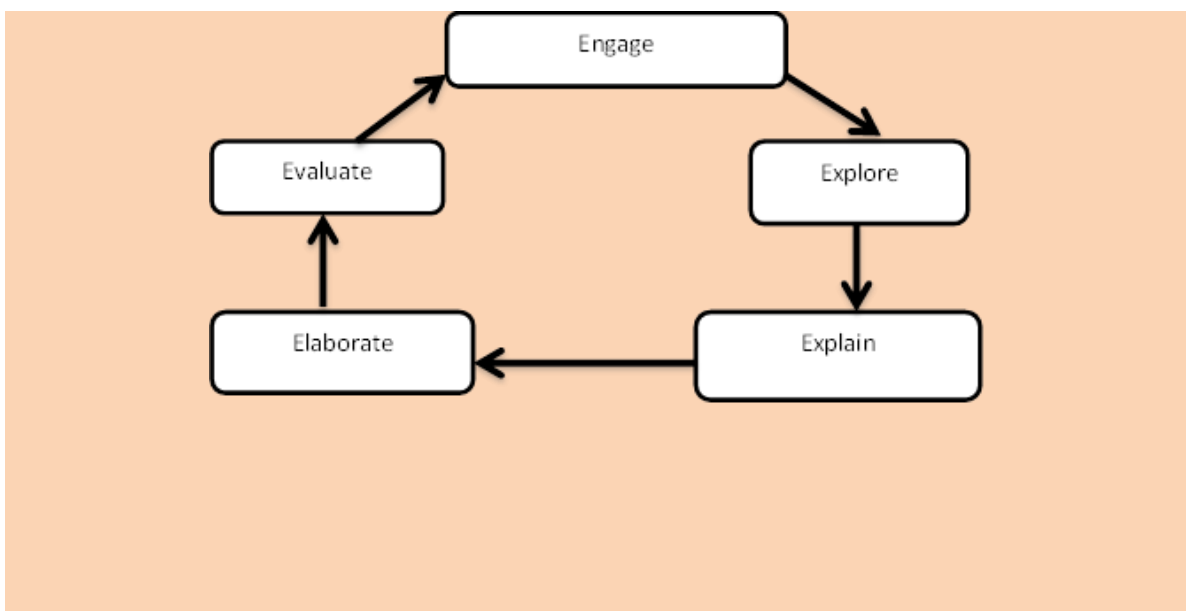
Figure 2: Five Es Instructional Model adapted from Ergin (2012)

However, the students need to be allocated enough time when answering challenging

questions. The evaluate phase encourages students to assess their understanding and

abilities, while the teacher evaluates students' understanding of the main concepts and

skills development. Formal assessment is supposed to be an ongoing process, and students

can also assess each other as the process continues to move around.

The model relates very well to a classroom environment conducive for learning

whereby the teacher educator starts a lesson by gaining student teachers' interest in the

lesson by brainstorming what they already know about the topic under discussion. Then the

student teachers can be given a chance to think and make decisions or solve a particular

problem. The exploration can be explained through a reflective activity. At the same time,

the teacher educator can also explain a concept or a process. The information learned can

then be applied to a real life situation. Lastly, the student teachers will be involved in

activities that would allow the teacher educators to assess what they have learned. The

process keeps on repeating itself in a cyclical form. The teacher educator/lecturer starts

again to engage students in the learning process through scaffolding and lets the students

explore and explain the related ideas.

Conceptual Framework

The major theory that makes up the framework for this study is the social

constructivism learning theory supplemented by the Five Es Instructional model. The

researcher used social constructivism as a learning theory in connection with the

instructional strategies or teaching approaches. In terms of teacher education in university

large classes, the focus was on teacher-centred instruction, learner-centred instruction and

how learning can be organized and managed. Stuart et al. (2009) define teacher-centred

teaching as "transmission teaching". This means that the teacher or the lecturer puts the

emphasis on teaching rather than on learning. However, student-centred teaching places

emphasis on learning, which implies that student teachers are actively involved in the

learning process.

The three major concepts that are at the heart of the social constructivism theory are

integration, inquiry and community (Beck & Kosnik, 2006). Integration is important to

constructive learning because there must be a link between knowledge and experience,

theory and practice. According to Beck and Kosnik (2006) this requires an integrated

programme. Inquiry is also important to constructive learning because knowledge is not

supposed to be taken as fixed and absolute, but open to individual construction and

interpretation. This means that student teachers need to give personal meaning to what they

are learning, in this case about teaching. As a result, a constructive education programme

needs to be inquiry oriented. Beck and Kosnik (2006) further indicate that in terms of a

constructive based programme, the term 'community' is not just referring to cooperative

learning as it also requires that mutual support and other personal and emotional

dimensions of community be fulfilled. Windschil (2002) expresses that within the

constructivism perspective, teachers, parents, students, administrators and community

members participate collectively in the education process. Figure 3 shows how the major

concepts in the study are interrelated.
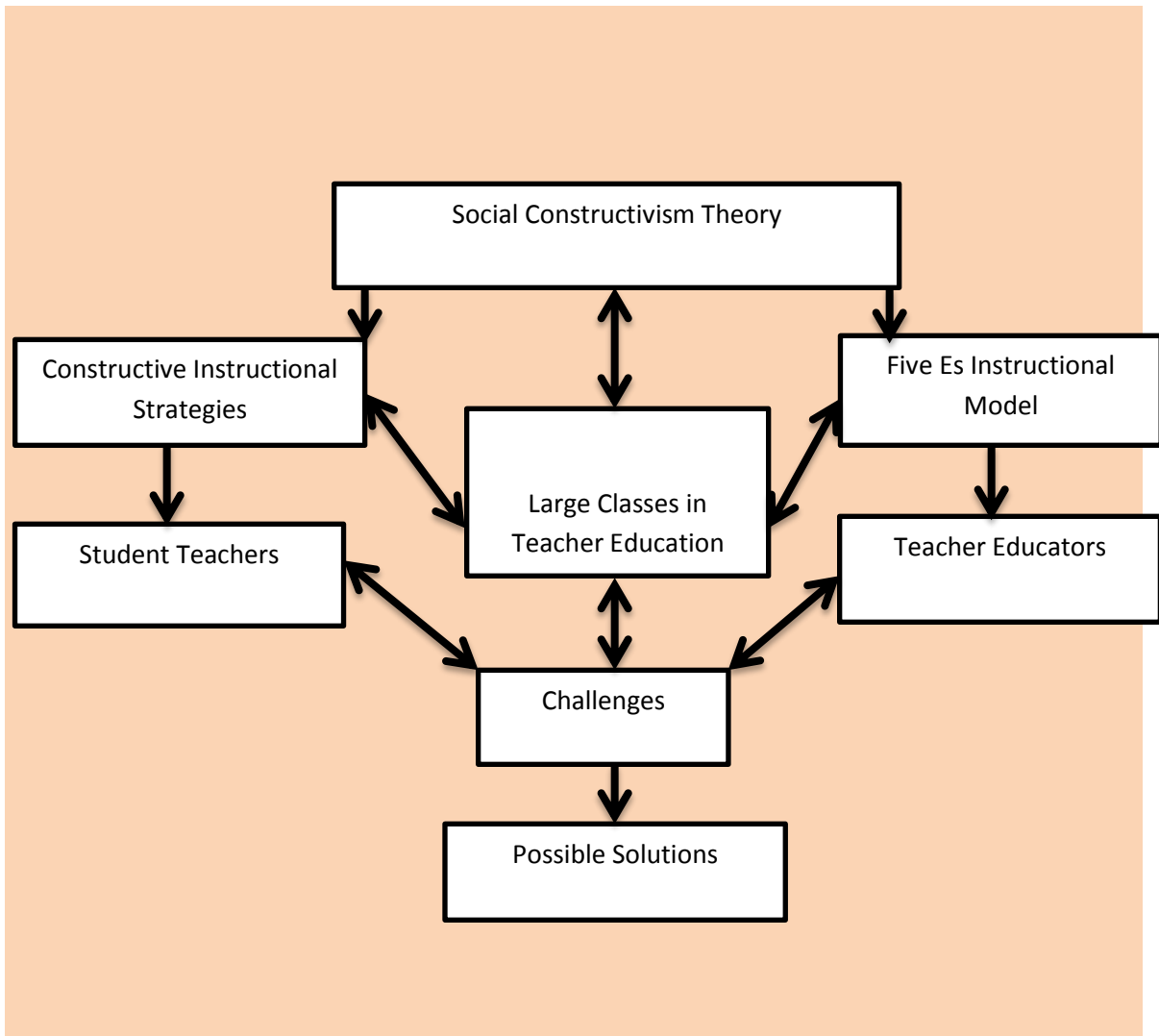
Figure 3: Conceptual model

The main concept and at the centre of the framework is large classes in teacher

education. Social constructivism forms the theoretical basis of the study through the Five

Es instructional model. A key implication of the social constructivism theory is that

students are expected to be fully engaged in the learning process and reflect on what they

are learning (Richardson, 2006). This can be emphasised through the Five Es instructional

model and the constructivist instructional strategies. By investigating the instructional

strategies used in large classes, challenges were identified and possible solutions were

proposed based on the related ideas of the social constructivism theory. Teacher educators

and student teachers are at the heart of this study because the teacher educators are the ones

facilitating the teaching and learning process and the student teachers are the participants in

the learning process. All the concepts in this model are interrelated.

Overview of the Chapters

This chapter provided the contextual background information of the study, the

statement of the problem, the purpose and significance of the study. The theoretical

framework on which the study is grounded is also explained. The next chapter, Chapter

Two, reviews and discusses the literature pertaining to teaching large classes in relation to

the approaches and strategies used as well as challenges experienced by both teachers and

students.

Chapter Three describes the research methodology of the study. The research

paradigm, research approach, research design, sampling procedures and research methods

used are all explained in detail. Chapter Four is the analysis and the presentation of data.

Chapter Five synthesises the findings of the study in relation to the reviewed literature and

the theoretical framework. Finally, recommendations are made for practice, policy and

research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews literature related to the study. It explores literature on instructional strategies used in large classes as well as challenges arising from the use of those strategies for teacher educators and student teachers. While large classes in teacher education are the focus area of this research, the scope of this literature review is expanded to include research that examines large classes in other fields such as large classes in any higher institution of learning and large classes at lower levels of learning. Before reviewing the literature on instructional strategies, literature on constructivism and teacher education is briefly reviewed because HPC professionalise in teacher education courses only.

Constructivism and Teacher Education

Luneneberg and Korthagen (2003) studied teacher educators' views and teaching actions that promote a shift to student directed learning. An exploratory case study design was used on the daily practices of five teacher educators at four teacher education institutes in the Netherlands. Semi-structured interviews and observations were carried out. Five student teachers were also interviewed in order to compare the results. The five teacher educators' views on images of cognitive characteristics differed from the student teachers' own images (Lunenberg & Korthagen, 2003). The teacher educators considered their students to be more dependent while the student teachers did not consider themselves dependent. Also, the interviews revealed that both the teacher educators and their student teachers felt that the use of knowledge and cooperation were important models of teaching and learning. The study also revealed some aspects that hinder a successful shift from

teacher educator directed learning to student directed learning. For example there were only two teacher educators who gave systematic attention to reflection. The final conclusion was that teacher educators did not always do what they taught.

Holt- Reynolds (2000) carried out a study to prove that some prospective teachers can misinterpret the role of the teacher who has adopted the constructivist pedagogy. The participants in the study were prospective teachers in their second or third year of teacher education majoring in English. The results of the study showed that, prospective teachers felt that constructivist strategies were ends in themselves. That means the role teachers play when using constructivist pedagogies might not be clearly spelt and observed. As such, teacher educators need to practice what they preach in their teaching so that prospective teachers can well comprehend the constructivist pedagogy.

Niemi (2002) conducted a study to evaluate how teacher education may promote active learning and to find out the main obstacles of reaching that target. A questionnaire was sent out to 332 elementary and secondary school teachers who graduated at three various universities in Finland. The same questionnaire, albeit with slightly modified instructions was also sent to 120 teacher educators in the same universities. Eleven teachers who had completed the questionnaire about active learning in teacher education were also interviewed. Students from the schools where the interviewed teachers worked also participated in group interviews. The results of the study showed that student teachers did not have enough opportunities to plan and carry out large projects or to plan the contents of the study units together with their classmates. The teacher educators saw the conditions more positively than their recent graduates.

All the three studies mentioned above concentrated on investigating constructivist pedagogies in teacher education. It is evident that teacher educators know that student

participation is not an end in itself but it is a means, a context within which they must work

to help the students to think, question and revise understanding. However, it is not very

clear if the student teachers get this full picture. Therefore teacher educators need to

practice what they preach to the student teachers for the greater benefit of the latter.

Large Classes at Universities

Various studies have been conducted to address issues of large classes at

universities. Machemer and Crawford (2007) conducted a study to assess how students

value active, cooperative and traditional learning activities within a large cross-disciplinary

classroom. They used a survey to assess students' perceptions on a range of teaching

strategies in large classes. The results showed that active learning appeared to be an

appropriate approach. However, the students valued both the traditional lecture component

and the active learning activities equally. The students appreciated the cooperative learning

activities, but they did not like to be held responsible for the learning of the group. Kerr

(2011) carried out a study to explore and describe approaches that are utilised in teaching

and learning in large size classes among Ontario Universities in Canada. Consultations

were held with key stakeholders especially instructors of large university classes, as well as

the teaching and learning support staff. The results indicated that a number of lecturers

continued to use the traditional lecture method as the main mode of delivery. However,

they integrated strategies like small group discussions, videos and individual tasks to

promote student engagement. The use of technology during lectures was also common as

most lecturers used tablet computers and personal response systems as alternative to

PowerPoint presentations. Although student assessment was identified as a challenge,

lecturers developed alternatives to multiple choice questions through team project based learning.

Similar to this study, Rieg and Wilson (2009) investigated the instructional methods and assessment strategies used by teacher educators in two universities in the United States. These researchers further examined teacher educators' perceptions on effective strategies in these universities. This was done by means of a survey. The results indicated that the faculty members were aware of which instructional and assessment techniques were effective. However, contrary to Kerr (2011), Rieg and Wilson (2009) found that the teacher educators did not always use these effective strategies. It was found that the lecture was not the most method of information delivery utilized. The teacher educators mostly used small group discussions and brainstorming since they were considered to be the most appropriate strategies for future teachers.

Jimakorn and Singhasiri (2006) investigated teachers' beliefs towards teaching English in large classes in Thailand. A survey questionnaire was given to 75 English lecturers from various universities in Thailand. The majority of the participants, 62.5% indicated that teaching English in large classes was possible but various limitations should be taken into consideration. Some of the lecturers stated that "The larger the class, the less effective, the larger the class, the more extra work for the teacher" (Jimarkorn & Singhasiri, 2006, p. 16). Furthermore, the lecturers also pointed out that a larger class made it more difficult for the students to develop language skills and the most possible assessment methods for large classes were tests and examinations. This showed some of the disadvantages of working with large classes.

The studies above relate to the current study as they investigated instructional strategies in higher education classes. The Rieg & Wilson (2009) study is particularly relevant as it focused on teacher education just like the current study.

The Hanover Research (2010) came up as a result of an online literature review of how large classes were taught at institutions of higher learning in Australia, Canada, United States and United Kingdom. The various strategies reported included: dividing classes into smaller groups, class discussions, using technology to give lectures and creating electronic forums. The Hanover Research further indicated that although large lecture classes were challenging, this could be addressed by having students to be actively engaged in the learning process through good organizational practices. This view is also supported by Iipinge (2013). Through general reflection on his personal experience with teaching two large university classes Iipinge found that although teaching large classes at university was challenging, with effective organisation and planning, students in these classes can be actively engaged in the learning process. In the same vein, Ajjan (2012) investigated students' perspectives on large classes at a Syrian university. An interview and participant observation research methods were used. A large group of four hundred students was observed over a period of six weeks. The results from the first phase of the study indicated that students did not mind being in a large class as long as they were taught by good lecturers. The second phase of the study noted that good lecturers were those who engaged students in interaction and those who were also friendly. Involving students in interaction requires proper planning of student-centred activities. Through proper planning, the good lecturers can come up with interesting and active instructional strategies as well as good classroom management techniques.

Yelkpiere, Mamare, Esia-Donkoh and Dwamena (2012) conducted a study to study the views of both lecturers and students on large class size and how its impact on teaching and learning at the Winneba Campus of the University of Education, Winneba, Ghana. This was a cross-sectional survey of 42 lecturers and 342 student participants. Questionnaires and direct observation were used as research methods. The findings indicated that weaker students were not attended to and students who had difficulties made effort to see the lecturers individually. It was also observed that, students who sat at the back usually had difficulties hearing lecturers in the big lecture halls where the lectures were typically held. As a result some ended up writing incorrect information without cross checking with colleagues. The lecturers also pointed out that large class size made it difficult to organise quizzes and class tests regularly. The lecturers further indicated the difficulties they encountered in marking large class assignments and providing feedback on time. In the survey, however, lecturers did not think that large class size affected the quality of their teaching. The study recommended that the university should employ more lecturers in general courses to reduce class sizes, and make sure that resources were provided such as lecture halls, seating places and other teaching and learning equipment.

Huerta (2007) investigated the concern that using active learning activities in large classes reduces the amount of time available to teach subject content. The researcher implemented active learning strategies in his Political Science class, specifically question-based outlines, discussion-question prompts, small group discussions and examination preparation activities at Texas A & M University. The results showed that active learning activities had positive impact on student learning. Evidence was provided through examination grades and the pre-and post-subject exams. The combination of question-based outlines and small group discussion had the most positive impact on student learning

achievement and attitude. Through question based outlines, instead of the lecturers simply presenting the information in outline forms to the students, questions were provided in order to draw the information from the students who had been asked to read beforehand.

Thomas, Subramaniam, Abraham, Too and Beh (2011) carried out a pilot cross-sectional study to determine the difficulties faced by tutors teaching large groups of students and to suggest appropriate ways of overcoming the challenges they faced. The study was carried out at private universities in the Klang Valley and the State of Negeri Sembilian, Malaysia. Thirty two (32) participants took part in the study. Twenty five lecturers had the largest classes consisting of 80 to 200 students, while six lecturers had class sizes of 200 to 300 students. The results of the study showed that resources such as PowerPoint slides were the most used in large group teaching. While the less often used resources were wireless microphones, pointers, transparencies and stations microphones. Ensuring that students were attentive was a frequent problem. There were problems with assessment also, whether it was administering and giving tests, quizzes and assignments. Furthermore, the lecturers indicated that they were often confronted by the difficulty of identifying weak students. They also had problems in getting students to interact and participate in classroom activities. Results from open-ended questions showed that the lecturers suffered from mental exhaustion, were fatigued and felt that their personal time with family was compromised (Tomas et al., 2011).

Taylor, Cheer, Boister, Toomey, Muller and Wilson (2012) carried out a study to assess the effectiveness of teaching the skills of analysis, synthesis, critique and evaluation in large law classes at the University of Canterbury. The project took place in four phases namely: a literature review, a survey of law students, a survey of teaching staff at the law faculty and focus group discussions with law students. The results show that the lecture

method was the commonly used and the instructors felt that it worked well for the materials that had to be covered. Other instructional strategies used were the tutorial method, the case method, Socratic discussions and problem method. The students rarely interacted with the lecturers or other students during the lecture and were disengaged from the learning process. Interaction took place during the tutorials only.

Kang'ethe (2015) examined the challenges of teaching large classes at some of the previously disadvantaged universities in South Africa. A desk study review methodology was used coupled with the researcher's personal experience of teaching large classes. The results of the study showed that the lecturers were usually overwhelmed by the large number of students, and opted to use the traditional lecture method. This in turn reduced active student involvement in the teaching and learning process; a factor which was demotivating to them and which impacted negatively on their intellectual development. There was also limited interaction between students and lecturers, with the students feeling neglected as a result. The lecturers also avoided learning activities that required long duration for assessment. The recommendations of the study were: large classes to be divided into smaller ones, employing more lecturers, peer assessment should be encouraged, and increasing the use of technology in the lecture venues.

Bughio (2013) carried out a study at the University of Sindh, Jamshoro, Pakistan (UoSJP). The purpose was to improve the quality of English language teaching in large classes. The study was carried out in two phases. The first phase was to find out which teaching methods were currently used in large classes; and the students and teachers perceptions of large classes. The second phase was an intervention phase whereby the researcher introduced cooperative practices in the classes. The findings showed that lecturers used traditional lecture method and it was difficult to give attention to individual

students in class. Few students participated during lessons while the majority remained

silent. With no availability of microphones, lecturers tried to reach out to the students by

struggling to increase the volume of their voices. No effort was made to involve the

students in class activities. Some students tried to sit in front of the classes so that they

could hear the lecturers. Some students were shy to speak out, others came late to class and

this disturbed the lessons, however lecturers tend to ignore the latecomers. The lecturers

made efforts to change what they could and where possible, and showed willingness to

improve teaching conditions.

Chikoko (2015) conducted a study at a South African university on the experiences

of lecturers teaching large undergraduate classes. This was a qualitative study in which 28

lecturers from nine departments took part. Face-to-face interviews and observation

methods were employed to collect data. The results of the study showed an isolated case of

one lecturer who enjoyed teaching large classes because he used PowerPoint slides and

audio visual aids, while the other lecturers struggled and disliked large classes. The

challenges experienced by the lectures included: difficulties in taking the attendance,

assessment difficulties with the result that most used multiple choice questions, lack of

postgraduate students to serve as tutors, unwillingness by students to print out materials

uploaded as electronic copies, lack of resources such as microscopes, students'

misbehaviour especially at the back of the lecture room, inability to engage the students in

the lessons and the inability to know students' names and faces. Some lecturers employed

very traditional and basic teaching strategies while others exploited modern technologies.

In 2013, Saejew conducted a study to assess English lecturers' perceptions on

teaching large classes at Burapha University in Thailand. Thirty five (35) lecturers who

taught English 1 took part in the study. All the classes taught by these lecturers had more

than 60 students. A questionnaire was used to gather the information. The study established

that although the lecturers were not nervous to teach large classes because they were very

well prepared for their lessons, they were more exhausted than when they taught small

classes. Further, interaction between the lecturers and students was not good enough. Also,

providing feedback to the students hardly happened due to limited time. The lecturers felt

inconvenienced because the classroom sizes were not suitable.

Straits (2007) also conducted a study to investigate students' views on lecturers

teaching large Biology classes. Fifteen students participated in the study, most of them

were in their second year. Three interviews were held with each participant, and class

observations were held. An email dialogue was created between the researcher and the

research participants. The results of the study revealed that the students perceived their

lecturer as a caring instructor because she went extra miles for them despite the fact that the

class was large. Additionally, the students felt that their instructor/lecturer promoted the

development of critical thinking skills in her students. She was always excited about what

she was teaching, which in turn meant that students were inspired to put extra effort in her

class. The most beneficial result of this study was the identification of factors that indicated

teacher care as: respecting students as humans, getting to know students, willingness to

give an extra effort, employing various teaching strategies, wanting students to learn and

succeed and providing various resources.

Moodley (2015) conducted a study at two universities in South Africa, namely: the

University of Zululand and the University of Lipompo. The main purpose of the study was

to develop a strategy for dealing with large classes. Thirty lecturers participated in the

study and were identified through purposive sampling strategy. These lecturers filled in a

self-administered questionnaire electronically. The major constructs addressed in the

questionnaire were the quality of education in large classes, the challenges experienced and the teaching strategies employed by the lecturers. The study revealed that first year classes were made up of 302-405 students, while the second year classes were made up of 151-450 students. Despite this practice, the lecturers pointed out that they did not prefer teaching large classes because of various challenges encountered. All the lecturers agreed that they mostly used the traditional lecture method in delivering the information. They also used multiple- choice questioning format across all disciplines that took part in the study for assessment. It was also found out that some departments in the two universities evenly distributed the marking workload among the lecturers. All the lecturers confirmed that they used different media like Moodle, Blackboard, Facebook and WhatsApp. The study participants suggested that it was important to use the student-centred teaching approach in large classes, and also to create a channel for open communication between the lecturers and the students.

Ayaya (2001) carried out a mixed method research study at the UNAM main campus on large classes. Four faculties, Education, Science, Humanities and Social Science, Management Science and Economics took part in the study. Six hundred and sixty students were selected through systematic stratified cluster sampling while 14 lecturers we chosen through intensity sampling. Lecturers were interviewed while the students were given a questionnaire. The results showed that there was minimal student involvement in large classes. However, more than half of Education students indicated that they were either asked to answer questions or to contribute to class discussions. The majority of the students did not consult the lecturers for academic assistance. Therefore, the lecturers had a challenge knowing their students' individual learning difficulties. Students also indicated that they needed more practical activities through tests and assignments. However,

lecturers indicated that it was difficult for them to mark heavy loads without the assistance

of teaching assistants. Unacceptable behaviour such as noise and leaving the lecture venues

before the end of the lecture were observed. The study recommended the use of reflective

teaching methods, lecturers to set time aside for consultation hours, and classes to be

reduced to less than 80 students in class for the Education faculty and less than 60 students

for Science and Economics faculties. Further, the study also recommended further research

on how to improve teaching and learning in large classes at UNAM.

Cuseo (2007) reviewed literature related to large classes in universities and found

that that there are eight harmful outcomes associated with large-sized classes. These are

increased reliance on the lecture method, less active student involvement, reduced

frequency of instructor interaction with and feedback to students, reduced depth of student

thinking, reduced breadth and depth of course objectives, course assignments, and course

related learning strategies, lower levels of academic achievement and performance, less

course satisfaction by students and lower student ratings of course instruction.

The eighteen reviewed studies discussed above were all carried out at higher

institutions of learning in different parts of the world. However, only five of the studies

were carried out in Africa. These are Yelkpiere et al., 2012, Kang'the, 2015, Chikoko,

2015, Moodley, 2015 and Iipinge, 2013. This clearly shows that there is a dearth of

research on the impact of teaching large classes at high institutions of learning in Africa.

The current study therefore seeks to make a contribution in this area. The majority of the

studies had as one of their purposes, to study the perceptions of lecturers and students on

large classes (Machener & Crawford, 2007; Jimakorn & Singhashiri, 2006; Yelkpiere et al.,

2012; Straits, 2007; Ajjan, 2012 & Chikoko, 2015), the challenges experienced in large

classes (Thomas et al., 2011; Kang'the, 2015 & Moodley, 2015) and the teaching methods

employed in large classes (Kerr, 2011; Rieg & Wilson, 2009; Hanover Research, 2010; Huerta, 2007; Taylor et al., 2012 & Moodley, 2015). Therefore, the reviewed studies are related to the present study which also focuses on instructional strategies used in large classes and seeks to identify the instructional challenges experienced. Three of the eighteen (18) studies, Cuseo, 2007; Hanover Research, 2010 and Kang'the, 2015 were desk review based, while one study, Iipinge, 2013 was a personal reflection, and another one, Huerta, 2007 was on action research. Four of the 18 studies were qualitative in nature whereby interviews or observations were used as means of collecting data. The other nine were quantitative studies and used surveys. To address the objectives of the study, I considered it necessary to use a qualitative approach to get participants' ideas, opinions and experiences through interviews, focus group discussions, observations and document analysis.

Studies reviewed in this section focused on three subjects namely: English, Biology and Law. The current study aims at large classes in teacher education courses such as English for Teachers, Integrated Media and Technology and Science of Teaching. While the reviewed studies used only one or two types of participants such as teachers or students, the current study has three different types of participants namely, teacher educators, student teachers and members of the management.

Although most of the studies identified various challenges experienced in large classes, only one study by Straits (2007) found that students perceived their large class lecturer as very caring. It should be noted that the study by Straits was only focused on that one specific large Biology class, and not on other large classes.

Student-centred Teaching Approach

Du Plessis and Muzaffar (2010) identify various terms that are used in major educational reforms in many countries to refer to learner-centred education. These terms are learner-centred teaching, learner-centred education, active pedagogy, active learning, student-centred teaching, participatory learning and democratic education. Further, Blumberg (2008) notes that three phrases are used to refer to the learner-centred approach namely: Learner-centred teaching, learning-centred approach and student-centred teaching approach. In this particular study, the researcher prefers to use the term student-centred teaching concurrently with learner-centred teaching because the study is about a higher institution of learning where there are students. At the same time, the Namibian government has a policy on learner-centred education philosophy but the policy applies to all levels of education, including teacher education. The Ministry of Education, Namibia (2006, P. 126) defines learner-centred teaching approach as an approach that:

> …starts from the children's current knowledge and guides them towards new knowledge. Learners must be active participants, while the teacher facilitates. The approach acknowledges that learners have background information and the teachers need to build on that: the teacher is not the only source. Learners must take responsibility for learning and must have input.

Collins and O'Brien (2003) explain student-centred teaching as an approach in which students influence the content, activities and the pace of learning. Within this approach, the student or learner is placed at the centre of the teaching learning process. They further indicate that the lecturers provide the students with opportunities to learn independently and from one another. Furthermore, Mtitu (2014) defines a learner-centred teaching approach as the students' involvement in participatory teaching and learning methods, and the students' critical reflections on the topics under discussion. All the above definitions emphasise the point that teachers who use a learner or student-centred approach need to

connect new ideas to what the students already know and facilitate the development of problem-solving skills, critical thinking skills, and communicative skills. A learner-centred environment requires students to take on new learning roles and responsibilities and make important choices about what and how the students would learn (Doyle, 2008). Blumberg (2008) and Doyle (2008) stress that strong research evidence exists to support the implementation of student-centred teaching approach at institutions of higher learning so that the lecturers can improve the students' opportunities to learn.

Yuen and Hau (2006) conducted a case study of an undergraduate Educational Psychology course at the University of Hong Kong that incorporated both constructivist and teacher-centred teaching approaches. Seventeen students were interviewed and the researchers conducted participant observation of all the lessons of the course. Students' assignments were also collected for document analysis. The results of the study showed that constructivist teaching approach allowed time for the students to think and construct knowledge collaboratively, while the teacher centred-teaching was simply a direct transmission of knowledge from teacher to students. The knowledge gained in constructivist teaching was better in terms of knowledge construction process and the retention of knowledge. More materials could be covered in a shorter time within the teacher-centred approach while less material could be covered within a constructivist approach. This means that in teacher-centred teaching more material could be covered in breadth but not in depth. While in constructivist teaching less material could be covered in depth.

Mtitu (2014) assessed the implementation of learner-centred teaching approach in Tanzania as mandated by policies in education. Interviews were conducted with secondary schools Geography teachers and Geography lessons were observed. The results of the study

showed that Geography teachers showed a surface understanding of learner-centred

teaching and the learners were given limited time to reflect on the aspects under discussion.

The teacher-centred approach dominated over learner-centred approach. The teachers

presented some evidence of the application of the learner-centred approach by actively

engaging students in the teaching and learning process through group discussions.

However, the students were given limited time to reflect on the geographical aspects under

discussion.

The results of another study by Bahanshal (2013) showed that most of teachers

normally start by using the teacher-centred approach. When they realised that it was not

working well, they changed to the student-centred approach. Bahanshal established that

using student-centred approach made the students to be active learners and more

responsible for their learning. Similarly, Saleh, Tawil, and Al-Hadith (2012) carried out a

study to assess the teaching methods used at The Hawler College of Medicine, Iraq. The

findings showed that there were significant problems facing the existing teaching methods

including large number of students in the lecture halls. The lecture method which is more

teacher-centred was the most used. Huba and Freed (2000) outline several differences

between teacher-centred and learner-centred. This is presented in Table 3.

Table 3:

Differences Between Teacher-centred and Learner-centred Paradigm

Teacher-centred teaching paradigm	Learner-centred teaching paradigm
Knowledge is transmitted from professor to students.	Students construct knowledge through gathering and synthesizing information and integrating it with critical thinking and problem solving skills.
Students passively receive information.	Students are actively involved.
Emphasis is on acquisition of knowledge outside the context in which it will be used.	Emphasis is on using and communicating knowledge effectively to address enduring and emerging issues and problems in real-life contexts.
Professor's role is to be primarily information giver and primary evaluator.	Professor's role is to coach and facilitate, professor and students evaluate together.
Teaching and assessing are separate.	Teaching and assessing are intertwined.
Assessment is used to monitor learning.	Assessment is used to promote and diagnose learning.
Emphasis is on the right answers.	Emphasis is on generating better questions and learning from errors.
Desired learning is assessed indirectly through the use of objectively scored tests.	Desired learning is assessed directly through papers, projects, performances, portfolios and the like.
Culture is competitive and individualistic.	Culture is cooperative and supportive.

Adapted from Huba and Freed (2000)

With regard to the differences between the learner-centred and teacher-centred approach as identified from various authors, it is fair to say that the lecturers and teachers' decisions and practices should be based on what the students already know and what they need to know. The teachers should facilitate and reflect on the best ways to teach a particular subject. In higher education, the notion of subject-centred teaching is currently

topical. Morrison-Sanders and Hobson (2013) assert that those at the centre of teaching are teachers, students and the subject. The emphasis is that teachers and/or lecturers need to know the subject content they teach in addition to engaging students in the learning process. Reflecting on the best ways of teaching a subject is important, and brings up the notion of reflective teaching practice.

Reflective Teaching Practice

Doyle (2008) states that it is important for students and teachers to engage in reflection practice during teaching and learning. He further asserts that reflection prompts connections between students' prior knowledge and the new information that is being learned. As a result the teachers and lecturers need to think carefully about their roles in asking questions and providing clues for the students to relate the information to previous knowledge. Teachers and lecturers also need to reflect on the way they present information to the students. This means that teachers need to manage their own reflections and the individual reflection of the students they teach. Fat'hi and Behzadpour (2011, pp 247-248) identified six components of the reflective practice process:

1. Focus on the learner-students are the centre of reflection in the reflective practice;
2. Focus on the teacher- teachers' personality, their affective make –up can affect the reflection;
3. Focus on the practical aspects- referring to the ways, tools and procedures used and undertaken by teachers to fulfil the reflective practice, e.g. lesson reports, journal writing, group discussions etc.
4. Focus on teachers' cognitive development- the teacher's professional development as a teacher needs to be taken into account;
5. Focus on critical/contextual aspects- the first model relates to the teacher's intellectuality and his/her practice, and the other aspect explores the

                relationship between individual teaching activities and the purpose of

                education in the society

6.   Focus on moral/ethical parameters- when it comes to morality and reflection, students are supposed to be engaged as active participants of the educational, social and moral life of their classrooms.

      Regarding reflective practice, Zwozdak-Myers (2009) conducted a study to analyse and synthesize existing literature with a motive to understand its nature. Eighty, fourth year Bachelor of Arts (Honours) secondary Physical Education degree student teachers at one institution of higher learning in England, and 13 university lecturers took part in the study. Questionnaires and semi-structured interviews were used to collect the data. Quantitative data was analysed by calculating means, frequencies and standard deviation, while qualitative data was analysed using the analytic induction method. The results showed that the majority of student teachers reported that they could apply the reflective practice process to various aspects of teaching in order to improve their practice. Teachers felt that the action research experience positively influenced their professional development to some extent. The lecturers who were supervising the students' research also agreed that the action research experience had influenced the professional development of their students. The main domains that students felt had contributed to their personal development were thinking more in greater depth, evaluating more widely and analysing more closely.

      Similarly, Kaywork (2011) carried out a study to analyse the process of reflective practice among early childhood student teachers from Dominican College after the students had been provided with reflective opportunities. The researcher was the supervisor of the participating student teachers, and decided to implement some reflective practices. The student teachers participated in a 15 week student teaching practical experience. The

reflective practices that the student teachers took part in were daily written reflections, weekly group discussion meetings, one observation conversation and a written reflection and sharing of artefacts and documents. The observation conversations and the pedagogical discussion groups were audio-recorded. Each student teacher participated in a standardised individual interview, and the researcher kept a journal for reflexivity purposes. The results showed that most of the students' written and oral reflections were descriptive, and there was no critical edge to them. The students' reflection on the teaching process was also descriptive. However, in the discussion groups, sometimes one students' reflection could initiate critical ideas from other students. Therefore, the study established that pedagogical group discussions were more critical. Overall, the student teachers' participation in various reflective practices helped them to develop teaching and reflective practices in various ways. Extended reflection took place in the form of integrating artefacts and documents.

Further, Domingo (2013) investigated ways that could encourage the reflective practice among novice teachers, and to ascertain the professional development possibilities through reflective practice. The research was carried out through a narrative inquiry design. The narratives showed that the reflective teaching practice was a very useful self-support initiative for continuous professional development, though it was difficult to integrate into the daily teaching practice. The new perspectives the researcher gained from the reflective process was that teachers can learn from mistakes by proposing changes during the reflective process. The study concluded that competent and confident teaching requires teachers to be reflective practitioners.

Student-centred Teaching, Reflective Teaching Practice and Social Constructivism

Both student-centred teaching approach and reflective teaching practice require reflection on the prior and new knowledge which is also one of the characteristics of a constructivist learning environment. Additionally, student-centred teaching has its origin in constructivism theory (Attard, Di Ioio, Geven & Santa, 2010). Brooks and Brooks (1999) understood the relationship between student-centred teaching and constructivism as learning that involves the construction of new ideas through connecting them to prior knowledge. The whole process involves reflection and doing practical activities. However, Mascolo (2009) argues that the intention that learning occurs by doing does not by itself justify any particular mode of teaching and learning. It is important for the teachers and lecturers to reflect and express the teaching and learning process goals in the form of doing that is appropriate for the learning outcome. That form of doing can take place in student-centred approach which can sometimes be complimented by the teacher-centred approach.

Instructional Strategies Used in Large Classes in Higher Education

Constructivist Teaching Strategies

Lecturers in large classes try to use different instructional strategies such as lecture, group discussion, individual presentations, workshops, role play in order to actively engage their students. Recent studies also favour constructivist teaching methods (Carpenter, 2006; Redden, Simon & Aullus, 2007). Constructivist teaching methods put the students at the centre of the learning process while the lecturer or teacher facilitates the process and does not simply transmit knowledge. Similarly, Exeter, Ameratunga, Ratima, Morton, Dickson, Hsu and Jackson (2010) provide evidence that the classroom discussion method was selected as the most valuable method for large class environment. Carpenter (2006) carried

out a survey while Exeter et al. (2010) used a semi-structured interview to ascertain the importance of constructivist teaching methods.

Again, Ensign and Woods (2014) indicated that constructivist teaching methods promote deeper understanding of the material/content being covered, increase motivation and help in the preservation of new knowledge. Learning outcomes that are highly valued by the construction environment include problem solving skills, decision making skills, leadership skills, creativity and team building (Bahattacharjee & Ghosh, 2013). Therefore, universities are expected to design programmes that foster the above mentioned qualities in students. Hence, the researcher presents a description of the instructional strategies used in large classes at higher education institutions based on the literature reviewed.

Small group activities

For this strategy, Garg et al. (2008) explored instructional methods employed by lecturers in General Education Computer (GEC) and Information Skills courses at the University of Botswana. A quasi-experimental design study with control and experimental groups was conducted. Students and lecturers of GEC in Semester II of the academic year 2004-2005 who volunteered participated in the study. The results of the study showed that instructional strategies (e.g. previous lesson review, student generated multiple choice questions, small group activities and final wrap up) used with the treatment group contributed to student satisfaction.

Likewise, a project on large class teaching was carried out in Australia (Teaching and Educational Development Institute, 2001). The aim of the project was to identify the best practices for teaching large classes which varied in size from 70 to 1000 students. A survey questionnaire was e-mailed to participants. The survey showed that most large

classes across Australian universities were taught by a team of two or more lecturers and

tutors. The most successful strategies used included small group discussions in lectures,

web-based course materials, giving small group lecture exercises and lecture guides.

Various challenges were identified including difficulties in knowing students, giving timely

feedback, limited resources and budget for the class size, high noise levels and difficulties

in varying presentation strategies. The above two studies indicate that the use of effective

instructional strategies in large classes increases the chances of effective learning taking

place.

In another study, Nakabugo, Opolot-Ukurut, Ssebunga, Ngobi, Maani, Gumisiriza,

Mbaga, Alupo, Byamugisha and Tukeshiga (2007) found that 31% of the observed lessons

used group activities. They indicated that group activities help the teacher to control the

class because he/she can monitor and supervise the students in various smaller groups.

Further, Bamba (2012) indicated that small group activities provided students with an

opportunity to learn from one another and improve their social interaction skills.

Furthermore, Messineo, Gaifther, Bolt and Ritchey (2007) carried out a survey with

a purpose of understanding why students were not responding positively to the lecturers'

attempts to implement active learning strategies in large classes. The results showed that,

on the one hand, the inexperienced students (students who were doing their first semester)

valued group work and only a few of them regarded it as a waste of time. They less likely

believed that large classes are easier than smaller classes. On the other hand, the

experienced students (students who have already completed one or two semesters) were

more likely to prefer passive learning such as lectures and also preferred to be told what to

do. These students skipped classes more often.

A distinctive small group activity is small group discussion, and it is a unique teaching strategy. Many researchers support small group discussions as another instructional strategy that fosters effective learning in large classes. Hogan and Daniel (2012) asserted that students appreciate the opportunity to discuss in small groups after a questionnaire was given to students from large classes in New Zealand. Additionally, Martinez and Ferguson (2013) carried out a survey, and observed Maths and Physics students in Mexico to study the perceptions of large classes. The results showed a preference by students for collaborative learning inside and outside the classroom rather than individual work. This view is also shared by Kajander (2006) who stressed that students in large classes demonstrated improved understanding of Mathematics after they have worked on various activities in groups. Although working in groups was challenging for students initially, in the long run they felt that it was a very rewarding process. These ideas echo Basorun (2013) argument that large classes can be divided into various groups where students can compare their ideas about the lecture topic and give feedback to the whole class. However, when conducting class group discussions, it is very important to have clear instructions and ground rules. The strategies for guiding group discussions depend on the particular teaching goals (Tait, 2011; Newsletter on Teaching, 2000).

Lecture method

Machemer and Crawford (2007) assessed how students value active, cooperative and traditional learning activities within a single large cross disciplinary classroom. In this study active learning was considered as doing something individually while cooperative was doing an activity with others. For the traditional activities, there were 27 lectures using traditional podium speaking with PowerPoint slides for 50 minutes. Data were gathered

through a self-administered questionnaire given to students registered in the Integrative

Studies in Social and Behavioural Sciences (ISS) class. The students valued the traditional

lecture equally as well as the active learning projects. Any activity that related to

improving examination performance was valued by the students. Shaban and Okebukola

(2005) and Kochhar (2000) agreed that a lecture can be effective as far as it is appropriately

planned. For example, the lecturers need to involve the students in the learning process by

asking questions and by presenting stimulating materials. This means that, the usual lecture

whereby the lecturer addresses the students without interruption needs to be improved by

involving the students actively.

Correspondingly, Rieg and Wilson (2009) investigated the instructional strategies

used by teacher educators in two universities in the USA. The descriptive study was

conducted through a survey using a 3 point Likert Scale of the perceived effectiveness.

Lecturers used the strategies that they perceived to be effective: problem solving activities,

pair or small group discussion and brainstorming. The other five categories namely: role

play, guest speakers, field trips, video conferencing and student debates were ranked as

effective but were rarely used. Interestingly, Machemer and Crawford (2007) and Rieg and

Wilson (2009) both used the survey design to find out which instructional strategies were

perceived effective either by lecturers or by students. In the same way, this study aims at

investigating the instructional strategies used in large classes in Namibia and at HPC in

particular.

Problem-based Learning

Research also reveals that Problem Based Learning (PBL) has been used as an

instructional strategy in large classes. Problem Based Learning was developed in the 1960s

as a useful instructional strategy alternative to conventional teaching (Loyens, Magda, &

Rikers, 2008). In PBL, small groups of students learn cooperatively in the context of

meaningful problems that are related to the subject matter. Pastirik (2006) carried out an

online survey to find the process and outcome of using PBL in a large second year nursing

class with one instructor at the University of New Brunswick, Canada. The findings

showed that the use of PBL in a large group had the benefit of multiple perspectives as one

student commented, "I enjoyed researching the topic for this course, because each person

only had a small portion to research" (Pastrik, 2006, p. 264). Additionally, the majority of

the students expressed a positive attitude towards both small and large group PBL

approaches. One of the students commented, "I believe in using problem-based, we learned

to work as a group and respect the strengths of one another" (Pastrik, 2006, p. 264).

In the same vein, Klegeris and Hurren (2011) explored the students' perceptions on

PBL approaches in a large classroom setting at the University of British Columbia, Canada.

An online survey questionnaire was used to collect data. The results indicated that the

majority (59%) of the students liked the peer evaluation offered during PBL. Further, the

students' perception of PBL methodology was tremendously positive; and the pre-post

PBL experience results showed a higher number of answers generated by students in

response to the same problem at the end of the term compared to the beginning of the term.

With these views, it can be claimed that PBL is a worth teaching strategy for teaching large

classes.

The use of technology in large classes

Research on large classes has revealed that technology can also be used effectively

as an instructional strategy in large classes. Bati, Gelderbolm and van Biljon (2014),

Powell, Straub, Rodriquez and Van Horn (2011) explored the effects of the use of

technology in large classes. Powell et al. examined the effects of the use of clicker

technology in large psychology courses. Clickers are instructional tools that promote

student interaction by electronically collecting and displaying students' responses to

questions (Vail-Smith, Blumell & Elmore, 2006). Other names for clickers are: Classroom

Feedback Systems, Interactive Response Systems, Zappers, Electronic Voting Systems,

Group Process Support Systems, Audience Response Systems, Personal Response Systems,

Selected Response Systems and Wireless Transponders (Patry, 2009). Similarly, Bati et al.

(2014) tried to find out how computer technology could be used to improve large class

teaching of programming. Positive developments from Bati et al. study were that students

can practice tasks during off class time, and build teamwork practice by using diversified

information sources. Alternatively, Powell et al. (2011) found that using clicker technology

increased the students' understanding of the topic and allowed them to identify their own

areas of concerns in learning. The study by Powell et al. was quasi-experimental while that

for Bati et al. was a mixed method sequential explanatory design study. Besides that,

Sevian and Robinson (2011) and Woelk (2008) assert that the use of clickers in all kinds of

classes, large and small facilitated more equitable participation by students, and that they

were more useful when their use was integrated with the content in order to reduce

interruption of lesson.

Furthermore, Hanover Research (2010) indicates that Blackboard can also be used

to facilitate the teaching and learning process in large classes. Blackboard is an online

discussion forum and is designed for posting and managing classroom materials. According

to Hanover Research Report (2010, p. 17), Blackboard has the following features:

- Allows instructors to post documents and multimedia resources.

- Tests and quizzes can be taken by students directly on blackboard.
- Students can submit assignments to blackboard.
- Instructors can calculate and manage student grades through blackboard.

Online discussion

Some researchers view online discussion as an effective strategy of engaging students in large classes' discussions (Yang, 2008; Exeter, Ameratunga, Ratima, Morton, Dickson, Hsu & Jackson, 2010). Yang (2008) recommended the use of online discussions after the students have been involved in Socratic discussions. Socratic discussion is an approach of teaching critical thinking skills through critical questioning. Alaba and Lowumu (2008) examined views of university lecturers on the use of Closed Circuit Television (CCTV) at the University of Lagos, Nigeria. The results showed that the lecturers felt that CCTV was very useful in large classes since it gave them an opportunity to display highlights of lessons and the demonstration on the screen to a large number of students. This literature review indicates that effective teaching and learning is possible in large classes so long as lecturers plan properly and use appropriate instructional strategies and technologies.

Tutorials

Tutorials refer to an instructional strategy whereby the tutor follows up on what has been taught during the lesson. Tutorials differ among faculties and departments. Some tutorials are small classes and other tutorials are strictly extra help gatherings or meetings. The Higher Education Quality Council of Ontario (2015) carried out a study to examine the students' performance, final grades, attendance in tutorials and performance on online

homework assignments of macroeconomics class. The study also examined if a particular style of tutorials was more effective. The course enrolled 2500 students divided into 5 classes. Tutorials of 700 students per group were held every second week. The findings of the study showed that attending one tutorial session did not improve the final grade. However, attending more than one session had a visible impact. Students who attended all five tutorials improved their course grades. Less than half of the students attended all the five sessions and students in the cooperative tutorials performed better on the homework assignments.

Foo and Ng (1996) investigated the problems of conducting mathematical oriented course of pre-engineering students in large tutorial class set up students at Nanyang Technological University, Singapore. A survey and interview research methods were used. A sample of 60 students was chosen to answer the survey questions, while 5 students were interviewed. The results showed that students felt that the tutorials should be presented in a well-organised manner. Furthermore, the students had a tendency of passive learning and depended on the tutor for guidance. The tutors tended to present all the tutorial solutions to the class in most cases. As a result, the students did not participate much.

Finally, Chan, Brewer and Browne (2012) examined the effectiveness of conducting psychology tutorials in large lecture halls with over 100 students per class. The researchers introduced the use of skilled tutors and more collaborative learning activities, and the students were divided into smaller groups. The results showed that students reported good learning experiences and better performance compared with the previous cohort.

Team teaching

Team teaching has been defined as any teaching situation that involves more than one instructor (Tice, Jackson, Lambert & Englot, 2005). Team teaching is aimed at encouraging cooperative efforts for the benefit of both students and lecturers (Hanusch, Obijiorf & Volcic, 2009). Again, team teaching aims at exposing students to specialist knowledge of various teachers/lecturers. Two lecturers can teach one course together in one lesson or a single lecturer may use one or more assistants to carry out part of the instruction. Carpenter et al. (2007) indicated various forms of team teaching ranging from teachers dividing up lecture blocks among themselves (the serial approach) to teachers continually planning, presenting and evaluating lectures together (the collaborative approach). A research study carried out by Nakabugo et al. (2007) found out that there was a co-teacher in each class observed. Hanush et al. (2009) analysed the success of team teaching approaches through both qualitative and quantitative approaches at the University of Queensland in the introductory journalism communication course. A questionnaire was used and two open-ended questions were added to provide qualitative data. The results of the study showed that there were certain aspects of team teaching that enhanced student learning experience which students appreciated. The factors that contributed to the success of team teaching were: mixture of team-teaching strategies, the use of guest lecturers and the pool of academic staff. Some of the issues like differences in teaching styles, differences in the quality of lecture content, lack of cohesion and continuity in lecture topics were perceived as not very helpful.

Also, Yanamandran and Noble (2006) examined students' experiences and perceptions of two models of team teaching used at the University of Wollongong, Australia. Four hundred and forty out of 870 students participated in the survey. A

questionnaire was distributed to the students who only attended the lecture in the last week

of the semester. The results showed that students preferred team teaching over traditional

one-teacher one-subject model. The reasons for the preference of team teaching include a

variety of teaching styles and a variety of experts. Yanamandran and Noble further pointed

out that the students felt that the variations in teaching styles improved the learning

environment. However, some students felt that, the variation in teaching style was

detrimental to the learning environment because some lecturers were boring, stagnant and

unenthusiastic. Similarly, lack of integration affected the students' ability to connect from

one topic to another. The students suggested consideration of expert knowledge of

individual lecturers when putting together a teaching team.

Peer Tutoring

On peer tutoring, Nakabugo et al. (2007) explain it as a process where students

teach each other; the more able ones act as teachers for the less able. This means that by

engaging in peer tutoring students can acquire skills and knowledge through active support

and help among themselves under the guidance of the teacher. Hall, Lang and Maas (2010)

carried out a study to test the effectiveness of peer tutoring through preceptor-facilitated

study groups in the Introductory Biology classes at the University of Texas, USA. Their

study further indicated that peer facilitators were trained as part of the teaching team

(faculty, graduate assistants, and preceptors) by the University Learning Centre staff. The

preceptors recruited from the Biology classes on voluntary basis and were trained in study

strategies and leadership skills. The results of the study showed that students who attended

more classes had a tendency to attend more study groups. Participants in the study groups

were less likely to drop or fail a course and were more likely to achieve higher grades.

Students (81%) who attended study groups led by preceptors agreed more with the

statement that they were more active towards the end of the class than the nonparticipants

(63%) (Hall et al., 2010). The study group participants profited more from study groups as

indicated by performance in the final exam questions. Peer tutoring as implemented in this

study provided benefits for both students and lecturers. The main benefit was regular

communication between the preceptors and lecturers during the weekly teaching team

meetings. Similarly, the preceptors provided feedback to the instructors on how the

students were learning.

Kibble (2009) examined the practicality of implementing a peer tutoring

programme in a class of 350 medical students at St. George University in the USA. The

second purpose of the study was to evaluate if such a programme was beneficial. A tutorial

programme was set up to provide extra academic support to the 350 Physiology students

who were taught by two lecturers only. The top 20 highest achieving Physiology students

from the previous semester were invited to participate as potential tutors on a voluntary

basis. Sixteen of the 20 students agreed to become tutors. The tutors were trained and

received a package of written case materials which included ideal answers. Kibble further

indicated that 68 students enrolled in the tutorial programme, completed a pre-tutorial

survey and attended four of the six tutorials on average.

Kibble (2009) found that knowledge acquisition occurred which was shown through

the use of pre-and post-tutorial quizzes. In all cases, the median scores increased in post-

tutorial quizzes. Accruing evidence also shows that the peer tutors (student leaders)

benefitted from the programme in terms of improved communication and presentation

skills. The tutors who participated in the programme agreed in recommending the

programme to other tutors. In the same vein, Hurley, McKay, Scott and James (2003)

studied the effectiveness of peer devised tutorial for first year medical students of the

Integrated Study of Disease at the Memorial University of Newfoundland. Second year

medical students served as tutors to the first year students. Anonymous questionnaires were

used to collect the data from students and tutors. Students were given quizzes before and

after each tutorial session. Post-tutorial quiz scores were higher than pre-tutorial scores.

Students and tutors perceptions of the tutorials were positive.

Use of role play

Role play in teaching is a holistic teaching method that instils the process of critical

thinking, prompts emotions and informs about factual data (Bhattacharjee & Ghosh, 2013).

This means that, role play in teaching increases the effectiveness of the learning experience

and makes it more based on reality. It is based on constructivist learning theory where

student-centred teaching plays a major role. Sirisrimangkorn and Suwanthep (2013)

investigated the role of drama based role play and its effects on the first year speaking

skills at the University of Thailand. Eighty non-native undergraduate students who were

not majoring in English participated in the study. A quasi-experimental research design

was conducted with the two groups of students who received different instruction and

treatment. The experimental group was introduced to drama based role play. The control

group used regular group work activities and was not exposed to drama based role play.

Semi-structured interviews and students' journals were used to investigate the experimental

group students' perceptions towards the role play tasks. The Sirisrimangkorn et al.'s study

results showed that students' experience in working on drama based role play developed

their speaking skills. Both verbal and non-verbal communication skills were developed.

They further indicated that the drama role play contributed to the improvement of the

students' confidence and self-esteem. Students also felt encouraged to learn more. This was

confirmed by one student who said "I have learned more about the famous person whom I selected to talk about for the assignment. English makes me know more about the related topic" (Sirisrimangkorn and Suwanthep, 2013, p. 76).

Moss (2000) studied the use of large group role play techniques used in a Core Social Skills module at Staffordshire University, UK. Students were supposed to be introduced to key themes such as family work, the dynamics of assessment, working with people of all ages and to undertake anti-discriminatory practice in classroom setting. The course lecturer developed a family storyline that was explained in a form of a genogram on which the role play activity was to be based. The Oxford dictionary describes a genogram as a graphic representation of a person's family relationship that can be used to identify repetitive patterns of behaviour. Data was collected through the use of evaluation sheets that students filled after the sessions, and from the summary statement from the project's independent report writer. Thirty eight completed responses were received. Students reported that role play helped them to put the theory learned into practice. They further felt that role play sessions were very useful and realistic. For example one student stated "the family role play really opened my eyes to what some people experience and how we as social workers can be intrusive in their lives at the difficult moments" (Moss, 2000, p. 480). However some shortcomings were reported such as that some sessions were negatively affected by some significant people who developed their roles in the preceding sessions and missed the following sessions. Furthermore, time on task was limited and it was not always possible to discuss and reflect all issues at the end of the sessions.

Case study teaching method

Shaban and Okebukola (2005) indicated that case study teaching method was primarily developed in business, medical, engineering and law contexts. Currently, this method is also used in social sciences and education. Case study teaching method provides an opportunity for students to apply what they have learned in the classroom to real life situations. Shaban et al. (2005) further stated that students are expected to diagnose a particular problem, provide solutions, and give reasons and implications of the action after providing both problem and solution. In the same vein, Barkley, Cross and Major (2005) stated that writing a good case is a complex task for the teacher. The case must be written out clearly and it can be real or hypothetical. It is advisable to provide questions to guide students when analysing cases. Barkley et al (2005, p.182) further indicated the following procedures for cases as teaching method:

- Form student groups and distribute identical or different cases;
- Allow students to ask questions about the process;
- Students work in groups to study the case in depth;
- Students sort out factual data, apply, analyse tools, reflect on their relevant experience, draw conclusions and recommend action;
- Students prepare written or oral statement describing their assessment of the case;
- Students discuss the cases with the entire class as the teacher debriefs the experience.

Barkley et al. (2005) further stated that when using the case study method the instructor's role is to teach the observation, listening, communication, and decision making skills by modelling them. Correspondingly, Boubuka, Verginis and Grigoriadou (2008) investigated the implementation of the case study method in the classroom and online at Kapodistrian

University of Athens. Out of 67 fourth year students enrolled in the Didactics of

Informatics course, 28 students participated in the case study activity; while other 39

students conducted the case study on line. The results of the study indicated that e-learning

technology can support the use of case study activities. No statistically different evidence

was found from the comparison of the grades of the role playing activities between the two

groups. However, the qualitative analysis showed that online students performed better by

bringing up more points and analysis considering the case study. Overall the study showed

that effective learning can take place when case study teaching method is used.

     Moorehouse (2012) explored whether the case method of teaching can be applied

successfully to large undergraduate business classes, and to determine strategies that could

be used effectively when using the case study teaching method. The research was carried

out at Ted Rogers School of Management (TRSM), Toronto, Canada. Participants were

TRSM lecturers and recent graduates. A mixed method approach was employed. Recent

graduates were given a questionnaire while case teaching lecturers were interviewed. The

lecturers expressed worry that students in large classes do not prepare cases in advance of

class. The lecturers identified the need to motivate students to prepare for class in order to

contribute to case discussions. The TRSM graduates indicated that they could have been

willing to contribute to the discussions but were prevented by the large class environment.

Fifty five percent of the students felt that group assessment grades negatively affected their

individual grades; and they were very concerned about free riders in the groups. In general,

the study acknowledges that case study teaching method is more likely effective in smaller

classes due to the large classes challenges discussed. Despite the challenges, the case

method can be used effectively in large classes so long as the lecturer is ready to put in

extra effort for preparation and assessment.

Shulman (1992, pp. 16-17) pointed out the need to acknowledge the disadvantages of case methods as follows:

- Cases are expensive and time consuming to produce;
- Cases are difficult to teach;
- Cases are very inefficient since little material is covered in long periods of time;
- Cases are episodic, discontinuous, hard to structure and organise into large wholes in the minds of the students;
- Cases may be susceptible to overgeneralizations.

Challenges of Teaching and Learning in Large Classes

When lecturers stick to what they have planned without adapting to the changing needs of large classes, then meaningful learning might be compromised. Papo (1999) indicated that large classes are perceived by lecturers as troublesome, problematic and difficult because the situation is impersonal. Also, the University of Queensland (2002) through a project in which lecturers from twenty three Australian universities participated identified the following as some of the problematic issues arising in large classes:

- Knowing students and creating interactive classes;
- Engaging students' interests, maintaining attention of the back rows in lectures;
- Heterogeneity of the groups, knowing at which level to pitch the lecture;
- Coordinating and managing assessments;
- Giving feedback and managing student inquiries;
- Motivating students to participate in class;
- Limited resources and budget for the class size;
- Crowd control/noise level;
- Devising valid assessment. (The University of Queensland, 2002, p. 5)

Bamba (2012, p. 36) outlined the above problems into five main areas of difficulties that teachers and students face in large classes as stated "problems of student engagement in the learning process, the issue of management, the difficulties of assessing student's knowledge, affective problems and the problem of teaching resources". The following section looks at each of the above areas briefly.

Student Engagement in Large Classes

Various researchers argue that teachers or lecturers of large classes experience problems in getting their students actively involved in the learning process. Jungic, Kent and Menz (2006) investigated the challenges encountered when teaching large classes. Jungic et al. commented that difficulties to manage students in a large class are due to the failure to see students who raise their hands through a mass of people and overcrowded venues which makes it difficult for the lecturers to move around. The purpose of their study was to identify the challenges involved in teaching Mathematics to a class of 350 or more students at Simon Fraser University. Additionally, The University of North Carolina (2012), in the study to review the organizational and pedagogical challenges of large classes identified some of the challenges as difficulties in engaging all students in active learning and in discussions. In another study, the University of Queensland (2001) carried out a project to identify and disseminate the best practices for teaching large classes. The results indicated that the major issues faced by lecturers of large classes were similar. These are issues such as the difficulties in engaging students' interests and maintaining attention of the back rows during the lectures.

Hasan (2012), Yazedjian and Kolkhorst (2007) and Hornsby (2013) in identifying strategies to make large classes as effective as small classes, found that lecturers worried

about the inability to promote student engagement through interaction. Hasan (2012)

carried out a literature review of the studies on large classes, while Yazedjian et al. (2007)

involved students in the Comparative Family Organisation course at Texas State University

in describing their perceptions of small groups within large classes in writing. Hornsby

(2013) administered a survey questionnaire with the students at the University of

Witwatersrand. Additionally, Al-Jarf (2006) carried out a study that investigated the effect

of female freshman student enrolment figure in English as a Foreign Language on student

achievement, attitudes, programme staffing and classroom instruction and management.

The results indicated that both students and instructors showed that large class sizes

constrain small groups, and individual students do not receive adequate attention from the

instructor.

Management challenges

Management challenges in large classes are defined by Senekane (2010, p. 10) as

"the problems associated with the organization of classes for instruction". While Bamba

(2010) describes classroom management difficulties as the difficulty in maintaining order

in the class and organising the teaching and learning process. Though the definitions are

given in different words, they refer to the same issue of managing the teaching and learning

environment. Senekane (2010) explored the strategies employed in large English secondary

school classes. The results indicated management challenges as the inability to remember

and use students' names, problems in managing students' behavioural problems, the use of

cell phones in class and the ineffectiveness of group work. Al-Jarf (2006, p. 24) concurs

with the same sentiment by indicating that "large class size inhibits small group activities

and individualised instruction, because of the noise level and lack of space in the

classroom". In the same vein, Kajander (2006) indicated that most students found working in groups as an initial challenge in large classes.

Interestingly, various researchers have also shown that it is difficult for the teacher or lecturer to ensure that all students in a large class have followed the instructions due to the noise level, absenteeism, students entering and exiting the lecture room after the lesson has started, use of laptops and difficulties in respecting the teacher/lecturer and fellow students (Hogan & Daniel, 2012; Hasan 2012; Mulryan-Kyne, 2010 and Jungic, Kent & Menz, 2006).

Nakabugo, Opolot-Okurut, Masembe-Ssbbunga, Maani and Byamugisha (2008) were engaged in a study on large classes in Uganda. The study explored the challenges experienced by primary school teachers in large classes in Uganda and improvements that may result from teachers' action research in their own classrooms. The first phase was a descriptive survey of 20 schools and 35 teachers from Kampala and Wakiso Districts. Data were gathered from interviews and observation for the baseline study. The second phase of the study utilised the lesson study methods whereby teachers reflected on their lessons with the research team. Teachers also tried out new strategies in order to improve teaching and learning in large classes. Ten teachers took part in the second phase of the study.

Various challenges were identified by Nakabugo et al. (2008) such as lack of teachers and problems with class management and control difficulties. Nakabugo et al. recommended the modification of practical teacher practices, and teacher training programmes to train future teachers in dealing with large class teaching. The idea of reflective practice was also suggested, whereby teachers need to come together, reflect and come up with possible long term solutions to issues of large classes.

The literature reviewed above, shows that students in large classes are more likely to be engaged in disruptive behaviour. This is a matter of serious concern to the researcher because effective teaching and learning cannot take place in a disorderly environment. The identification of management challenges mentioned in the literature assisted the researcher with the development of methodology, especially in terms of data collection instruments (observations) at HPC.

Affective challenges

Oxford Advanced Learner's Dictionary (2010, p. 24) defines the word affective as "connected with emotions and attitudes". As a result in terms of large classes, affective challenges are challenges that result from the teachers/lecturers and students attitudes and perceptions. In reality the researcher felt that these challenges were integrated within students' engagement in large classes and management challenges that are described above. However, the literature reviewed makes the anonymity and interaction problems evident within the affective domain.

Senekane (2010) contends that not knowing students' names makes it challenging for the teachers/lecturers to identify individual interests and knowledge. This in turn makes it difficult for the teacher to provide appropriate and individualized learning activities that suit the variety of students' needs. Also, the teachers/lectures' fatigue from teaching large classes can make them less attentive to their duties. Al-Jarf (2006) and Hogan and Daniel (2012) showed that both students and instructors showed negative attitudes towards teaching and learning in large classes, and indicated the difficulty of establishing student-teacher/lecturer relationship in their studies. Similarly Doran, Healy, McCutcheon and O'Callaghan's (2011) study results showed that there was little interaction between students in large classes and more interaction in the smaller classes.

Asale (2014) carried out a study with the purpose to assess the impact of large class size on the implementation of student-centred learning approach in selected preparatory schools in Filtu, Ethiopia. Participants of the study were grade 11 and grade 12 students and their teachers. One hundred and twenty students and four teachers took part in the study. A mixed method approach was used. Students were given questionnaires while teachers were interviewed and the lessons were also observed. The study results indicated that large class size cause psychological and social problems in the teaching and learning process. Large classes affect the implementation of the student- centred learning approach negatively. Some of the identified problems were inability to give timely feedback, inability to conduct continuous assessment, poor classroom management, difficulty to know and distinguish the potential and ability of individual students, lack of individual attention to students and dominance of the lessons by few strong students.

From the above information, it can be deduced that it is important for teacher educators at HPC to create a learning environment where there is interaction among student teachers and between the student teachers and teacher educators. As already indicated, this study aims at finding strategies which might be relevant in ensuring that there is interaction in classes at HPC.

Assessment Challenges

According to Al-Jarf (2006), overcrowded classes have a negative effect on assessment, and instructors should do extra work to be able to assess and evaluate the higher number of students in their large classes. In another study, Mgeni (2013) investigated teachers' perceptions on effective teaching methods for large classes at the University of Arusha. He found out that lecturers had a problem in assessing tests, quizzes

and assignments. This idea is supported by Jimakorn and Singhasiri (2006) who specified that lecturers believed that it was difficult to give homework and continuous assessment activities in large classes. They felt that the most possible assessment methods for large classes were tests and examinations.

Furthermore, Basorun (2013), Hasan (2012), Machika, Troskie-du Bruin and Albertyn (2014) also identified inadequate evaluation of students learning outcomes, pressure on the lecturers to check all their students 'work and students waiting too long for assessment marks as some of the assessment challenges in large classes. The purpose of their study was to identify the students' perceptions on teaching and learning in large classes in South African Universities. Data were collected through a descriptive exploratory study and an administered questionnaire was used. In their study, Machika et al. found that third year students were more dissatisfied with their assessment experience than the first year students. Additionally, Foley and Masingila (2013) explored the strategies used in large classes in Sub-Saharan Africa through a survey that was e-mailed to some universities in Sub Saharan Africa. The students indicated lack of feedback from instructors as a challenge while the lecturers identified lack of time to meet deadlines for marking and feedback to the students as a problem.

Scarcity of resources

Denis (2009) examined the coping strategies in secondary schools in Uganda to mediate teaching in large classes. The problems identified included few instructional materials (e.g. textbooks and mathematical instruments and limited classroom space which make it difficult for the teachers to move around the class and follow up on group discussions. Similarly, Renauld, Tannerbaum and Stantial (2007) investigated successful

techniques for teachers who taught large classes. The results showed that teaching with limited resources in large classes affected the teaching and learning process negatively.

Bahanshal (2013) conducted a study with the aim of gaining an understanding of the teachers' attitudes and beliefs towards teaching large classes in secondary schools in Saudi Arabia. The study was an exploratory qualitative case study. The participants were second and third grade English teachers in two secondary schools in Jeddah. The interview method was used to collect the data. The findings revealed that the teachers found it difficult to teach large classes. The teachers found themselves unable to correct students either in their oral presentation or written form. Teachers had fewer opportunities to assess and evaluate their students' work and achievement. They had less time to discuss the students' problems or provide any useful and constructive feedback. Students received less individual attention, and that led to disappointment among students. Big numbers of students with limited space did not also allow the teachers to move freely to monitor, observe and assess students during the activities. Students also had less chance to participate in the learning process.

Despite the above mentioned challenges, the teachers felt that large classes were interesting and stimulating because they challenge them to try different methods and always try to come up with applicable solutions. Other teachers also pointed out that, in order for them to manage classroom behaviour, they try to discuss all the rules with students during the first day of class and get the students to sign for the rules. Students were also encouraged to set forth the punishments for those who did not obey the rules.

It is evident from the above discussion that it is critical to understand students and lecturers' experiences in large classes. This can provide helpful insights that can be of help

to the central management of the University of Namibia to plan to support students and

lecturers who are involved in large classes.

Summary

In this chapter, the teaching approaches, strategies and challenges experienced by

both teachers and students in large classes have been explained. A large number of studies

reviewed concentrated on large English classes. The review of the related literature gave

insights about the effects of large class teaching by analysing the challenges related to it.

Problems such as student engagement, difficulties with classroom management, assessment

problems and lack of resources have been uncovered. Literature on student/learner-centred

teaching approach and the reflective teaching practice which are closely related to the

social constructivism theory that forms the theoretical background of the study have also

been reviewed.

From the reviewed literature, it appears that large class environment is a

phenomenon that is here to stay. The majority of the studies on large classes reviewed were

conducted in the developed countries such as USA, UK, Thailand, Canada, Finland,

Australia, and New Zealand where the large class context might not be similar to the ones

in developing countries like Namibia. The main issue that runs across the studies in terms

of the findings is that lecturers face similar challenges such as difficulties in engaging

students and maintaining their attention. However, they tried to use more active

instructional strategies such as team teaching, small groups, peer tutoring and the use of

role play. There were also some studies conducted in African countries such as Uganda,

Ethiopia, Tanzania, Ghana, Botswana and South Africa. The results of the studies

conducted in the developing countries generally showed that it was difficult to implement

active instructional strategies in large classes, and lecturers preferred the lecture method. In

terms of Namibia, the researcher is aware of a general and personal reflection of a teacher

educator's experiences with teaching large classes at undergraduate level at the University

of Namibia's main campus. On large classes, Iipinge (2013) stated that there is a need for

the teacher educators at UNAM to share their teaching practices and experiences in order to

identify both short and long term solutions to challenges related to teaching in large

classes. Further, Ayaya (2001) in her study on UNAM's main campus large classes

recommended an investigation of instructional modes used in large classes. To the

researcher, this constitutes a gap that requires a study to explore the instructional strategies

employed in large classes, the challenges to both teacher educators and student teachers

and how those challenges can be addressed. The current study seeks to make a contribution

in this area.

The review also showed that the majority of studies used surveys and

questionnaires to gather data. Hence this study is pure qualitative in order to dig deeper into

the participants' ideas, opinions, and experiences on large classes. Furthermore, there is

also strong research evidence from the reviewed literature (Blumberg, 2008; Doyle, 2008;

Yuen & Bahanshal, 2013 and Mtitu, 2014) to support the implementation of student-

centred pedagogy at high institutions of learning to promote student engagement in large

classes. Therefore this study is based on social constructivism theory.

The next chapter discusses the research design and methods that were used to

collect the data for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

The overall purpose of this study was to explore how teacher educators facilitate the

teaching and learning process in large classes at the University of Namibia, specifically at

Hifikepunye Pohamba Campus (HPC). Further, the study aimed at identifying challenges

and successes encountered during the teaching and learning processes. This chapter

describes the research methodology and design employed to collect data for the study.

The main research question that guided the study was: How do teacher educators

facilitate the teaching and learning process in large classes at HPC of UNAM? The sub-

questions are:

1. What instructional strategies are used by the teacher educators in large classes?
2. What challenges are associated with the use of those instructional strategies?
3. What challenges do the students face as a result of the strategies used by the
   teacher educators?
4. How can the challenges faced by the teacher educators and students in the
   teaching and learning process in large classes be addressed?

The Research Paradigm

Creswell (2007) and Denzin and Lincoln (2008) define a paradigm as a worldview

which is a set of beliefs that guide an action. In the same vein, Basit (2010, p. 14) defines

paradigms as "models, perspectives or conceptual frameworks that help us to organise our

thoughts, beliefs, views and practices into a logical whole and consequently inform our

research design" . The paradigms used by researchers vary according to the beliefs that the

researchers bring to the research. Every paradigm has a different way of explaining the

nature of knowledge (epistemology), the nature of reality (ontology) and values (axiology) (Chilisa &Preece, 2005).

There are two contrasting notions of social science educational research (Basit, 2010). One notion is the positivist paradigm which is more established and the researcher collects data based on predetermined instruments that yield statistical data. The other paradigm is the interpretive paradigm, where human behaviour needs to be explained by individuals in the way it is perceived by them (Basit, 2010). This notion is also termed constructivist paradigm (Henning et al. 2004).

This study adopts a constructivist/interpretivist research paradigm. Mertens (2010, p. 16) expands the sentiments by indicating that within the constructivist paradigm "all meaning including the meanings of research findings, is fundamentally interpretive". This paradigm emphasises experience, interpretation, and the subjective understanding of human experience (Cohen and Manion, 2005). Hence, the researcher tried to gain a deeper level of understanding the teacher educators and student teachers' perceptions of the instructional strategies used in large classes. The researcher sought to understand the teacher educators and students' experiences in their day-to-day teaching and learning of large classes' environment.

The interpretivist paradigm accepts the ontological assumption that reality is not absolute, but socially constructed and that multiple realities exists that are time and context dependent (Mertens, 2010). Chilisa and Preece (2005) share the same sentiment that within this paradigm, reality is limited to context, space, time and individuals or groups in a given situation. This means that in this situation, the researcher tried to understand that the large class phenomena at HPC is a personal and social construct of the teacher educators and student teachers. Hence, each research participant has his or her own reality. In terms of

epistemology, interpretivists believe that knowledge is subjective since it is mind-dependent (Chilisa & Preece, 2005). Furthermore, Miles & Huberman (1994) indicate that within the interpretivist paradigm, researchers are not disconnected from the objects of their studies. Also, social inquiry is value-laden, because researchers are influenced by their values (Martella, Nelson, Morgan & Marchand-Mortella, 2013). Therefore it was difficult to separate the researcher from the phenomena of large classes because the researcher was an insider during the data collection process.

Approaches to Research

The interpretivist paradigm presupposes a qualitative approach (Henning et al., 2004). Therefore, data for this study were collected through a qualitative approach. There is a historical progression to the two common research approaches namely: the quantitative and qualitative approaches. Creswell (2009) indicates that the quantitative approach has dominated the forms of research in the social sciences from the late nineteenth century up until the mid- twentieth century. Then, during the latter half of the twentieth century, interest in qualitative research increased, and also the development of mixed method research approach. The philosophical differences between the two approaches are that the quantitative researcher on the one hand plans and executes his control in the way in which the instruments are designed to collect facts objectively (Berg, 2009; Bogdan & Biklen, 2004). On the other hand, the qualitative researcher wants to understand and explain in an argument by using evidence from the data without trying to achieve total objectivity.

Qualitative Approach

A qualitative research approach was used in this study to investigate the instructional strategies employed by teacher educators in large classes at Hifikepunye Pohamba Campus. Denzin and Lincoln (2013) define the qualitative research approach as an approach that locates the observer in the world. According to these authors, qualitative research approach consists of a set of interpretive material practice that makes the world visible. This means that qualitative researchers study things in their natural settings. Hence, in this study, the researcher was interested in how teacher educators and student teachers made sense of their large class experiences. The researcher collected data that helped to understand the participants' behaviours, beliefs, emotions and their relationships as individuals in large classes.

The approach was also chosen because it facilitates the discovery of problems that exist within the world being investigated (Leedy & Omrod , 2010). Leedy and Omrod further indicated that the qualitative approach makes it possible for the researcher to gain insights about a particular phenomenon and also to discover the difficulties that exist within the phenomenon. In this case, this applies to teacher educators and student teachers experiences in large classes. Leedy and Omrod (2010, p. 135) also indicated that all qualitative approaches have two things in common: "First, they focus on the phenomenon that occurs in natural settings, that is the real world. Second, they involve studying those phenomena in all their complexity.

In addition, the qualitative approach was preferred since it is considered as a dialogue or interplay between the researchers and the participants (Bogdan & Biklen, 2003). Miles and Huberman (1994) also share the same sentiment that within the qualitative approach the researcher tries to capture data on the participant's perceptions from the inside through

a process of attentiveness and empathetic understanding; the relationship between the

researcher and the participants is less formal. The teacher educators and student teachers in

this study were given a chance to respond in greater details in an informal environment.

Their voices (teacher educators and student teachers') were taken into consideration since

data were collected directly from them in their natural setting; that was the classroom

environment (Gay, Mills & Airasian, 2006).

Creswell (2007, p. 38) identifies various characteristics of qualitative research as

follows:

- Qualitative researchers collect the data at the site where the participants experience
  the issue or problem under study;
- Qualitative researchers gather multiple data;
- The qualitative researcher is the key data collection instrument;
- Qualitative researchers organize the data into more abstract unit of information by
  building patterns, categories and themes through collaboration with the participants;
- The research participant's interpretation about the issue or problem is more
  important;
- The research process is emergent, meaning that the questions and forms of data
  collection may change; participants and sites may be modified;
- The study may be organised around identifying culture, political or historical
  context of the problem;
- Qualitative researchers develop a holistic account by identifying the interaction of
  the various factors involved in the situation (p. 38).

The above characteristics fit in with the type of this study. A human phenomenon,

large classes at an institution of higher learning at the UNAM was investigated. Teacher

educators and student teachers were interviewed and observed in their natural setting.

Additionally, various methods such as individual interviews with teacher educators, focus

group interviews with student teachers, lessons observations and document analysis were used. This was done in order to triangulate data obtained through various methods from various sources of information. The researcher was the main data collection instrument.

Case Study Design

Mouton (2000) describes a research design as the way in which the research is conceived and executed, and how findings are put together. Holliday (2001) uses the term "research genre" as a research design. Henning et al. (2004, p. 3) expands the notion by stating that "A qualitative study is a study presented largely in language and is about the meaning constructed from the language that presents the data. In the discourse of qualitative methodology, it therefore, makes sense to speak about research genres". Further, McMilan and Schumacher (2010) note that a research design is a plan and structure used to collect data in order to meet the research objectives.

The current study employed a qualitative case study research design. Merriam (2001) emphasised that though the term case study is familiar to most people, there is little agreement on just what constitutes case study research. She further explained that a case study accommodates a variety of disciplinary perspectives. It can test a theory, incorporate random or purposive sampling and include quantitative and qualitative data too. However, Gall, Gall & Borg (2010) stated that:

> A case study is a systematic qualitative research investigation. It involves in-depth study of instances of a phenomenon in its natural context while conveying both the researchers' and the participants' perspectives and using procedures that test the validity and applicability of its findings (p. 338).

Qualitative case study research design was appropriate for the purpose of this study which was to investigate how teacher educators facilitate the teaching process in large

classes through the investigation of the instructional strategies employed. Stake (1994)

explained that the main purpose of a case study is to understand fully the identified case,

and cases are bounded by time and activity, and the researcher needs to optimize

understanding of the case through triangulation. Berg (2009) further stated that a case study

opens the door to make sense of the process created by the people who are in the

phenomenon under study. In this specific case, the data collection process helped the

researcher to make sense of the teacher educators and student teachers experiences of large

classes. As mentioned before, the phenomenon that was investigated was instructional

strategies, while the case was large classes. Another component of case studies is the unit

of analysis which is defined by (Yin, 2003) as the focus area of the study. The specific unit

of analysis for this study was HPC (University of Namibia).

An exploratory qualitative case study provided the appropriate method to study the

instructional strategies employed in large classes at HPC for the following reasons:

1. The large class situation was unique to HPC because it had the highest
   enrolment rate among all the satellite campuses that offer teacher education.
2. A case study design allowed the researcher to function as a data collector when
   conducting interviews and observations.
3. The large classes were described in detail as Merriam (1998) points out that an
   exploratory case study attempts to present a thick rich and detailed description
   of the phenomenon.
4. The thick descriptive data were used to develop categories and illustrated
   successes and challenges prior to data collection.
5. The researcher organized and analysed the data according to the emerging
   themes.
6. The results were presented in a manner that may benefit the campus as they
   continue to vary the instructional strategies in large classes to benefit both
   teacher educators and student teachers.

Research Site

When a researcher has identified a research problem, the next step is to identify the

research site that maximises the opportunity to investigate the identified problem

(Erlandson, Harris, Skipper &Allen, 1993). It was very important to provide a clear

description of the research site and the conditions operating at the time when data were

collected. The research site was chosen as guided by the research questions and the

capability of having individuals who could inform the researcher about the research

problem and the central phenomenon in the study (Ary et al, 2010; Creswell, 2007). The

research site for this study was Hifikepunye Pohamba Campus of the UNAM.

There are six UNAM campuses offering Bachelor of Education degree in Namibia.

One of those campuses is the main campus that was established in 1992. Another campus is

Oshakati campus which offers courses in nursing on a full time basis and education courses

on a part time basis. The third campus is the Southern campus which was established in

2013 and also offers courses in Geoscience, health science and entrepreneurship. The other

campuses are the ones that were merged with UNAM's Faculty of Education in 2010

namely, KC, HPC, KMC and RC. As identified in Chapter One, Hifikepunye Pohamba

Campus was purposively chosen as the research site for the study. The first reason for the

choice was that HPC had the highest enrolment rate of all the satellite campuses that were

merged with the Faculty of Education in 2010 (UNAM Statistics-strategy and physical

planning, 2013). Secondly, HPC was the only satellite campus (apart from the main

campus that offers all the combinations of secondary school subjects in the country) that

offered the Bachelor of Education degree in secondary school teaching in addition to pre-

primary, lower primary and upper primary education. The HPC is geographically located close to the researcher's area of residence.

HPC is situated in Ongwediva town in Oshana region in the northern part of Namibia. It was known as Ongwediva College of Education prior to the merger and it was the first teacher training institution in Northern Namibia (Vatuva-Uugwanga, 2015). It was first established in 1959 and located at missionary centre used by the Evangelical Lutheran Church. The teacher training centre was relocated to the current location in 1975. While the campus is offering pre, lower and upper primary and secondary education qualifications, it is however anticipated to become a centre of Mathematics and Science Education. There are six departments namely: Curriculum and Instructions, Early Childhood, Foundations and Management, Languages and Social Sciences, Maths Science and Sports Education and Psychology and Inclusive Education.

Population

Gravetter and Forzano (2006) describe research population as the entire set of individuals that interest the researcher. Though the entire population does not participate in the research study, the results can be transferred to the entire population of the specific site. In terms of qualitative research, we talk of transferability, which is the ability to compare the study results to a similar situation. Mertens (2010) define a population as the group to whom the researcher would like to apply his/her results, that is, the target population. The target population shares the same characteristics. However, researchers choose their participants from the accessible population. The accessible population is the entire group of individuals that can be feasibly included in the research sample.

In this study, all the teacher educators and student teachers at the University of Namibia in the Faculty of education who attend or teach large classes constitute the target population. While the accessible population refers to the teacher educators and student teachers at HPC who teach and attend large classes respectively. The sample was drawn from the accessible population. The total number of teacher educators at HPC was 67, and that of student teachers was 1531.

Sampling Strategy

A sample is a smaller number representing the population that concerns the researcher (Gall et al., 2010). Also, Gavetter and Forzamo (2006) described a sample as a set of individuals selected from the accessible population usually intended to represent the population in a research study. Qualitative case study uses various sampling strategies. Participants for this study were selected through purposive sampling. Purposive sampling is a non-probability type of sampling. Gall et al. (2010) assert that purposive sampling targets rich sources of data with resembling characteristics that are under observation. Patton (2002), Creswell (2007) and Mertens (2010) agree that there are different strategies for purposive sampling. Hence, this study only used two of the purposive sampling strategies that are pertinent in answering the research questions.

Specifically, the study used criterion sampling and random purposive sampling to identify the participants (Gay et al, 2011). Patton (2002) makes it clear that criterion sampling aims at selecting participants who meet certain predetermined criterion of importance. The criterion sampling strategy was used to sample the teacher educators because it gave a deeper understanding of the phenomenon being studied since the prospective participants were considered to be rich with information and fit the purpose of

the study by being involved in large classes at HPC (UNAM). According to Cohen, Marion

and Morrison (2005), in purposive sampling, researchers handpick the cases to be included

in the sample on the basis of their typicality. In this way, they build up a sample that is

satisfactory to their specific needs. Random purposive sampling adds credibility to the

study (Gay et al., 2011; Mertens, 2010; Patton, 2002). Using random purposive sampling to

select student participants in this study, was an attempt to reduce bias and suspicion about

why certain students were chosen. It is very important to stress that the type of sampling

used was random purposive sampling and not representative random sampling which is

commonly used by quantitative researchers (Gay et al., 2011& Patton, 2002). The student

teachers in various groups were asked to volunteer to participate in the study after the

explanation about what the study was all about. Student teachers who volunteered were

allocated numbers, and then the required number of students was chosen randomly to

represent the rest of the students.

Sampling Procedures and Sample Size

The following criteria were used for selecting teacher educators:

1. The teacher educators should have taught the large classes for at least two
   academic years or more.
2. The teacher educators should be teaching core subjects.
3. The teacher educators should be teaching large classes at the time of data
   collection.

Criteria for selecting campus management members: The participant:

1. should be the director of the campus because he/she is the overall manager of the
   campus
2. should be the deputy dean and be in charge of campus academic affairs

3. should be a teacher educator; management member and teaches a class of 100 students or more.

Criteria for selecting the student teachers:

1. The students should be attending large classes of the teacher educators who participated in the study.
2. The students should be in any study year level.

Criteria for selecting the courses/modules

1. The course/module should have 100 students or more.
2. The course/module should be from the Curriculum, Instruction and Assessment CIAS) department.
3. The course/module should be at National Qualification Framework (NQF) Level six or seven.

The following courses met the criteria.

First semester courses:

1. English for teachers 1
2. Educational Research
3. Assessment and Evaluation of Learning
4. Curriculum Studies

Second semester courses

1. English for teachers 2
2. Science of teaching
3. Integrated Media and Technology 1 (See attached appendix)

However, only the second semester courses were chosen because data were collected during the second semester. The sample was made up of 19 student teachers, three teacher educators from the CIAS department, and three teacher educators who are campus management members. In total there were 25 study participants. The three teacher educators and three campus management staff were involved in individual interviews and

the19 student teachers participated in focus group discussions. Figure 4 shows how

research site and participants were sampled.
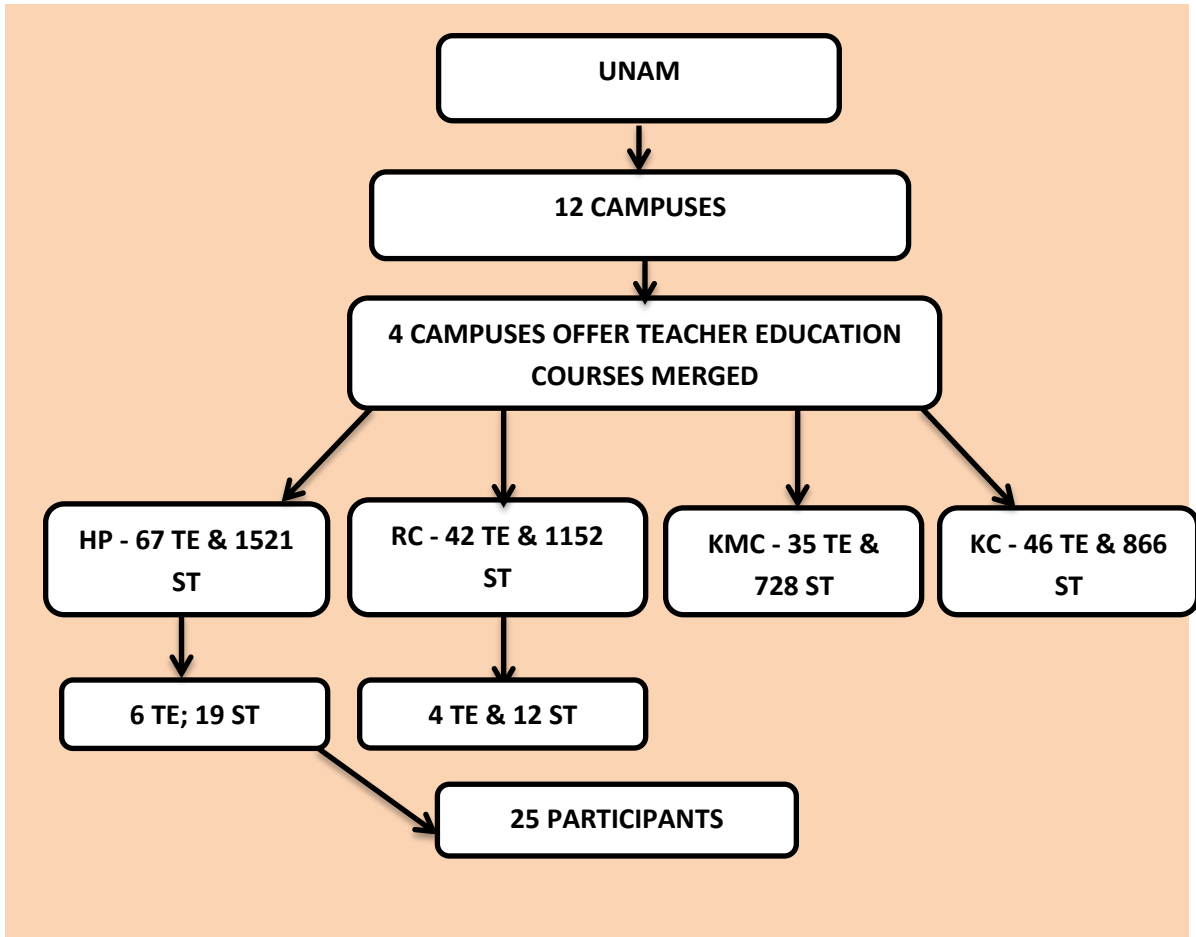
Figure 4: Research Sites and Participants

The demographic details of each participant are shown in Table 4 and Table 5.

Table 4:

Demographic information of teacher educators/lecturers

Interviewee	Age category	Gender	Class/ classes size	Current position	University teaching experience	Highest educational level
Teacher Educator A	50-60	Male	1. 511	Lecturer	5 years	M.Ed.
Teacher Educator B	40-50	Male	1. 110 2. 135 3. 60	Lecturer	5 years	M.Ed.
Teacher Educator C	40-50	Female	1. 210	Lecturer	5 years	M.Ed.
Teacher Educator D	50-60	Female	1. 265 (1st semester) 2. 259 (1st semester) 3. 57	LCMM	5 years	M. Ed.
Teacher Educator E	40-50	Male	1. 19	LCMM	7 years	PHD in Education
Teacher Educator F	50-60	Male	1. 40 2. 115 (1st semester)	LCMM	5 years	M.Ed.

Key to the table: LCMM = Lecturer Campus Management Member

For purposes of anonymity and identification, the teacher educators were given pseudonyms by assigning letters of the alphabet. Teacher Educators A-C were teaching large classes at the time of data collection. Teacher Educators D - F were teaching, but not teaching large classes and participated as members of the campus management team. They had experience of teaching large classes in the previous semesters before data collection as indicated.

Teacher Educator Participants

Six teacher educators participated in the study, all of whom were qualified teachers. They ranged between the ages of 40-55. Three of the six teacher educators were teaching large classes at the time of data collection, and their three classes A, B and C were

observed. The other three of the six teacher educators are management members who also had experiences of teaching large classes. Table 5 indicates also the numbers of students who were taught by Teacher Educators D and F (who are also campus management members) during the first semester. The purpose of indicating their number of students in the first semester as well as the number of their students in the second semester was to show that they have experience in teaching large classes. The third management member, Teacher Educator E did not teach a large class during the first and second semester but has taught large classes at the main campus before. Five of the six teacher educator participants joined UNAM when the four teacher training colleges merged with the University in 2010. That means only one of the interviewed teacher educators has been a UNAM teacher educator before the merger, and he is one of the campus management members. Of significance too was that one of the campus management participants was the Campus Director. The Campus Director is in charge of the satellite campus and reports directly to the Dean of the Faculty of Education.

Student Teachers Participants

Nineteen student teachers participated in the focus group discussions. There were three male and sixteen female participants. Their ages ranged between 15-30 years and were in their first, second and third year levels of study. For purposes of anonymity and identification, students were given pseudonyms according to their focus groups before the start of the focus group discussions as indicated in Table 5

Table 5

Demographic Information of Student Teacher Participants

Student pseudonym	Gender	Age Category	Year Level	Major/specialization
Group A: Student 1	Female	20-30	Year 2	Upper Primary, Languages
Group A: Student 2	Female	20-30	Year 2	Upper Primary, Languages
Group A: Student 3	Female	20-30	Year 2	Upper Primary, Languages
Group A: Student 4	Female	20-30	Year 2	Upper Primary, Languages
Group A:Student 5	Male	20-30	Year 2	Upper Primary, Languages
Group A: Student 6	Female	20-30	Year 2	Upper Primary, Languages
Group A: Student 7	Male	20-30	Year 2	Upper Primary, Languages
Group B; Student 8	Female	20-30	Year 1	Pre and Lower Primary
Group B: Student 9	Female	15-20	Year 1	Pre and Lower Primary
Group B: Student 10	Female	15-20	Year 1	Pre and Lower Primary
Group B: Student 11	Female	15-20	Year 1	Pre and Lower Primary
Group B: Student 12	Female	20-30	Year 1	Pre and Lower Primary
Group B Student 13	Female	20-30	Year 1	Pre and Lower Primary
Group C: Student 14	Female	20-30	Year 3	Upper Primary Social Sciences
Group C: Student 15	Male	20-30	Year 3	Upper Primary, Social Sciences
Group C: Student 16	Female	20-30	Year 3	Upper Primary, Languages
Group C: Student 17	Female	20-30	Year 3	Upper Primary, Social Sciences
Group C: Student 18	Female	20-30	Year 3	Upper Primary, Languages
Group C: Student 19	Female	20-30	Year 3	Upper Primary, Languages

There were three focus groups (Groups A, B and C). For example the first student in Group A, was named Group A: Student 1. The letter designation represents each of the three focus groups, A-C while the number sequence represents the 19 student participants.

Research Protocols

Protocols are the materials or instruments used to collect data. Yin (2003, p.67)

explains that "the protocol is a major way of increasing the reliability of case study

research and is intended to guide the investigator in carrying out the data collection from a

single-case study". Also, Creswell (2009) defines protocols as the use of sheets for

recording information while observing or interviewing. The protocols in this study refer to

the guides that were used to collect the relevant data. These include interview guides,

observation guides and documents such as minutes of the meetings where large classes

have been discussed, if any. The protocols and permission letters have been appended as

follows:

1. Appendix A: An interview guide for teacher educators
2. Appendix B: An interview guide for students teachers' focus group interview
3. Appendix C: An interview guide for campus management members
4. Appendix D: An observation guide for student teachers
5. Appendix E: An observation guide for teacher educators
6. Appendix F: Document analysis guide
7. Appendix G: Ethical clearance letter
8. Appendix H: Permission letter from UNAM

The protocols were used in the following manner:

*The interview guide for the teacher educator*s helped the researcher to find out more

information from the teacher educators about the instructional strategies that they use in

large classes and the challenges they face while using the strategies. The guide for teacher

educators was developed beforehand and it assisted the researcher to focus on the research

purpose and research questions. Gall et al. (2010) indicate that an interview guide outlines

a set of topics to be explored with the respondents.

The focus group interview guide for student teachers was used to double check the instructional strategies used by the teacher educators and determine the successes and challenges of the strategies used. Focus group interview guides were designed for student teachers who attend the specific large classes that are taught by the teacher educators who were research participants. The focus group interview guides were based on the research questions and were semi-structured with open-ended questions.

The interview guide for campus management member helped the researcher to gather data on the nature of support given by the management to the teacher educators and student teachers who attend large classes.

The observation guide for the teacher educators enabled the researcher to determine the approaches that the teacher educators employ in large classes as well as what exactly went on during lessons. The observation guide lists all the features that were addressed during the observation (Hancock & Algozzine, 2006). The list often includes the time, date, location of the observation, the names and positions of people being observed, specific activities and events related to the research questions and the initial impression of the events under observation.

The observation guide for student teachers assisted the researcher to find out how the student teachers responded to the instructional strategies used by the teacher educators.

Data Collection Methods

Interviews

An interview refers to the verbal communication between the researcher and the research participant whereby the participant provides information to the researcher. Research participants can be interviewed individually or in groups. Gall et al. (2010) assert

that interviews involve the collection of verbal and sometimes non-verbal data through direct interaction between the researcher and the research participants. In addition, Patton (2002) indicates that qualitative interviews begin with the assumption that the participants' perspective is meaningful and researchers interview them to find out what is in their minds and gather their stories. Dunne, Pryor and Yates (2005) echo the same sentiments that the use of interviews in research suggests that the views and interpretations of certain social actors are important to the research problem under investigation. Interviews may be structured, semi-structured or unstructured (Hancock & Algozzine (2006). In this study, semi-structured open-ended interviews were used with teacher educators, while student teachers were interviewed in focus groups. The structure for the focus group interview with the student teachers was also semi-structured with open-ended questions.

Rationale for using the semi-structured interview

*S*emi-structured interviews with open-ended questions made it possible for the teacher educators to speak freely about their experiences of teaching large classes as well as the problems they encounter. Conducting follow up interview sessions with each teacher educator was good because by coming back to talk to the same person, a positive relationship between the interviewer and the interviewee was developed. The researcher was able to follow up on ideas and probe responses. This is supported by Cohen et al. (2005) who indicated that semi-structured interviews may be used to follow up on the respondent's answers by going deeper into the reasons given by research participants in their initial responses. As a result, the teacher educators were able to express their opinions and experiences of large class teaching at length. Since the interviews were conducted individually and face to face, the researcher got an opportunity to capture the facial

expressions and gestures of the teacher educators. These signs assisted in identifying the

mood in which the research participants were, during the interview to make sense of the

information collected.

Interviews with Teacher Educators

The data collection process took place between July-December 2015, with some

follow up procedures in 2016. Semi-structured interviews were considered relevant and

appropriate to solicit information from the teacher educators. Each teacher educator was

interviewed several times periodically. There were two interview sessions with each

teacher educator who taught large classes and two interview sessions with each

management member. Furthermore, there were various phone calls and messages to the

teacher educators for further clarifications. This means there were altogether six sessions

for the three focus group discussions and twelve sessions in total for the teacher educators.

The first interview sessions with each teacher educator lasted between 45 to 60 minutes.

The second interviews lasted between 30 to 45 minutes. The second interviews were meant

to clarify issues that were not explicated on during the first interview. The follow up

interviews varied in purpose depending on issues that emerged from the first interviews.

For example, for the campus management members, the emphasis was more on what else

could be done to help the student teachers and teacher educators with the difficulties they

experience in large classes. The purpose of the follow up interview for Teacher Educator A

was to find reasons he felt that he was forced to use the lecture method only. Similarly, the

purpose of the follow up interview for Teacher Educator B was to find out more on how he

used online discussion and online materials and other teaching aids like cell phones. The

follow up interview for Teacher Educator C was based on finding out more information on

what she does to minimise the disruption when students walk in and out of the classroom.

The individual interviews with teacher educators were audio-recorded with the teacher educators' consent. The recorded data were later transcribed with the help of the research assistant. The transcribed data were later member checked by the participants before it were analysed. The researcher also took notes during the interviews. The process of taking notes helped the interviewer to concentrate on what the research participant was saying (Seidman, 2006). Taking notes also helped the researcher to acknowledge that the research participants' contribution was being noted down. A research assistant was recruited to assist the researcher. The research assistant was one of the teacher educators at the campus who has a Master's Degree in Lower Primary Education. She helped with arranging venues for focus group discussions, and also sometimes to transcribe the data together with the researcher.

Focus Group Discussion with Student Teachers

Barbour and Kitzinger (1999) define focus group interviews as discussions held by a group to explore a specific set of issues. The group discussion is focused as it involves some kind of collective activity e.g. debate on a set of questions. Mertens (2010) supports the idea by specifying that group interviews rely not on a question and answer format of the interview, but on the interaction within the group. Hancock and Algozzine (2006) indicate that group interviews capitalise on the sharing and creation of new ideas that sometimes would not occur if the participants were interviewed individually. Barbour & Kitzinger (1999) sum up the interaction as:

> Crucially, focus groups are distinguished from the broader category of group interviews by the explicit use of group interaction to generate data. Instead of asking questions of each person in turn, focus group researchers encourage participants to talk to one another: asking questions, exchanging anecdotes, and commenting on each other's experiences and points of views. At the very least, research participants create audience for one another (p. 4).

In this regard, themes like students' experiences of the teaching and learning process, the instructional strategies used and the challenges experienced in large classes were part of the guide. The focus group members were encouraged to talk to each other, and to comment on each other' s experiences and points of view on large classes. When the students can talk to and hear each other, they can be able to express opinions that might not emerge if they are interviewed individually (Gall et al., 2010). Barbour and Kitzinger (1999) propose that the ideal number for focus group members is between eight and twelve, while Patton (2002) proposes the ideal number of five to eight people. For this particular research, the researcher worked with groups of five to seven students in order to allow them a chance to express themselves freely.

There was at least one group from each class that was observed. This means that there were three focus groups for the entire study, because three classes were observed. The length of each focus group interview lasted between 50 minutes to one hour. The interviews were conducted in English which is the medium of instructions in Namibia. The focus group discussions were audio tape recorded with the students' consent to provide access to the discussion later. The researcher and the research assistant took notes during the interview. Patton (2002) states that it is of utmost importance to take notes during the interview because it can help the interviewer to facilitate the discussion as the interview moves on, it will facilitate later analysis, and the notes can serve as a backup if the recorder malfunctions. The research assistant also helped to transcribe with the researcher the interviews that were held with teacher educators and student teachers. Transcribing the interviews with the research assistant contributed to the credibility of the study findings (as discussed under the trustworthiness of the study).

There were two sessions for each focus group discussion, resulting in six sessions for

the three focus group discussions. Focus group discussions with the student teachers were

conducted after lesson observations. The rationale was simply to use two approaches with

both student teachers and teacher educators. Furthermore, observing the classes before the

focus group discussions also enabled the researcher to familiarise and be comfortable with

student teachers than would have been if the researcher had never met them before. Again,

there were a number of phone calls and messages to the student teachers for further

clarifications.

Observation

Creswell (2009) notes that qualitative observation is the data collection method

whereby the researcher takes field notes on the activities and behaviours of the individuals

at the research site. The researcher can record the information in an unstructured or semi-

structured way based on prior questions about what the researcher wants to know. Also,

Patton (2002) asserts that the first order purpose of observation is to describe the setting

observed. This includes activities that took place in that setting, the people who

participated in the activity, and the meaning of what was observed from the perspectives of

the observed people. Hancock and Algozzine (2006) sums it all up when they argue that

observation of the setting by a case study researcher may provide more objective

information related to the research objectives. Observations can vary from focused to

unstructured and from participant to non-participants forms.

Observation helped the researcher to check if the teacher educators and student

teachers do what they say they do during the interviews. The researcher and the research

assistant observed quietly the actual behaviour that occurs in large classes in order to see

the activities first hand and record the behaviour as it occurred (Merriam, 2001). Yin

(2003) states that it is a common procedure to have more than one case study observer in

order to increase the reliability of the observational evidence. Merriam (2001, p. 90)

compiled a checklist with elements including

> …the setting; participants; activities and interaction; frequency and duration of the situation and subtle factors that are less obvious but important to the observation. Lastly, informal and unplanned activities, symbolic and connotative meanings of words, nonverbal communication, physical clues and what does not happen especially if it ought to have happened.

The degree of participation was non-participant observation so that the researcher

could take notes of the events and activities of large class setting as per observation guide.

The observation of each class session lasted for one period which is mostly an hour in the

UNAM timetable, and if it was a double lesson then it lasted for two hours. In the context

of this study, large class lessons taught by the teacher educators who were interviewed

were observed. The teaching and learning process were observed in the natural setting of

large classes. The researcher observed lessons in three large classes named classes A, B

and C. Each class group was observed three times in order to get more objective

information related to large classes. This brings the total observation to nine sessions. Each

successive observation helped in getting more information that was not obtained in the

previous observation. The purpose of the observations was to compare the information

gathered from the teacher educator interviews and focus group discussions with the

students. Lesson observations were conducted after the first interviews with the teacher

educators. The reason for conducting the interview first with the teacher educators before

the observations were made was to get an overview of the large classes with the educators

before the actual lesson observation. This also helped the researcher to compare the

information given by the teacher educators during the interviews to what actually takes

place in the class settings. After the lesson observations, the researcher also got a clearer

picture of what to probe further during the follow up interviews.

Class A had a total of 511 student teachers who were taught in the main assembly

hall. Lessons in Class A were observed three times. Each observation lasted for one hour,

which is the lesson duration in the timetable. No sound system installed in the hall by that

time. The sound system is important in large classes for audio purposes. Lessons in Class B

were also observed three times, for duration of one hour per lesson. The class had 110

students, and they were taught in a lecture hall that has two smartboards, but the installed

sound system was not working at the time of data collection. The lessons in Class C with

210 students were also observed three times which lasted an hour for each lesson. These

students were being taught in a lecture hall with fixed seats and the sound system was not

working at the time of data collection.

Document Analysis

The term document refers to a broad range of written and symbolic records, as well

as any available materials and data (Erlandson, Harris, Skipper & Allen, 1993). The

documents reviewed for the study included the university's mission and vision statement,

Teaching Workload policy, attendance policy, the courses hand – outs, teacher educators'

notes and course outlines, minutes of departmental meetings, campus board meetings and

student-lecturers forum meetings, students' assessment tasks such as quizzes and test

question papers and the University Faculty of Education 2015 prospectus which describes

all the modules and mark sheets with written practical activities and annual reports from

various departments. These documents were provided by the teacher educators who were

interviewed and were teaching large classes at the time of the study.

The teacher educators' notes and course outlines provided information on what exactly was taught in specific courses. They did not however provide information on how or what instructional strategies were used. The course hand-outs were analysed to find the links between the hand-outs and the assessment tasks given to students. The vision and mission statements of the teacher education program were analysed to identify the skills and competencies that were focused on in teacher education. The minutes of the meetings provided information on what was discussed about large classes in various meetings, the challenges experienced were of particular interests. The student teachers' mark sheets provided information on how the students performed. The classroom activities provided information on what type of activities the student teachers were given. This was needed to find out if the activities are compliant with the social constructivist theory and the Five E instructional model. The information from the documents was systematically analysed using content analysis.

Pilot Testing the Instrument

Piloting of the instruments was conducted at Rundu campus prior to the actual data collection. Rundu campus is another UNAM campus located in the Okavango region which was also a former teacher's training college and was merged with the Faculty of education of UNAM in 2010. Rundu campus has the second largest number of students among all the other teacher training campuses that were merged with the UNAM. It was important to pilot test the research instruments on a small group of participants who have the similar characteristics with the study participants. This was done with the purpose of testing whether the instrument questions are clear and understandable, and if the observation guide could guide the researcher to collect the desired information. The individual interview, the focus group interview and observation guides were pilot tested with the Rundu campus

teacher educators and student teachers respectively. The researcher was ready to

incorporate the suggestions and comments made by the prospective research participants

and to modify the instruments. Permission was sought from the UNAM research and

publication office, and then the researcher set up an appointment with the Rundu campus

director in advance.

Questions that were not clear to the respondents were fine-tuned and clarified before

the actual data collection process took place. For example question 19 initially read as

follows: "What do you consider as the benefits of teaching large classes?" After the pilot

study it was revised to read as follows: "What do you consider as the benefits of a lecturer

teaching large classes?' Question 27 which read, "How do you think order and discipline

can be maintained in large classes?" was revised to read: "How can values help in

maintaining order and discipline in large classes?" The question was revised because the

interviewees felt that at university level values play a major role in maintaining order and

discipline. The word instructional was added to question 21 to read as "What instructional

difficulties do you face in teaching large classes" instead of "What difficulties do you face

in large classes"?

Data Analysis

Data was analysed through content and thematic analysis which are both

interpretational in nature. Content analysis was used to analyse data from the documents,

while thematic analysis was used to analyse data from individual interviews, focus group

interviews, observations and journal entries. Both content and thematic analysis involved

coding or categorising the data and making links between categories (Basit, 2010; Braun &

Clarke, 2006). Content analysis examines words or phrases within a range of texts, and the

central idea is to classify texts into fewer content categories (Bell, 2005). Basit (2010) also

describes content analysis as a method of analysing qualitative data, and can be carried out

on any kind of written, transcribed or published data. He further indicates that content

analysis entails coding or categorising sentences, phrases or statements, and making

comparisons and contrasts between the categories. The researcher adopted some of Berg's

(2009, p.306-308) questions for content analysis such as: "Who wrote the source and what

was the intended audience and what was the message in relation to large classes". These

questions helped in the analysis of the authenticity and meaning of the statements in

documents in relation to the instructional strategies used in large classes. For thematic

analysis, the researcher followed Braun and Clarke (2006, p. 16) phase by phase

guidelines. These guidelines are:

1. Familiarizing yourself with the data
2. Generating initial codes
3. The researcher reads throughout each transcript to be immersed in the data
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

Another way of explaining the thematic analysis process is according to Lichman (2010).

This is presented in Figure 5.
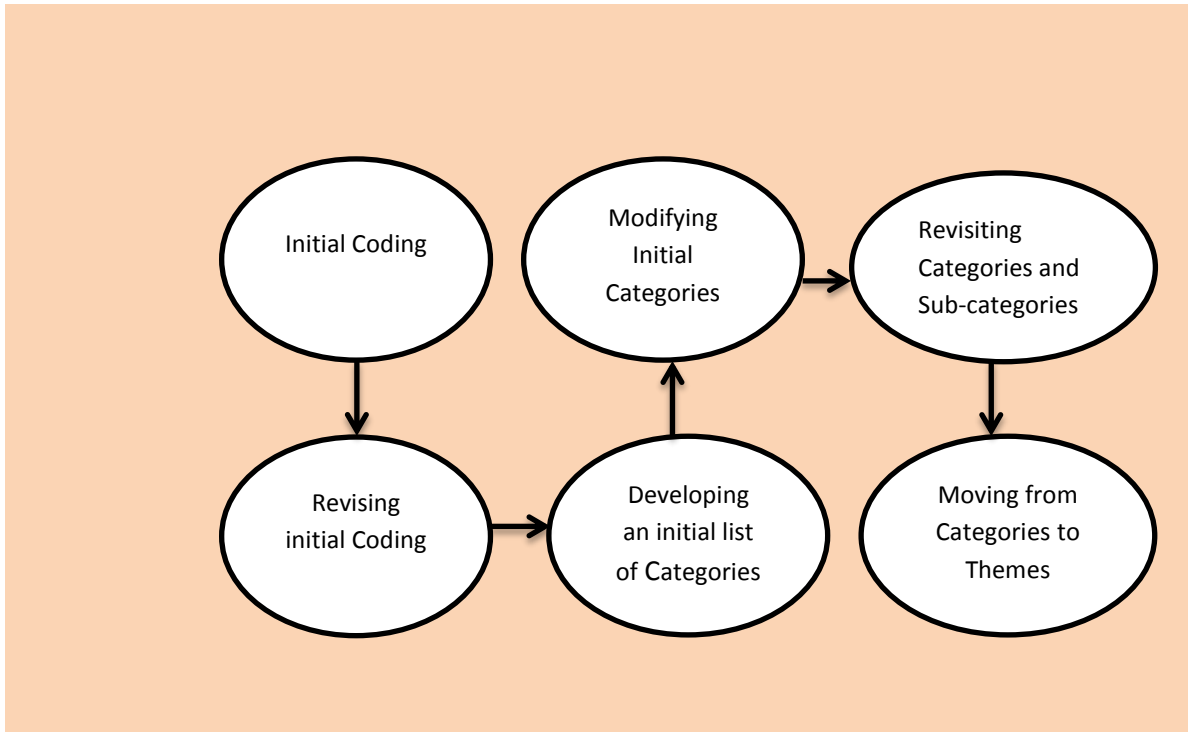
Figure 5: The 3C of Thematic Analysis (Adapted from Lichtman, 2010, p. 198)

Before the data were analysed, the researcher transcribed all individual interviews,

and focus group interview. This process allowed the researcher to become familiar with the

data. The researcher created Microsoft Word files for individual interviews, focus group

interviews, observations, documents and journal entries. All files were protected by setting

passwords. The transcribed data from each participant was then analysed reading line by

line and sentence by sentence. Each transcript was studied separately to allow comparison

across transcripts. The data were coded then various categories and themes were identified.

The whole data analysis process was informed by the social constructivist theoretical

framework in order to examine if what was happening in large classes at HPC was related

to the social constructivist principles. The researcher tried by all means to compare the data

within one interview to check if there were discrepancies. Information from various focus

groups was also compared. Data from individual teacher educators' interviews were

compared with data from student teachers' focus group interview. This was done for

triangulation purposes and to reach a common understanding.

The individual interviews and focus group discussions were recorded with the

research participants' permission. The researcher and the research assistant listened and

transcribed the data of the recorded conversations. The transcribed data were given back to

all the individual teacher educators and campus management members and some student

teachers (representing the focus group members) to review and edit for accuracy. The

member checked data were coded and various themes and sub-themes were identified. The

data were analysed according to research questions and findings were presented according

to the themes and subthemes.

The Data Grid

The Table 6 summarises the research questions, the sources of the data, participants

and methods of analysis.

Table 6

Summary of Research Questions

Research questions	How to obtain data	Participants	Data analysis method
1. What instructional strategies are used by teacher educators in large classes?	Individual interview, Observation, and focus group discussions	Teacher educators and student teachers	Thematic analysis
2. What are the challenges associated with the use of those strategies?	Individual interviews, Observation, and focus group discussions	Teacher educators and student teachers	Thematic analysis
3. What challenges do the students face as a result of the strategies used by the teacher educators?	Individual interviews, Observation, and focus group discussions	Teacher educators and student teachers	Thematic analysis
4. How can the challenges faced by the teacher educators and students in the teaching and learning process in large classes be addressed?	Individual and focus group interview, document analysis e.g. handouts, and minutes of the meetings	Teacher educators and student teachers	Thematic and content analysis

Trustworthiness of the Study

It is crucial to ensure the quality of the findings in qualitative research just as it is important for reliability and validity in quantitative research. Lincoln and Cuba (1985) suggest various terms that can be used to establish trustworthiness of qualitative research. The terms are credibility, transferability, dependability and confirmability.

Credibility

Credibility is the degree of confidence in the truth that the findings of a particular study has for the subject and the context within which it was carried out (Erlandson et al.,

1993). In order to maintain credibility in this study, the research protocols were double checked. The questions were also checked to see if the questions were aiming at getting the answers to help answer the research questions. This was done through piloting of the instruments. The research supervisors assisted in checking the relevance and suitability of the research protocols. Additionally, sufficient time was spent collecting the data until the themes, examples and patterns were repeated satisfactorily. Also, the researcher engaged in discussions with classmates and former colleagues in checking if the research protocols were clear, understandable and relevant to the study purposes of the study. The transcribed data were made available to participants for member checking. Reflexivity was maintained by having a reflective journal where the researcher recorded events that affected the way the study was conducted. Things to reflect on included: the participants' emotional tone, how does the researcher got on with the participants, difficult or embarrassing moments during the interviews, any surprises and any ethical dilemmas (Chilisa & Preece, 2005).

Transferability

Stake (1994) maintains that, the prospect of transferability in qualitative research should not be rejected. In this study, the researcher provided sufficient contextual information about HPC, the research site. Detailed description about the large class phenomenon in higher education, and research participants was also provided. This might enable readers to compare the large class phenomenon with their own situations, and decide if the research findings are applicable to other settings as well.

Dependability

In qualitative research, researchers are concerned about dependability, and not reliability (Shenton, 2004). Erlandson et al. (1993) describes dependability as the ability of

the research to be replicated in the similar context. This would mean that the same findings would be obtained. Dependability was maintained by explaining in details what was planned and how the plans were executed. Additionally, data were analysed by the researcher sometimes together with the research assistant. The code-recode procedure (Chilisa & Preece, 2005) was applied whereby the researcher re-coded the data after one or two weeks of the first coding. This helped in checking whether the results were similar.

Confirmability

In the context of this study, confirmability was enhanced by the use of multiple research methods, through having a reflective journal where the researcher stated her own beliefs and assumptions. Lastly, the research supervisor and the committee members assisted in reading through the research study and questioned how and why certain decisions were made.

Ethical Consideration

Gall et al. *(*2010) indicate that research ethical procedures should be considered to make sure that the research participants are protected from harm or from risk of harm. Before conducting this study in Namibia, the research proposal was sent to the University of Botswana ethical review board for review and approval. After the approval by UB ethical review board, the researcher sought permission from the Vice Chancellor of Academic Affairs of the UNAM and HPC Director to carry out the study at the campus; and also to carry out the pilot study at Rundu campus. After permission was granted to the campuses, the researcher scheduled a meeting at Rundu campus to explain the purpose of the study and what their participation would involve. The same type of meeting was arranged at HPC where the actual study data collection process took place. A letter was

written by the researcher briefly describing the research and conditions of acceptance to participate in the research.

After prospective participants read the explanation and purpose of the research, they were asked to sign the consent form. The participants kept their own copies of the consent form, and other copies were kept by the researcher. Participants were not forced to participate in the study, and for those who agreed to participate, it was made clear to them that they were free to withdraw from the research if need be without any punishment. However, none of the participants withdrew from the study. After the prospective participants had signed the consent form, the researcher and participants agreed on the dates of an appointment. The researcher tried by all means to observe confidentiality and anonymity of the participants. This was also enhanced by making sure that when the data was recorded, the participants' identities were not revealed, instead pseudonyms were used. The recorded data were locked in a safe place which was accessed only the researcher and research assistant only. Again, the data were stored on the computer and were protected with a password.

Participants were assured that there was minimal risk involved in the research study. The only minimal risk incurred was loss of time. The researcher felt that the participants would lose their time when and if they were interviewed several times whenever it was necessary. However, the researcher always tried to indicate the tentative duration time of the interview and observation to the participants. Secondly, the research participants might also experience discomfort as a result of answering some questions. If a participant experienced discomfort, they were informed to choose not to answer the question that leads to the discomfort. The research participants were also informed that there was no direct benefit involved in the study. The study would be beneficial in providing insights on the

instructional strategies used in large classes. Since the data collection process took place at the research site, there was no need to provide transport money to the participants.

Limitations

There were no major limitations to this study. However, due to the nature of qualitative study, the sample was small and specific to a particular satellite campus of the University of Namibia. Therefore the results might not be generalizable. Nonetheless, the study was beneficial for gaining a better understanding of the instructional strategies employed in large classes and the instructional challenges experienced.

Delimitations

The study was carried out at only one of the four satellite campuses of UNAM. The study is delimited to teacher educators who only teach large classes that are made up of 100 or more students. Also, the study is delimited to teacher educators who have taught large classes for two or more years by the time the data were collected. Teacher educators who had taught large classes before but were not teaching them at the time of the study were excluded.

Summary

This chapter has described the methodology used in this research study. It also provided justification for the use of the qualitative research approach, the interpretative paradigm, and the case study research design. Sampling procedures are also explained in the chapter. Other sections provide information on data collection which included; individual interviews, focus group interviews, observation and document analysis. The next chapter presents data analysis and the findings of the study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

Introduction

This chapter presents the findings of the study. The findings are based on data collected through individual interviews, focus group discussions, lesson observations and analysis of documents. The findings are presented in a qualitative manner in line with the four objectives and the research questions of the study. The purpose of the study was to explore the instructional strategies used by teacher educators in large classes at the UNAM Hifikepunye Pohamba Campus.

Based on the research questions, data are presented under the following themes that emerged from the study: impact of large classes on teaching approaches and instructional strategies, impact of large classes on the type of learning activities, assessment tasks ,and giving feedback to student teachers, the use of educational technology in large classes, impact on classroom management and control, coping in large classes, and finally, minimal administrative support for the teacher educators and student teachers. Before discussing these themes, the concept of large classes as understood by participants of the study will be explained.

The Concept of Large Classes

Various researchers believe that a large class at university level is a class that has more than 100 students, and requires active instructional strategies to facilitate the teaching and learning process (Buchanan & Rogers, 1990; Garg et al., 2008). The study established that at HPC, some classes have100 or more students. However, the three campus

management participants had varying interpretations of large classes. For example two

participants had this to say, Teacher Educator D explained:

> Within the university context, umh… I feel that a group that is larger than 100
> students is really large. We are training student teachers at this institution, we need
> class groups that we can manage and model student-centred teaching on.

In the same vein, Teacher Educator E stated:

> Umh… for me, the interpretation of large class depends on how one sees it. A large
> class is when you have more than 150 students. That to me is quite big. It requires
> specific strategies to reach each student.

 Sharing the same sentiment raised by the above, when teacher educators and student

teachers were asked to explain if they felt that their classes were small or large, they

expressed that their classes were large due to the number of students in class. Hence, it also

became evident that the interpretation of the term large classes by various participants were

based on the number of students in class and the instructional strategies employed in the

particular classes. For example, teacher educators felt that the numbers were too high and

required extra effort. Teacher Educator B expressed:

> My classes are large and it is difficult to use methods like group discussion and
> individual presentations. I do not have thorough information of all the students in
> my classes. Uhm…I also do not know all the faces of my students, because they are
> too many.

Similarly, Group A: Student B explained: "Our class is very big…uhm the number of

students is more than 500, and we do not hear what the lecturer is saying". The above

participants' views show that there is no one single interpretation of the term large classes.

Each person interprets a large class depending on the number of students, the environment

in which the class is being taught, and the difficulties experienced. Also, it is evident that

the numbers of students in large classes vary with individual educators as well as student

teachers. The section that follows discusses the themes that emerged from the study.

The themes emerged through content and thematic analyses which are both interpretational in nature. Content analysis was used to analyse data from the documents, while thematic analysis was used to analyse data from individual interviews, focus group interviews, observations and journal entries. Both content and thematic analyses involve coding or categorising the data and making links between categories (Basit, 2010; Braun & Clarke, 2006). Data was transcribed, and the researcher has also been writing memos or reflective journal throughout the whole research process. Transcribed data was coded and sentences, phrases or statements were categorized. Comparisons and contrasts between the categories were made and various themes were identified. Different colour marker pens were used for coding. Some examples of the identified codes were as follows: lecturing - LEC, group work- GW, presentations- PRE, question and answers- Q &A, brainstorming- BR, tutorials - TUT, assessment- ASSM, teacher-centred- TC, student-centred -SCA, subject-centred- SC, benefits- BEN, challenges- CH and feedback - FD. The codes were abbreviated to make it easier to use. Various categories were identified from the codes. Related ideas were later grouped into the presented themes.

Impact of large classes on teaching approaches and instructional strategies

Teaching approaches refer to the umbrella that classifies beliefs and viewpoints applied in the teaching and learning strategies. The instructional strategies practiced by teacher educators were mostly based on three approaches: teacher -centred, student-centred and subject centred. Table 7 sums up the approaches and strategies used by various teacher educators in large classes as explained in the subsequent section.

Table 7

Teaching Approaches, and Instructional Strategies Used

Teaching Approach	Teacher Educator	Strategies
Teacher-centred	A	Lecture
	B	Lecture
	C	Lecture
Student-centred	A	Whole class discussions
	B	Whole class discussion
		Group presentations
		Group discussions
		Team based learning
	C	Group discussions
		Group presentations
		Team based learning
		Whole class discussions
Subject-centred	All teacher educators	Subject content based

The study revealed that the teacher-centred approach was used mostly with the

integration of subject-centred and student-centred approaches whenever possible. The

teacher-centred teaching approach is generally believed by the participants to be an

approach whereby the teacher is the centre of the whole teaching process and does

everything in class. The three teacher educators A, B, and C understood teacher-centred as

an approach where the teacher educator is the hub of the teaching and learning process. The

focus group members concurred that the teacher-centred approach is a teaching approach in

which the teacher educator plays an active role; a situation which makes the students to be

passive. This was reflected by Group C, Student 16, who maintained that, "it is an

approach where a teacher does everything for the students, and does not consider the students' views and ideas". Teacher Educator A stated: "The teacher owns everything; it is like he is the custodian of everything. There is little room for interaction with the learners". Additionally, Teacher Educator C explained: "The teacher gives most of the information to the students instead of allowing students to find the information for themselves with the help of the teacher as a facilitator". This shows that the interviewed teacher educators and their students held similar understanding of the teacher-centred teaching approach.

Two teacher educators also indicated that sometimes they use subject-centred approach whenever there is too much content to cover. The subject-centred teaching is an approach whereby the teacher educator puts the subject first by emphasising on the content of the subject. The teacher does not really enable the student to engage with the subject content. The study findings showed that this term was regarded as new by some of the teacher educators. Teacher Educator A explained: "I would say that it refers to a situation where the teacher uses methods that are applicable to that particular subject. If I know my subject and teach it well, it is important". Additionally, Teacher Educator C said: "I would assume that the focus is more on the content and ensuring that perhaps what the teacher teaches is based on the content". Even though all the teacher educators tried to interpret the term in their own different ways, they felt that the emphasis is more on covering the content, and the students' needs are not well considered.

Participants of the focus groups interpreted subject-centred teaching approach as follows: Group A, Student 3 noted, "I think that the subject-centred teaching approach is more when the teacher educator concentrates on that particular subject and not touching on other subjects". Group B, Student 10 stated: "I think it is the first time to hear this, but I think it has to do with the knowledge of the subject that the teacher is teaching." Group F,

Student 18 said "It is an approach that is more based on one specific subject. The teacher educator does not touch other subjects". The study established that the participants had different views on their understanding of subject-centred approach. Teacher Educator A stated:

> Yeah…I mostly use the teacher-centred approach… and the subject-centred approach sometimes. When one decides on the strategy, one must look at the time, number of the students, and the content. In most cases, students are many and it is time consuming to use student-centred approach. It takes time to entertain all students' ideas. Uhm… a semester is very short, and one cannot cover everything.

Teacher Educator C mentioned that:

> When the course content is overloaded, I would go through without considering various learning styles. I just rush through to cover the content. Sometimes…. uhm… I would think that the student-centred approach also comes in especially during the practical lessons.

In order to ascertain the approaches used by teacher educators from student teachers' point of views, student teachers were asked to indicate which approaches they thought were mostly used by their teacher educators in their large classes. They indicated that all the three approaches were used in their classes at various times, although the teacher-centred approach was used often. Group A, Student 4 said "The teacher educator sometimes uses the subject-centred teaching approach." In a similar way to Student 4, Group B, Student 11 stated: "I think it is the subject-centred teaching approach because when the lecturer is lecturing, he teaches based on the course outline which is more about the content that requires what is taught". On the contrary, Group C: Student 19 indicated: "She uses both teacher-centred and student-centred teaching approaches".

Participants of this study defined the student-centred approach as an approach where the students take an active part in the learning process while the teacher is a facilitator. The findings indicated that teacher educators concurred that student-centred

teaching is the opposite of teacher-centred approach. Students are at the centre of the

teaching and learning process by being actively involved in the activities and in the

acquisition of information. The focus group members indicated that the student-centred

teaching approach puts students at the centre of teaching and learning process. Further, in

this approach, the students take the lead and actively participate in lessons. For example

Group C, Student 17 said: "It is whereby the teacher considers students in teaching. The

lessons are based on students' ideas. The students do participate, they are asked questions".

The findings therefore indicate that the interviewed teacher educators and their student

teachers held similar views about the interpretation of the student-centred teaching

approach.

Each of the three focus group members also gave their perceptions of the teaching

approach used in their large classes. Group A observed that for the most part their teacher

educator used the subject-centred teaching approach though not always, and touched on

any other subjects only minimally if at all. The group felt that using only one approach was

not the best because there were times when the teacher educator needed to explain more

through the teacher-centred approach and there were times when student teachers also

needed to be involved through the student-centred approach in an effort to understand.

In addition, Group B observed that the teacher educator used more of the subject-

centred approach. The group was in favour of the subject-centred approach because for

them the approach helped the teacher educator to cover the prescribed content. Group C

indicated that their teacher educator used both teacher-centred and student-centred

approaches and felt that it was the best approach. In their case, the student teachers cited

that they were actively involved and asked questions where they did not understand. This

scenario provided an avenue for the teacher educator to explain the subject content in

details. Generally, the student teachers felt that the teacher-centred approach alone was not good enough since student teachers' ideas and opinions were not considered.

Evidence from the individual interviews with the teacher educators, campus management and from focus group discussions showed that participants agreed on the interpretations of the three teaching approaches namely teacher-centred, student centred and the subject-centred. However, when it came to the particular approach used in a specific class, there were some notable differences between a teacher educator and his/her student teachers. For example Teacher Educator B felt that he mostly used the teacher-centred approach, while his student teachers felt that he mostly used the subject-centred approach. Furthermore, Teacher Educator A felt that he mostly used the teacher-centred approach while his student teachers felt that he mostly used the subject-centred approach, which he sometimes combined with other approaches. From lesson observations, it became apparent to the researcher that Teacher Educator B combined all the three teaching approaches, though he felt that he uses more of the teacher-centred approach. The lessons observation also confirmed that Teacher Educator A used more of the teacher-centred approach as he pointed out due to a large class. During the second observation of Class A lesson, only less than 50 out of 511students turned up for class. Therefore it was possible for the teacher educator to interact with students and give individual attention to them, using the student-centred approach.

The participants' views show that teacher educators implemented more of the teacher-centred and subject- centred instructional approaches. Both approaches do not actively involve the student teachers in the teaching and learning process. It also became apparent that when all approaches were used together whenever possible, student teachers could benefit from all approaches rather than have the advantages of just one approach.

The course content also has an influence on the teaching approach used by the teacher educators.

The findings established specific instructional strategies that fall under the teaching approaches umbrella that were used in large classes. Instructional strategies are methods, ways and activities that teachers use to facilitate the teaching and learning process. After the observations, interviews, focus group discussions and document analysis, it was found that the teacher educators used the following instructional strategies: Lecture method, group work such as group presentations, team based learning and group discussions and class/whole group discussion.

Lecture method

The lecture method is a form of teaching strategy where the teacher educator takes most of the responsibility of providing knowledge and information to the students on a particular topic. Lessons observations and individual interviews with the three teacher educators revealed that the lecture method was more frequently used than other instructional strategies. One of the teacher educators emotionally pointed out that he felt overwhelmed by the large class situation to only use the lecture method. Teacher Educator B said "In most cases, one is compelled to use the basic one, lecturing". There were teacher educators who explained that the lecture method saves time and allows them to cover a wide range of content within a short time. Teacher Educator C also stated: "I mostly use the lecture method simply because I find it suitable for large classes. You may not apply some other methods like the student-centred approach because one may not finish what is supposed to be covered or taught". However, Teacher Educator E found it difficult to use

other instructional strategies like group discussions and individual presentations since it is

very difficult to do so with large groups.

In a follow up interview, Teacher Educator A explained the reasons why he felt

compelled by the large class situation to use the lecture method:

> I am overwhelmed by the large number of students and the subject content.
> Uhm…let me say… even if I want to use alternative instructional strategies, am
> scared of using a lot of time that may lead to not covering the course content. In
> large classes, students do not participate fully instead they tend to talk in smaller
> groups…In this context I am forced to respond to the situation that overwhelms me.

From the interviews conducted with the campus management team, it emerged that the

lecture method ought to be used alongside small group discussions, interactive handouts,

whole class discussions and question- and- answer method. For example, Teacher Educator

D stated:

> Uhm…, one would not really want to approach teaching as a transmission of
> information only…neither to lecture a lot. So have some points on the Power Point
> Presentation slides to discuss and see if students can relate to those ideas.

While Teacher Educator E said:

> Umh… I think we need a combination of lecturing, the use of visual aids and a
> good voice projection. Again one can use students to reach other students and use
> small groups, if possible with some sorts of handouts to guide them to take notes.
> But the issue of handouts needs to be used in an interactive way.

The study revealed that three teacher educators agreed to use the lecture method with

PowerPoint Presentation (PPP) slides mostly. The other teacher educators who were in

campus management also agreed that the lecture method complemented by other strategies

such as small group discussions and class discussions should be used in large classes

mostly. These findings confirm that the lecture method is the most popular instructional

strategy in the large classes observed at HPC.

Group work

Group work refers to work done by a group of students in collaboration. The participants of the study explained that in this type of instructional strategy, student teachers are grouped in order to discuss or solve a given problem under the supervision of the teacher educator after which they presented their work to the class. From the focus group discussions with the students, Group B and C agreed that their teacher educators gave them group work frequently. For example, Group B, Student 11 indicated: "Yeah, mostly group work instructions are given, when we are expected to work in groups". Furthermore, Group B, Student 13 revealed: "Sometimes we are given group work". While Group C, Student 17 responded: "She just teaches; sometimes we have class discussions; sometimes we do group work in practical lessons…that is all".

Lesson observations confirmed that students in classes B (110 students) and C (210 students) worked in groups. No group work was observed in class A (511 students). When Teacher Educator A was asked if he ever uses group work as an instructional strategy, he explained that it is difficult to divide students into manageable groups in such a large class.

Group work can take place in the form of group discussion. Group discussion is an instructional strategy that involves students sharing ideas and experiences in a group. Normally the student teachers discussed whatever they were asked to discuss and then present their group ideas to the rest of the class. Confirming this Group C, Student 19 said: "When we are given questions to answer in groups, we discuss in groups and afterwards present what we have discussed to the class…then, later the teacher educator comments on the work presented". During the focus group discussions, student teachers claimed that their teacher educators mostly used group discussions' as a class activity. Similarly, group

discussions were observed in Class C where students were assigned group work on constructing sentences in various tenses during practical lessons.

It became evident from Group B lesson observations that group presentation helped the student teachers to learn more about the topic under discussion and also to practice public speaking skills. Group B, Student 13 said: "Sometimes we are given group presentation work to do". Consistent with Student 13 comments, the researcher observed practical lessons where students were presenting their work in groups. It was noted from the practical lessons observed that, practical activities were aimed at enhancing students' understanding of what has been taught by the teacher educator by doing hands on activities if possible. For example, in subjects without laboratory activities, student teachers were given sheets with written activities to work on. They were also given written activities presented on PowerPoint slides to work on, either individually or in groups. It was also observed that some teacher educators tended to use the practical lessons for teaching theory, while others used them for the practical activities.

Furthermore, it was observed that Teacher Educator B used student presentations strategy in his large class. In Class B, student teachers prepared group presentations on given topics about various diseases before the lesson. Then, different groups were presenting what they had discussed to the whole class, while the teacher educator was busy assessing the presentations. For example, one group presented on cancer, the other presented on malaria, and another one on high blood pressure.

When group work is properly facilitated, team based learning takes place. Most participants in this study explained team based learning as a teaching strategy that relies on the division of class into various groups, of three to five members ideally. This means that when using team based learning instructional strategy time is spent on group activities. At

HPC, students worked together in permanent groups, and were encouraged to be accountable for their work within the groups. Teacher Educator C used team learning instructional strategy where student teachers helped each other in their long term groups when doing practical activities. In Class C, during the second observation, student teachers were given group activities to work on tenses. The student teachers provided constructive feedback to each other during the presentations. Furthermore, if one group member got stuck, other team members offered assistance by giving alternative answers. It can be inferred that through the group work and group discussions, team learning took place.

The findings showed that some of the teacher educators had a hard time getting student teachers to work in groups due to a large number of students in class. One of the teacher educators indicated that it took a considerable amount of time to divide student teachers into groups, explain the tasks and have student teachers start working on the task. This is reflected in the following verbatim by Teacher Educator A:

> Uhm…it is not easy for students to start working on a given task in a group. They first need to know each other before they establish the norms on how to cooperate. That whole process needs more time in large classes.

Additionally, Teacher Educator F indicated, "It is difficult to engage the group into discussions or any other tasks. Sometimes it is too noisy and hard to manage". It was also observed, and indicated by one teacher educator that the seating arrangement was not suitable for group discussions in the lecture halls. The seats were static, and it was also difficult for the teacher educators to move around and assist the student teachers in their respective groups.

Class Discussions

Class discussion, which is sometimes referred as to whole group discussion, is an instructional strategy that helps students to analyse and think critically about certain issues through discussions. The study revealed that class discussion was used as an instructional strategy in all observed classes. However, it was used more frequently in Classes B and C. Group A, Student 4 pointed out "Our teacher educator gives us the opportunity to ask where we do not understand, which can lead to class discussion." Similarly, Group C, Student 17 said: "Umh…, in most cases we have class discussions and group work in practical lessons". Further, Teacher Educator E, who also had experience in teaching a large class, expressed that "the teacher educator in a large class scaffolds the whole class discussion, and then it becomes a dialogue."

The use of class discussion as an instructional strategy was observed more in Classes B and C. In class B, the teacher educator was giving feedback on the student group presentations on different diseases. The student teachers were engaged in the class discussions as they responded to issues from the presentations. In class C, after students had worked in groups on tenses, feedback was given while the teacher educator explained more about the differences between various tenses. Similarly, during the second observation of class A, approximately 60 out of 511 students attended the lesson and class discussion took place on the topic at hand which was about setting up lesson objectives. It became evident that in large classes, the teacher-centred teaching and subject-centred teaching approaches were used more than the student- centred approach. And it is the student-centred approach that is considered more effective since the students are expected to be more actively involved in teaching and learning.

Impact of Large Classes on the Learning Activities, Assessment Tasks and Feedback to Student Teachers

Learning activities refer to the tasks that are given to the students to promote learning. The study revealed that instructional strategies and learning activities are related in such a way that in most cases the teacher educator selected the instructional strategy whereby student teachers were expected to take part in learning activities such as listening, writing or answering questions . The teacher educators hesitated at first when they responded to the questions on the activities they used frequently in their classes by expressing themselves using filler words (*uhm, uhm, uhm, uhms*). The findings through observation and interviews showed that the teacher educators gave question- and-answer activities, brainstorming, group assignments, quizzes and tests. At least during the practical lessons, (for each subject/module in the UNAM timetable, there is provision for a theory and practical lesson) student teachers were involved in various learning activities. In most cases, the proposed activities were displayed on PPP slides, and the student teachers were expected to work on the particular activities.

From the lesson observations, it emerged that Class C student teachers were given handouts with practical activities on framing given sentences to specified tenses. The situation about learning activities was explained by Teacher Educator B as follows "Uhm… questions and answers activities… during the lecture I ask questions, use the study guide, study materials or/ and textbook. I do not do a lot due to a large group".

In the class with more than 500 students, it was observed that it was very difficult for the student teachers to be actively engaged in the learning activities during the lessons. The teacher educator mostly lectured while using the question- and-answer activities to engage the students. However, some student teachers remained quietly sitting, yet others especially

those seated in the back rows were not attentive for example they would talk to each other and watch movies on their laptops.

During focus group discussions with student teachers, it came out that teacher educators engaged them in various activities like group assignments using PPP or Microsoft Word, group presentations, speaking activities, quizzes and tests. Student Participant Group C, Student 18 said, "Uhm… okay, in most cases our lecturer asks questions, most activities are speaking activities. During the practical lessons, we write a lot". In addition, Group A, Student 4 had this to say, "Sometimes he gives us quizzes and tests". Through document analysis of the activities used in large classes, it emerged that Class B students were given activities like online quizzes, PowerPoint presentations, and designing of educational posters using Microsoft word. Again, the documents analysed revealed that similar activities- quizzes and tests- were given to the other two classes, A and C). The three teacher educators, A, B and C agreed that they used question- and-answers activities displayed on PP slides. It appeared that only two teacher educators, B and C sometimes divided their large classes into smaller groups especially during the practical lessons.

The findings also revealed brainstorming as another teaching/learning activity used at HPC where student teachers were asked to call out or mention ideas and thoughts about a certain topic or to solve a certain problem. In most cases the answers were just written down whether they were correct or incorrect then they were discussed later. It was observed that all the teacher educators used brainstorming learning activity especially at the beginning of each lesson. Teacher Educator B said, "I always ask the students to offer what they know about a topic before I explain to them." Teacher Educator C indicated, "I ask the student teachers to brainstorm to find out what they already know. Then we relate that to

the new information". The brainstorming activity was mostly used in groups at the

beginning of the discussions. Learning activities are supposed to direct students towards

anticipated results with assessment tasks acting as indications along the way.

Strategies to assess students' learning

The study shows that the student learning assessment strategies are used for the

purpose of providing valuable feedback in terms of what student teachers understand and

what they do not understand. This information can be used by the teacher educator to guide

the instructional process. The findings indicate that the teacher educators assessed student

teachers in large classes in different ways. Some gave tests, quizzes, oral question and

practical exercises which they marked and provided feedback on. This is reflected in the

following statement by Teacher Educator A: "Yeah, during the lesson, I try to ask

questions, but most of the students do not answer. They are not eager to speak. I also use

quizzes and tests to see how they understand and learn the content". One teacher educator

asked student teachers to provide comments on what was discussed in class online.

The focus group members shared different ways in which they felt assessment took

place. Group A, Student 6 said:

> After marking the quizzes and tests, our teacher educator can see and understand
> that most students have passed or failed. This shows him if we do understand or
> not. Then he gives us a chance for the second test or quiz if we have failed.

Similarly, Group C, Student 19 responded thus: "I think assessment takes place when our

teacher educator gives us practical work to do. For example projects, individual and group

activities. Then later we have to report back to the class". One of the three teacher

educators also conducted online discussions with student teachers. From the focus group

discussions, student teachers agreed that various assessment activities given by their

teacher educators included: Quizzes, tests, group work, online discussions and group

discussions on Facebook. This shows that during and after the lessons, various activities

could be used for student assessment in the large classes. Owing to a high number of

students in class, some teacher educators whose lessons were observed were sometimes

tempted to ask only short objective questions to make the marking process easier. This was

reflected in Teacher Educator D's experience:

> Well, uhm… when it comes to assessment challenges, you will think of a smart way
> of coming up with the types of assessments that make it possible for you to manage
> marking within a reasonable time. For example, short questions but still addressing
> different levels of Bloom Taxonomy of questioning. It will force a lecturer to use
> only multiple choice and matching questions. If you give an essay, it will be a
> challenge to mark and give feedback within a short time.

By asking only short objective questions, the teacher educator could rob students who were

good at expressing themselves through open ended questions a chance to perform well. At

times student teachers also felt that individual progress was not taken into consideration,

because in most cases they were given group assessment tasks. Group F, Student 19 said,

"When we are in groups, it is difficult for the teacher educator to get a picture of individual

students' progress". Similarly, Group C: Student 14 explained:

> We find it hard as students to do our work individually, since we do a lot of group
> discussions. We still have a need for individual activities. When we are in groups,
> some people do not really pay attention, they do their own things, and it will be more
> like an individual work.

Furthermore, this is well reflected in Teacher Educator B's statement that "When assessing

students in groups, it is difficult to realise the growth of individual students".

Evidence from the Early Childhood and Lower Primary Department Annual Report

(2015, p. 29) echoes the same sentiments on group assessment. The report states that; "It is

difficult to do practical work with the student teachers because of the large numbers.

Micro-teaching and other activities have to be done in groups; as the large numbers make it

impossible to have individual presentations". Some of the group assessment activities were

given so that teacher educators could observe if students could work collaboratively with

each other, while other group assessment activities were given to save teacher educators

time from marking too many individual assessment papers. In these groups, some student

teachers did not contribute at all, yet marks were awarded to all members of the group.

Additional assessment challenges were specified by other teacher educators. For example,

Teacher Educator C indicated, "Marking assignments and examinations, for example at

UNAM there is a policy of marking within four days after the subject is written. When the

lecturer has 200+ students, it is difficult to mark within four days". The Educational

Foundation and Management Annual Report (2015) also showed the problem of

examination marking scripts as an inconvenience caused by large number of student

teachers in the classes.

From the focus group discussions, it was observed that student teachers had a

challenge of not being given assignments in addition to the tests. They felt that they were

mostly given tests and quizzes. Group A, Student 3 said, "I think it is vital for teacher

educators to give assignments to student teachers. In most cases, our teacher educator gives

two tests that contribute to continuous assessment marks. We need more assignments to

improve our performance". It is important to give feedback after the assessment process.

Hence, the next section deals with finding out ways of providing feedback to students in

large classes.

Strategies to provide students feedback on their work

It is very important for teacher educators to respond to student teachers' work by

providing them with feedback. The feedback would help the student teachers to know that

their teacher educators care about them and their performance. The findings show that

feedback in the large classes at HPC normally comes in the form of the students' marks and

comments on what they are supposed to improve on. Teacher Educator A explained that "I

put the memo on 'My Portal' for them to see where they went wrong". The feedback was

given either verbally or online immediately after the assessment. Teacher Educator B made

it clear by stating that:

> Let me say, if they have a presentation, I give them general feedback. If they were
> assessed in terms of Continuous Assessment marks, I would then put the marks on
> 'My Portal' for them to realise that they were assessed. I also give them ideas on
> what to improve through verbal feedback. Similarly, the online feedback is
> provided instantly like after taking a test or quiz. Once the student completes the
> activity, the grades are provided immediately in the progress section.

In addition, Teacher Educator B had this to say: "Uhm… through the practical activities

that we do, the feedback is immediately given after the activity is completed. When the

students report their work, I also give feedback later".

From the focus group discussions, student teacher participants concurred with their

teacher educators on how and when they were provided with feedback. Group A, Student 7

expressed that "The lecturer provides feedback by giving our papers back after tests or

quizzes have been written. Whenever we do not perform well, he tells us to improve and

gives a second opportunity to write a make-up test". Group B, Student 12 noted, "So far,

our teacher educator provides feedback to the whole class in a form of a presentation".

While Group C, Student 15 expressed, "In this case, she gives us class activities and

exercises. The way she gives us feedback, we do it together with her when we answer

questions and she elaborates further".

On the contrary, Group C: Student 16 explained: "Our teacher educator gives us feedback

on practical activities but not on tests". Students from Group C were asked to clarify

further about how they know about their performance in the tests, since they complained

about not being provided with feedback on tests. They explained that the marked tests are

given back but the answers are not discussed. They felt the need to discuss the correct

answers with the teacher educator during the feedback session.

The results indicate that Teacher Educator B came up with other ways to provide

feedback rather than the contact sessions he had with student teachers. This was by using

the available educational applications since the subject he taught was about integrated

media and technology. On the other hand, Teacher Educators A and C used common ways

of giving feedback. For example, explaining the answers to the questions orally after the

students had completed the activities, and giving the test and quiz papers back to the

student teachers.

From lesson observations, the researcher observed that the teacher educators

provided feedback immediately after the activities were completed. Feedback was prepared

in different ways, some on PPP slides while others were given orally. In class C, student

teachers were given group activities to work on tenses. After the student teachers finished

working on the group activities, the teacher educator gave feedback of the correct answers.

However, the teacher educator engaged student teachers in the feedback process by asking

them to answer the questions while the teacher educator explained more in details.

Feedback was also provided to the student teachers through tutorials or consultation hours.

Participants explained that during tutorials the teacher educator followed up on what has

been taught during the lesson. Tutorials vary among institutions, faculties and departments.

Some tutorials are strictly sessions where extra help is provided, while some are small

classes where more explanations are provided to the students.

Furthermore, the interviews with the teacher educators revealed that tutorials took place in the form of consultation hours with student teachers. Each teacher educator was required to display and use consultation hours to assist student teachers who needed extra assistance. It was not compulsory for the student teachers to use the consultation hours with the teacher educators unless required by the teacher educators for a specific purpose. Teacher Educator C stated: "I make sure that the consultation hours are displayed on the door and students are welcome to pop in for assistance". Likewise, Teacher Educator A said "I also invite student teachers to use the consultation hours to give them feedback". The learning activities, assessment tasks and the provision of feedback play an interconnected role in the teaching and learning process.

The Use of Educational Technology in Large Classes

Technology refers to the tools that can be used to promote student learning such as calculators, smartboards, video camera, computers and so on. Technology provides viable ways of presenting lessons in an interesting and interactive way. Figure 6 presents the various types of technology used in large classes at HPC.
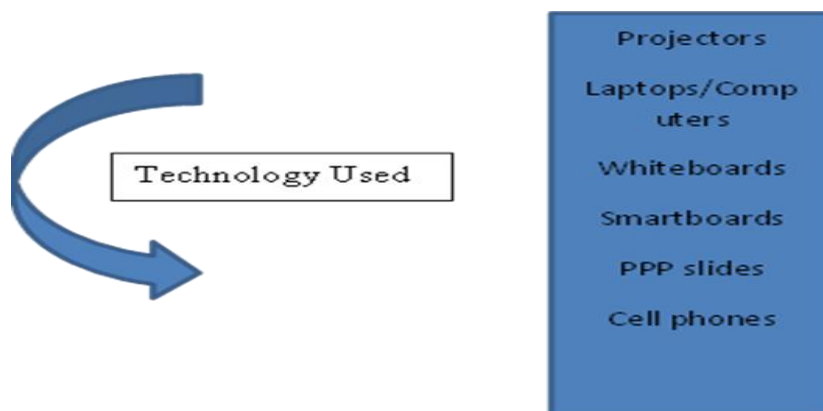
Figure 6: Types of Technology Used in Large Classes

From the individual interviews with the teacher educators, the consensus was that teacher

educators have the privilege of using PowerPoint Presentation slides. There were some

teacher educators who brought in some handouts related to what they were teaching. One

specific teacher educator emphasised the use of online materials as follows. Regarding

online work, Teacher Educator B stated, "Uhm… I use plenty like smartboards, overhead

projector to demonstrate, study guides, online materials and online discussions". Student

teachers were also asked to specify the types of teaching aids or technology that their

teacher educators used in their large classes. Evidence from the focus group discussions

with student teachers showed that student teachers agreed with their teacher educators on

the types of technology used in their classes such as: projectors, laptops, whiteboards,

smartboards, PPP slides and sometimes cell phones. The researcher prompted further for

Teacher Educator B to explain more how cell phones were used. He further explained that

cell phones were used to access the internet through which student teachers could log on to

application for online discussions.

Online discussion is a technological oriented forum used to leave messages and

questions and expect to get the responses online. Teacher Educator B stated: "In terms of

the teaching and learning process, the teacher educators can post discussion questions and

student teachers can interact with one another and with the teacher educator online".

Similarly, Group B Student 11 explained, "The nature of online discussions is to help

students to learn further from each other and from the lecturer in and outside the classroom

setting". This means that the ideas generated from the online discussion forum can be

discussed further during classroom lectures. Through online discussion, a class discussion

can be extended beyond the classroom. It was discovered that whenever possible, through

online discussion, an expert from even outside the institution can also be brought in the

discussion to help out student teachers whenever a need arises.

The study found that Teacher Educator, B used online discussion as an instructional

platform. He stated, "I also use online platform with the student teachers whereby we

interact, share resources, student teachers can ask questions, respond and download

assignments". This is done through some educational applications which students

download from the Internet Google or Apple application stores. Teacher Educator B further

explained: "What happens is that the application allows a student to communicate with the

teacher educator and pose questions to the group at any time and any place. In this way,

there is an interactive form of communication". It was observed during class B lessons that

some of the ideas discussed in class were generated through online discussions especially

ideas on how to conduct students' presentations.

Though student teachers benefited by interacting more with their peers and teacher

educator by using online discussions, there were challenges encountered. Challenges

experienced with the use of online discussions included; Low ICT students' literacy levels,

slow network, dependence on notes and face to face instructions, lack of interest and lack

of resources. Teacher Educator B elaborated further that:

> Student teachers found it difficult to understand why online discussion should take place if it did not happen in other subjects. Furthermore, student teachers replied to comments mostly after a day or two due to lack of resources such as computers, smartphones, and data bundles.

All three teacher educators concurred that they used PowerPoint Presentation slides.

However Teacher Educator B elaborated further that he used smartboard, overhead

projector and online materials. It became clear that the teacher educator who taught

Integrated Media and Technology (IMTE) used a wide variety of technology than the other

teacher educators, for example, online materials and cell phones as teaching aids.

The teacher educators and student teachers also used educational technology

through the use of My Portal which is an educational website set up for UNAM teacher

educators, lecturers and students to use. The teacher educators posted notes, assignments

and marks on My Portal for student teachers to access. Teacher Educator C said, "Actually,

we put notes and practical activities on My Portal. Similarly, Teacher Educator A stated "I

put the memo on 'My Portal' for the student teachers to find out where they went wrong".

As a result, student teachers could access the notes at their own convenient time even after

the formal classes.

Impact of Large Classes on Classroom Management and Control

Classroom management is understood by the researcher to refer to the actions and

strategies used by the teacher educators to create a supportive and constructive

environment for the student teachers to learn. The study reveals that it was difficult for the

teacher educators to create a supportive environment due to various instructional

challenges experienced in large classes. In order to answer the second research question,

information was mostly gathered from the teacher educators and student teachers through

the interviews and focus group discussions. Also, some information was further sought

from documents. Teacher educators also identified several disciplinary problems that affect

the teaching and learning process in large classes. The study showed that the teacher

educators concurred to have a hard time making their lesson presentation as effective as

they would have wished them to be. The views of all the teacher educators were given as

follows:

Inability to give individual attention to student teachers

The study revealed that it is very difficult for one teacher educator to pay individual attention to all student teachers in one or two hours scheduled for lessons in a large class. In the process some student teachers may feel left out or ignored. This makes them lose interest in participating in class. This does not contribute positively to the teaching and learning process. Teacher educators A and B expressed their opinions in regard with the individual attention given to student teachers. Teacher Educator A stated: "I would say that one of the instructional challenges is lack of individual attention to the students". In addition, Teacher Educator B expressed that "Students keep on moving around, so it is difficult to know who is paying attention and who is not". This shows that the teacher educator felt that it is difficult to pay individual attention to all student teachers in large classes. Adding to this, Teacher Educator B explained: "How can I explain this? There is no chance to give individual attention in large classes. Uhm…the classes are too large. It is also not possible for the students to present their work individually". Similarly, Group C, Student 17 expressed: "Big classes are not good, because I have realised that it is hard for the teacher educator to give attention to all students". The individual progress of student teachers at times was compromised when some teacher educators tended to give more group assessment work. Campus manager teacher educators also cited the lack of individual attention as one of the instructional challenges that student teachers face in large classes.

Lack of individual attention has also led to the lack of interaction opportunity with the teacher educator. When the teacher educators used the teacher-centred approach or the subject-centred approach, it was difficult for interaction to take place. From lessons observations, it was noted that in Class A which had more than 500 student teachers, the

teacher educator mostly presented the information without much interaction with the students, except when most of the student teachers were absent from class as it was observed during the second day of observation. The interaction that took place was among student teachers themselves which could not always be a positive contribution to the learning process.

Due to the fact that there was no individual attention, and no interaction in the classroom, some student teachers lost interest in the lessons. As a result, they were not able to answer questions when asked by the teacher educators.

Limited use of instructional strategy

During interviews, one of the teacher educators indicated that their main instructional challenge was being forced by the situation to use only one instructional strategy, the lecture method, which might not always be effective. This in a way agrees with the teacher educator who felt that he was unable to make presentations effective because he was not able to give individual attention to students.

Teacher Educator A stated:

> Indirectly, I am only forced to use one instructional strategy which is not a good thing. One would like to use mostly a student-centred approach, but I cannot. One would like to model the methods that the students can also use when they do their teaching practice or when they are employed.

Lecturing is not entirely a bad instructional strategy. However it just needs to be integrated with other strategies that can help student teachers to become active participants in the teaching and learning process.

Inadequate resources

The specific resources identified by the teacher educators and student teachers in this study were lack of enough copies of handouts on specific subject topics, lack of functional

microphones or sound systems, lack of space and lack of furniture. Each teacher educator

at UNAM was allocated a certain limited amount of copies to make per semester.

Therefore, it was difficult for a teacher educator with 500+ student teachers to give

handouts to each one of his student teachers. This could mean using up all the number of

copies allocated to him and would not be able to make copies for assignment, test and

exam papers later on. The problem of resources was reflected by Teacher Educator B:

"Lastly, the material provision, …uhm it is not possible to provide the materials to the

whole group*".*

Moreover, it was observed that some classes with more than 200 student teachers

were allocated to the lecture halls that were too small for that number of student teachers.

Certainly, if all student teachers in that class came for lessons on a particular day, they

could not fit in that venue. One teacher educator indicated that in such cases student

teachers had to go and look for chairs somewhere so that they could squeeze themselves

somewhere in the full lecture hall. This disturbed the instructional process since there

would be a lot of noise and loss of time. This is reflected by Teacher Educator C as she

stated "Let us for example take the 210 student group, the venue itself is not large enough,

it is not conducive, the setup is like a corridor. Only the students at the front and middle

can hear". Correspondingly, Teacher Educator E expressed, "The infrastructure itself, we

lack space for those classes. Student teachers who came late remained standing and there

was no option to help them". Further, the teacher educator pointed out that lack of space for

large classes as one of the challenges student teachers faced. The fact that some student

teachers remained standing, made it difficult for them to take part comfortably in what was

taking place in class.

The minutes of the campus board meeting held on 16th March 2016 also indicated a great concern on how the lecture halls were falling apart. When the chairs get broken, they are not fixed or repaired. To make it worse, the air conditioners were not functioning. This further made the teaching and learning venues not conducive for the teacher educators and student teachers. The 2015 annual report from the Curriculum and Instructions Department also indicates that some facilities were not conducive for bigger groups like the main assembly hall, because it was not constructed for the purpose of being a lecturing venue.

English language barrier

In a follow up interview, one of the teacher educators stated that it seemed information was not getting to student teachers during lessons in large classes. This was evident because student teachers kept on asking the same question to the teacher educator individually, and also kept on doing the assignments incorrectly. Teacher Educator B felt that if the information was not getting to students, then the presentation was not effective. He also attributed this difficulty to the English language barrier. He felt that some student teachers were not proficient with English which is the medium of instruction. The thinking was, if student teachers do not understand the language well then the possibility of not understanding the instructions is probably high.

Failure to put theory into practice

Due to higher number of student teachers in large classes, it was hard for teacher educators to apply hands-on activities instructional strategies. Teacher Educator B captured this view in his statement that: "Sometimes I fail to apply theory into practice, and the students also lack practice. All they know is theory". In the same vein, Teacher Educator A stated that he lacked some skills in using alternative instructional strategies in large classes

of which he is confident to use in small classes. It was observed that, it was not even easy

for some teacher educators to move around the class especially in the assembly hall where

chairs and desks were crammed together. Even if the teacher educators wished to have

student teachers demonstrate something, the teacher educators would not see the

demonstration and vice versa.

Voice projection issues

At the time of data collection, there were no functioning microphones in all the

observed venues. Some of the lecture halls had microphones installed but they were not

functioning. There was no installed microphone in the assembly hall where 511 student

teachers were being taught by one teacher educator at the same time. This forced the

teacher educators to speak on top of their voices so that student teachers could hear them.

Teacher Educator F said "There are many instructional challenges I would say. Uhm…for

instance if you are teaching a large group, and there is no equipment like microphones, you

must talk at the top of your voice". Teacher Educator C concurred with Teacher Educator F

by saying: "In theory lessons, I scream at the top of my voice, it is very exhausting".

However, even when the teacher educator was speaking loudly, there were some occasions

when student teachers who sat at the backrows could still not hear them.

Inadequate Monitoring Capability

The University of Namibia has an attendance policy. As a result, all UNAM lecturers

including teacher educators are supposed to take attendance for every lesson. It was

observed that teacher educators who taught large classes often gave lists to the student

teachers to write down their names, and that was supposed to show who was present and

who was absent during that particular lesson. Automatically, student teachers' whose

names were not on the list were understood to have been absent. Student teachers took

advantage of the situation while the teacher educator was busy lecturing, they could write

down the names of their absent friends. It was difficult for the teacher educator to note this

irregularity while he/she would be busy teaching. However, the teacher educators would

only notice this when they were copying the names to the attendance sheet because the

number recorded was more than the actual number that was in class that particular day.

Teacher Educators E and F put this problem vividly. Teacher Educator E said:

> There is a policy on 80% attendance. Taking a record of your attendees can be a
> problem. Sometimes you give them papers to sign, then they sign for others who are
> not even present. But the policy says that you must take attendance.

While Teacher Educator F explained that:

> Contrary to the attendance policy, some students can do other things that are not
> part of what you are teaching. It is difficult to manage students' behaviour and
> attendance. Even if you give the students the attendance sheet for them to record
> themselves, they can write other students' names. The students are not honest
> enough especially in terms of the attendance register.

When student teachers lie about others being present in class, they compromise their

teaching professional ethics, since by being student teachers they are being prepared for the

teaching profession.

Inability to see what is displayed on the smartboard

Some of the teacher educators highlighted that some of their student teachers

especially the ones who sat at the back, were unable to see on the smartboards. The floor in

all the lecture and assembly halls was even and flat. Therefore it could be difficult for

student teachers at the back to see the lower lines of what was displayed on the

smartboards. Teacher Educator E indicated that, "If students have to sit at the back, they

have difficulties seeing what is displayed". During lessons observations I noticed that some

of the student teachers stood to come to sit at the front to be able to see, while others kept asking either other student teachers or the teacher educator to read what is displayed at the bottom lines. Correspondingly, from the lesson observations it became evident that in the lecture halls fitted with a second whiteboard at the centre, some student teachers who sat facing this board were unable to see the teacher educator who stood in front of the lecture hall when lecturing. It was also observed that some student teachers also pretended that they could not either see or hear what the teacher educator was saying. They used this as an excuse for not paying attention and disturbing the lessons.

The student teachers also agreed that sometimes it was sometimes difficult to understand what the teacher educator was saying because they did not hear or see from the back of those classes what the teacher educator had said and displayed. Group A, Student 7 stated: "Uhm… I have a problem of getting what the teacher educator explains. Neither do I hear, nor do I understand". Correspondingly, Group A, Student 6 said: "Our class is very big because the number of students is more than 500 and we do not get to hear and understand what the teacher educator is saying".

Additionally, the teacher educators who were also campus management members were asked to specify the instructional challenges that the teacher educators reported to them. In their capacity as managers, they concurred with the other teacher educators who reported experiencing difficulties. These views were shared with management especially during campus board meetings and also during departmental meetings. The difficulties were as follows:

- The teacher educators had difficulties in taking students' attendance.
- Some student teachers did not pay attention in large classes.

- Some student teachers just walked out of the lecture halls, while the teacher educator was lecturing.
- There was lack of enough space to accommodate large groups.
- Teacher educators also complained about lack of time to assess large number of students especially from 200 upwards.

The difficulties cited above by the teacher educators during the individual interviews were similar with what they reported to the management. The findings shows that the teacher educators appeared to experience similar challenges among themselves, while at the same time, they also experienced some differences. For example, Teacher Educators B and C felt that it was difficult to make the lesson presentation effective since they could not put theory into practice. On the other hand, Teacher Educator C indicated that she screamed at the top of her voice, an exercise which exhausted her.

The following emerged as instructional difficulties which the teacher educators faced in teaching large classes: Difficulty in dividing students into manageable groups; teaching overwhelming number of students; not knowing if the information is getting to the students; difficulty with assessment; inability to give individual attention to the students; inadequate monitoring capability; lack of interaction; voice projection issues; students moving in and out of the lecture room and inadequate resources. These findings confirm teacher educators' sentiments at HPC as they face challenges of large classes.

The findings from individual interviews with Teacher Educators D, E and F, as managers corroborated instructional challenges mentioned above. Two of the three campus management concurred with students on the problems of seeing what was displayed in front and hearing what was being said by the teacher educator. They also agreed that disruptive student teachers contributed to the challenges they face. Further challenges

identified by campus management members were lack of space for large classes, less time

to pay individual attention to student teachers and assessment challenges. Teacher

Educators D and F identified dishonesty in terms of the attendance register by the students

as another instructional challenge.

From the above, it is important to take note that some instructional challenges

experienced by student teachers were identified by both teacher educators and student

teachers such as: lack of individual attention to students, difficulty in hearing or seeing

from the back of the lecturing venue, lack of interaction and inability to ask or answer

question. However, the challenge of asking questions was explained differently by the two

groups of participants. Hence, I provide the following explanation on inability to ask

questions.

Inability to ask questions

Teacher educators have indicated that when student teachers were given a chance to

ask questions, only few of them took the opportunity to do so. The inability to ask

questions could be attributed to the fact that student teachers did not understand what was

going on in class because they sometimes could not hear or see from the back of the large

classes. As a result, they had nothing to ask or give as answers if they were asked

questions. Student teachers might not be willing to ask questions just because they were not

paying attention to what was taking place in class. At the same time, some of the focus

group discussion members indicated that for some of them it was difficult to ask questions

in large classes because they were shy and scared to be laughed at by their colleagues when

they made mistakes. Teacher Educator A acknowledged by expressing it this way, "Uhm

uhm, if you think of a student who is shy and slow, they are disadvantaged because even if

they want to ask, they seem too shy to ask questions". Correspondingly, Group B, Student

11 said, "I am very shy to ask in large classes, because I am scared to make mistakes".

Group C, Student 16 reported, "I am very shy to ask in large groups since sometimes it is

even difficult to get what the lecturer is saying". Both student teachers and teacher

educators identified a similar challenge experienced by student teachers, although they

have attributed it to different reasons.

In addition to the instructional challenges, various disciplinary problems which

interrupted teacher educators' class control strategies were also experienced. Teacher

Educators B and C have observed various disciplinary problems that disrupted the lessons

in their large classes. Several disciplinary problems which made it difficult for the teacher-

educators to take control of classes were identified as follows:

- Talking and making noise
- Students moving in and out of the venue while the teacher educator was lecturing
- Late coming
- Absenteeism
- Being busy on Facebook

On the contrary, Teacher Educator A indicated that he did not experience serious

misbehaviour as reflected here:

> Uhm… I would say students are good. I have not experienced serious disruption
> behaviour apart from students who just stand up and leave. If one has a lesson, you
> wish all the students should stay until the end of the lesson. Sometimes I end up
> ignoring those, because if I start to address them I would waste my lecturing time. I
> give them rules at the beginning of each semester.

The student teachers listed a number of disciplinary problems such as noise, student

teachers using their laptops to watch movies, late coming, and student teachers shouting at

the teacher educator after failing a test, and the use of abusive language. Additionally,

Group B: Student 12 mentioned that:

> It is very difficult for the teacher educator to handle a large class especially when it comes to students' behaviour. Some of the students sit behind and keep on talking. Some can be just using their laptops and cell phones pretending that they are reading the notes from "My Portal".

Another disruptive behaviour experienced in large classes was talking and noise making.

Teacher educators agreed that some student teachers, especially the ones who sat at the

back kept on talking instead of concentrating on the lesson. This contributed to a lot of

noise during class. Some of the noise was made by latecomers who would start pushing and

pulling chairs especially in the assembly hall where the chairs were not mounted to the

floor. In the lecture halls where chairs are static, the seated student teachers could be forced

by the situation to move and pave way for latecomers. It was also observed student teachers

kept on moving in and out of the lecturing venues throughout the lessons. This was

supported by Teacher Educator C's statement:

> The students' attitude is influenced by the fact that they are many and they know that the teacher educator does not know them. They will come in and leave as they like. It is also difficult to control them, because while I am facing the other side, they are walking out or walking in.

It could be ideal for all student teachers to remain in the lecturing venue while the lesson

was on. The fact that the students were too many in classes and the ones at the back did not

always hear what the teacher educator was saying caused some of the student teachers to be

too lazy to concentrate on what was going on in class. They tended to use their laptops and

pretended that they were using My Portal to look at their notes. During the class

observations, it was observed that some of the student teachers even watched movies

during classes. In such a situation it was difficult for the teacher educators to notice

because at times he would not manage to go around checking on the students especially in the main assembly hall where student teachers were crammed together, making it difficult to pass through.

Coping in Large Classes

In an attempt to find out how the teacher educators deal with the challenges, they were asked to identify the strategies they take in order to cope with the challenges experienced in large classes. This section deals mostly with the efforts that teacher educators, campus management members and student teachers take in order to try to cope with the challenges experienced in large classes.

Their views were grouped together in a theme "coping in large classes". Four sub-themes were identified: Benefits of large classes; Current strategies employed by teacher educators to resolve the experienced challenges; coping strategies by student teachers; recommendations to deal with order and discipline in large classes; suggested coping strategies by teacher educators in dealing with the instructional challenges in large classes and; suggested coping strategies by student teachers to deal with instructional challenges.

Benefits of large classes

Despite the various challenges experienced by the teacher educators and student teachers, a few benefits of large classes were identified. Teacher educators and student teachers perceived large classes in different ways. Group B: Student 13 said:

> Yeah, there is a benefit of being taught in large classes because students are also able to share various types of information and knowledge. You get to know much from other students. The larger the group, the more ideas we get.

Further, it was expressed by focus groups A and C that their teacher educators seemed not to mind teaching large classes. This was presented as follows by Group A

Student 3 "I think he likes teaching large classes since he is always telling students not to absent themselves from classes". In the same vein, Group C Student 16 explained that "I have observed that our lecturer has profound experience in handling large classes because she moves around the class, and also involves the students who sit at the backrows". Group C: Student 15 supported this by saying "I am supporting my classmate that our teacher educator likes to teach a large class".

However, Group B students 6 and 7 felt that their teacher educator did not like teaching a large class because when the class was too large, it was hard to give assessment tasks to the students. The common perception by the teacher educators was that the university at large benefited from large classes and not the student teachers and teacher educators in particular. For the teacher educators themselves, the benefit was that they met all student teachers at once. For example, instead of having five groups to teach the same subject at various times, the teacher educator only sees the student teachers once. This was reflected in Teacher Educator A's response:

> Uhm,…okay, it is not something that I desire in the sense that when I teach I need to engage students. Mind you, we are teaching teachers whereby we are supposed to prepare them to teach their learners in the student-centred approach. Maybe the benefit is that I cover the content within a short time. I do not see much benefit; it is only that I do not have another option. If I had my way, I could not go for large classes teaching, I would like to teach a smaller group.

Teacher Educator B also stated "Uhm…, probably, the general benefit is that the teacher educators see the students only once per week and not in individual small groups. There is not much benefit in terms of the transfer of knowledge". While Teacher Educator C stated that:

> I feel teaching large classes benefit mostly the university in the sense that we have large classes and the university does not employ more staff. It may also benefit the teacher educators in a way that instead of having five groups; I only have two hours

if the subject is allocated two hours per week to meet my 500 students. In this way, the workload for the lecturer is reduced.

In terms of how student teachers benefit from being taught in large classes, the common understanding of the teacher educators was that there was little benefit for student teachers. It is possible that the ones who sat in front of the class do benefit. However, for student teachers who sat at the back in most cases did not pay attention, and it was also difficult for the teacher educators to reach out to all the student teachers sitting at the back of the class. The teacher educators indicated that it was difficult for student teachers who were less interpersonal to process information in ways that require more time to ask about what they did not understand in large classes.

From individual interviews with some teacher educators who were management members, it was noted that lecturing in a large class group gave the teacher educator an opportunity to make an impact on a large number of people, and also not to have repetitive lessons. This was reflected in the following response by Teacher Educator E:

> Well, the benefits of teaching a large class, you will have an impact on bigger group of many people. If you are a good teacher you will actually touch many people. You will also have types of students with a lot of diverse backgrounds, views and opinions unlike in small classes where the diversity is limited. You will also have a chance to interact with many students.

However, Teacher Educator D had a contrary view on the benefits of large classes. She did not think large classes were beneficial: "Uhm…I hesitate on that question. If I make up a benefit, I would be faking it unnecessarily. I do not see any benefit of teaching a large class. What, what, what, nothing"!

As managers, Teacher Educators E and F also had different perspectives on the benefits of large classes. Teacher Educator E felt that if a teacher educator was a good teacher and was teaching a large class, such teaching would impact on many people,

generate various ideas and opinions from many student teachers, and would know and interact with many student teachers. Teacher Educator F indicated that the benefit of teaching a large group was that the teacher educator met student teachers once and there was no need for repetitive lessons. Thus Teacher Educator E and F agreed with the other teacher educators who were teaching large classes at that time.

Teacher Educators A, B, and C indicated that, there is not much benefits in teaching large classes. The teacher educators perceived that the only benefit of teaching large classes was that of seeing many students at once and covering the content within a short time for a large group rather than dividing the large group into smaller groups that would require repetitive lessons. Teacher Educator F added that it was mostly the university that benefitted by not having to employ and pay many teacher educators in this particular situation. Equally, all the three teacher educators agreed that there was not much student benefit gained from being taught in large classes. It was possible that only student teachers who sat in front of the lecture room benefitted from what the teacher educator was presenting. Reason being that in some classes student teachers at the back did not hear and see what the teacher educator was presenting and displaying.

Coping strategies employed by teacher educators

The study shows that teacher educators have tried to come up with some strategies of dealing with the challenges that they face in large classes. From individual interviews, teacher educators said that they spoke on the top of their voices, and posed some questions to encourage discussions and student participation. One of the teacher educators indicated that she tried to use large fonts for PowerPoint Presentation slides. In addition, educators also tried to split the classes into smaller groups for practical lessons. Commenting on the

efforts to resolve the instructional challenges in large classes, Teacher Educator C indicated

that:

> I try to speak at the top of my voice. Obviously, I would try to use Power Point
> Presentation to make sure that they see large fonts. I also have an open door policy
> for consultation hours. I make sure that the consultation hours are displayed on the
> door, and students are welcome to pop in as far as I am in the office. I also hope the
> practical lessons also compensate for the loss in theory lessons. We also post notes
> and practical activities on My Portal.

Student teachers concurred with their teacher educators during the focus group discussions

that their teacher educators tried to speak loudly and use bigger fonts for PowerPoint

Presentation slides. This is reflected by Group C, Student 18 that, "There are no speakers,

the teacher educator tries to speak loud, and stand in the middle of the lecture hall. She

divides us into smaller groups for practical lessons". Additionally, other group members

said that some teacher educators also tried to provide notes on My Portal. In that way

student teachers could download the notes and study to understand and follow what was

taught in class.

Coping strategies employed by student teachers

Student teachers from various focus groups agreed that in most cases they tried to

overcome the instructional challenges by sitting in front and close to the people whom they

knew were serious with learning and did not make noise. Group A Student 6 indicated, "I

try to overcome those challenges for example by asking people who sit in front in case I

did not hear something. When people are making noise I try to move to the front". Group C

Student 19 added, "I try to sit in front to avoid disturbances at the back".

Additionally, student teachers also indicated that they tried to make themselves

known by the teacher educators to avoid being lost in the sea of many faces. Group B

Student 8 said: "I try to make sure that my teacher educator knows me and my work so that

I am not just another number or face in class. Knowing that the teacher educator knows me keeps me motivated". Group B Student 10 concurred that: "Uhm…uhm, I am always proud when the teacher educator knows me, so I participate to be known and to learn". The main way through which student teachers in a large class could be known by the teacher educator was through active participation in the learning activities.

The findings clearly show that the main way in which student teachers tried to deal with the instructional challenges faced in large classes was by trying to always sit in front of the class. This helped the student teachers to avoid noise coming from the back and also to be closer to the teacher educator to hear what was being taught and to the smartboard to see what was displayed on it. From the three classes that were observed, it became evident to the researcher that some student teachers ran for the front seats. In most cases, by the time the teacher educator and the researcher got to the lecture venue, most of the front seats were already occupied. For sure this could be a solution for a certain number of student teachers, but one wonders about student teachers at the back of the classroom or lecture hall. Even when there was a possibility of a working sound system, some student teachers at the back would continue to make noise and to concentrate on other things.

Finally, student teachers made it clear that they tried to ask intriguing questions in order to keep the large classes live. Group A Student 5 said: "In order to deal with the large class challenges, I try to ask the teacher educator interesting questions. That also helped other student teachers to think quietly and divert their attention from making noise". Correspondingly, Group C Student 17 said: "I ask a lot of questions which our teacher educator asks back to the class to attract the student's attention".

Recommended strategies to deal with discipline in large classes

The interviewed teacher educators agreed that it was difficult to maintain order and discipline in large classes. Teacher Educator B said: "It is a bit difficult to maintain order and discipline in large classes. What one could do is to encourage the student teachers to listen, and also to emphasise the importance of being a good listener". Teacher Educator C concurred by indicating that somehow teacher educators should try to make their student teachers realise that they are mature and must be responsible for their own learning. According to Teacher Educator C, if the students realised that they were regarded as mature people, they could pay attention rather than spending most of the time on Facebook. Additionally, if venues were conducive, student teachers could hear and see what the teacher educator says and writes. This can help the student teachers to pay attention in class.

Additionally, Teacher Educator B indicated that he did not think that order and discipline would be maintained easily in large classes. The solution was just to split the larger groups into smaller groups. On the other hand, Teacher Educator A mentioned that he normally agreed with student teachers on some ground rules and the student teachers seem to be comfortable with the rules. The teacher educators were also asked to indicate what they think should be done in addition to what is already being done to solve the instructional challenges faced in large classes. This is presented in the following section.

Suggested strategies from teacher educators

Teacher Educators A and C suggested that the university management should try to employ more lecturers in order to reduce the size of large classes. They believe that employing more lecturers would help. However, Teacher Educator B suggested that the

university management should look at the curriculum and allocate more lecturing hours per

week to the large classes. This is clearly reflected in his response:

> I do not see why some subjects should have one or two hours per week, while
> somebody teaching 30 students and can have six lectures per week. If Maths for
> example has six lectures per week for thirty students, it can also be done for IMTE,
> and other large classes.

Suggested strategies from student teachers

The student teachers suggested the following strategies:

- Employ more teacher educators to divide the large classes into smaller groups
- Install the loud speakers where they are not installed, and make sure that the installed speakers are functional
- Build more purpose learning classrooms
- Training on large classes teaching during pre-service teacher training
- Provide more printed copies of learning materials for the student teachers

However, another student indicated that there seemed to be vacant posts available and

observed that Namibians were not willing to study and qualify for the posts, hence, not

many teacher educators were employed.

Teacher Training Curriculum

The suggestion from student teachers on teacher training curriculum stands out more

since student teachers emphasised it and the whole study revolves around teacher training.

Different people define the term curriculum in different ways. For some it means a

syllabus, for others it refers to a timetable or a program of study. In this study, the

curriculum refers to the content of the teacher training programme and the way it is

delivered. From the interviews with the teacher educators and the analysis of the

documents, it became clear that the current pre service teacher education curriculum does

not train student teachers specifically for teaching large classes. The teacher educators have

also indicated that they were not trained specifically to teach large classes during their pre-

service training. However, all the interviewed teacher educators are qualified teacher.

Teacher Educator A stated that:

> I was never trained to teach large classes. My training focused on teaching at
> secondary level. I also do not think that there is need to train student teachers
> specifically for teaching large classes. There is need for teacher educators to come
> together and share their experiences on the successes and challenges of teaching
> large classes. The most important thing to do is to provide all the resources
> necessary in handling large classes like desks and mobile speakers.

Teacher Educator B said:

> I was never trained to teach large classes. I do not believe that teacher education
> should train teachers specifically in huge classes if teaching is regarded as a
> profession. We need to look at the development of each student teacher to become a
> full grown and confident teacher in all aspects of education.

Furthermore, Teacher Educator C indicated that: "I was not trained to teach large classes

during my teacher training, but the emphasis was on how to get maximum participation of

the students. The most important factor for me is the availability of resources like

microphones". Furthermore, Teacher Educator E pointed out that: "The teacher educators

at HPC are well qualified and experienced in teaching. It is just a matter of time for them to

get used to teaching large classes. The management needs to understand, and support

them".

On one hand, it can be inferred from the above that the teacher educators felt that not being

trained in handling large classes is not a serious matter of concern as long as they know

what to do in order to engage the student teachers in these large classes in the learning

activities. However, they felt the need to share experiences with other teacher educators

who teach large classes. The participants identified that lack of resources is the main

hindrance in teaching large classes. On the other hand, student teachers felt differently

about teacher training. They felt that teacher educators need to be trained on how to deal

with large classes during their pre-service teacher training as Group A, Student 3 indicated:

> I think it is necessary for the teacher educators to be trained during their teacher training programmes, because some of them have a hard time handling large classes. Some teacher educators do not engage all students in the lessons: and they mostly concentrate on the students who sit in front. I also think that it is necessary for us to be trained in teaching large classes because we might experience such situations during our teaching careers.

Group B Student 2 stated that she felt that it is necessary for teacher educators to be trained

during their pre-service teacher training on how to manage large classes because it can

assist the teacher educators in knowing the types of learning activities that they can give to

the students in large classes. Furthermore, Group C Student 3 said that: "It is better to train

teacher educators how to teach large classes especially in terms of choosing the appropriate

teaching methods and strategies". Furthermore, Group C: Student 4 pointed out:

> Student teachers are the foundation of quality education. It is good if they get trained on how to deal with big classes. Some of them might find themselves teaching in villages where there is a lack of schools, and there are many learners in one class. They need the techniques that will help them to deal with large classes in the future.

The results revealed that teacher educators and student teachers held different views about

pre-service teacher training on large classes. The teacher educators on one hand felt that it

is important for them to be trained during pre-service training on how to engage all

students in the teaching and learning process and not specifically on large classes. They felt

that teacher educators need to share their experiences on large classes with each other in

order to learn. On the other hand, the student teachers felt that all teacher educators should

be trained about dealing with large classes during their pre-service training programmes.

Furthermore, the student teachers also felt that they (student teachers) should also be

trained on how to deal with large classes during their pre-service training.

Suggested strategies from campus management teacher educators

These are some of the suggestions that were presented by campus management team

- Training on large classes assessment
- Using technology to give lectures
- Placing some learning materials online in order to save time and allow students the opportunity to prepare before coming to class
- Using and encouraging peer tutoring

Minimal Administrative Support Given to Teacher Educators

All teacher educators agreed that minimal assistance was provided to them by the campus management. However, management tried to install facilities in the lecture halls for example, smartboards, pull down screens in between the lecture halls to assist the student teachers who sat at the back. However, the teacher educators who lecture from the main assembly hall had difficulties with the echo. Teacher Educator A said: "I have asked for a loudspeaker for the hall, up to now it is not installed. Sometimes the management is not keen on installing the facilities in places such as the venue I lecture from, the assembly hall since it is not deemed as a permanent lecturing venue".

This is also reflected by Teacher Educator B:

> Uhm… very less in fact… They have promised to install sound speakers but they have not yet done anything. We have a dining hall that is turned into a type of a lecture hall. It is just a flat floor hall and it makes it difficult for the students at the back to hear a lecturer speaking in front.

Sharing the same view as the above, one teacher educator also indicated that campus management tried to assist teacher educators by providing them with individual computers to be able to prepare PPP slides. The student teachers concurred that campus management did something but not much in helping them deal with the instructional challenges that they

face in large classes. This was reflected in the following verbatim by Group A Student 2:

"The campus management is not doing much since most of us do not even know where to

go. When we go and report the challenges to the SRC, they keep on saying that they will

come back to us". Group B Student 9 expressed: "We do not really know because we have

not reported anything to them". Likewise, Group A Student 6 answered that: "During the

student lecturer forum, when we informed the teacher educators about large classes'

problems, they have not acted on the problems yet".

In order to find out closely what the management did to deal with the instructional

difficulties, the management team was asked to specify what they actually did to help out

in the challenges during individual interviews. The management indicated that they had

considered the need for space in the strategic plan. As a result, a more proper lecture hall

was under construction. In addition, one of the management members shared tips on how to

handle large classes during a sharing session in order to assist fellow teacher educators who

teach large classes. Further, the campus managers have identified different ways through

which they think they can assist the teacher educators who teach large classes. Teacher

Educator E stated:

> Uhm… well, I know that we try to address the visual difficulties; we have provided
> them with projectors. We are also building a more proper lecture hall with a well-
> equipped sound system. There was a sharing session just to share experiences and
> good practices. I have also shared tips on how to handle large classes from a paper
> that I wrote.

Another manager added that the management tried to install pull down screens in the

middle of some lecture halls in addition to the ones that were in front in order to cater for

the student teachers at the back. However, one campus management member, Teacher

Educator E said, "In terms of psychosocial support, I do not think that the management

perceives this as a problem. The teacher educators have just to adapt to the situation of

being university lecturers".

Equally, the minutes of the Campus Board Meeting held on the 27th February 2015 also

specified a plan to install sound speaker system in the main hall. However, when data was

collected from August to November 2015, there was no sound system installed in the main

assembly hall.

Summary

       This chapter has presented and analysed data emanating from the interviews, focus

group discussions, document analysis and observation of large classes at HPC. From

interviews with individual teacher educators and campus management members, various

interpretations of the term large classes were noted. It also became evident that different

teacher educators used a mixture of various teaching approaches in their classes, namely:

student-centred, teacher-centred and subject-centred approaches. However, the most used

approach is teacher-centred approach. The analysis of the data also showed that teacher

educators used various instructional strategies in large classes.

       Worth noting is the finding that online discussion was only used by one teacher

educator as an educational technology forum. The commonly used instructional strategy is

the lecture method which is a teacher-centred instructional approach. Also classroom

activities that students engage in that eventually correlated with the instructional strategies

and included: Group activities, group presentations, brainstorming activities, class

discussions and speaking activities, writing activities, tests, quizzes, oral questions and

answer activities.

       It emerged that both teacher educators and student teachers experienced various

instructional and disciplinary challenges in large classes; and this had an impact on

classroom management and control. The instructional challenges experienced include:

Inability to give attention to individual students; limited use of instructional strategies;

difficulty of dividing students into manageable groups; lack of space for large classes;

inability to make the presentation effective; failure to put theory into practice; voice

projection issues; lack of resources; inadequate monitoring capabilities and; assessment

challenges. Challenges experienced by student teachers in large classes included: Lack of

individual attention given to students; lack of interaction opportunity with the teacher

educator; lack of understanding and; inability to ask questions during the lessons. All these

show that teaching a large class can be challenging.

      The teacher educators and student teachers tried in their own ways to deal with the

challenges whenever they could. However, they indicated that campus management

provided them with minimal support. Teacher educators, including campus management

members and student teachers had various recommendations such as that the UNAM

needed to employ more lecturers; there was need for installation of speakers in the lecture

halls; teacher educators need to be trained on large classes' assessment and there was need

for use of technology to give lectures. The chapter that follows synthesises the findings,

and offers recommendations as well as conclusions for the study.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter is a synthesis of the research findings in relation to the reviewed literature and the theoretical framework that guided the study. The aim of this study was to investigate how teacher educators facilitate the teaching and learning process in large classes. Further, the study sought to find out the instructional difficulties experienced by teacher educators and student teachers in large classes, so as to find ways through which they could be addressed. Finally, the chapter offers recommendations for practice, policy and research.

Findings of the Study

The overall finding of the study is that large classes pose various instructional challenges for teacher educators as well as student teachers. Teacher educators are unable to implement constructivist teaching approaches in classes, and this challenge impacts negatively on the nature of assessment tasks assigned to student teachers. The study also revealed that due to the large number of student teachers per class, teacher educators are not able to give feedback in a meaningful way to each and every student teacher. The next section is the discussion of findings under the main themes.

Conception of Large Classes

The study established that the student teachers and teacher educators' interpretation of the term large classes varied depending on the number of students in the classes and the individual experiences. For instance one teacher educator interpreted large classes as large

because it was difficult for him to use methods such as group discussions and individual

presentations; and the fact that he is not able to recognise all the faces of his students in

class, as there were too many students. Another teacher educator felt that large classes

typically have more than 100 students. Further, it was identified that large classes are those

with more than 150 students because at that point specific instructional strategies are

required to reach the individual students. One student teacher interpreted large classes as

those with more than 500 students, and they do not get to hear what the lecturer is saying. It

is apparent that the various interpretations of the term large classes are based on different

reasons such as the number of students, the teaching challenges encountered and student

teachers' experiences in such classes.

Student teachers and teacher educators' interpretations correspond with the studies

by Buchanan and Rogers (1990), Saejew (2013) and Exeter et al. (2010). The three studies

interpreted the term 'large classes' in different ways depending on various contexts and the

number of students. Buchanan and Rogers (1990) described large classes as classes that

have 80 students or more because at this point traditional teaching approaches are no longer

workable and one needs to find new instructional strategies to respond to the large number

of students. Saejew (2013) interpreted large classes as classes that have more than 600

students, since it is difficult for the lecturer to know their students and it causes difficulty in

student management. Exeter et al. (2010) interpreted large classes as any first year course

that has 550 or more students because at that level active learning and interaction are

highly compromised. Sharing the same view, Machika et al. (2014) stated that from the

studies conducted internationally, large classes comprise the number of students ranging

from 150-300.

Large Classes Hinder the Implementation of Constructivist Instructional Approaches and Strategies

Instructional approach refers to people's viewpoints, ideas and beliefs towards teaching. The study established that teacher educators mostly employed the teacher centred approach in the delivery of their lessons. However, the student centred approach and the subject centred approach were also seldom used. There are various constructivist instructional strategies used in large classes reviewed in the literature. These strategies include: team teaching (Tice et al., 2005; Hanuch et al., 2009; Carpenter et al., 2006; Yanamandrun & Noble, 2006), peer tutoring (Nakabugo et al., 2007; Hall et al., 2010; Kibble, 2009 and Hurley et al., 2003), role play (Battacharjee et al., 2013; Moss, 2000;Sirisrimangkorn et al., 2013) and case study teaching method (Shaban et al., 2005; Barkley et al., 2005; Boubuka et al., 2008 & Moorehouse, 2012). At the time data for this study were collected, none of these strategies were used in large classes at HPC. The few active instructional strategies used at HPC were group work and class discussions. There were other ways through which teacher educators facilitated the teaching and learning processes such as tutorials, brainstorming and technology aided instructions.

In this study, the most commonly used teaching approach in large classes was teacher-centred teaching approach. Yuen and Hau (2006) found that the teacher-centred approach made it possible for more materials to be covered. Other instructional strategies used included group work, and whole class discussion. In this study, the most commonly used instructional strategy was the lecture method coupled with Power Point Presentation

(PPP) slides. According to teacher educators, the reasons for using the lecture method were its suitability for large number of students, and also, it is easy to cover extensive content.

The finding that the lecture method was the most frequently used instructional strategy by the teacher educators is aligned with the studies that found the lecture method as the most used instructional method in university classes (Bughio, 2013; Saleh et al., 2012; Machener & Crawford, 2007 ; Moodley, 2015;Taylor et al, 2012 & Kang'ethe (2015)). It is clear that the five countries in which Bughio, Saleh et al, Machener and Crawford, Kang'ethe and Taylor et al.'s studies were conducted differ in their development status. Iraq, Pakistan and South Africa are still considered developing while New Zealand and USA are developed countries. This shows that the lecture method is used widely worldwide irrespective of the countries' development status. It is important to note that the lecture method is not always ineffective as it has advantages. Some of the advantages of the lecture method are that it permits the dissemination of all the information that the teacher has mastered on the specific subject; it complements certain individual learning strategies; it is an efficient way of introducing new topics; it helps to integrate and synthesise a large body of information; a great deal of information can be shared within a short period and it can be used to teach groups of any size (Charlton, 2006: Brown & Monogue, 2001 and Noel, Daniels, & Martins, 2015). However, the lecture method has been found to be disadvantageous in the following ways:

- it is not well suited for teaching critical thinking skills such as application, analysis, synthesis and evaluation,
- if not properly used, it can lead to boredom,
- it does not meet all students' individual learning needs,
- it puts learners in a passive role (Charlton, 2006 & Noel et al. 2015).

Whenever the lecture method is used in conjunction with other interactive instructional strategies, it can be effective (Shaban & Okebukola , 2005; and Kochlar, 2000). Even though the lecture method was the most used at HPC, this is not the case in other universities that have large classes according to the studies conducted by Rieg and Wilson (2009) and Exeter, Ameratunga, Ratima, Morton, Dickson, Hsu and Jackson (2010). These studies established that in teacher preparation programmes, the lecture was not the most frequently used instructional strategy. Rieg and Wilson (2009) carried out a study at two universities in the United States and found that teacher educators used mostly small group discussions and brainstorming since they considered them to be effective for future teachers while the lecture method was the least used. The study by Exeter, Ameratunga, Ratima, Morton, Dickson, Hsu and Jackson (2010) which was carried out at the University of Auckland in New Zealand showed that the techniques commonly used in small classes such as, problem based learning and small group discussions were often used in these large classes. It is important to take note of the fact that the number of students and the resources available in large classes in the USA and New Zealand might not be the same in large classes in developing countries like Namibia, hence the possibility of the difference in the instructional strategies.

The results of the current study showed that the teacher educators sometimes used group work as an instructional strategy though not as often as the lecture method. The main reason for using group work was for the student teachers to learn, share ideas and assist each other, and also to lessen assessment tasks of marking or evaluating individual work for teacher educators. These reasons corresponds with Hogan and Daniel (2012), Huerta (2007), and Bamba (2012) who pointed out that small group activities provide students with an opportunity to learn from one another. They also asserted that group work reduces

students' boredom while improving their social skills. In this study, student teachers were

encouraged to take turns to add to the ideas under discussion through group work. Student

teachers appreciated the chances to interact and learn from each other since they appeared

to interact more in small groups than in the large class. Student teachers were also more

comfortable to ask each other questions in smaller groups rather than in large class. Student

teachers identified the benefit of sharing and learning different ideas from each other

because a large number of students may have different views. Sharing ideas and interaction

with peers is regarded as a good way to enhance teaching and learning in large classes

(Machika et al., 2014). Subsequently, if the student teachers are trained to work together,

they can instil the same cooperation in their learners when they start working.

  Contrary to using group work successfully in large classes, one teacher educator

complained that he found it hard to divide students into manageable groups because the

numbers were too high and it was time consuming to get the group members on their tasks

unlike in smaller classes. This finding partly matches with that of Nakabugo (2007) and

Yelkpiere (2012) who found that the lecturers and teachers in their studies experienced

challenges in managing group work in their classes due to the large number of students

which made it difficult for teachers to move around and monitor group work. Furthermore,

the teacher educator also indicated that he was comfortable dividing students into groups in

smaller classes and not in large classes. A similar point was made by McKeachie (1990)

and Mulryan-Kyne (2010) that small classes allow for more contact between the students

and the teacher or lecturer.

  A number of group work approaches were identified and observed in this study.

These approaches included students' group presentations, group discussions and team-

based learning. Group work can be considered effective when the students know exactly

what is expected of them. The study established that at times teacher educators managed to

supervise group work effectively, while in other instances it was difficult to monitor the

students' group work due to noise from the groups and limited space to move around and

reach various groups. However, it is important for teacher educators to monitor student

teachers when they are in groups, and not to leave the students unattended. When students

are not given the opportunity to work in well organised and well guided groups, then it is

not beneficial for them. This is in line with the results of the studies by Martinez et al. (

2013); Kajander (2006); Huerta (2007) and Basorun, (2013) which show that collaborative

learning through group work in large classes contributes to better understanding of the

subject content and encourages students to be actively involved in the learning process. The

study revealed that the dominant teaching approach was the teacher-centred approach.

It also emerged that one instructional challenge that participants face in large

classes is the inability to make class presentations very effective. This challenge is also

related to the fact that teacher educators are forced by the large class situation to use mostly

the lecture method which is teacher centred. This finding is consistent with those of

Teaching Large Classes Australian Universities Teaching Committee (AUTC) Project

(2002) by the University of Queensland, Saleh et al. (2012), Banhshal (2013) and

Kang'ethe (2015) findings where teachers and lecturers had a challenge of using mostly the

teacher-centred approach in their large classes. Teachers found it difficult to vary their

presentation strategies. Using one instructional strategy is not in line with the constructivist

theory. According to the social constructivist theory of learning, teachers are supposed to

know their students well enough in order to cater for their various learning needs through

the use of different instructional strategies. Teachers should facilitate the teaching and

learning process according to the students' zone of proximal development (Vygotsky,

1978). This implies that teacher educators need to pay attention to student teachers'

readiness which encompasses their knowledge, understanding and skills. The student

teachers' varied learning needs cannot be addressed through one instructional strategy.

The study further revealed that class discussion or whole group discussion is an

instructional strategy that helps all students to develop analytical and critical thinking skills

through discussions. Through this instructional strategy the teacher educator introduces the

topic and controls the discussion while student teachers respond to or ask questions

(Shartiely, 2013). The study established that class discussion has been used as an

instructional strategy in Classes B and C. Student teachers could be given a chance to

discuss a topic in pairs or in a small group first, and then share their ideas with the whole

class for further discussion. It was learnt that during class discussions not all the student

teachers were involved especially student teachers at the back rows.

It was observed that class discussion instructional strategy benefitted student

teachers more when they were first divided into smaller groups and asked to present back

to the whole class. On the contrary, when the teacher educators just asked the whole class

questions especially when brainstorming different ideas, few students participated. It could

have been welcomed if the majority of the students could participate in the class

discussions. In support of class discussion, Saleh et al. (2012) and Exeter et al. (2010) have

identified student participation in whole class discussion in large medical classes as one of

the positive aspects of the current teaching system in Iraq and New Zealand respectively.

Large Classes Impact Negatively on the Types of Learning Activities, Assessment Tasks Assigned and Ways of Giving Feedback to Student Teachers

This study has established that the following learning activities were used in large

classes: question- and- answer sessions, brainstorming, group work activities such as group

assignments, group discussions and group presentations, quizzes and tests. The learning

activities used were found to be compatible with the instructional strategies used by the

teacher educators. For instance through using the group discussion instructional strategy,

the learning activity for students would be discussion of a given topic in small groups.

Chen (2005) and Yazedjian et al. (2007) found out that dividing students into small

groups saved time and ensured that activities were completed. Further, it also allows

teachers to concentrate on small number of groups rather than focusing on several

individuals. Similarly, question- and-answer sessions and brainstorming activities could be

used as part and parcel of the whole class discussion as instructional strategy. In this study,

teacher educators sometimes used brainstorming at the beginning of the lecture and also

during group discussions. The brainstorming strategy was more successfully used within

small groups rather than when it was done throughout the whole class. When brainstorming

was used in the whole classes, many student teachers tended not to contribute to the

activity. Most of the literature reviewed did not show the use of brainstorming except Rieg

and Wilson (2009) who reported that brainstorming and small group discussions have been

the most frequently used instructional strategies at two higher institutions of learning in the

USA. Brainstorming has also been perceived as one of the most effective strategies at those

institutions.

From lesson observations, it became evident that whenever possible, some of the

teacher educators sometimes employed the Five E Instructional model in teaching their

large classes. The Five E Instructional model has five constructs: engage, explore, explain,

elaborate and evaluate. Teacher educators let the students think freely without intimidation

(exploration), and listen to each other and explain answers to each other especially when

doing group work (explanation). In some classes, students enjoyed giving answers on

practical activities, and volunteered to ask questions when teacher educators were providing feedback (elaboration). This shows that whenever it was possible, teacher educators tried their level best to vary the ways student teachers worked on activities. This was done by encouraging student teachers to work collaboratively by answering questions or by preparing group activities to solve given problems.

It was apparent from the findings that assessment in large classes at HPC took place in the form of giving student teachers projects, tests, assignments, online discussion activities and practical activities. However, when tests were given, some teacher educators were tempted to ask only short objective questions in order to make the marking process easier. This is in line with Opolot-Okurut, Nakabugo & Masemba-Ssebbunga (2007) finding that teachers in Uganda gave little work to students in order to make marking easy. However, in such a process some students may end up performing poorly since only one type of questions is availed to them. Students also felt that the individual student progress was not well taken care of due to many group assessment tasks. This finding agrees with Asale (2014) who found that it was difficult for the teachers to know and distinguish the individual potential and performance of their students. Further, some classes were not given any assignments instead, only tests were given to contribute to continuous assessment marks. Asale (2014), Jimakorn and Singhasiri (2006), Hasan (2002) and Yelkpiere (2012) also identified the challenge that it was difficult to give other assessment activities in large classes apart from tests and examinations. However, assignments are also important as tests because they give students a chance to apply what they have learned at their own paces. Hence, student teachers felt the need to be given also assignments. It is very important for the teacher educators to maintain a connection between instructions and assessment, because the results could direct the instructional strategies used (Huba &

Freed, 2000; Nicol & MacFarlame-Dick, 2006). Assessment in general aims at finding out

what the students have learned which could in turn inform the teacher educator's

teaching/instructional strategies would need to be adopted.

With regards to feedback, this study has revealed that it was mostly provided in the

form of giving marks to student teachers after they have written tests or quizzes.

Sometimes the answers were discussed in class. Further, it was apparent that feedback was

provided during tutorials. Tutorials took place in the form of consultation hours by the

teacher educators with the student teachers as explained in chapter 4.

Ideally, tutorials are supposed to be conducted by tutors or teaching assistants

though sometimes teacher educators can also be present. At HPC, teacher educators

conducted these extra help sessions themselves in addition to their teaching and marking

loads. Also, practical lessons scheduled within the university timetable were conducted by

the teacher educators themselves. This result contradicts Menard et al. (2015) and Chan et

al. (2012) findings. In their studies conducted in Canada and England, these researchers

found that tutorials were conducted by tutors and teacher assistants in order to help out the

instructors or lecturers who were teaching large classes. There is a difference in practice

with the current study; tutorials were conducted by the teacher educators themselves

without tutors or teacher assistants to help them. One could argue that at least the teacher

educators with large classes need to be assigned tutors or teacher assistants to help them

either with the practical lessons or with the tutorials.

Use of Educational Technology Serves Large Classes Better

Technology aided instruction involves a broad variety of software/hardware that

can complement the classroom learning environment to engage the students in the

teaching-learning process. The findings of this study revealed that all the participants who were teaching large classes at the time of data collection used My Portal as a technology aided instructional strategy. My Portal was viewed as a fast and useful communication tool. The advantage of using My Portal was that student teachers could access their notes, assignments and marks as posted by their teacher educators, at their own convenient times. The use of My Portal is in line with the use of Blackboard that allows professors to post documents for students (Hanover Research, 2010; and Grojean et al., 2007). However, there are differences in the use of My Portal and Blackboard. My Portal only allows the posting of materials whether notes, assignments, grades, memos etc, but there is no chance of interaction among the student teachers or between the student teachers and the teacher educator as it is available through the use of Blackboard. Grojean et al. (2007) found that Blackboard was used for group discussions, and students submitted their assignments through Blackboard. Blackboard offers interaction opportunities, unlike My Portal.

The use of My Portal was deemed very helpful by student teachers and teacher educators. The posting of notes on My Portal alleviated the pressure of taking notes during lessons. As a result, the student teachers who had access to My Portal could pay attention during the lectures. However, some student teachers had a problem accessing My Portal due to lack of adequate computers on campus. Similarly, other student teachers did not own laptops and that made it difficult for them to access My Portal at a convenient time. Some student teachers also misused the use of My Portal. They pretended to use their laptops to follow notes on My Portal while in reality they were busy watching movies or being on Facebook during the lessons.

Regarding online discussion, this study established that only one of the teacher educators used online discussions as a mode of instruction. The teacher educator and the

student teachers used the online discussion platform to interact, share resources, ask and

answer questions, and to load and download assignments. This practice could be attributed

to the fact that the course/module itself involved technology. In this case, the teacher

educator has the technological know-how and use online discussions to the maximum in

this regard. Online discussion added value to the teaching and learning process by making

it possible for the student teachers to interact with each other and with their teacher

educator. However, the use of online discussion was faced with its own challenges such as

lack of computers, smartphones and data. Some students lacked interest in online

discussion because it is only used in one subject. There were network issues also because

sometimes the network is very slow and that interrupts the discussions. It was also found

out that the other teacher educators could only use the PowerPoint Presentations,

smartboards and post notes and memos on My Portal for students' ease of access. Yang

(2008) and Exeter et al. (2010) pointed out that online discussion is an effective strategy for

engaging students in large classes' discussions. Hence, if all the teacher educators teaching

large classes could involve their students in online discussions, it could improve the

interaction among the student teachers themselves and between the student teachers and the

teacher educators.

Large Classes Impact Negatively on Classroom Management and Control

The results of the study indicated that teacher educators and student teachers

experience various instructional difficulties in large classes. This is in line with Bughio's

(2013) finding that large classes cause various problems for both teacher educators and

student teachers (Bughio, 2013). These challenges lead to difficulties in managing and

controlling large classes. Hence, teacher educators and student teachers research

participants at HPC identified a number of instructional challenges that they experience in

large classes. Teacher educators also confirmed that the challenges experienced by the

student teachers affect them. The instructional challenges of teaching large classes as

identified by teacher educators included: inability to give individual attention to the

students, inadequate monitoring capability, lack of interaction, inadequate resources, voice

projection issues, inability to make class presentations effective, limited use of instructional

strategies, assessment challenges, and disruption of the lessons.

   This study revealed that teacher educators found it challenging to give individual

attention to students in large classes. The bigger the class is, the more diverse the student

population. This means that there would be students with various learning needs and

capabilities which need to be noted and addressed. Large classes however made it almost

impossible to identify these needs and help the student teachers accordingly with the result

that the learning process was affected negatively. This finding resonates with Al-Jarf

(2006), Jimakorn & Singhasiri (2006), Bahanshal (2013) and Machika et al. (2014)

findings that students found it difficult to participate in the large classes since no attention

was given to them individually. This led to dissatisfaction among student teachers

especially the slow ones who needed more attention from the teacher educators. Sometimes

these disappointed students can withdraw from the whole teaching-learning process. In this

study, student teachers especially the ones who do not sit in front showed dissatisfaction

due to lack of individual attention from the teacher educators. Hence, they opted to make

noise and not pay attention during class sessions. This dissatisfaction manifested itself in

the way that the student teachers were doing other things not related to the lessons such as

being on their phones chatting and using their laptops for non- educational purposes.

Similarly, Mgeni (2013) reveals that the lecturers who taught large classes at the University

of Arusha perceived these two challenges: getting students to participate, and getting

students to pay attention. When the students are not paying attention then it is difficult for

the teaching and learning process to be effective.

Depriving individual attention to students for whatever reason is not in line with

the framework of the social constructivist approach. The uniqueness of each individual

student is highly acknowledged in the constructivist pedagogy (Richardson, 2003; Brooks

& Brooks, 1993). However, this study finding showed that teacher educators had a hard

time providing individual attention to student teachers. Hence, it can be detrimental when

students are not participating due to lack of individual attention. Through the provision of

individual attention, teacher educators could also be able to know their students' strengths

and weaknesses in order to provide them with the activities that are within their zones of

proximal development (Vygotsky, 1978). Furthermore, limited individual attention to the

students also refutes Straits (2007)'s results that Caillet (pseudonym) was found to be a

caring instructor who provided individual attention to students in her large class. She took

time to know the individual students and their various learning needs. Strauss (2007) shows

that it is possible to provide individual attention to students in large classes. However, this

was not found to be the case in this study.

Some student teachers revealed that they were uncomfortable asking questions in

large classes due to shyness. This finding is also supported by Yelkpiere et al. (2012) and

Bughio (2013) findings that shy students are unable to ask questions in large classes. It can

be argued that the shy student teachers might feel threatened by the large number of other

students and that is why they end up keeping quiet though they might be in need of some

clarifications from the teacher educator. This finding is in contrast with the constructivist 's

ideas because under constructivism theory, the students should express themselves freely

and the teacher educator is supposed to encourage student inquiry by asking thoughtful questions and by encouraging students to ask questions (Brooks and Brooks, 1993 & Holt Reynolds, 1998). Being able to ask questions in class is an important and valued aspect of the teaching-learning process (Straits, 2007).

This study further revealed that inadequate monitoring capability was another challenge faced by teacher educators. Teacher educators had a hard time taking lecture attendance, and at some points student teachers cheated by registering their absent classmates' names as present. This concurs with findings by Iipinge (2013) and Chikoko (2015) that the lecturers at a South African University and the University of Namibia main campus were experiencing similar challenges in enforcing lecture attendance in large classes. Kang'ethe (2015) even went further to point out that some students would also forget to sign because the attendance register had not reached where they sat. However, lecturers at a South African university emphasised that taking attendance in a large class was pointless and unenforceable. In this study on the other hand, teacher educators are required by UNAM policy to take attendance no matter how big or small the class is. Lecture attendance is considered to count towards the student teachers continuous assessment marks especially when the final marks are found to be at the borderline (University of Namibia, 2010). In such cases ,80% attendance record would qualify the student to have a mark or two to be added so that they could cross-over and pass. The researcher is of the view that being able to take attendance is important in showing the students that the teacher educator is monitoring their attendance since some of them tend not to come to class at all. The implication for taking attendance is that when student teachers know that class attendance is enforced, it can motivate them to attend classes as much as possible.

Another instructional challenge identified in this study was lack of interaction between teacher educators and student teachers due to a large number of students in classes. This finding is in line with results from studies by, The University of Queenland (2001), Al-Jarf (2006) Tomas et al. (2011), Taylor et al. (2012), Yelkpiere et al. (2012) , Saejew (2013) and Kang'the (2015) who noted that it was difficult for interaction between lecturers and students, and offering assistance became difficult. Interaction between the teacher and students is important for a favourable learning environment. Again, Kajander (2006) found that students were experiencing lack of interaction among themselves and with the teachers, before the introduction of specific strategies for large Mathematics classes. Contrary to this finding, Martinez and Ferguson (2013) & Exeter et al. (2010) found that there was a notable interaction between the students and their course coordinators or teachers. Student engagement in large classes was motivated by the interaction with their teachers.

Furthermore, this study showed that the available resources did not match the number of students in large classes. These included chairs, tables, microphones/sound systems, computers, hand-outs as well as lack of space. Due to shortage of furniture, at the beginning of a lecture, students moved around looking for chairs in other rooms to use them in their lecture venues. Similarly, not all the students were able to access the computers whenever they needed to because they were not enough. It emerged from the study that it is very difficult for the teacher educator to get the information to the students in the main assembly hall where there is a sound echo problem when there is no microphone available. The implications of lack of sound systems is that it leads to student teachers not being able to hear and follow what is being said by the teacher educator. Therefore it is difficult for the students to participate and pay attention in such an

environment. Similar findings were observed by Renauld et al. (2007), Denis (2009),

Yelkpiere et al. (2012), Saleh et al. (2012), Bamba (2012) and Saejew (2013). In these

studies, it was found out that lecturers and teachers experienced lack of infrastructure,

materials and facilities necessary for effective teaching and learning process. Therefore the

lecturers could not have enough materials for individual students.

It emanated from this study that lack of resources such as sound systems and

microphones led to another challenge of teacher educators screaming at the top of their

voices. Similar findings were also made by Hasan (2012), Bughio (2013), Thomas et al.

(2011) and Bahanshal (2013). Hasan (2012) conducted a study on effective teaching in

large classes at the University of Babylon, Iraq. He found out that teachers who were

teaching large classes spoke loudly and were often exhausted after class. Bahanshal (2013)

and Thomas et al. (2011) found out that Saudi Arabian secondary school teachers and

lecturers who were teaching at the Malaysian private universities who taught large classes

were mentally and physically exhausted due to too much pressure from the diversity among

students. Bughio (2013) found that lecturers who taught classes with many students at a

university in Pakistan struggled to reach out to the students with the volume of their voices

by making it audible to the students when there were no microphones. Speaking unwarily

can exhaust a teacher educator. When the teacher educators are physically weary, it can be

challenging for them to facilitate the teaching and learning process effectively. Surely, no

student teacher would like to learn from a teacher educator who is so exhausted up to the

stage of not being able to deliver the pedagogical content.

This study further revealed that student teachers who sit at the back in large classes

had a hard time seeing what was displayed on the white and/or smartboard. This finding

resonates with that of Yelkpiere et al. (2012) and Al-Jarf (2007) that one of the

instructional challenges faced by the students was the inability to read writings from the

board especially by the students who sit at the back rows at the University of Ghana and

King Saudi University in Saudi Arabia respectively. This challenge is closely related to the

difficulty of not being able to hear each other in large classes. The implication for this

challenge can be detrimental to the teaching-learning process because some of the student

teachers cannot contribute to the class discussions since they cannot see or hear what is

happening. In the current study, the poor visibility of the presentation added to the student

teachers' feeling that the class was not a meaningful experience (Machika et al., 2014). The

interpersonal dialogue between student teachers and the teacher educators as well as among

the student teachers was also negatively affected.

Assessment challenges fall under the feedback and evaluation category (Bughio,

2013). The results of this study also revealed that teacher educators and student teachers

experienced various assessment challenges. The teacher educators indicated that at times

they could be tempted to ask only short objective questions to make the marking process

easy to facilitate. This is consistent with the AUCT Project (2002) and Cuseo (2007)

finding that participants indicated that it was difficult to devise authentic assessment tasks

and large class size limits the breadth and depth of course assignments. The study results

also showed that students felt that individual progress was not taken into consideration

because in most cases they were given group assessment tasks. When individual activities

were assigned to students, it was reported that it became time consuming and difficult to

mark a high number of scripts. Other researchers also pointed out that marking becomes

more formal, difficult to check and time consuming in large classes (Yelkpiere et al., 2012;

Al-Jarf , 2006; the AUCT Project, 2002, Foley & Masingila, 2013). In contrast, two

student teachers in Cakmac (2009) study who indicated that class size did not influence the

assessment and evaluation process at the Gazi University in Turkey. However their teacher educators felt differently and stated that the larger the class, the more difficult it was to assess and provide effective feedback to the students.

Furthermore, another assessment challenge related to marking discovered in this study was that there were some cases when the teacher educator only gave tests as assessment tasks, and no assignments given. Student teachers felt that this was very unfair and expected assessment tasks to be varied because writing tests can be very stressful. I also feel that assessment tasks need to be varied to accommodate all student teachers learning styles.

Another assessment challenge pointed out in this study was the fact that some teacher educators gave feedback on all the other assessment tasks except the tests. Test papers were marked and given back to the student teachers but the answers to the questions were not discussed with the students. It is important for student teachers to be provided with feedback on their test scripts so that they can know where they went wrong and what they should improve on. This finding is consistent with Bahanshal (2013) finding that the large numbers of students in class gave teachers less opportunity to assess and evaluate the students' work, discuss their problems or provide any useful and constructive feedback. On the other hand, Yelkpieri et al. (2012) found out from the students at the University of Winneba in Ghana that they did not get feedback on their assignments and quizzes. Their lecturers were unable to mark the papers on time. This is different from the results of this current study in such a way that teacher educators were able to provide feedback on quizzes and assignments, but some teacher educators did not provide feedback on tests results. I am of the opinion that it is very important to provide feedback on all assessment

tasks and activities. This can help student teachers learn from their mistakes and improve their performances.

This study also revealed that the teacher educators and student teachers experienced various disciplinary challenges in their large classes. Student teachers moved in and out of the lecture venues at various times causing noise and disturbance to the other student teachers and the teacher educator. Similar results were also presented by Al-Jarf (2006) and Machika et al. (2014) who reported that teachers and lecturers experienced challenges of dealing with students who entered and exited the lecture rooms. This delayed the starting time of teaching sessions. This study established that student teachers in the backrows made noise while the teacher educators were busy teaching. It was noted that some student teachers pretended to use their laptops for reading notes on My Portal, however the reality was that they were watching movies. This result conforms with Chikoko's (2015) finding, that students in large classes at a South African university made a lot of noise especially at the back of the lecture room where they keep on playing games. They pretended to be capturing the slides with their cell phones while in reality they will be playing games. It proved to be difficult for the teacher educators to observe such behaviours at the back of the lecture halls.

Committed, Innovative and Strategic Teacher Educators and Student Teachers Cope in Large Classes

The results of the study showed that teacher educators employed several strategies in order to deal with the instructional challenges they experienced in large classes. These included: trying to speak at the top of their voices, posing questions to encourage discussions, using large fonts for PowerPoint slides, splitting the larger classes into smaller groups for practical lessons, having open door policy for consultation hours and posting

notes on My Portal. All in all, this shows that teacher educators tried their level best to improve the teaching–learning process in large classes. However, some of these efforts still need support from campus management if not from the whole university management. For example, by speaking at the top of their voices, there was a possibility that not all the student teachers in the lecture venue were able to hear. Therefore, having microphones or loud speakers or sound systems installed in all the lecturing venues will be a better solution. Also, splitting large groups into smaller groups would still exhaust the teacher educators since they would repeat the same work over on their own. It could have been better to have tutors or teacher assistants assigned to the teacher educators who teach large classes in order to assist with tutorials and other related activities like marking of scripts.

Even though teacher educators and student teachers experienced a lot of challenges in large classes, the findings of the study revealed that efforts were made by some student teachers to deal with these challenges. Some of the student teachers tried to make themselves known by their teacher educators in order to be motivated. Being anonymous in a class can contribute to less participation and poor concentration (Al-Jarf, 2006; Straits, 2015). Hence, the researcher feels that it is important for the student teachers in large classes to participate frequently so that their teacher educators can know them. When a student teacher is aware that the teacher educator knows him/her, then he will not shy away from taking part in the teaching learning process (Straits, 2015).

Also, some student teachers tried to run for the front seats to avoid the noise that usually takes place at the back rows of the lecture venue, and to be able to hear and see what the teacher educator was saying or writing. This finding is similar with Yelkpiere et al. (2012) finding that university students in Ghana had to wake up as early as 4:00 in the morning so that they could occupy front seats in the lecture halls. For sure, this can be a

solution for a small number of students who can make it for front seats. However, there would still be students at the back rows who also wish to get front seats, but they fail to occupy them. The study results also showed that some student teachers asked intriguing questions in order to motivate other student teachers to think critically. When the students thought and discussed the answers to the questions, it reduced the disengagement in large classes.

The findings of the study established further that it was the university that benefited much more from the existence of large classes since it did not have to employ and pay more staff members. This was evidenced by the fact that there were fewer teacher educators teaching many students in large classes. For instance, teacher educators were teaching classes of 110, 210 and 511 student teachers respectively. Previous studies such as Yelkpiere et al. (2012) showed that large classes at The University of Winneba, Ghana were used as a measure to alleviate the shortages in the teaching staff and the university infrastructure. While Jimakorn & Singhasiri (2006) also indicated that the institution benefited more from large classes in terms of the budget, as there was no need to pay more teachers. Similarly, Al-Jarf (2006) in his study on large English classes at King Saud University found that there was a lack of lecturing staff because of the unstable war situation. Hence, large classes were used to resolve the shortage of teaching staff.

Despite the fact that large classes pose challenges, this study identified some benefits of such classes for teacher educators. Teacher educators felt that they were able to gather various ideas and opinions from many students in one sitting. This finding is consistent with Bahanshal (2013) finding that large classes provided the teachers with both a challenging, but also a rewarding and enjoyable experience. The teachers were able to get ideas from many students, and came up with different methods of making the classes

conducive for learning. This suggests that teachers' creativity can be encouraged by a large

number of students.

The findings showed that students in year 2 (Group A) and students in year 3

(Group C) felt that their teacher educators did not mind teaching large classes. This might

be attributed to the fact that these student teachers were no longer in their first year level at

the university and might have gotten used to the idea of being taught in large classes. On

the other hand, student teachers who were in their first year level (Group B) at the

university felt that their teacher educator did not enjoy teaching large classes. This could

have been due to the fact that the student teachers were experiencing such large classes for

the first time. The first year class had 110 students, while the other two classes had 511 and

210 respectively.

Suggested Coping Strategies

Teacher educators and student teachers came up with some suggestions to mitigate

the instructional and behavioural challenges posed by large classes. The strategies are

discussed in the next section, but not in any order of importance or priority.

Employing more teacher educators

The first suggestion by both the teacher educators and student teachers was that the

university management should employ more teacher educators to cater for the large classes.

The same suggestion was echoed by Thomas et al. (2011), Al-Jarf (2007) and Yelkpiere et

al. (2012). These authors asserted the importance of increasing more manpower through the

appointment of more lecturers in order to reduce the large class sizes.

Allocating more teaching hours

Another suggestion by the teacher educators was to allocate more hours per week to large classes so that the teacher educators could have more time with their student teachers. The teacher educators indicated that small classes especially Mathematics were allocated more hours than the larger classes. The suggestion to increase lecture hours for large classes is consistent with Thomas et al. (2011) and Nakabugo (2008) study where participants suggested more teaching hours for large classes in order to cater for students' individual attention.

Installing public address system

Furthermore, the student teachers also suggested that management needs to install loud speakers or public address system or microphones in the lecture venues and to make sure that the installed ones are functional. This suggestion is in consonant with Yelkpiere et al. (2012) and Jungic et al. (2006) who recommended that university managements need to equip the lecture theatres with wireless public address systems to facilitate effective teaching and learning. It is the view of this researcher that it is very important for the lecture halls to be equipped with public address system so that all the student teachers could be able to hear what the teacher educator is saying. Some of the teacher educators have low voices and as a result they need the public address system. Another important dimension to consider is that when the public address system is provided, then it is also important to make sure that there is somebody who can deal with the technical difficulties (Jungic et al., 2006). Although other studies identified the challenge of teachers and lecturers' exhaustion partly due to speaking too loud, no specific recommendations were made about the provision of microphones or sound systems (Thomas et al., 2011 &

Bughio, 2013). Instead, Tomas et al. and Bughio only suggested the provision of resources and facilities in general without being specific.

Building more lecture halls

In order to address other instructional challenges related to large classes, the student teachers further proposed that the university management needs to build more lecture halls that would accommodate the large number of student teachers. In consistence with this suggestion, participants in the studies carried out by Yelkpiere et al. (2012) and The Kenyatta University and Syracuse University (2014) also suggested the provision of more lecture halls as one way in which the problem of large class size could be managed. Student teachers need to have enough resources including space, chairs and tables so that they can sit comfortably in the lecture halls. The student teachers also suggested that they need to be provided with enough handouts since some of them do not have laptops to access the notes on My Portal.

Realization of self-maturity

In terms of order and discipline, the teacher educators suggested that they should make sure that their student teachers realise that they are mature enough and should be responsible for their own learning. That way they would voluntarily pay attention rather than spending time on unproductive activities like watching movies on their laptops during class, making noise and being on Facebook. Another suggestion by the teacher educators was the need to agree on some ground rules with the students at the very beginning of each semester. This is consistent with Jungic et al. (2006) and Bahanshal (2013) findings that it is important and helpful for students and lecturer to spend some minutes of the very first

lecture articulating policies for the course especially regarding cell phones, talking in

class, and tardiness. Doing so is generally believed to address unacceptable behaviour.

Training on large class assessments

The study also revealed the suggestions made by the campus management members

in an attempt to resolve difficulties experienced in large classes. Campus management team

also suggested that teacher educators who teach large classes needed training especially on

large classes' assessments. Al-Jarf (2006) pointed out that large classes have a negative

effect on assessment; hence lecturers should do extra work to be able to assess and evaluate

the large number of students in their classes.

Increased use of technology

Another suggested coping strategy by the campus management was the use of more

technology for large classes. The use of technology for large classes is also recommended

by Al-Jarf (2006) and Kang'ethe (2015). These authorities based their recommendations on

the fact that the use of electronic media can enhance productive engagement with students

and contribute to effective teaching and learning.

Uploading learning materials online before classes

Uploading the materials online before the lesson is consistent with

recommendations by Tomas et al. (2011) and Jungic's (2006). According to these

authorities it is a great idea to upload the materials on-line even one day before the lecture

in order to encourage students to read before they come to class. Similarly, posting the

materials before the lessons also allows students the opportunity to follow the information

being presented and enhances the learning process (Jungic, 2006).

Incorporation of unit/modules on managing large classes

Student teachers suggested the incorporation of units or courses on managing large classes in their pre-service teacher education programme. This was suggested because student teachers felt that they might also find themselves teaching large classes when they start their teaching careers after training. Hence, they felt the need of being prepared to deal with large classes. In consistence with this finding, the studies carried out by Opolot-Okurut et al. (2007) and Cakmac (2009) both recommended that student teachers should be trained on teaching techniques that should be employed in both large and small classes during pre-service training.

Peer tutoring

Campus management further suggested peer tutoring as another coping strategy for large classes. Peer tutoring is an instructional strategy where students teach each other; the able ones act as teachers for the less able (Nakabogo et al., 2007). Through peer tutoring, the student teachers can get a chance to learn new skills and knowledge from each other under the guidance of the teacher educator. Peer tutoring has also been recommended because it was considered beneficial for students in the studies conducted by Hall et al. (2010) and Kibble (2009).

The need for administrative support for teacher educators

This study revealed that campus management did not adequately support the teacher educators and student teachers to cope in large classes. Teacher educators and student teachers complained about the lack of microphones/sound systems in the main assembly hall and lecture halls. The microphones that were installed in the two lecture halls were not working at the time the data was collected. Furthermore, there were no

microphones/sound systems in the main assembly hall. Saleh et al. (2012) and Yelkpiere et al., (2012) have also identified lack of infrastructure and facilities such as public address systems, chairs and tables in large classes in Iraq and Ghana respectively. Other ways in which student teachers felt that they received less support were that: they did not have enough computers on campus to use at their convenient times; and when they register their complaints with the SRC (Student Representative Council) or during student-lecturer forum they rarely received feedback. The support by the management team was also deemed minimal due to the fact that the dining hall and the main assembly halls that were turned into lecture halls have flat floors that make it very difficult for the student teachers at the back to hear the teacher educator speaking from front. Hence, teacher educators and student teachers felt that the support provided by the management was minimal. Chikoko (2015) asserts that is very important for the institution management to provide all the basic equipment necessary to be used in all lecture venues.

It is important to note some ways in which the institution has tried to support the teacher educators, though it was deemed to be minimal. The management has provided the teacher educators with individual computers, smartboards, projectors, pull down screens located in the middle of the lecture halls in addition to the ones in front, and a more proper lecture hall under construction. Members of the management team have indicated that they had a plan to install the sound speaker system in the main assembly hall.

Conclusions

The study has revealed that generally, large classes hinder the implementation of constructivist instructional strategies. They also impact negatively on classroom management and control. Teacher educators are well aware of the various instructional

strategies that they can employ to actively engage student teachers. However, it becomes a challenge when they are responsible for an overwhelming number of students. Teacher educators and student teachers have tried their level best to cope in large classes despite the challenges. Hence, it is obvious that it is not impossible for student teachers to be actively involved in the teaching and learning process in large classes; however it is challenging.

It is important for teacher educators who teach large classes to have opportunities to share their experiences to learn from each other. This can be done through self-initiated meetings, team teaching (whenever possible) and continuous professional development programmes. The responsibility to provide valuable teaching and learning experience in large classes highly depend on hard work, dedication, self- inventiveness, and the availability of resources. Hence, it is educationally sound for university management to provide all the necessary resources, infrastructure and facilities for large classes.

Recommendations

Based on the findings of the study, the following recommendations are made with regard to practice, policy and research.

Recommendations for Practice

This study has revealed that teacher educators and student teachers experience numerous instructional challenges in large classes. These challenges need to be addressed for the teaching and learning process to be effective. Figure 5 shows the suggested model for the improvement of teaching and learning in large teacher education classes.
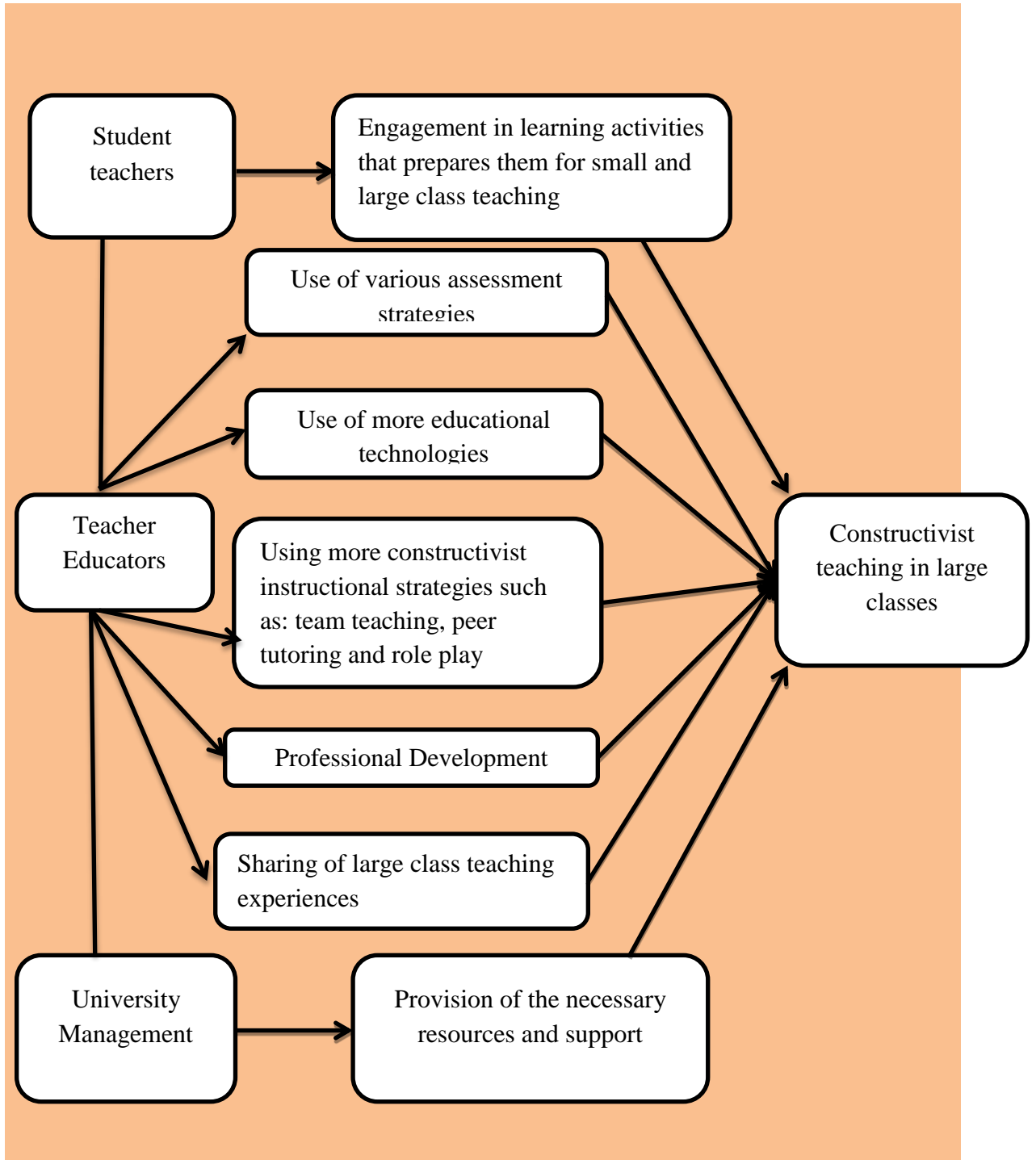
Figure 7: Effective Teaching and Learning in Large Classes' Model

The university management, teacher educators and student teachers all need to work

together for the common goal of improving teaching and learning processes in large

classes. Some of the teacher educators who teach large classes are part of the university

management. Hence, they know the challenges that they face in large classes and can inform other university management team of what measures are to be taken. It is clear that mutual support is important within a constructive based education program (Kosnik, 2005; Windschill, 2002).

There is a need for the provision of resources necessary in creating a conducive teaching and learning environment. The resources include the construction of more lecture halls, the provision of public address system in all lecturing venues allocated to large classes, chairs, and computers in the computer labs. This may help in providing more space for student teachers as well as enough tables and chairs to use in classes. The provision of computers will make it convenient for the student teachers to access My Portal at their own convenient times. Similarly, public address systems or microphones will make it easy for all student teachers to follow and hear what the teacher educators say in large classes.

Furthermore, teacher educators need to employ more of student centred approaches through the use of active instructional strategies. Various strategies that teacher educators could employ include peer tutoring, team teaching and role play. Additionally, teacher educators also need to use various assessment strategies and not just stick to giving tests and exams. By assessing student teachers in various ways, various learning needs will be catered for.

Stronger emphasis should be put on increased use of technology. The use of technology can help in uploading learning materials online even before classes, in conducting online discussions and in communicating with student teachers even after lessons. Student teachers also need to realise and know that they are matured. This realization will make them to act and behave in a mature way and not disrupt the lessons.

There is need for teacher educators to be provided with continuous professional development programmes on handling large classes since they were not exposed to this in their initial teacher training programmes. Through such programmes, they could also be trained in assessment strategies for large classes.

Recommendations for Policy

It is important for UNAM management to employ more teacher educators to manage the teaching load. Teacher educators would be able to teach small classes which would ensure efficient teaching and learning.

Allocation of more teaching hours needs to be considered for large classes by curriculum developers. This could give teacher educators more time to give attention to individual student teachers. However, this suggestion might not be welcomed by all teacher educators. Curriculum developers should also consider including content on teaching large classes. This would give student teachers a chance to be trained also in teaching large classes

Recommendations for Further Research

It is hoped that this study will serve as a knowledge base for future research on large classes in teacher education in Namibia. As has been mentioned, there is only one reflective paper on large classes (Iipinge, 2013) and research study on UNAM main campus (Ayaya, 2001), more research is necessary in the area of large classes at the institution. It is recommended that similar studies be carried out at other teacher training satellite campuses to shed more light on the challenges experienced in teaching large classes and how they could be overcome. Furthermore, other studies can be carried out on large classes on specific modules/subject across various campuses. There is also a need for

quantitative and mixed methods research studies to shed more light on teaching large

classes. Finally, further research can also be carried out on a specific instructional strategy

employed on large classes such as group work, the use of technology or/and lecture method

of information delivery.

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APPENDICES

Appendix A

Interview guide for teacher educators

Opening remark

I would like to thank you for taking time out of your busy schedule to meet me today. My name is Marja Ndeyapo Mushaandja-Mufeti. I am a student at the University of Botswana pursuing a PHD in education. I am collecting data for the thesis entitled: Instructional strategies used in large classes at the University of Namibia: A case of Hifikepunye Pohamba Campus. Since you teach a large class, you have rich information in this area, and you are a very important participant in this research study. The information that you will share will be held in confidence, only the researcher, the examiner, and supervisor will have access to the information. Any information that will be included in the report will not identify you as a respondent. In order to capture the information accurately, I will audio record the interview with your permission since it is challenging for me to write down everything you say. After the data transcription, I will send the information to you for verification. The interview will last for forty five minutes to an hour.

Are there any questions about what I have just explained? Let me begin by asking you some information about your career background.

Lecturer 's pseudonym:……………………

University teaching experience:……………..

Gender:………………

Age range e.g. 30-40, 40-50 etc:………..

Course pseudonym:……………..

Interview starting time:

Ending time

Date:

A. General education and career background

1.   What are your qualifications for teaching at this university?

2.   Where else have you taught before teaching at this campus?

3.   Where did you train as a teacher at your undergraduate level?

4.   Did you take any courses in teaching methodology?

B. Experience with large classes?

5.   How many students are in your class/classes?

6.   Do you perceive your class as small or large? Why?

7.   How do you feel about teaching large classes at this campus?

8.   In your opinion, how do your students feel about large classes?

C. Instructional strategies used

9.   Which specific instructional strategies do you use in your large class/classes and why?

10.   What type of activities do you engage in with your students during the lecture/lesson?

11.   How do you evaluate your students' learning?

12.   What type of teaching aids/technology do you use in your instruction?

13.   How do you provide students' feedback on their work?

14.   What do you understand by:

1.Teacher-centred teaching approach

2.Student-centred teaching approach

3.Subject-centred teaching approach

15.   Which of the above approach/es would you say you use in your teaching?

16.   How often do you use the approach/es? Why?

C. Benefits

19. What do you consider as the benefits of teaching large classes?

20. In your opinion, how do your students benefit from large classes?

D. Challenges

21. What instructional difficulties do you face in teaching a large class?

22. In your opinion, what challenges do you think your students face in large classes?

23. What efforts do you make to resolve those challenges?

24. How does the campus management assist you in resolving the challenges that you face in teaching your class?

25. In your opinion, what else do you think should be done to resolve challenges faced in large classes at your campus?

E. Classroom organisation

26. What discipline problems do you encounter in your large class?

27. How do you think order and discipline can be maintained in large classes?

F. Teacher training

28. Were you prepared in any way to teach large classes? If so, how?

29. Do you think that there is a need for teacher training programmes or courses to prepare student teachers for teaching large classes since some of them might find themselves teaching large classes in the future?

Thank you very much for your valuable time.

Appendix B

Interview guide for focus group discussion with students

Opening remarks

I would like to thank you for taking time out of your busy schedule to meet me today. My name is Marja Ndeyapo Mushaandja-Mufeti. I am a student at the University of Botswana pursuing a PHD in education. I am collecting data for the thesis entitled: Instructional strategies used in large classes at the University of Namibia: A case of Hifikepunye Pohamba Campus. Since you attend a large class, you have rich information in this area, and you are a very important participant in this research study. The information that you will share will be held in confidence, only the researcher, the examiner, and supervisor will have access to the information. Any information that will be included in the report will not identify you as a respondent. In order to capture the information accurately, I will audio record the interview with your permission since it is challenging for me to write down everything you say. After the data transcription, I will send the information to you as a group for verification. The interview will last for an hour to an hour and half.

Since this is a focus group interview, the main ground rule throughout the process is that we expect the environment to be open, polite, respectful and orderly so that we do not need to intimidate each other. We rather need to be free to express ourselves and comment on each other's responses constructively and respectful.

The participants will be expected to fill in two forms. One form is about their biographical data, while the second will be the group agreement to maintain confidentiality.

Group pseudonym:……………………………

Course pseudonym:……………………………

Gender: …….Male…………Female

Interview starting time:…………….

Ending time:…………………..

Date:……………………

          A. Experience with large classes
1. How many are you in…………….. class?

2. Do you perceive your class, large or small? Why?

3. Do you think your teacher educator/lecturer likes teaching a large class? How do you know?

B. Instructional strategies used

9. Which specific instructional strategies does your teacher educator/lecturer use in his or her instruction?

10. What types of learning activities does your teacher educator/lecturer engage in with you in your lessons?

11. How does your teacher educator/lecturer evaluate your learning process?

12. What teaching aids/technology does your teacher educator/ lecturer/ use in your lessons?

13. How are you provided with feedback on your work?

14. What do you understand by:

14.1 Teacher-centred teaching approach

14.2 Student-centred teaching approach

14.3Subject-centred teaching approach

15. Which of the above approaches do you think is applied in your class?

16.Do you consider it the best and why or why not

C. Benefits

19. Do you consider large classes as being beneficial to you? Why?

D. Challenges

21.What instructional challenges do you face in learning in a large class?

22. How do you try to overcome/deal with the challenges?

23. How does your teacher educator/lecturer try to resolve those challenges that you encounter in your learning in the large classes?

24. How does the campus management assist you as students to ease those difficulties?

25. What do you think the campus management or the university management at large can do more to resolve the challenges you face in your large classes?

E. Classroom organisation

26. What disciplinary problems do you experience in your class?

27. How does your teacher educator/lecturer maintain order and discipline in your large class?

28. What do you do as students to contribute to order and discipline in your large class?

29. F. Teacher training

29. Do you think that there is a need for teacher training programmes or courses to prepare student teachers for teaching large classes since some of them might find themselves teaching large classes in the future?

I would like to thank you for your time today.

Appendix C

Interview guide for campus management members

Opening

I would like to thank you for taking time out of your busy schedule to meet me today. My name is Marja Ndeyapo Mushaandja-Mufeti. I am a student at the University of Botswana pursuing a PHD in education. I am collecting data for the thesis entitled: Instructional strategies used in large classes at the University of Namibia: A case of Hifikepunye Pohamba Campus. Since you are a management member of this campus where lecturers teach large classes, you have rich information in this area, and you are a very important participant in this research study. The information that you will share will be held in confidence, only the researcher, the examiner, and supervisor will have access to the information. Any information that will be included in the report will not identify you as a respondent. In order to capture the information accurately, I will audio record the interview with your permission since it is challenging for me to write down everything you say. After the data transcription, I will send the information to you for verification. The interview will last for forty five minutes to an hour.

Are there any questions about what I have just explained?

Management member pseudonym:………………………..

Years of experience in the position:……………………….

Specialization:………………………………….

Number of students in the management member's classes:

Starting time:…………………………..

Ending time:…………………………….

Date of the interview:…………………..

A. Conceptual understanding

1. What do you understand by the term large classes?

2. How might class size play a role in students' achievement?

3. What are the benefits of teaching large classes?

4. What are the challenges of teaching large classes?

5.   Are the students allowed to report any difficulties that they experience in large classes to the campus management?

  Probe further according to the response provided;

6.   Do the lecturers ever complain to the management about large classes and the difficulties they encounter?

7.   What is the nature of those difficulties if any?

8.   In what ways does the campus management assist the lecturers who teach large classes?

9.   Is there anything else that you would like to share with me about large classes at this campus?

Thank you very much for your valuable time.

Appendix D

Observation guide for teacher educators

Teacher Educator pseudonym:……………………………………………………

Class pseudonym:………………………….

Date of Observation:…………………………

Starting time:………………………

Ending time:…………………………….

Engagement	What is observed	Researcher reflection
Does the teacher educator:		
1.Use strategies to capture student attention?		
2.Has confidence to raise curiosity in students?		
3.Assist students when prior knowledge is needed?		
Explanation		
4.Listen to students as they interact or respond to the question		
5.Probe responses that uncover students' prior knowledge		
Exploration		
6.Encourage students to work together		
7.Provide time for students to discuss problems		
8.Act as a facilitator for the students		
Elaboration		
9.Allow students to use learned concepts and link them to various situations		
10.Refer students to existing information		
11.Ask open ended questions that require thoughtful responses		
12.Use different ways to assess students' knowledge and skills.		

13.Provide encouraging feedback frequently		
14.Provides clear direction to students		
15.Change instructions if students are not responding		
16.Consider various learning styles by varying the instructional strategies		
Student-centred		
17.Does the teacher educator explain his/her expectations to students		
18.Does the teacher educator encourage students to work collaboratively		
19.Does the teacher educator come to class prepared with all the relevant materials that he/she needs for the lesson		
20.Does the teacher educator encourage the students to ask questions		
21.Does the teacher educator ask open-ended questions		
22.Does the teacher educator have a constructive way of summarising the presented information		
Does the teacher educator use specific constructivist teaching strategies:		
23.Improved lecture method		
24.Scafolding strategies		
25.Students'presentations		
26.Team teaching		
27.Peer tutoring		
28.Role play		
29.Case study teaching method		
30.Problem based learning		
31.Other (specify)		
Classroom Organisation		
32.Does the teacher educator bring the classroom to		

attention		
33.Does the teacher educator communicate desired and expected behaviour to students		
34.When challenging behaviour occurs does the teacher educator respond in a calm manner		
35.Does the teacher educator demonstrate respect for students		

Adapted from Barufaldi (2002, pp.1-2)

Appendix E

Observation guide for students

Class pseudonym:……………………………….

Starting time:………………………….

Ending time:…………………………

Date of observation:

Number of students in class:

Researcher's reflection		
Do the students:	**What is observed**	**Researcher 's reflection**
Engagement		
1.Show interest in the topic under discussion?		
2.Ask questions like why did this happen?		
Exploration		
3.Try alternative answers and share them with others		
4.Think freely without intimidation		
Explanations		
5.Explain possible answers to others		
6.Listen to others' explanations and to the teacher educator		
7.Try to refer to the previous activities		
Elaboration		
8.Volunteer to participate in activities and answer questions		
9.Ask questions based on previous information		
Evaluation		
10.Demonstrate understanding of the content presented		
11.Ask related questions that would encourage further elaboration and investigation		
12.Answer open-ended questions based on previously		

learned information		
Student-centred learning		
18.Do the students work collaboratively		
19. Do the students come to class prepared with all the relevant materials		
20.Do the students ask question		
21.Do the students get involved in summarising the lesson constructively		
Specific constructivist learning strategies: Are the students involved		
24.Scafolding strategies		
25.Students'presentations		
26.Team learning		
27.Peer assistance		
28.Role play		
29.Case study		
30.Problem-based learning		
31.Other (specify)		
Classroom organisation		
35.Do the students remain attentive and not disrupt the lesson		
36.Do the students demonstrate respect for the lectures and other students		

Adapted from Barufaldi (2002, pp 1-2).

Appendix F

Document Analysis Guide

Type of document	Who wrote the source	Intended audience	Message about large classes	Additional comments

Appendix G

Teacher Educators Interview Transcript

Lecturer A

University teaching experience: 5 years
Gender: **Male**
Age range: 50-60
Course pseudonym: Course A
Interview starting time: 8:00
Ending time: *8:45*
Date :   August 18, 2015

1.What are your qualifications for teaching at this university?
Mh Mh… M. Ed in General Education

2. Where else have you taught before teaching at this campus?
Well, I taught previously at the campus when it was a college of education before we merged with the university. I just started teaching here, nowhere else.

3. Where did you train as a teacher at the undergraduate level
Ooooooo, Yaaaaaaa……I did that at the University of Fort Hare.

4. Did you take any courses in teaching methodology?
No, not really.

A. Experience with large classes

5. How many students are in your classes?
Okay, aaahhhh. Last semester I had 369 students.
This semester I have 511students.

6. Do you perceive your class as small or large?
Mh mh mh……they are large by looking at the number it shows that they are large, yaaaaa yaaaaaa yaaaaa…the number is just overwhelming.

7. How do you feel about teaching large classes?
Well no 1, it does not give me a good feeling because I am not really able to teach and reach every student, so then sometimes you do not really know if the message you are giving is getting through.

8. In your opinion, how do your students feel about large classes?
Mh mh, I think that they do not also feel good. I remember them asking me if I can divide the class into two groups. I think that they are also overwhelmed.

B. Instructional Strategies used

9. Which specific instructional strategies do you use in your large class /classes and why?

At the moment, I am only forced to use the lecture method because it saves time and allows me to cover a wide range of content within a short time.

It is also influenced by the module I have, it has a lot of content. Even if I want to use another strategy, it is only those that sit in front who try to answer but generally most of them do not. I remember one time I gave them condoms just to demonstrate an inductive strategy. They were not comfortable, maybe because of the condoms

Probing further……..
Why do you feel compelled to use the lecture method?

I am overwhelmed by the large number of students and the subject content. Uhm…let me say… even if I want to use alternative instructional strategies, am scared of using a lot of time that may lead to not covering the course content. In large classes, students do not participate fully instead they tend to talk in smaller groups…In this context I am forced to respond to the situation that overwhelms me.

.

10. What type of activities do you engage in with your students during the lecture/lesson?

Mh Mh…I try to ask questions or sometimes also do some little activities. I do not divide them into smaller groups. I just give them activities displayed on Power Point and expect them to answer and feedback. Nobody wants to volunteer to give answers.

11. How do you evaluate your students' learning?

Okay…during the lesson, I try to ask them questions but most of them do not answer. They are not eager to speak. In most cases, I use quizzes and tests to see how they are understanding and learning the content.

12. What type of teaching aids/technology do you use in your instructions?

At the moment, haaaaaa, I only use power point presentation. I also bring in some materials related to what I am teaching for demonstrations, although in most cases they are not enough for everyone.

13. How do you provide student feedback on their work?

In most cases since I only give tests, I do not give assignments; feedback comes in the form of their marks. I put the memo on My Portal just for them to see where they went wrong. I also invite them to use the consultation time to give them feedback. I am also forced by the situation not to use traditional questions.

14. What do you understand by:
> **14.1 Teacher centred teaching approach**

Okay, aaaaat the teacher regulates all that happens during the teaching environment. The teacher owns everything, it is like he is the custodian of everything .There is little room for interaction with the learners.

14.2 Student-centred teaching approach

Iyaaaaa, to me it is an interaction approach, the teacher and the students seek knowledge together. Students are given the opportunity to engage with the materials and the content. It is a process whereby learners check their own understanding. It is important but there are other things that we need to concentrate on.

14.3 Subject-centred teaching approach

Okay...I would say that it refers to a situation whereby the teacher uses methods that are applicable to that particular subject. If I know my subject and teach it, it is important. Since teaching is a dynamic process and this approach, subject - centred leaves little opportunity for other learners' needs.

15. Which of the above approaches would you say you use in your teaching?

The one I mostly use...okay is the teacher centred method in the sense that I use lecturing, but then I also try to intergrate student-centred approach whenever possible.

16. How often do you use the approach/es? Why?

Yaaaaa……..now……I always or mostly use the teacher-centred approach. When one decides on the strategy, one must look at the time, number of students, and the content. In most cases, the students are many and it is time consuming to use student centred approach .It takes time to entertain all the students 'ideas. You know, a semester is a very short time and one cannot cover everything.

C. Benefits

19. What do you consider as the benefits of teaching large classes?

Mh....okay……it is not something that I desire in the sense that when I teach I need to engage students. Mind you, we are teaching teachers whereby we are supposed to prepare them to teach their learners in the student-centred approach. Maybe the benefit is that I cover the content within a short time. I do not see the benefits, it is only that I do not have another option. If I had my way, I could not go for large classes, I would like to teach a smaller group.

20. In your opinion, how do your students benefit from large classes?

There is little benefit. Maybe the ones who sit in front of the class do benefit. Remember, we talk about three kinds of students, the visual, the auditory and the kinaesthetic students. The visual students maybe also do benefit from seeing at what is projected on the Power Point. I do not have a loudspeaker so I have to talk on top of my voice. It is a challenge due to the facilities

D. Challenges
21. What difficulties do you face in teaching large class?

Indirectly, I am only forced to use one instructional strategy which is not a good thing. One would like to use mostly a student-centred approach, but I cannot. One would like to model

the methods that the students can also use when they do their teaching practice or when they are employed.

22. In your opinion, what challenges do students face in large classes?
Okay, I would say that one of the challenges is a lack of individual attention. Even if students want to ask, he or she will not ask. There is no interaction opportunity. And again, we want a situation where students are actually engaged in the learning process, but in most cases they are not. The students just come, sit, listen and go.

23. What efforts do you make to resolve those challenges?
Eish, Mh…I think the situation is very out of control. All I try to do is speak loud enough, and pose some questions when I teach just to encourage discussion. I also sometimes ask them to do some readings to resolve some issues. But one could not really know if they read because we hardly have discussions about those issues

24. How does campus management assist you in resolving the challenges that you face in teaching the large class?
Oh…okay…very minimal. There is a lot of bureaucracy involved in the process. Things are just moved from one office to another. I have asked for a loudspeaker but up to now I do not have. Sometimes they are not keen to install the facilities in places such as the venue I lecture from, the assembly hall. The halls under construction can only accommodate up to 300 students.

25. In your opinion, what else do you think should be done to resolve the challenges faced in large classes at your campus?
MH MH as a teacher training institution, we need to model. One thing is to have enough human resources. Some of the courses are core and can be provided with two or more lecturers in the module. More than 500 hundred students in one class is too much. If anything happens to me, what will happen to the students? I think that any lecturer who has studied teaching can teach core modules like Science of Teaching, but most of them say they do not know what the module is all about.

E. Classroom organisation
26. What discipline problems do you encounter in your large class/ess?
Mh Mh..I would say students are good. I have not experienced serious disruption behaviour apart from students who just stand up and leave. If one has a lesson, you wish all the students should stay until the end of the lesson. Sometimes I end up ignoring those because if I start to address them I would waste my lecturing time. I give them rules at the beginning of each semester.

27. How can values help in maintaining order and discipline in large classes?
During the very first lesson, we discuss some ground rules. I come up with the rules and ask the students if they are good .We agree on the rules that are relevant to their stay on this campus and remove the ones that are not relevant. So far they seem to be comfortable with the rules

Do you have anything that you would like to talk to me about large classes at your campus that we have not talked about?

Not really...yaaaa. I think we have covered almost everything especially the challenges that I experience. I think assessment…….I mostly use objective questions. The new lecture hall is being built but it is not good enough because it can only accommodate up to three hundred students, while the number of students will continue to increase.

Follow up questions as second interview
Is there a specific reason why you do not divide the students into smaller groups?
It is because the group is just too big. It will take too much of the time to get them into the groups, explaining the tasks, and have them actually work on the task. The group formation theory shows that it is not easy for learners/students to start working on a task. They first need to know each other before they establish the norms on how to work or cooperate. That whole process needs more time. The module content is so much that one may not cover it if too many activities are given to the students during the lesson. Practical lessons could be an alternative but students are grouped according to the area of specialisations. The number is still a lot.

24. Are you may be aware of the reasons why the management is not eager to install the facilities in the hall?
The management is eager to install the loudspeaker but it could not do it on its own. It has requested the e-learning department, which is not willing to do it, apparently because the main hall is not a permanent lecturing venue. But considering the number of students I always have, and the new lecture halls that are being constructed, they cannot accommodate more than 300 students. As a result, any number that will not fit in the new lecture halls will be automatically accommodated in the main hall. By implication, the main hall will remain a lecturing venue.

Another follow-up over 'Whatsup'
Were you trained to teach large classes?
I was never trained to teach large classes. My training focused on teaching at secondary level. I also do not think that there is need to train student teachers specifically for teaching large classes. There is need for teacher educators to come together and share their experiences on the successes and challenges of teaching large classes. The most important thing to do is to provide all the resources necessary in handling large classes like desks and mobile speakers.

Probing further….
Why do not you think that it is necessary for teachers to be trained in dealing with large classes?
I strongly believe that when a teacher is trained to engage students in learning activities it is good enough. When it comes to large classes, as long as there is adequate support then a teacher can cope with large classes.

Appendix H

Management Team Interview Transcript

Lecturer D: Campus management member

Years of experience in the position: *4*
Specialisation: *Curriculum and Assessment*
Number of students in management member's class: *19 students*
Starting time: *10;20*
Ending time: *10;50*
Date of interview: *August 19, 2015*

1. **What do you understand by the term large classes?**
For me, mh mh large classes definition depends on how you see it. A large class for me is when you have more than 150 students. That to me is quiet big. It requires specific strategy to reach to each student.

2. **How might class size play a role in students' achievement?**
It is….oh….iyaaaa.. when you have a small class you have individual attention. You can focus on all of the students. When you have a big class, it becomes a challenge, you must have time and a style to reach the students

3. **What instructional strategies should be used in large classes?**
Well, mh mh mh I think a combination of lecturing providing information with visual aids and a good voice projection. I would also think that in large class you can use the students to reach other students. You can use small group, if possible some sorts of handouts to guide students to take notes. But the handouts must be interactive. So, you can incorporate lecturing with good voice projection and handouts to help the students to take notes.

4. **What are the benefits of teaching large classes?**
Well….the benefits. .you will have an impact to a bigger group of many people. If you are a good teacher you will actually touch many people. You will also have sorts of students with a lot of diverse backgrounds, views, and opinions unlike in small classes where the diversity is limited. You will know and interact with many students.

5. **What are the challenges of teaching large classes?**

Well….mh…mh, when it comes to assessment challenges, you will think of a smart way of coming up with the types of assessments that makes it possible for you to manage marking within a reasonable time. For example, short questions, but still addressing different levels of Bloom Taxonomy of questioning. It will force a lecturer to use only multiple choice and matching questions. If you give an essay, it will be a challenge to mark and give feedback within a short time possible.

The lecturer does not have enough time to pay individual attention to students. If you are not careful enough, discipline can be a problem too, disruptions.

Also the resources, limited handouts, resources to reach all the students might be limited. If the room is not conducive enough, the students cannot hear properly.

6. Are the students allowed to report any difficulties that they experience in large classes to the campus management?

Yaaaaaaaaa, I think that they have the procedures. They must follow the proper channels, first reporting to the coordinator or to the class representative or they can air their views during the student-lecturer forum. They can also talk to the lecturer concerned. At the end, it will reach the campus management because some of these lecturers are part of the management.

They also complain about the hall. For example we are in the process of buying audio equipments to be installed in the hall.

7. Do the lecturers also present the difficulties they encounter in large classes to the management?

I think they do. They were talking about classroom management. In the faculty board meetings they were also talking of, proper audio in the lecture halls. They have also been mentioning that if you teach a large class you do not need to have more than one class in terms of the teaching workload.

8. What are the natures of those difficulties?

Okay….I can repeat those, they have difficulties in controlling the students, that is discipline basically or classroom management. One can find some students sitting down while others are walking out.

Also audio, but at least we have managed to install digital projectors in some of the lecture halls.

They always complain that they do not have time to assess the 300-500 students. They also complain that they do not have individual time with the students.

9. In what ways does campus management assist lecturers who teach large classes?

Well…mh…mh….I do not know if there are specifics…I know that we try to address the visual difficulties, we have provided them with projectors.

We are also building a more proper lecture hall with well-equipped sound system.

There was a sharing session just to share the experience and good practices; and I have also shared tips on how to handle large classes from a paper that I wrote.

10. Is there anything that you would like to share with me about large classes at this campus?

Well you see…I need to point out that most of the colleagues who teach large classes were used to teaching groups of 35 students and they do not have the experience of teaching large classes. For those who have been at the university for a longer period they are used to have large classes, because large classes are common to the universities especially for core modules

It will take time to get used to it. With more proper venues, they will cope and handle. And also the nature of our students, they came straight from high school, and it was a shock to them when they saw themselves in large lecture halls.

I think I need to share that this is a new campus, lecturers are well experienced in teaching but not in handling large classes. However, lecturers are really trying their level best.

It is just a matter of time and understanding. These people are new to large classes and we need to sympathise and understand them.

I did not talk about quality. Sometimes, quality can be compromised. When you have a lot to cover, and want to finish the activities, you might be shallow and not address all the levels of Bloom Taxonomy.

Follow up question for the second interview

What else do you think should be done to help the lecturers in facilitating the teaching and learning process in their large classes?

- *Perhaps a training in assessment in large classes, otherwise one will have unrealistic assessment activities that will not achieve the objectives.*
- *The use of technology to give lectures- this might get the students' attention.*
- *Use or place some materials online – this will save time and perhaps allow students to prepare for the class.*
- *Use or encourage peer tutoring.*

Appendix I

Student teachers interview transcript

Group Pseudonym: Group C
Course Pseudonym: Course C
Gender: Male 1 Female: 5
Interview starting time: 14:30
Ending time: 13:05
Date: September 14, 2015

A. Experience with large classes
5. How many are you in your class?
Student 14: *We are a lot more than 200, but I am not sure of the exact number.*

6. Do you perceive your class large or small? Why?
Student 15: *It is a big class because students are a lot, and the way the classroom is arranged can be hard for the students at the back to catch up.*

7. Do you think your teacher educator/lecturer likes teaching a large class? How do you know?
Student 16: *I think she likes teaching a large class because she likes to move around the class and also involves the people at the back.*

How do others think about this?
Student 15: *I am supporting her that the lecturer likes to teach a large class, she looks happy and courageous.*

B. Instructional strategies used
9. Which specific instructional strategies does your teacher educator/lecturer use in his/her instruction?
Student 17: *She just teaches, sometimes discussions, sometimes we do group discussions in practical lessons. That is all.*

10. What type of learning activities does your teacher educator/ lecturer engage in with you in your lessons?
Student 18: *Mh Mh, okay, in most cases she just asks questions, most activities are speaking activities. During the practical lessons we write a lot.*

11. How does your teacher educator/lecturer evaluate your learning process?
Student 19: *I think it is when she teaches us when we have practical lessons, she asks us individually or in groups to answer some questions. We discuss and give feedback afterwards together with the lecturer.*

What do you mean by giving feedback together with the lecturer?
I mean that when we answer the questions, she elaborates further

12. What teaching aids/technology does your teacher educator/lecturer use in your lessons?
Student 14: *She uses the smartboard, she do the slides, PowerPoint presentation, questions and answers.*

13. How are you provided with feedback on your work?
Student 15: *In this case, she gives us class activities, exercises. The way she gives us feedback, we do it together with her when we answer the questions and she elaborates further.*
Student 16: *She gives us feedback on practical activities but not for tests.*

14. What do you understand by:
    14.1 Teacher-centred teaching approach
Student 16: *It is an approach whereby a teacher does everything for students and does not consider the students' views and ideas.*

    14.2 Student-centred teaching approach
Student 17: *It is whereby the teacher considers students in teaching. The lessons are more based on students' ideas. The students do participate. They are asked questions.*

    14.3 Subject-centred teaching approach
Student 18: *It is an approach that is more based on one specific subject. The lecturer does not t ouch on the other subjects.*

15. Which of the above approaches do you think is applied in your class?
Student 19: *Both teacher centred and student centred approach.*

16. Do you consider it the best and why or why not?
Student 14: *I think that they the student centred approach is the best because students are adding more opinions and they are taking part. They are asking where they do not understand.*
The teacher-centred teaching approach is something that is not very good because students' ideas or opinions are not considered.

C. Benefits
19. Do you consider large classes as being beneficial to you? Why?
Student 15: *Sometimes big classes are not good because it is hard for the lecturer to give attention to the students. The hall is too big and students cannot catch up.*

D. Challenges
21. What challenges do you face in learning in large classes?
Student 16 *I am very shy to ask in large groups. Sometimes it is difficult to get what the lecturer is teaching.*

22. How do you overcome or deal with the challenges?
Student 17: *I always try to sit in front. In terms of noise, I try to sit close to people whom I know are serious and do not make such noise.*

23. How does your teacher educator/lecturer try to resolve those challenges that you encounter in your learning in large classes?
Student 18: *There are no speakers, the lecturer tries to speak very loud, and stand in the middle of the lecture hall.*
She divides us into smaller groups for practical lessons.

24. How does campus management assist you as students to ease those difficulties?
Student 19: *I do not think they do help us.*

***P*robing further: Why are you saying they do not help you?**
I do not see solutions to problems like not having loudspeaker.

25. What do you think the campus management or the university management at large can do more to resolve the challenges you face?
Student 14: *For me, in Social Studies class we are only 36 students. If the management can divide larger groups into smaller groups instead of us having free periods in between, we can attend other lessons. The free times should be used for smaller groups.*
Student 15: *UNAM must provide microphones and employ more lecturers.*
Student 16: *For me I feel that the posts are there but we Namibians do not want to study and qualify for the posts. Or if there people are there, maybe UNAM does not want to pay more people.*

E. Classroom organisation
26. What disciplinary problems do you experience in your class?
Student 17: *Sometimes students make noise in class. Some are just using their laptops watching their movies in class. Some students come late to class. Sometimes when many people fail the tests in this particular course, when they get back their papers they shout at the lecturer.*

27. How does your teacher educator/lecturer maintain order and discipline in your class?
Student 18: *Okay, in most cases all she does is that she stops lecturing and tell us to stop making noise. Only when we stop making noise then she continues to lecture.*

28. What do you do as students to contribute to order and discipline in your large class?
Student 19: *Okay, I always make sure that I am not making*

Student 19: *It all depends on the lecturer also. Sometimes if the lecturer is boring , one is also tempted to make noise. If the lecturer teaches well like in this particular course, then you will be forced to pay attention.*

Follow up interview questions

What other instructional challenges do you experience in large classes?
Student 14 Because we mostly do group discussions, the challenges are: hard as students to do our work individually. Even if group discussions have a lot of benefits, we still have a need for individual activities. The theory is mostly teacher-centred, whereby the lecturer reads notes and explain, this leads to us as students not being active participants
Student 15: *When we are in groups, some people do not really pay attention, they will be doing their own things and it will be more like an individual work.*
Classes are too large to feel comfortable to ask questions or to join class discussion, because sometimes you will feel like people are going to laugh at you.

Why do you think that your lecturer likes or not likes teaching a large class?
Student 17: *I do not think that she likes teaching us in a large group because I recall her saying once that she hopes she will be able to manage because we are too many. And really I do not think that there is any lecturer who likes teaching large groups because they are not easy to manage. It is difficult to make sure that all students are involved in the teaching learning process.*

Do you think that it is necessary to train student teachers and teacher educators to teach large classes?
Student 16: *It is better to train teacher educators how to teach large classes, especially in terms of choosing the appropriate teaching methods and strategies.*
Student 17: *Student teachers are the foundation of quality education. It is good if they get trained on how to deal with big classes. Some of them might find themselves teaching in villages where is lack of schools, and there are many learners in one class. They need the techniques that will help them to deal with large classes in the future.*

Appendix J

<div align="center">

Informed consent form

</div>

PROJECT TITLE

<div align="center">

Instructional Strategies used in Large Classes at the University Of Namibia: A Case of Hifikepunye Pohamba Campus

Principal Investigator: Mushaandja-Mufeti Marja Ndeyapo, [*Ph.D.*]

Phone number(s): +267 76813670 /+264 811274102

</div>

What you should know about this research study:

1.   We give you this informed consent document so that you may read

about the purpose, risks, and benefits of this research study.

1.   You have the right to refuse to take part, or agree to take part now and

change your mind later.

1.   Please review this consent form carefully. Ask any questions before

you make a decision.

1.   Your participation is voluntary.

Purpose

You are being asked to participate in a research study of **INSTRUCTIONAL STRATEGIES USED IN LARGE CLASSES AT THE UNIVERSITY OF NAMIBIA: A CASE OF HIFIKEPUNYE POHAMBA CAMPUS.** The purpose of the study is to contribute to the **knowledge of effective instructional strategies that can be employed in large classes at UNAM.** You were selected as a possible participant in this study because you are information rich about large classes at UNAM and you have sound experience in teaching large classes. Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

PROCEDURES AND DURATION

If you decide to participate as a teacher educator, you will be invited to participate in semi-structured face to face interviews, at least four times or until data saturation is reached. You will also be expected to permit the researcher to observe your large class, and to provide any information related to the large class that you teach e.g. course outline, course handouts etc.

Student teachers who agree to participate in the study will also be expected to participate in focus group semi-structured interviews at least four times or until data saturation is achieved.

RISKS AND DISCOMFORTS

There are minimal risks associated with participating in this study. You might feel loss of time when you participate in the study. However the researcher will always specify

the duration of each interview before the interview begins. The duration for each interview

session will not go beyond one hour. Secondly, you might experience a feeling of

discomfort when answering some questions. If you experience discomfort, you may choose

not to answer the question/s that lead to the discomfort

BENEFITS AND/OR COMPENSATION

There is no compensation associated with participation in this study and no direct
benefit. However, there is indirect benefit of furthering the knowledge on effective
instructional strategies for large classes

CONFIDENTIALITY

The data from this investigation will be for scholarly purposes only and none of
these will be used for commercial use. Pseudonyms will be used to protect your identity.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you decide not to participate in this study,

your decision will not affect your future relations with the University of Namibia and the

University of Botswana, their personnel, and associated institutions**.** If you decide to

participate, you are free to withdraw your consent and to discontinue participation at any

time without penalty. Any refusal to observe and meet appointments agreed upon with the

central investigator will be considered as implicit withdrawal and therefore will terminate

the subject's participation in the investigation without his/her prior request.

AUTHORIZATION

You are making a decision whether or not to participate in this study. Your signature

indicates that you have read and understood the information provided above, have had all

your questions answered, and have decided to participate.

_____   _____

Name of Research Participant (please print)   Date

_____.................................._____

Signature of Staff Obtaining Consent   Date

(Optional)

YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

If you have any questions concerning this study or consent form beyond those

answered by the investigator, including questions about the research, your rights as a

research participant; or if you feel that you have been treated unfairly and would like to talk

to someone other than a member of the research team, please feel free to contact the Office

of Research and Development, University of Botswana, Phone: Ms. Dimpho Njadingwe on

355-2900, E-mail: research@mopipi.ub.bw, Telefax: [0267] 395-7573.

Appendix K

Checklist for application package for University of Botswana IRB ethical clearance

and government research permit

The following which make up the complete application package should be submitted to the IRB Office for ethical clearance and then forwarded to the relevant government Ministry for research permit application.

(🖳 Tick as applicable)

	Yes	No	N/A	Comment
1 Copy of duly completed and signed application form				
1 Copy of the study proposal.				
1 Copy of adult consent documents in English, Setswana (or any local language of study population) and back translation where applicable.				
1 Copy of assent documents in English, Setswana (or any local language of study population) and back translation where applicable. (For research involving minors)				
1 Copy of parental consent documents in English, Setswana (or any local language of study population) and back translation where applicable. (For research involving minors)				
1 Copy of authorization letters from sites where study will be conducted (headmen, hospital, area chief etc.)				
1 Copy of the instruments to be used such as questionnaire, interview guide, log sheets etc.				
1 Copy of Approval letter from other IRBs				
1 Copy of Grant approval letter				
1 Copy of Up to date curriculum vitae/ resume of the Principal investigator and co-investigators showing research experience and publications				

1 Copy of Any other supporting materials i.e. recruitment scripts, brochures, flyers etc.			
1 Copy of support letter from Supervisor or Head of Department			

Checked by: _____Signature: _____Date:_____

CONTACT INFORMATION FOR THE UB IRB OFFICE

Office of Research and Development

Office 152 Block 243

University of Botswana

P Bag UB00708

Gaborone

Tel: (+267) 355 2911/2900

Fax: (+267) 395 7573

Appendix L

Permission letter from UB

Office of the Deputy Vice Chancellor (Academic Affairs)

Office of Research and Development

Corner of Notwane and Mobuto Road, Gaborone, Botswana	Pvt Bag 00708 Gaborone Botswana	Tel: [267] 355 2900 Fax: [267] 395 7573 E-mail: research@mopipi.ub.bw

UNIVERSITY of BOTSWANA

Ref: UBR/IRB/GRAD/174

7th May 2015

Marja Ndeyapo Mushaandja-Mufeti
Department of Educational Foundations
Faculty of Education
University of Botswana
Private Bag 0022
Gaborone, Botswana

<u>**RE: PERMISSION TO CONDUCT RESEARCH**</u>

TITLE: "AN INVESTIGATION OF INSTRUCTIONAL STRATEGIES USED IN LARGE CLASSES AT THE UNIVERSITY OF NAMIBIA: A CASE OF HIFIKEPUNYE POHAMBA CAMPUS"

RESEARCHER(S): Marja Ndeyapo Mushaandja-Mufeti (Student no: 201208011)

Approval has been granted for the above study.

The Office of Research and Development is satisfied with the process for data collection, analysis and the intended utilization of findings from this research and is confident that the project will be conducted effectively and in accordance with local and international ethical norms and guidelines.

This letter does not however give permission to collect data from the selected facilities without approval from management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Office of Research and Development.

Sincerely,

2015 -05- 0 7

Dr M. Kasule
Assistant Director Research Ethics, Office of Research & Development

Appendix M

Permission letter from UNAM

UNAM RESEARCH & PUBLICATIONS OFFICE
Office of the Pro-Vice Chancellor: Academic Affairs & Research
University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park, Office D090-Dblock, Ground Floor
☎ +264 61 206 4673; E-mail: research@unam.na; Fax:+264 61 206 4624/0886526613; URL.: http//www.unam.edu.na

UNAM
UNIVERSITY OF NAMIBIA

27th May, 2015

Ms Marja Ndeyapo Mushaandja-Mufeti
Hifikepunye Pohamba Campus
UNAM

Dear Ms Mushaandja-Mufeti

RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT UNAM

Your application for permission to conduct research at UNAM entitled *An investigation of the instructional strategies used in large classes at the University of Namibia: A case of Hifikepunye Pohamba Campus* for PhD studies registered at the University of Botswana was received. It was evaluated by our experts in accordance with the relevant UNAM Policies and related guidelines. Permission is hereby **granted** with the following conditions:

(a) You will notify and fully consult with the relevant Director and HoDs of the Campus and Departments, respectively, where you intend to conduct your research before commencing and during your data gathering.

(b) During the course of your research at UNAM, you will observe the required procedures, norms, and ethical conduct in accordance with the relevant policies and guidelines. If not sure, please consult the relevant Offices at UNAM for guidance.

(c) No inconveniences, disturbances or disruptions to the normal duties of the participants/respondents, the functioning and operations/processes of the concerned Campus and Departments will be caused.

(d) The results/findings of your research will be shared with the PVC (AA&R) and/or his nominees before they are disseminated or published in the public domain.

(e) On completion, a copy of the Thesis should be lodged with the UNAM Library for our reference, notwithstanding the conditions and regulations of University of Botswana.

(f) Proper/full acknowledgement of the University of Namibia and all participants/respondents shall be done in the thesis and any subsequent publications arising from this research.

If you are agreeable to the above conditions, please sign and date a copy of this letter and return to the Research & Publications Office (RPO) at your earliest convenience. If you have any queries, do not hesitate to contact the RPO (Email: research@unam.na). I wish you all the best in your studies.

Yours faithfully

Prof. I. Mapaure
UNAM RESEARCH COORDINATOR
Cc.   Prof. O.D. Mwandemele, PVC: ACADEMIC AFFAIRS & RESEARCH

I **accept and agree to** the above conditions.

MARJA NDEYAPO MUSHAANDJA   June 02, 2015
FULL NAME & SURNAME mufeti   SIGNATURE   DATE
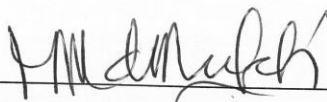
Appendix N

AUTHORIZATION

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above, have had all your questions answered, and have decided to participate.

_____   20/08/2015

Name of Research Participant (please print)   Date

_____   Aug 20, 2015

Signature of Staff Obtaining Consent   Date

(Optional)

YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research participant; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Office of Research and Development, University of Botswana, Phone: Ms Dimpho Njadingwe on 355-2900, E-mail: research@mopipi.ub.bw, Telefax: [0267] 395-7573.

AUTHORIZATION

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above, have had all your questions answered, and have decided to participate.

_____   19/08/2015
Name of Research Participant (please print)   Date

_____   Aug 19, 2015
Signature of Staff Obtaining Consent   Date
(Optional)

YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research participant; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Office of Research and Development, University of Botswana, Phone: Ms Dimpho Njadingwe on 355-2900, E-mail: research@mopipi.ub.bw, Telefax: [0267] 395-7573.