

PERSPECTIVES OF UNDERGRADUATE NURSING STUDENTS ON COMMUNITY BASED EDUCATION

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By

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DECLARATION

This dissertation presents the original work that was entirely done by the author. The content of this dissertation has not been submitted before for any other degree and in any other institution. All sources that have been used in this study were acknowledged and referenced.

Thokozani Octavia Zondi

Date

Professor N.S. Gwele

Date

DEDICATION

I dedicate this study to the Almighty God who gave me strength and courage to pull through.

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I thank God for giving me such a loving and supportive family (my husband Zenzele and my two sons Mpumelelo and Nkululeko Zondi). Thank you for supporting me all the way through.

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ABSTRACT

AIM

The aim of the study was to examine students' perspectives regarding their learning in a community based undergraduate nursing programme at the Durban University of Technology in South Africa.

METHODOLOGY

A quantitative descriptive design was used to examine student nurses' perspectives regarding their experiences in community-based education (CBE), with specific reference to perceived academic gains, local and global gains, intrapersonal gains and interpersonal gains. Hours spent by students outside their CBE schedule as well as most preferred clinical practice environments were also examined.

Participants included 203 undergraduate nursing students drawn from the 2010, 2011 and 2012 cohorts. A stratified random sampling technique was used. A modified 4-point Likert scale version of a questionnaire designed by Ibrahim (2010), which also comprised of open-ended questions for supportive qualitative information, was used to collect data. Analysis was done accomplished using SPSS Version 22 for the quantitative data and identification of themes for the supportive qualitative information.

RESULTS

The study results revealed that students had benefited from CBE in all the four domains under study. Participants rated the impact of CBE on academic gains lowest ($\bar{x} = 3.09$, $SD = .38$) with perceived impact of CBE on local and global gains rated highest ($\bar{x} = 3.33$, $SD = .38$). The personal gains subscale was the second highly rated subscale with a mean of 3.27 ($SD = .43$), followed by the intrapersonal gains domain ($\bar{x} = 3.15$, $SD .48$). No significant differences were found between groups on all the variables of interest.

Furthermore, the results revealed that participants spent a varying number of hours outside of scheduled CBE placement. The majority of the participants spent 200

hours to 399 hours (n= 119) = 58.6% in the first semester and (n = 120) = 59% in the second semester. The majority (72%) of the participants indicated that their preferred clinical practice environment was Primary Health Care.

KEY CONCEPTS

CBE, CBL, Nursing Students, CBE Clinical Placement.

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LIST OF ABBREVIATIONS

CBE	Community Based Education
CBL	Community Based Learning
SL	Service Learning
CETSL	Community Engagement Through Service Learning
COBES	Community Based Education Service
EL	Experiential Learning
PHC	Primary Health Care
HEI	Higher Education Institution
HOD	Head of Department
DUT	Durban University of Technology
ANOVA	Analysis of Variance

CHAPTER 1 : INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Community Based Education (CBE) is an innovative educational approach that has been implemented by a number of higher education institutions (HEIs). Globally there seems to be agreement on the potential created by the advent of CBE in education for social justice (Okayama and Kajii, 2011:1). Based on the results of a qualitative study examining the experiences of nursing students in non-traditional clinical settings, Kirkham, van Hofwegen and Harwood (2005) concluded that such clinical learning settings have potential for transformative learning.

According to Woodhouse and Knapp, (2000: 1) CBE is synonymously expressed as service learning or community engagement as they all create a platform for students and community to interact with the intention for both parties to benefit. In CBE, students identify health problems that are prevalent in the community and together with the community members attempt to solve them using an intersectoral approach, such as working with non-governmental organisations (NGOs), social workers, doctors and various government departments to mention a few. Student placement at various community sites takes place at certain intervals to allow students to build relationships with the community and gather as much data as possible.

According to Mtshali (2009: 26), in 2009 there were only four university nursing schools and two nursing colleges running CBE programmes in South Africa. Mtshali further noted that most nursing education institutions (NEI's) in South Africa used high technology and well-resourced urban hospitals as main clinical facilities for placement of students. This has led to deprivation of students' exposure to under resourced rural facilities, which in fact are the facilities where a large portion of the population is based. Furthermore, this has led to production of highly skilled nurses who were only able to serve a small portion of the population. The graduates therefore, could not function effectively in the under resourced facilities. Yet that is where the bulk of the population resides. It therefore became difficult to retain these

graduates when they were employed in the under-privileged areas (Mtshali, 2009:27).

A White Paper for the Transformation of the Health System in South Africa was released in 1997 (Department of Health, 1997). With respect to health sciences education, the White Paper for Transformation of the Health System states that, “Health sciences curricula should be restructured to reflect community needs more accurately and teaching should place greater emphasis on community and outcome-based programmes”. The call for community based education in the health care professions was aimed at preparing future health care professionals, including nurses, for a primary health care (PHC) driven District Health System. According to the Minister of Health, a community-needs based health sciences curriculum amongst others includes primary health care, health promotion, ethics, and community participation (Department of Health, 1997).

Community based education (CBE) refers to education that takes place where people live or in the community, which includes urban, semi-urban and rural communities. It takes place in clinics, general hospitals, old age homes and crèches (Kaye *et al.*, 2011). CBE is an extension of classroom learning which leads to correlation of theory to practice. As such, students acquire a number of skills including critical thinking skills, problem solving skills, self-directed learning skills and communication skills (Mtshali, 2009: 31). Furthermore, CBE allows students opportunities to acquire relevant professional competencies in community settings such as emotional, cognitive and social aspects of learning. It also increases students’ experience, confidence and competencies. For those students who have no knowledge or experience of rural communities, placement in such communities provides them with an opportunity to learn more about the lifestyles and values of rural communities. Furthermore, the community gets to be exposed to the profession, which is likely to increase the uptake of nursing careers in rural areas. Through constant exposure of students to communities during clinical placements for CBE, their values and perceptions about the nursing profession are shaped, thus improving ethics and professionalism (Kaye *et al.*, 2011:2).

Community based education is one of the strategies used by communities and HEIs to enter into partnerships with a view to enhance students’ learning and contribute

to communities' efforts towards improving their lives. It is characterised by shared goals, power, and responsibilities between the community and the HEI. Ultimately, the community and students work together and identify projects that are relevant to the community concerned (Mbalida *et al.*, 2011: 1).

South Africa is gearing up to launch a National Health Insurance (NHI) scheme that is underpinned by a re-engineered PHC approach in which nurses will constitute the largest number of health care providers. Community Based Education is in line with re-engineering of PHC in the South African health system. Rethinking in nursing education is necessary to bring about a new world of nursing education (Steiner *et al.*, 2010: 11). The Durban University of Technology (DUT) responded to this call by incorporating CBE into the undergraduate curriculum in 2010. The question remains, however, as to whether this four year undergraduate nursing degree programme has achieved what it set out to achieve.

1.2 STUDY CONTEXT

The Durban University of Technology is a product of the merger between M. L. Sultan Technikon and Natal Technikon in 2002. Neither of the legacy institutions had an undergraduate pre-licensure nursing programme. Both institutions offered one year post licensure programmes in specialization areas for practising professional nurses. At M. L. Sultan, only the one-year diploma in Community Health Nursing was on offer. Technikon Natal on the other hand, offered a one year Bachelor of Technology in nursing programmes with specializations in PHC, Occupational Health and Nursing Management. Postgraduate qualifications in nursing in the form of master's and doctoral degrees were also offered.

In response to the then (2008) President's call for poverty alleviation as well as the opportunity provided by Atlantic Philanthropies' funding for nursing education in South Africa, DUT admitted its first cohort of students to a four-year pre-licensure undergraduate nursing degree programme in January 2010. According to the founders of the programme, the purpose of the four year Bachelor of Technology in Nursing Science programme was to "produce nurses who are competent to function within a District Health System (DHS), with specific reference to PHC settings. The focus was on relevant, authentic and transformative learning experiences that

recognise the significance of sociolinguistic meaning perspectives about health and disease as well as a critical understanding of social, political and economic determinants of health” (Gwele and Makhanya, 2008: 8). Hence, a community and case-based learning programme was launched in 2010. Four community sites were selected for CBE placement, namely, Mpumuza, Cinderella, Copesville and Willowfontein.

Mpumuza is a rural community under the leadership of the chief and councillors. It had a total population of 18770. Statistics showed that all of South Africa’s major racial groups resided in the area; however, Coloureds, Whites and Indians were represented in very low proportions. Although Mpumuza community has such a vast population, statistics revealed that the majority were unemployed and some were on social grants. The community had a proper housing system and good infrastructure. It had one clinic, four schools, that is, two primary schools, one high school and one special school. A branch of the Human Sciences Research Council (HSRC) was established in Mpumuza area for researching in HIV and AIDS.

Willowfontein is also classified as a rural area. Although it has well built houses it has poor infrastructure and gravel roads. It has a population of 15317 of which most are unemployed. Willowfontein is under the leadership of a councillor. The community has built a museum as a project that is still to be launched. It has one clinic, one primary school and one high school. Willowfontein community was frequently visited by Non-Governmental organisations (NGO’s) who were responsible for screening, giving relevant health education and referral of individuals who required the next level of care. During interventions, the study participants (DUT nursing students) had an opportunity to work hand in hand with different health categories.

Copesville is a suburban residential area, which was built by the House of Delegates for Indians during the apartheid era and is presently administered by the Provincial Department of Human Settlements. Copesville had a section that has government allocated houses through the Reconstruction and Development Programme and the other section consists of an informal settlement. Community profiles conducted by students showed that Copesville had several refugee camps and some of these houses were made of old metal and mud. Other reports from students were that

Copesville had a diverse population, which included people from Zimbabwe and other countries.

The total population count at Copesville is 18982 and all major SA racial groups resided in this area. South Africa has eleven official languages with sign language being the twelfth one. According to the 2011 census report (Statistics South Africa, 2011), Copesville was inhabited by racial groups who spoke all the eleven official languages as well as other foreign languages. Reports showed that most people spoke IsiZulu (48%) with English speaking people constituting (28.45%) and other languages registered (0.33%). Similar to Mpumzuza, Coloureds, Indians and Whites were in very low proportion. Community members were working class but the majority of community members were unemployed and some were receiving social grants. Those that were employed in low income jobs such as domestic workers, gardeners and security guards. In the area, there seems to be high incidence of drug and alcohol abuse. Copesville had the following resources: one high school, one primary school, one sports facility and one clinic. There were two government projects in the community that employed mainly youth from the informal settlements to do grass cutting and other maintenance work. There were community members who were participating in one home and one garden campaign.

Similar to Copesville, Cinderella comprises a population that is working class but with a very high rate of unemployment. Most of the community members were receiving grants and even those that were employed were earning low wages. Cinderella had a population of approximately 18000. There was high incidence of drug and alcohol abuse in the community. House breaking, car hijacking and theft were rife in the area. The area lacked important resources such as schools, library, clinics and sports facilities. According to students' reports, the area had poor infrastructure. However, students highlighted that they were excited to be exposed to services in the community which included an NGO known as Rivelife which is responsible for organising health related campaigns once a year for screening of community members. The NGO comprised nurses, doctors, optometrists, health councillors etc. During these campaigns, students were able to interact with different health professionals. Students highlighted that the campaign broadened their understanding of their career. Amongst the skills that were reported to be practised were; blood pressure, pulse and respiration estimation, measuring of blood sugar

levels, eye testing as well as HIV testing (accessed from students' community profiles).

DUT admits 100-110 students per academic year into the B. Tech Nursing Science programme. A minimum of 25 students are placed in each of the four community settings. The first cohort of undergraduate nursing students was admitted in 2010, second in 2011, third in 2012 and the fourth cohort in 2013. The student head count in the programme in 2013 was 391.

Students spent a semester in each of the first two years of study in community settings. In addition, the 2nd semester of the 4th year is dedicated to PHC settings. It was expected that during the first semester of community placement, students would conduct community assessments and determine the actual and/or potential health problems that might be facing the communities in which they worked. Identified health problems would form the core of what was learned in class. Together, with the communities, students prioritized and identified a particular problem that they could work with and try to intervene in collaboration with the communities. An evaluation process followed the project implementation.

Although CBE takes place in diverse clinical contexts, such as hospitals, communities, crèches and old age homes, this study only focused on four communities that were utilized for the placement of nursing students enrolled in the newly established four year undergraduate degree programme at DUT.

Empirical literature on CBE attests to the significance of students and teacher preparation for CBE. However, the literature highlights a number of problems in planning, implementation and evaluation of the educational programmes, with special reference to preparation of students before placement, mentoring, environment and the assessment criteria (Salmon and Keneni, 2004: 173). These problems seem to have permeated the first two years of CBE at the university under study as well. Specifically, most of the academic staff (lecturers and clinical instructors) had no prior experience of CBE before joining the university concerned. Students were not familiar with CBE either. Although some staff preparation was carried out, very little was done to prepare students for this "new" experience. This was however, rectified for the 2012 cohort of students. At this time a document detailing the CBE process for both staff and students was developed, which helped

guide the process. The 2012 cohort began their CBE experience with a five-day team-building workshop as well as capacity building in community mobilization, conflict management and negotiation.

1.3 PROBLEM STATEMENT

A number of health care professions' education programmes have incorporated CBE into their curricula with the aim of enhancing PHC as alluded by the World Health Organization (World Health Organization, 1987) and South Africa's White Paper for Transformation of the Health System (Department of Health, 1997). Rethinking in nursing education is necessary to bring about a new world of nursing education (Steiner *et al.*, 2010:11). This move has benefited both the community and the students. This extension of classroom learning to outdoor activities has created student awareness of real health problems that are prevalent in the community they will serve, and it has increased the uptake of careers in rural areas (Mtshali, 2009: 31).

South Africa is gearing up to launch the NHI in which nurses will constitute the largest group of health care providers. DUT incorporated CBE in the undergraduate nursing curriculum in 2010.

Empirical literature on CBE attests to the significance of students and teacher preparation for CBE but also highlights a number of problems in planning, implementation and evaluation of the educational programmes (Salmon and Keneni, 2004: 173). These problems seem to have permeated the first two years of CBE at the university under study, but improved from 2012 when a document detailing the CBE process for both staff and students was developed.

Community based education is not a conventional approach to nursing education. Most nursing education programmes in South Africa are content and curative health focused. Hence, there is a very limited pool of nurse educators from which institutions that offer CBE programmes have to draw their teaching personnel. Students are also products of traditional schooling systems. Community based learning introduces new challenges to both students and lecturers.

For an educational programme, however, the most pressing challenge is how far the chosen educational approach, CBE in this case, contributes to the attainment of the programme's educational goals. For the programme under study, the goal was to produce PHC oriented nurses with a strong sense of social justice. In addition, it was believed that participation in a CBE programme that placed emphasis on the use of authentic learning settings, problem posing and critical analysis of socio-political and economic determinants of health would lead to reflective and self-directed nurses, with a strong sense of civic responsibility. CBE is a new concept in the current curricula and it has not yet been explored scientifically from students' perspectives.

1.4 PURPOSE OF THE STUDY

The purpose of the study was to examine the students' perspectives regarding their learning in a community-based programme in a selected HEI. Specifically, the study sought to answer the question: What are the nursing students' perspectives regarding their experiences in a community-based education programme?

1.5 RESEARCH OBJECTIVES

The objective of the study was to examine the students' perspectives regarding their learning in a CBE undergraduate nursing programme. Specifically, the study objective was to assess the impact of CBE on students' academic skills, personal development and sense of civic responsibility as measured by the Community Based Learning (CBL) scale developed by Ibrahim (2010).

1.6 RESEARCH QUESTIONS

What were the students' perspectives regarding their experiences in CBE with specific reference to:

- (a) Academic and personal development?
- (b) Intrapersonal development and civic responsibility?
- (c) Satisfaction with CBE?

1.7 HYPOTHESES

- (a) The 2011 cohort group will have more positive perspectives of the influence of CBE on their learning compared to the 2010 cohort group, with the 2012 cohort group having an even better perception on CBE than the 2010 and 2011 cohort groups.
- (b) The 2011 cohort will have more positive perspectives of the influence of CBE on their learning compared to the 2010 cohort.

1.8 SIGNIFICANCE OF THE STUDY

It is envisaged that the results of the study would be incorporated into the CBE curriculum and the study could highlight areas of focus to educators during CBE teaching and learning. Recommendations could be adopted by other HEIs to improve their CBE programmes. Results could also be used for developing and enhancing educators and students' skills in community based education. Finally yet importantly, results could form the basis for future research studies to improve CBE programmes.

1.9 OPERATIONAL DEFINITIONS

1.9.1 Community Based Education

Community Based Education refers to a learning programme that places students in community sites for the purposes of learning. In the context of this study, this includes learning activities that take place in areas where people live or in communities. This includes the four communities where students were placed which are within 10km radius from Durban University of Technology.

1.9.2 Community Based Learning

Community Based Education and Community Based Learning were used interchangeably in the study because both concepts refer to learning which takes place where people live be it a rural or semi-urban area.

1.9.3 Perspectives on CBE

This refers to students' views regarding their experiences during the CBE programme, which includes academic and personal development as well as intrapersonal development and civic responsibility.

1.9.4 Cohort of Students

This refers to students admitted to the B Tech Nursing Science programme for the first time in a particular academic year e.g. 2010 cohort, 2011, cohort, 2012 cohort and 2013 cohort.

1.10 CHAPTER CONCLUSION

The chapter has looked at the background of the study, which highlighted that there is progressive change in practice, which warrants a corresponding change in nursing education to match with the changing times. CBE has been cited as one of the strategies that are used to extend classroom teaching. Studies have shown that CBE has been implemented globally. Durban University of Technology launched its CBE undergraduate nursing programme in 2010. To date there has been no study examining students' perspectives on CBE at DUT.

The study purpose, research objectives, research questions and definition of key concepts were presented in this chapter. Chapter 2 of the study looks at the related literature and Chapter 3 focuses on the methodology. Chapter 4 presents and analyse the findings of the study and Chapter 5 discusses the findings and present recommendations arising from the study findings.

CHAPTER 2 : LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides a review of the body of knowledge related to (a) conceptualization of CBE, (b) rationale for CBE in nursing education, (c) philosophies, theories and models underpinning CBE and (d) outcomes of CBE.

2.2 CONCEPTUALIZATIONS OF COMMUNITY BASED EDUCATION

Kaye *et al.* (2011: 2) view CBE as having several definitions, but contend that the core definition describes it as learning that takes place in settings that are away from the higher education institution. It is the form of instruction whereby students acquire professional competencies in community settings. This includes settings such as community health centres, rural hospitals, communities and general practice. The main objective is to allow students to learn more about the available resources, health promotion methods as well as the disease profile in the community.

Similarly, Mtshali (2009: 25) defines CBE as a pedagogy that is used to link service and student learning. This takes place in communities where students are assigned to apply theoretical knowledge in assessing, planning and participating in solving community health problems. Both Kaye *et al.* (2011) and Mtshali (2009) state that community based education is concerned with education, learning and the involvement of stakeholders in the learning and education process.

Place based - education is also expressed in the same manner as community based education since in both educational approaches students are exposed to outdoor methodologies in order to connect with the real world at large. This allows the student to correlate theory with practice by identifying health problems and finding a solution to address them with the community (Woodhouse & Knapp: 2000).

There seems to be some consensus that CBE for the health professions is not an arbitrary approach to teaching and learning (Okayama and Kajii, 2011: 4). Kaye *et al.* (2011: 2) maintain that it is goal driven and has a number of goals such as knowledge generation, skills acquisition, health promotion, prevention of ill health and understanding of multidisciplinary teamwork.

2.3 RATIONALE FOR CBE IN NURSING EDUCATION

Literature attests to a number of reasons for introducing CBE in health professionals' education (Kaye *et al.*, 2011; Mtshali, 2009). According to Kaye *et al.* 2011, CBE encompasses the emotional and the social aspects of learning. These authors maintain that CBE increases students' confidence and experience. In addition, it is believed that it improves student's awareness of community values and lifestyles of health workers in community settings and as such, increases students' interests in uptake of careers in rural settings. Kaye *et al.* further assert that CBE brings a holistic understanding of health and health systems in the community.

Okayama and Kajii (2011: 4) maintain that CBE affords students opportunities to learn and identify health problems that are prevalent in the community, thus enabling them to render the necessary skills and knowledge to the community concerned. This is achieved through health education delivered to individuals and communities regarding common health risks. Through constant interactions of the students with the community, attitudes towards practising community health care are improved. These views are supported by Kaye *et al.* (2011: 5) in maintaining that CBE helps in the training of health professionals and that in the long term CBE will facilitate the attainment of the goal of improving the recruitment, deployment or retention of health workers in the rural areas.

Skinner *et al.* (2008: 2) argue that early experience in CBE is believed to have an influence in the students' skills by improving essential skills such as interpersonal skills, leadership skills, conflict management skills, understanding and empathy of students towards ill people. It also increases understanding as to how living conditions can influence health and disease.

Mpofu *et al.* (2004: 2) maintain that CBE broadens students' minds on issues pertaining to available health services in the community, social and economic

aspects of illness, health promotion methods, collaboration and team work as well as types and frequency of problems that are encountered outside the hospital setting. The community controls the service that is provided or served by the students and in this way; students acquire the necessary skills to serve.

Based on their review of the literature, Redman and Clark (2002: 448) attest that nursing education must strengthen community relationships and education through service learning to enhance students' skills such as communication skills, writing skills, and team building skills, critical thinking and many more. These skills are necessary for academic and social development. The benefits of service learning include: (a) working closely with the communities, (b) developing partnerships with the communities and (c) development of collaborative skills.

Redman and Clark (2002: 448) further state that service learning must be incorporated in health service curricula so that future health professionals will be competent clinicians. The authors propose that the model that is used for service learning should comprise the following essential elements:

- (a) Partnership between the campus and the communities where the community will define their needs for service and the higher educational institution will then structure the curriculum in such a manner that it allows students to learn and at the same time address community needs;
- (b) The model allows critical reflection by students on the possible driving forces regarding community needs and make attempts to solve them through collaborative effort; and
- (c) Development of civic responsibility in solving community problems by students.

It is believed that critical reflection serves as a powerful tool when used together with social justice. Social justice helps students to scrutinize social problems and encourages them to reflect on the causes of identified problems.

2.4 COMMUNITY BASED EDUCATION MODELS

2.4.1 Kaye *et al.*'s Community Based Education Model

Following an investigation into CBE in HEI institutions in Uganda, Kaye *et al.* (2011: 5) proposed a model of CBE because they found that there was a variety of views on CBE, and the implementation of CBE programmes by training institutions was variable with major flaws in the curriculum content. Some institutions viewed CBE as subject, or a course and some viewed it as program. Therefore, a CBE model was developed based on the findings.

2.4.1.1 Purpose of the Model

The aim of the proposed model was to deliver a minimum package for CBE and address the differences in concepts, conduct and implementation of CBE at different professional health training institutions.

2.4.1.2 Perceived Ideal Objectives for Health Professionals

The main aim is to:

- Enable trainees to acquire knowledge and understanding of matters related to health and disease, rendering of congruent care by means of promoting health and prevention of diseases at individual, family and community level.
- Develop lifelong learners, self-directed, inquisitive, reflexive and exploratory health professionals.
- Enable students to correlate theory to practice and vice versa. Students may identify health problems/conditions that are prevalent in the community then they can use information gathered from the community to form part of their discussion/content in class.
- Enable students to acquire problem solving skills through early exposure to the community and early community diagnoses (Kaye *et al.*, 2011: 9).

2.4.1.3 The Curriculum Components

Kaye *et al.* (2011: 7) attest that the curriculum must have a balance between factual knowledge and skills. It must be capable of developing general skills such as critical thinking, problem solving, leadership skills, management and teamwork. The

curriculum should promote early contact with the community while at the same time encouraging collaboration amongst different professionals. The content must also cover wider aspects of health care such as economics, health, and political aspect of health system, medico-legal issues and medical audit. Reliable methods of assessment that are in line with the aims of the curriculum must be ensured (Kaye *et al.*, 2011: 7).

2.4.1.4 Assumptions of the Model

- A well-developed curriculum will involve six steps and will balance clinical and theoretical content.
- A well-planned CBE program will comprise clearly set objectives and intended outcomes.
- Supervisors, tutors and faculty will have clearly defined roles (Kaye *et al.*, 2011: 7-9).

2.4.2 Kear's Transformative Learning Model

Kear (2012) conducted a study aimed at understanding transformative experiences of 10 students enrolled in an associate degree-nursing programme. The transformative learning model was developed following an investigation involving nursing students who were in an associate nursing degree program (Kear, 2012: 1087).

Mezirow's transformative learning theory was used to guide the analysis of the students' narratives of their experiences in an associate degree programme. Mezirow (cited in Kear, 2012) conceptualized transformative learning as consisting of three phases, namely (a) disorienting dilemma, (b) critical reflection and (c) changed meaning perspective. Narrative data was used. Analysis of the students' narratives about their learning experiences in the associate degree nursing programme yielded five threads which then became Kear's transformative learning model's building blocks or substantive concepts including learning as: (a) a multifaceted process, (b) involving human interactions, (c) grounded in experience, (d) intertwined with personal life experiences, and (e) a transformative process.

2.4.2.1 Purpose of the Model

The aim of the proposed model is to bring about transformative learning through exposure of students to different clinical settings and worldviews.

2.4.2.2 Substantive Concepts of the Model

As mentioned before, five threads emerged and they all interconnect at the Transformative thread, which is the fifth thread. Based on the five threads that emerged, the model of Transformative Learning was developed as outlined below.

2.4.2.2.1 Multi-Factorial Learning

This is learning that takes place in different settings, using different strategies and involving different individuals. It also involves a connection between classroom learning and experiential learning. A number of resources have been identified as playing a significant role in learning. These include clinical laboratories, classrooms, clinical settings, communities, as well as interactions with peers (Kear, 2012: 1085).

2.4.2.2.2 Stories of Experiential Learning

According to Kear (2012: 1085), stories of experiential learning refer to experiences that take place outside the classroom, clinical, or laboratory setting. In this type of learning students recall different types of experiences that led to their learning. These experiences include multicultural and spiritual experiences, socio-political issues as well as community work. According to Kear, all the above mentioned experiences lead to changed perceptions when a student gets to the root cause of an event or culture.

2.4.2.2.3 Human Interactions

Kear (2012) attests that human interactions are the core for Transformative Learning. The author reports that the study that was conducted revealed that, a number of students recalled that most interactions took place during experiential learning in contexts such as communities and clinical facilities during training and employment. Students also recounted their experiences with different health care

service providers with their different attitudes as well as different patient's behaviours (Kear, 2012: 1085).

2.4.2.2.4 Intertwining Experiences

In this thread, students gave an account of multiple factors that motivated them to choose nursing as a career and the following factors emerged:

- Certain characteristics that they hoped to develop as a nurse.
- Impact nursing had in their lives and their views.
- A personal philosophy of nursing.

2.4.2.2.5 Transformative Learning

Literature reveals that Transformative Learning is not based on a single experience, but rather on a variety of experiences and opportunities that involve personal, academic and practice experience. Emphasis is placed on critical reflection (Kear, 2012: 1086-1087).

2.4.2.3 Relational Statements

Many of the threads contained more than one thread. The narratives contained all four threads that make up the fifth thread, which is the stories of Transformative Learning. When all four threads are woven together, they all intersect at the centre of the Transformative Learning Model.

Where the threads overlap, the meeting centre is Transformative Learning. Human interactions were regarded as most significant and these took place throughout the experiential learning context. Learning took place in five learning innovated settings: prisons, international, parish, rural and aboriginal (cited in Kirkham, van Hofwegen and Harwood, 2005). Literature reveals that learning in such places leads to dissonance, soul searching and commitment to social change, which aligns with Mezirow's three phases of Transformative Learning Theory (Kear, 2012: 1087).

2.4.2.4 Assumptions of the Model

The proposed model has the following assumptions:

- Effective learning takes place in diverse learning settings such as communities, clinical facilities prisons, international, parish, rural aboriginal etc.
- For Transformative Learning, there needs to be interconnection of the four threads.
- Human interactions are the core for transformative learning.

The model is illustrated in Figure 2.1.

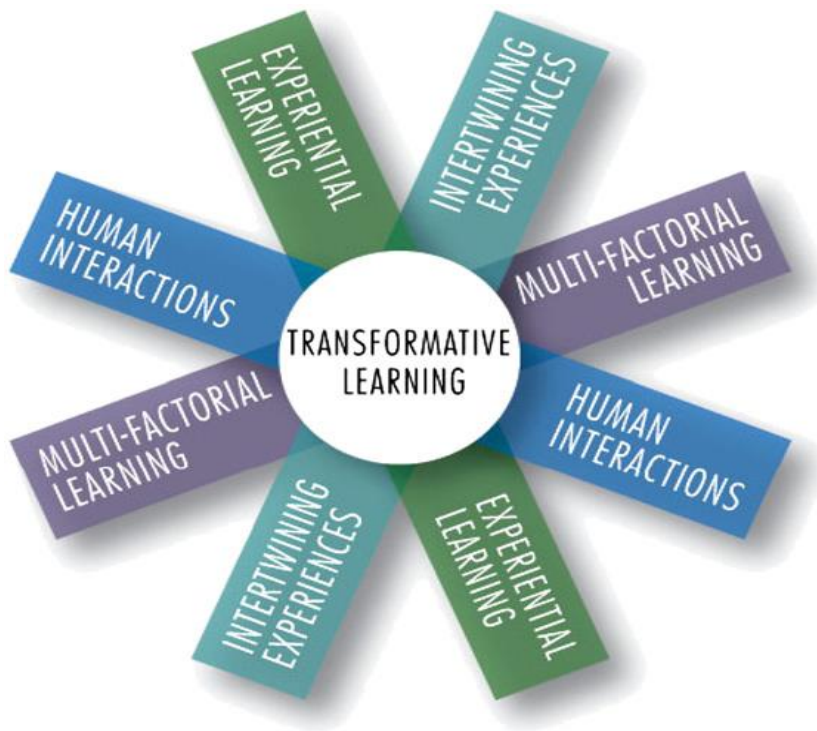


Figure 2.1: Transformative Learning Model (adapted from Kear, 2012)

2.5 COMMUNITY BASED EDUCATION IN SOUTH AFRICA

Very little has been written on CBE in nursing education in South Africa. Hence, this section of the review will focus on research on CBE in the health professions education in general. The early 1990s saw the establishment of the first community

oriented and problem-based medical education programme at the then University of Transkei, now known as the Walter Sisulu University (WSU). Hence, WSU has been called a pioneer in community and problem based education in South Africa (Yogeswaran, O'Mahony and Mfenyana, 2011). A study conducted by Mtshali (2009) reported that only a handful of nursing education institutions were running community-based nursing programmes at the time. Extensive literature search yielded very little empirical reports on CBE in nursing education in South Africa.

Reviewed literature shows that universities in South Africa have adopted CBE and service learning (SL) as approaches to teaching/learning in undergraduate health sciences programmes in order to prepare students for future professional work in rural and underserved communities (Mpofu *et al.*, 2004; Richards, 2001). Mpofu and colleagues further assert that CBE could strengthen relationships between communities and HEIs thus increasing the uptake of rural careers. It is apparent from the literature, however, that the process of implementation is not always ideal. In this regard, Mtshali (2009: 25) attests that CBE has been implemented in a number of HEIs in South Africa; however, CBE programmes were haphazard, uncoordinated and ineffective which resulted in poor student motivation. Following a study involving medical students at Maastricht University, Kristina, Majoor, and van der Vleuten (2006: 179) reported that students felt that the programme benefited the students and health care providers in community settings. However, they bemoaned their inability to focus on what the community needed, due to "mismatch between their activities in the community and the community's felt need".

2.6 EDUCATIONAL PHILOSOPHIES UNDERPINNING COMMUNITY BASED EDUCATION

A number of philosophies underpins community Based Education and a few are discussed below. Ralph Tyler as cited by Wiles and Bondi (1998: 35) describes philosophy as a screen that could be used for selection of educational objectives. Boyd Bode on the other hand, views a philosophy as a source of reflective consideration (Wiles and Bondi, 1998: 35). Philosophies can be useful in many ways such as helping the curriculum leaders in defining the purpose of education, clarifying objectives, role clarification of those working in an educational institution

as well as giving guidance in the selection of learning strategies and tactics in the classroom (Wiles and Bondi, 1998: 35).

According to Tanner and Tanner (1995), there are five major schools of thought in educational philosophy: the conservative view, the progressive view, the romantic view, the radical and the inner vision. This brief review however, will focus only on those philosophies that are believed to have a bearing on CBE that is, the progressive view and the radical view.

2.6.1 The Progressive View

From the progressive perspective, humanity is viewed as existing in an evolving universe; therefore, knowledge is not static, but rather dynamic. In the words of Yilmaz, Altinkurt and Çokluk (2011: 344), “Progressivism rejects unchanging and universal absolute facts and sees change as the centre of education”. Hence, progressivists argue that education is a process of growth rather than being the process whereby culture is transmitted (Tanner and Tanner, 1995: 318).

There are however, two main streams of progressive education, which are the European stream and the experimentalism stream. The European stream, also known as the progressive romantic naturalism stream, advocates for independence in learning so as to allow students to grow and develop potential on their own and acquire the necessary skills. Rousseau, a well-known proponent of romanticism, believed that, “the best that a teacher can do, is to do nothing” (Tanner and Tanner, 1995). All professional education is regulated. Hence, the review of literature on progressivism focuses only on experimentalism.

2.6.1.1 Experimentalism

John Dewey is largely acknowledged as the proponent of the experimentalist view of education (Tanner and Tanner, 1995). Dewey described the purpose of education as allowing the individual to grow progressively. He described this type of growth as not having a specific direction. Dewey described growth as leading to another growth. He viewed education as promoting development and argued that there is no fixed ultimate aim for education; however, an aim could be used to guide the activity as long as it is adequate and if it is no longer effective, it will have to be

changed. According to Ralston (2011: 353), Dewey viewed education as synonymous with growth. He believed that education functions as a catalyst for growth, which could take any form of direction. Ralston (2011: 354) further states that Dewey advocated for growth that does not necessarily depend on formal education; but rather growth that takes place in any form or direction and that could be acquired formally or informally

Experimentalism is concerned with allowing students to experiment, which could be in the form of a research project or any other situation that will cause a student to generate new knowledge. Experimentalists believe that schools exist to discover new things and expand the society that the community lives in. Gwele (2005: 7) argues that “the basic premise on which experimentalism is based is that reality is external and observable”. Citing Tanner and Tanner (1995) she further argues that there are broad presumptions that underpin experimentalism which are:

- (a) The meaning and value of ideas are expressed in results;
- (b) Ideas need to be tested in the form of experiments; and
- (c) Change is inevitable in human existence and human beings must be able to adjust to changes and this is a fundamental principle to every democratic and constructive living individual (Gwele, 2005: 8).

Experimentalists continually accept change and strive to find new ways to expand and improve society (Wiles and Bondi: 1998: 43).

2.6.1.1.1 The Purpose of Education

From the experimentalist view, the purpose of education is to enable students to make connections between their life experiences and their content. Education is viewed as promoting responsibility and critical reflection (Gwele, 2005: 6). It is viewed as a tool that will promote growth that leads to acquisition of skills and knowledge. Experimentalists advocate for continuous search and discovery of new ways to improve society (Wiles and Bondi 1998: 43). Bigge (1982: 8), on the other hand, attests that education is primarily a social undertaking that forms fundamental intellectual and behaviour patterns toward nature and people.

2.6.1.1.2 The Nature of Knowledge

There is a belief that things are constantly changing therefore new knowledge is generated from the learning context to create new meanings. The experimentalists advocate for a knowledge base that is obtained through enquiry regarding issues that affect the community, such as access to education, political power and freedom of expression. This knowledge is then incorporated into the curriculum (Wiles and Bondi, 1998: 44). According to Bigge (1982: 8), experimentalists advocate for social studies as of primary importance. Students learn by doing and they are exposed to situations where they will be able to bring about new meanings.

2.6.1.1.3 The Role of the Teacher

In the experimentalist view, the teacher is perceived as a facilitator of learning and a resourceful person. He/she provides guidance to students where necessary and gets to the level of the student rather than assuming a superior role. The teacher is the director of learning using group dynamics (Bigge, 1982: 9). The student is the focus in the learning process (Gwele, 2005: 7). The teacher consults with students and promotes active involvement of students in their learning process. Students are then able to discover and experience the world in which they live (Wiles and Bondi, 1998: 43).

2.6.1.1.4 The Role of the Student

John Dewey as cited by (Gwele, 2005: 7) argues that the student is a psychological and social being and these two factors are equally important for a student to learn effectively. The student is actively involved in his /her learning, constructs knowledge, and generates new meanings from the context through critical reflection. The student is a self-directed student who takes initiative in the learning process and has an enquiring mind. He/she is a lifelong learner and a critical thinker (Wiles and Bondi, 1998: 43).

2.6.1.1.5 The Nature of the Educative Process

In experimentalism, the learning process takes place through critical reflection and problem solving. Students are afforded the freedom/democracy they deserve in the classroom. There are clearly stated objectives and assessment criteria that are

known from the outset to avoid confusion during the learning process. Experientialism promotes democracy and active participation in the classroom. It encourages problem based learning and the generation of new knowledge from the context. It also promotes a student centred approach to teaching and learning (Bigge, 1982: 9).

The experimentalists are in favour of a school that puts tremendous emphasis on social subjects and experiences. Students are active participants who contribute positively towards their own learning. Students bring in to class their experiences and deliberate on their experiences as a group while the teacher supports and guides students during the learning process. Learning in class takes place by means of the problem solving method. Group projects are assigned to students to facilitate learning and enquiry to the outside world (Wiles and Bondi, 1998: 43).

2.6.2 The Radical View

There are two schools of thought within the radical view. These include reconstructionism and critical curriculum theory. Reconstructionism is commonly perceived as a branch of progressive education. It is perceived as a subset of the radical view because of its view on education as a vehicle for bringing about social change mainly in the socio-political, economic and cultural arenas.

According to Gwele (2005: 8) educational philosophers such as Harold Rugg, George Count, Henry Giroux, Antonio Gramsci and Paulo Freire were dissatisfied with experimentalists' approach to education. These scholars and educational philosophers believed that the experimentalists were not radical enough and that their approach to or views of education could not lead to radical societal change and that education should play a role in bringing about change in the social order. They did not agree on all fundamental issues related to education, but they all agreed that education should prepare students for deliberative education more than preparing students for participatory democratic citizenship.

2.6.2.1 Reconstructionism

Reconstructionists view education as a driving force to bring about social change. From the reconstructionist' point of view social change as advocated by

progressivists is too slow and thus they advocate for radical change (Tanner and Tanner, 1995: 324; Mosier, 1951, 86). Reconstructionists contend that educational institutions should challenge the social order in order to bring about social reform and change in society. Education is viewed as an agent of social change which should lead society in the development of bold social designs for the future. The reconstructionists attest that educational institutions should be capable of developing adequate materials and methods for group consensus on the question of these institutions' position in the society as well as where people want to go to (Mosia,1951: 87). There are two groups within the reconstructionist school of thought, that is, ideological and methodological reconstructionism. Weltman (cited in Gwele, 2005: 7) states that ideological reconstructionism focuses on developing theory and making a case for reconstructionism as a philosophy of action in education. Methodological reconstructionists on the other hand are more concerned with the use of research-based strategies for effecting social change in education.

2.6.2.1.1 The Purpose of Education

From the reconstructionists' point of view, the purpose of education is reconstruction of both the personal and social experience. It seeks to shape social and political policies (Guttek1998: 307). Reconstructionists regard education as the most powerful weapon that could be used to bring about social change, and such change could be achieved through the effective use of a classroom. Close to 50 years ago, Mosier (1951, 87) stated that "This conception of the school as a social vanguard was intended to emphasize that the school should lead society in the development of bold cultural designs for the future, not only inculcating in students the sense of urgency of such designs, but by developing adequate materials and methods for group consensus on the question; 'Where do we as a people want to go?'"

2.6.2.1.2 The Nature of Knowledge

The nature of knowledge acquired is the knowledge that will equip the student to bring about social change. Knowledge gained creates social awareness in the students and inspires them to bring about social change through the identification of social inequities, oppression and marginalization. Reconstructionists advocate

for corrective programs that will bring about social change (Tanner and Tanner 1998: 305).

2.6.2.1.3 The Role of the Teacher

According to the reconstructionist view, the teacher is expected to encourage students to identify problems that are in the social system and effect change. This means that educators/teachers have to use a problem-centred and action-oriented approach (Gutek, 1998: 317). This involves the identification of problematic areas in the community, viable elements in culture and areas of knowledge that explain these elements and how the identified problems can be solved to bring about social change in the community (Gutek, 1998: 317). Educational institutions have an obligation to ensure that the content learned will empower students to bring about change in society/ the community, thus addressing the issues of the social injustice in the community.

2.6.2.1.4 The Role of the Student

According to the reconstructionist perspective, the ideal student is one who is able to bring about transformation in society. Students are expected to identify the things that are not in order in society and recognize the forces that are present. They should be able to detect values, customs and beliefs that are a hindrance to society so that they can reconstruct them (Gutek, 1998: 308). The role of the student is to be actively involved in social renewal and redirection (Tanner and Tanner, 1995).

2.6.2.1.5 The Nature of the Educative Process

Reconstructionists advocate for a new social order that will be achieved using schools (Tanner and Tanner, 1998: 324). According to Tanner and Tanner (1998: 305), learning involves content on social problems and corrective programmes that are determined for collective action. Societal flaws are critically analysed with a view to bringing about social change. Gwele (2005: 10) further asserts that in a reconstructionist classroom learners accept what is being taught as true and they have a duty to reconstruct the society using revolutionary actions and/or legislation.

2.6.2.2 Critical Curriculum Theory

Critical theorists attempt to change the manner in which teaching and learning takes place so that educational institutions will be places where individuals will be aware of their civil, moral, political and economic responsibilities (Gutek, 1998: 326). Critical theorists seek explanations regarding ethics, formulation of policies, curriculum development, social, and economic goals of education (Gutek, 1998: 322). Once the issue of control is answered, the philosophy then seeks to analyse the controllers' motives. In the constructivist view, power holders impose their views of knowledge, schooling and curriculum on those who are low in power, therefore social change is necessary (Gutek, 1998: 323).

According to Kincheloe and Pinar (cited in Slattery, 1995: 193), critical curriculum theory is based on the following assumptions:

- (a) "all thought and power relations are inexorably linked, (b) these power relations form oppressive social arrangements, (c) facts and values are inseparable, (d) language is a key element in the formation of subjective identities, and thus critical literacy – the ability to negotiate passages through social systems and structures – is more important than functional literacy – the ability to decode and compute (e) oppression is based in the reproduction of privileged knowledge codes and practices".

2.6.2.2.1 The Purpose of Education

From the critical theorists' perspective, the purpose of education is to enable students to be critical thinkers who will acquire skills to analyse major contemporary social, political, economic and educational issues and bring about changes in the society where they live. These theorists advocate for multicultural education, which takes into consideration the student's autobiographies, family and community experiences (Gutek, 1998: 32).

2.6.2.2.2 The Nature of Knowledge

Critical thinking skills and the ability to effect change is promoted in this theory. It advocates for a critical curriculum that will empower students and address social

responsibility issues to bring about change in society. Critical theorists argue that there should be reconceptualization of the curriculum as the existing curriculum is not addressing students' needs (Gutek, 1998: 327). Gwele (2005: 13) further attests that debates, questioning and conversation are used as teaching methods of choice and textbooks are only used as tools for interpretation and analysis rather than the commanding source of information.

2.6.2.2.3 The Role of the Teacher

Critical theorists view the teacher as a transformative intellectual who has a responsibility to support, guide and provide students with all the necessary tools they need which will enable them to bring about transformation in society (Gutek, 1998: 327). Critical curriculum theory advocates for teachers to provide a platform where the students will be able to unpack dominant worldviews so that they will begin to question some important things that they have taken for granted at some stage of their lives (Mason, 2000).

According to this view, the teacher is expected to carry out the following tasks:

- (a) work towards school reforms, (b) collaborate with other teachers to improve learning, (c) interact with the communities for organized collaborative community action, (d) engage in critical dialogue with students about political, economic and cultural issues, (e) give all the stakeholders more power for policy formulation and (f) make attempts to ensure that problems like teenage pregnancy, drugs and many other problems are addressed by the school (Gutek, 1998: 327).

2.6.2.2.4 The Role of the Student

The student is perceived as an individual who is constantly questioning the world she/he lives in with the view to bringing about transformation that will benefit the community. In the critical curriculum theorist's perspective, the student is viewed as a critical thinker, a self-directed learner and an active participant who is responsible for his/her learning (Gwele, 2005: 12).

2.6.2.2.5 The Nature of the Educational Process

Critical theory emphasizes the use of diverse cultures and teaching styles to enrich learning. The theory advocates for problem solving educational experiences (Freire, 1972). Students are encouraged to ask questions related to dominant cultures, inequity, oppression, and the politics of race and class so that they will be able to reflect critically on these issues (Gwele, 2005: 12). Students are encouraged to use different types of sources of information in the analysis and interpretation of societal issues. The critical curriculum theorists advocate teaching methods such as debates, discussions, questioning and conversations (Gutek, 1998: 327).

2.6.2.2.6 The Influence of the Radical View on Nursing Education

The radicals assert that teachers should formulate programmes in order to bring about social change, and as such, they are expected to take the lead in programmes that transform society (Gutek, 1997: 308). The radicals believe that education can be used as a vehicle to bring about social change. The radicals advocate for education that allows students to be critical thinkers and who are able to make decisions on their own and take actions to improve the society they live in (Gutek, 1997: 309).

The radical view has much to contribute to nursing education as it advocates for the curriculum not to focus on content only, and to include social realities. It seeks to have a calibre of students that will accept what is being taught in the classroom and even take it further beyond the classroom, through collaboration and cooperation with the communities to bring about social change (Tanner and Tanner, 1995: 320-322). The radicals attest that early collaboration and cooperation with communities serves as the best approach to allow students to develop a sense of self and community awareness (Gutek, 1997: 309).

Radicals advocate for a rich curriculum that caters for diverse cultures and that involves different learning styles. Radicals argue that the curriculum must take into consideration students “unique multicultural experiences in order to generate new skills and understanding” (Gutek, 1997: 328).

2.7 THEORIES UNDERPINNING COMMUNITY BASED EDUCATION

It is the researcher's contention that a number of education theories, most significantly those that place the primacy of experience, independent learning, critical enquiry and education for social justice at the centre, underpin CBE. This section of the literature review therefore deals with experiential learning (EL) theory and the constructivist approach to learning.

Experiential learning theory was developed from the perspectives of the 20th century scholars who regarded experience as central in human learning and development. Kolb (2002: 193) acknowledges John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers and others for making a profound contribution to the development of experiential learning theories.

Various theories of experiential learning exist. Only Kolb's theory is discussed in this review. It is believed that it is more relevant to a study on CBE because of its emphasis on the primacy of experience and the transformative nature of learning through experience. Kolb's EL theory has had a significant influence on nursing education over the years.

2.7.1 Kolb's Experiential Learning Theory

The basic premise on which Kolb's experiential learning is based is that all learning involves some form of experience, which could be past or present experience. Kolb's experiential learning theory first surfaced in 1984. Later in 2005, in collaboration with A. Kolb, a revised version of his theory was published.

Kolb and Kolb (2005: 193-212) state that learning is cyclical and four staged. According to Kolb and Kolb, learning combines: (a) experience, (b) perception, (c) cognition and (d) behaviour. The authors describe learning as a process whereby knowledge is created through the transformation of experience. In D. Kolb's (1984) four-stage cycle of experiential learning, one can begin at any stage. However, each stage must be followed in sequence and all four stages must be covered during the process of learning. Kolb further explains that during this cycle of learning, the

student is able to touch all the spheres of learning i.e. experience, think, reflect and act.

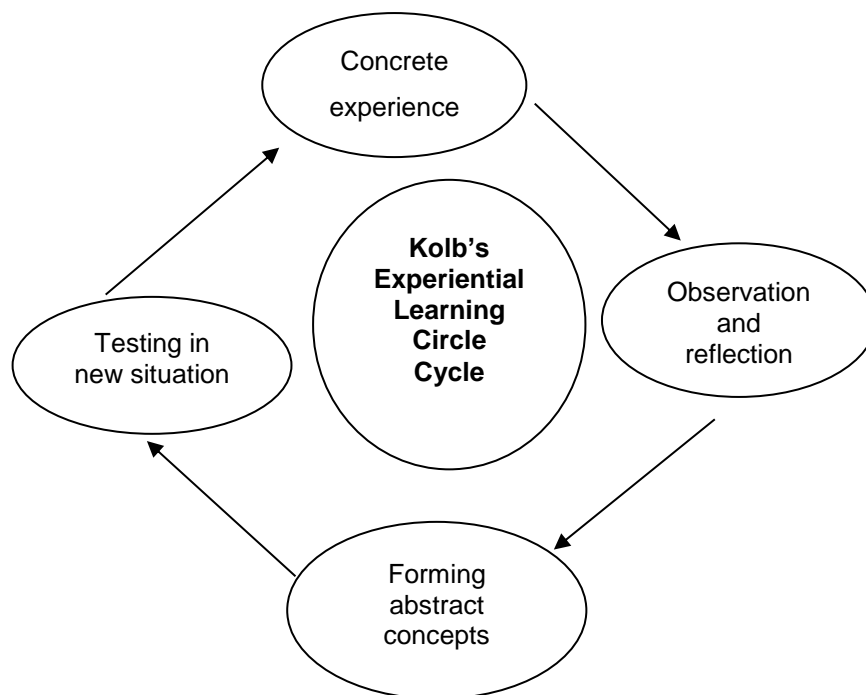


Figure 2.2 Diagrammatic Representation of Kolb's Experiential Learning Cycle

The first stage is known as the *concrete* stage or the *do* stage. This is an immediate experience where the student is involved in a new experience. In this stage, the student experiences an activity such as fieldwork or a laboratory session, that is, the student is exposed to experiential learning or hands on learning. Through reflection, the student is able to affirm and translate into abstract concepts, which will then lead to construction of a new meaning or experience.

The second stage is *reflective observation*. This stage follows the *concrete* or *do* stage, which is where the student reflects, back on what has happened whether positive or negative. Through critical reflection, the student then acquires strategies to improve her/his learning experience (Kolb and Kolb, 2005: 193-212).

The third stage is the stage of *abstract conceptualization* or *think* stage, which follows reflective observations. In this stage, the student tries to conceptualize the theory or model. The student creates or forms abstract concepts that will be tested in new situations. It is these concepts that will help the student to generate new meanings in that particular learning context (Kolb and Kolb, 2005: 193-212).

According to Kolb and Kolb (2005: 193-212), the last stage is the *active experimentation* or *plan* stage. In this stage, the student is actively involved in experimentation or he/she is involved in the actual doing. The student is testing the theory or model that was learnt and then makes decisions. This is a stage where the student carries out a task making use of knowledge that he/she has acquired during the learning process.

According to Kolb's theory of experiential learning, the experience of the student should be the focus in teaching and learning. Students engage in critical reflection, evaluation and reconstructing knowledge as either an individual, group or both.

2.7.1.1 Assumptions Underpinning Kolb's Theory of Experiential Learning

The basic premise on which Kolb's experiential learning is based is that all learning involves some form of experience, which could be past or present experience or the present. According to Kolb, the following propositions form the basic tenets upon which his theory is built: (a) learning is a process that could be improved by active involvement and giving feedback, (b) learning is enhanced when many aspects are involved during the process of learning, such as students' beliefs and ideas about a topic so that such ideas will be refined, examined and integrated into the learning process, (c) learning involves problem solving, (d) learning is a holistic process that is, a number of aspects are taken into consideration during the process of learning, (e) learning results from an interplay between an individual and the environment, (f) learning is a process whereby knowledge is generated (Kolb and Kolb, 2005: 194).

2.7.1.2 Proponents of Kolb's Experiential Learning Theory

According to Annette (1999: 94), community based learning is an essential element for citizenship education as it promotes civil participation and virtues as well as

political knowledge. Annette attests that David Kolb's experiential learning theory has had a major influence on the theoretical framework for service learning.

Annette describes Kolb's theory as cyclical and can be entered from any point of the four points, which are observation, reflection, conceptualization of the learning process and experimentation. However, although one can start at any point of the cycle, one must complete the whole cycle. The author describes Kolb's theory as a theory of reflection, which follows concrete experience and proceeds to conceptualization.

2.7.1.3 Criticism of Kolb's Experiential Learning Theory

Literature abounds with critics of experiential learning theories. Central to the critics' views is that experiential learning places too much emphasis on experience. Alheit (cited in Fenwick, 2000) warns that "the appropriation of human life experience as a pedagogical project to be managed by educators is highly suspicious". Fenwick (2000: 3) posited similar views in arguing that the very notion of experiential learning is problematic because the process of learning entails human cognition, and that that process cannot be divorced from human experience. In her own words "experience flows across arbitrary denominations of formal and informal education, private and public sites of learning, and compliant and resistant meaning formation".

In addition, a number of critics have condemned experiential learning theory for what it excludes or ignores as well as what is believed it reifies.

Furthermore, according to Kayes (2002: 139), Kolb's experiential learning theory has been criticized for overlooking the assumption that the student has a potential to learn. It has also been criticized for not emphasizing problem solving, yet this is the most important aspect of learning. Perhaps the most comprehensive criticism levelled on Kolb's EL theory is that presented by Kayes (2002). According to Kayes (2002: 143), the most glaring shortcoming of experiential learning theory is "its failure to adequately account for the relationship between social and personal learning".

2.7.2 Student Centred Learning Theory

According to O'Neill and McMahon (2005: 28), student centred learning is widely used in teaching and learning. It is expressed in the same manner as self-directed learning. There are two broad orientations in teaching: teacher centred/content orientation and student centred/learner oriented conception. The theory, therefore, attempts to describe student-centred/learning oriented conception. The term student centred learning is not new in the literature. It dates back to as early as 1905 with credit to Hayward, followed by John Dewey in 1956 (O'Sullivan [2003] cited in O'Neill and McMahon, 2005: 27). It is associated with the work of Piaget and more recently with Malcolm Knowles (Burnard [1999] cited in O'Neill and McMahon, 2005: 27). The student-centred/learning oriented conception is confirmed by Rogers who wrote a book titled Freedom to Learn for the 80s (O'Neill and McMahon, 2005: 27).

Student centred learning has a constructivist underpinning which is based on the view that students actively create knowledge to understand the world they live in by constructing their own mental frameworks which are based on their own experience thus adapting knowledge. Students as individuals create their own mental views, therefore there must be no interference in such learning experience (O'Neill and McMahon 2005: 25).

Steiner *et al.* (2010: 15) advocate for the use of learner centred education theory in nursing education as this will enhance learning through critical thinking and clinical judgement. However, Estes (2004: 245-249) argues that although it is believed that in the student centred approach learning power is transferred from teacher to student, it is not the case in practice as teachers still lead discussions. Studies reveal that in real practice some teachers change the whole process of learning by teaching so that they can cover the content therefore the concept of student centred learning or self-directed learning as it is synonymously expressed, is lost.

According to Boud, Keogh and Walker (1985) the key element of student centred learning is that students analyse their learning experience by reflecting, evaluating and reconstructing their experiences as individuals or as a group (or both) in order to draw meaning from it using prior or current experience. This review of experience may lead to further action.

All learning involves experience whether previous or current. Student centred learning promotes direct engagement and construction of meaning by students.

2.7.2.1 Assumptions of the Theory

Student centred theory is based on the following assumptions: (a) learning involves active involvement of the student rather than passive learning, (b) emphasis is placed on deep learning and understanding, (c) there is increased responsibility on the part of the student, (d) the student functions as an autonomous being, (e) there is increased interdependence between the teacher and the student, (f) mutual respect between the teacher and the student prevails and (g) reflexive approach to teaching and the learning process (O'Neill and McMahon, 2005: 28).

2.7.2.2 Proponents of Student Centred Theory

Steiner *et al.* (2010: 15) advocate for the use of student-centred education theory in nursing education, as this will enhance learning through critical thinking and clinical judgement.

2.7.2.3 Critique of Student Centred Theory

Estes (2004: 245) states that “student reflection on experience is deeply embedded within experiential paradigms, but incongruence exists between what experiential education claims to value and what experiential education is in practice”. The critique’s main points are:

- (a) Educators are still in power to direct what students should learn rather than transferring power to students and lead the process of learning. This is evident where discussions are led by educators to facilitate learning rather than being led by students in actual practice.
- (b) The teacher/educator has the power of reflection on experience rather than the student and this changes the process of reflection completely to be educator centred rather than to be student centred, as it should be.

One of the main criticisms of student centred learning is difficulties in implementation. For instance, it has been argued that resources needed for implementation may not be available and students may not be familiar with the new concept since they are used to being taught. Furthermore, students who are

exposed to the teacher centred approach may not accept student-centred learning as they may be frightened by the new approach. Lecturers on the other hand who are used to the teacher centred approach to teaching may not see the need for change as they believe students must accommodate information rather than develop and change their conceptions and understanding (O'Neill & McMahon, 2006: 33).

Simon (cited in Carlile and Jordan, 2009: 93) argues that, there may be a potential danger in a student centred approach as a student may physically isolate himself/herself. Students may also feel abandoned or left out from the group due to the fact that there is stress on independence in the student centred approach.

Some students may feel intimidated by this approach, particularly those who have only been exposed to the teacher centred learning approach. Carlile and Jordan (2009), however, attest that when the student centred approach is used, explicit objectives must be provided from the onset so that every student knows exactly what is expected of him/her so as to allay anxiety.

2.7.3 Constructivist Theory

According to Richardson (2003: 1624) constructivist theory is a theory where individuals learn and create their own understanding based on what they already know and value and experiences they encounter in their practice. Discoll (cited in Rolloff, 2010: 291) describes constructivist theory as a theory that perceives students as individuals that construct knowledge during their process of learning.

According to the constructivist perspective, learning is acquired through activity, discovery and independent learning. Constructivists argue that knowledge is constructed by the students and the teacher/facilitator is merely ensuring that learning takes place rather than providing information (O'Neill and McMahon, 2005: 27).

According to Ferrara (2010: 213-215) students bring knowledge from past experiences and this is the knowledge that will help the student to construct or generate new meanings / knowledge. In the authors' words, "students construct mental models drawn from their own experience, to which new knowledge is

adapted” (Carlile and Jordan, 2009: 92). The student is in the centre of personal meaning derived from the context. He / she reflects on lived experiences and then interprets and generalizes to form mental structures or models (Fenwick, 2000: 6).

2.7.3.1 Assumptions of the Constructivist Theory

The constructivist assumptions are based on the premise that the student is able to construct new meaning and this is a lifelong process. According to Merrill (2002: 44-45) the constructivist theory is underpinned by the following principles:

- “Learning is promoted when learners are engaged in real world problems.
- Learning is promoted when existing knowledge is activated as a foundation for new knowledge.
- Learning is promoted when new knowledge is demonstrated to the learner.
- Learning is promoted when new knowledge is applied by the learner.
- Learning is promoted when new knowledge is integrated into a learner’s world.”

2.7.3.2 Proponents of Constructivist Theory

Ferrara (2010: 214) attests that constructivists facilitate learning by creating an environment where a student becomes an active participant in the learning process, that is to say, a student learns by doing and / or by reflection. Through reflection, the student is able to draw from past experience and match that with new knowledge that he / she encounters. According to the author, the use of case studies from patient data helps to promote students’ learning: “As the learner takes control of new information and begins to internalize it, a transfer of information and creation of new knowledge takes place. This constitutes transformative learning” (Ferrara 2010: 214).

Through constant interaction between students and clinicians and other members of the multidisciplinary team, students are able to make sense of clinical situations. This can also be enhanced by students searching for information on certain diseases. When students search for evidence, they become familiar with terminology (Ferrara 2010: 215).

Ferrara argues that students need to learn how to identify clinical problems, access the best evidence available at the time and make clinical decisions based on available evidence. Students must be able to make sound clinical decisions as knowledge is evolving.

Ferrara's constructivist theory emphasises that the student should be an active participant in the learning process, meaning that a student is responsible for his / her own learning and should be a self-directed student.

2.7.3.3 Critiques of the Constructivist Theory

Richardson (2003: 1623) states that there are eighteen different forms of educational constructivism that have been described in the literature which leaves many questions unanswered as to how knowledge is created and generated in practice. It is thus recommended that (a) more research be conducted on student learning in classrooms where constructivist pedagogy is applied so that it will be clear how learning takes place in a constructivist classroom, (b) a theory must be generated that will provide understanding of constructivist teaching, (c) teachers must be inducted deeply in subject matter in order to equip them to engage in constructivist pedagogy.

According to Fenwick (2000: 8), constructivism views the context and the student as separate entities, rather than the two being interconnected. Constructivism continues to view the student as an individual that is autonomous from his / her surroundings.

2.8 OUTCOMES OF COMMUNITY BASED EDUCATION

For a number of health professions' educational programmes, such as dentistry, medicine, radiography and nursing CBE has been in practice for a number of years. Research on outcomes of CBE has mainly focused on students', staff and communities' views and / or experiences with CBE. This section of the review focuses on literature regarding students' perspectives of CBE.

Literature on CBE abounds with espoused outcomes of CBE as attested to by students. In the main these include (a) personal and professional development, (b) enhanced awareness of self and others, (c) commitment to service, (d) improved

understanding of the subject matter, (e) an interest to work in PHC, underserved and rural communities, (f) facilitating the development of transferable core skills such as communication, critical thinking and problem solving (Brown *et al.*, 2003; Ibrahim, 2010; Mofidi *et al.*, 2003; Kristina, Majoor and van der Vleuten, 2006).

2.8.1 Personal and Professional Development

Based on a study aimed at gaining insight into CBE experiences among dental students as documented in their critical incident essays and exploration of learning outcomes and benefits, Mofidi *et al.* (2003) reported that, students stated that CBE had empowered them in a number of ways which include the following: (a) personal and professional growth, (b) enhanced awareness and (c) commitment to service.

Students reported that CBE increased their empathy for their patients' needs. They also reported that their exposure to CBE made them grow professionally and realise that behind a patient there is a human being who has needs. Some students reported that their exposure to practice made them realise that to be an effective dentist, for instance, does not only mean rendering of essential technical care, but it includes listening, understanding and relating to patients. Students also reported that when they provided empathic care to patients, this resulted in satisfaction and enjoyment of the profession and thus helped them become confident professionals. Some students realised that they have to specialise in certain fields of their profession so that they can reach out to community needs (Mofidi *et al.*, 2003: 518).

The results reported by Mofidi *et al.* (2003) corroborate those reported by Redman and Clark (2002). These authors reported on nursing students' reflections on their experiences with a service-learning requirement focusing on integrating social justice into the nursing curriculum. Redman and Clark (2002: 449) reported that students' reflections showed that service learning with community based agencies had helped them transform their meaning perspectives about nursing as a profession, and that they needed to do more than provide nursing care within institutional settings in order to serve those whose lives are affected by social justice issues.

Eyler and Giles (cited in Dumas, 2002: 257) conducted a study involving 1500 students from 20 colleges. Their study showed that involvement in community-

based service learning resulted in (a) decreased stereotyping and appreciation of diversity, (b) increased personal development, and (c) perspective transformation among other things. Eagerness to help others, self-knowledge, and spiritual growth were some of the benefits of Community Service learning (CSL) attested to by the students in Dumas' report.

2.8.2 Enhanced Awareness of Self and Others

According to Mofidi *et al.* (2003: 518), through CBE, students recalled having gained insight into various personal characteristics such as motivation, prejudices, professional responsibilities and limitations. Participants in Mofidi *et al.*'s study stated that CBE allowed them to eliminate stereotypes, that is, they learned not to judge people by their outside appearance but to treat all people the same. Students became aware of real life situations such as unemployment, lack of education and racism (Mofidi *et al.*, 2003: 518).

In the words of Dumas (2002: 259), the students who participated in the Eyler and Giles study stated "service learning had an impact on student perceptions of the locus of social problems and on their belief in the importance of social justice, the need to change public policy and the need to challenge political structure personally".

2.8.3 Commitment to Service

Reflective learning essays of the dental students who participated in Mofidi *et al.*'s (2003: 518) study showed commitment to service by providing quality service and commitment to making a difference. According to these students, CBE enhanced their appreciation of their patients' daily struggles and made them realize a need to make a difference in their patients' lives. Mudarikwa *et al.* (2010) presented similar findings. According to these researchers, students reported to have benefited in a number of ways following their CBE placement, including through (a) improved understanding of barriers and social determinants of health, (b) better understanding of community, (c) better understanding of available community services suitable for future referrals, and (d) active interaction with professionals from other disciplines (Mудариква *et al.*, 2010: 992).

These results corroborate those expressed by the participants in the programme reported on by Redman and Clark (2002: 449). According to Redman and Clark, students' experiences with civic engagement demonstrated a potential for a continued sense of responsibility in their professional careers.

2.8.4 Improved Ability to Work with Others

An increased awareness and appreciation of working with others has been reported as one of the benefits of CBE. According to Dumas (2002: 257), students in their CSL reflection reported that CSL shaped their ability to work well with others and shaped them to be good learners. It also helped them to connect with people who have similar interests. Community Service Learning created a chance for some students to combine social interaction, academic work and service learning in a way that strengthens the bonds between the community and the HEI. Community Service Learning was found to be eliminating stereotypes and promoting greater tolerance for diversity. Similarly, Salmon and Keneni (2004: 176) reported that CBE practice allowed students to work with individuals from different backgrounds and it also allowed them to share knowledge and skills with each other (Salmon and Keneni, 2004: 176). These findings echo those reported by Narsavage *et al.* (2003: 304) in stating that amongst other things, students on community engagement through service learning (CETSL) expressed the following benefits: (a) enjoyment in working with non-professional people and (b) pleasure in dealing with people from different backgrounds.

2.8.5 Enhanced Understanding of the Subject Matter

Research has shown that students who participated in community based and / or service learning programmes tended to report an improved understanding of the subject matter (Dumas, 2002; Mofidi *et al.* 2003). According to Dumas (2002: 258), participating in Community Based Service Learning (CBSL) has been reported to lead to “deeper understanding of the subject matter, and being able to apply material they learn in class to real social issues”. Furthermore, students believed that involvement in a reflective community service-learning programme had enhanced their need to know more about the course material and that the curiosity engendered by these experiences forced them to be self-directed in their learning.

2.8.6 Enhanced Clinical, Communication, Analytical, Critical Thinking and Problem Solving Skills

According to Mofidi *et al.* (2003), a number of students who participated in their study recalled incidences where they encountered problems in as far as communication is concerned. Exposure to a range of incidents where patients were difficult, with a wide range of personalities, temperaments or a difficult employee was reported to have helped students improve their communication skills. Students further, attested that indeed it helped to groom a newcomer in the profession so that she / he will deal with a situation a little better in future. These views support those reported in a study by Salmon and Keneni (2004: 177) who argued that CBE improves students' skills in data collection, data summarisation, analysis and interpretation.

Students who have participated in community based learning have been reported to more detail personal political strategy and were able to give more complex analysis of causes and solutions to problems than those in classes where CSL was less integrated. Critical and problem-solving skills were also reported to be enhanced by CSL (Dumas, 2002: 258).

Studies revealed that during CBE placement students interact with diverse population groups as well as other professionals, and because of this experience, students are able to work on their communication skills (Mudarikwa *et al.*, 2010: 993). Students highlighted that they were exposed to a different range of services in the community and as a result, they had first-hand experience of social aspects of health. Walters *et al.* (2012: 1033) reported in their study that students reported to have developed better clinical communication skills and better patient care skills.

2.8.7 Developed an Interest to Work in PHC, Underserved and Rural Communities

Mwanika *et al.* (2011: 1-8) conducted a study involving 150 graduates of a CBE and service health professionals' programmes. Among others, the study sought to examine the views of the graduates on the impact of Community Based Education and Service (COBES) on their confidence and competence to practice in PHC

settings. These researchers reported that graduates had learned a lot through their participation in COBES. Specifically, COBES had improved their confidence as health practitioners and enhanced their motivation to work in PHC and rural settings.

Similar views were voiced by the students who participated in a study by Kristina, Majoor and Van Der Vleuten (2006). According to the authors, CBE students expressed their appreciation for the experience of providing health education in PHC settings and further explained that the practice helped them gain more confidence in addressing community members. Sharma *et al.* (2007) also found that students with experience in community-based learning showed confidence in providing health education to families.

Through CBE placement, students reported to have better understanding of their own limits and were able to actively contribute to patient care. Walters *et al.* (2012: 1033) attest that through CBE, students are more self-directed and understand the health care system better and as a result, they become better prepared for work.

Literature revealed that CBE exposure promoted growth and independence as students. According to the students' reports, they had to tackle questions on their own and this practice helped them to realise how much they could think up on their own. Students enjoyed working with different kinds of people including the non-health professionals, as some of them had never had a chance to work with them (Walters *et al.*, 2012).

Sharma *et al.* (2007: 196) reported that medical students on their reflection on community placement expressed greater confidence about providing health education to families during home visits. Some students however, reported that when they visited families, they could not tackle some of the problems that they encountered.

2.9 CHALLENGES ASSOCIATED WITH COMMUNITY BASED LEARNING

Research on CBE has highlighted a number of challenges and/or unexpected outcomes of CBE. High among these are problems related to mentoring and supervision, clinical placement environment, community, language and cultural

barriers, students and staff relationships as well as challenges related to supplies and resources.

2.9.1 Mentoring and Supervision

A study involving medical students at the Medical Faculty of Diponegoro University (MFDU) in Indonesia conducted by Kristina, Majoor and Van Der Vleuten (2006: 183) revealed that students complained about the lack of adequate supervision during their CBE programme and that little attention was paid to assessment of individual students on their fieldwork. Baglin and Rugg (2010: 146) argued that the student / mentor relationship is a complex one, “the multi-dimensional mentorship role both being seen differently by students and mentors and varying over time” (Wilkes cited in Baglin and Rugg 2010: 146). According to Baglin and Rugg (2010: 146), students perceived good mentors as those that are “supportive role models who act as guides, teachers and assessors, ‘coaching excellence’ and showing how theory translates into practice. Such individuals are seen to be genuinely concerned about their students with their best interest at heart”. It is reported that some mentors are genuinely concerned for their students and they are willing to be supportive; however, because the mentorship role encompasses lack of recognition for the mentors, protracted mentorship time frames, conflicting demands and expectations from students, patients and colleagues as well as from other personnel, this role is difficult to fulfil.

Salmon and Keneni (2004: 179) argued that the issue of mentoring requires investigation. They stated that members of staff that facilitate learning in CBE need to be “free”, furthermore they argued that “mentors who regularly supervise / teach students should have workloads that facilitate rather than hinder the learning process”.

2.9.2 Clinical Placement Environment

The MFDU students claimed that there was repetitive interviewing of the same families by subsequent groups as well as unclear objectives for weeks 4 and 5 of their CBE placement (Kristina, Majoor and Van Der Vleuten, 2006: 183). Kaye et al. also reported that students cited a number of elements that were not in place in rural settings such as inadequate equipment and supplies, poor leadership and

management styles of the units during their CBE placement (Kaye *et al.*, 2011: 3-6). Some of the students were concerned about low salaries that are earned by doctors who work in rural areas compared to their colleagues who are in urban areas. The above challenges have therefore led to some students reporting that they were not keen to work in rural areas on completion of their training (Kaye *et al.*, 2010: 3-6).

Other reports were complaints from community members at being over utilised, not getting incentives from students as well as being used as a teaching laboratory (Mbalida *et al.*, 2011: 6). The issue of not receiving incentives was not confined to community members, but rather it also escalated to community health workers. Kristina, Majoor and Van Der Vleuten (2006: 184) support this statement. These authors stated that one of their participants cited an incidence whereby a community health worker complained that each time students come for placement they would have additional instructions and workload. The community health worker further complained that in spite of the additional workload, they did not receive any incentives either from students or from the Primary Health Care Setting (PHC).

2.9.3 Communication, Language and Cultural Barriers

Literature revealed that communication seems to be a challenge in CBL. According to Mofidi *et al.* (2003:18), reports from students revealed that challenges emanated from different personalities and temperaments from patients and employees. The other challenge that was cited by dental students was communicating distressing news to a patient for the first time. Based on a study aimed at assessing student and educator perceptions and valuation of Ugandan COBES, Chang *et al.* (2011: 14) reported that students recalled encountering language barriers during their engagement in COBES. This is in line with the findings by Salmon and Keneni (2004: 176) who reported that one of the themes that emerged from their participants was difficulty in understanding the local languages / cultures.

2.9.4 Student Related Challenges

Students were reported to have difficulties expressing themselves in a group. Amongst the challenges that were reported by students were lack of consensus with mentors as well as lack of group synergy (Salmon and Keneni, 2004: 179).

2.9.5 Supplies and Resources

Kaye *et al.* (2011) in a study that was conducted in Uganda on CBE using medical students highlighted that students complained that they did not have adequate supplies that could promote self-directed learning during their CBE placement such as internet as well as library access. This is in line with the study conducted by Salmon and Keneni (2004: 1180) who stressed the importance of provision of learning material that will aid the students in their learning.

2.10 CHAPTER CONCLUSION

The chapter looked at conceptualization of CBE, rationale for CBE in education, outcomes and challenges associated with CBE. Literature review revealed that although CBE has a number of benefits, students also reported to have faced challenges during their CBE clinical placement. The chapter also explored theories and models underpinning CBE, with special reference to Kear's transformative learning model, Kaye's *et al.* community based education model and Kolb's experiential learning theory.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 INTRODUCTION

The chapter presents the paradigm underpinning the study, research design, and population and sampling technique, research methods used for data collection, data analysis, validity and reliability as well as trustworthiness of the study.

3.2 RESEARCH DESIGN

The study was informed by the positivist paradigm as it views things objectively, excludes bias and is deductive in nature. According to positivists, phenomena are not haphazard but have causes (Polit and Beck, 2012: 12). A comparative, descriptive, design was used. The researcher has adopted a descriptive design because there is no intervention and the phenomenon is studied as it occurs naturally (Burns and Grove, 2009: 237). Quantitative research designs give precise measurements and quantification (Polit and Beck, 2012: 739).

3.3 POPULATION

Population refers to the entire set of individuals or elements that meet certain criteria for inclusion in a study (Burns and Grove, 2009: 342). The B. Tech Nursing Science programme at DUT admits 100-110 students per academic year. A minimum of 25 students is placed in each of the four community settings per year. The population included the three cohorts of nursing students enrolled in the programme in the years 2010, 2011 and 2012 (n = 295). The 2013 cohort was excluded because it was envisaged that they would not have completed the CBE cycle at the time of data collection. Similarly, postgraduate nursing students were excluded, as they had not been involved in CBE.

3.4 SAMPLE AND SAMPLE SIZE

The researcher used stratified random sampling and within each stratum, simple random sampling was carried out. This technique is used to group the elements of a population so that the element belongs to one group only. This sampling method is used when the researcher knows some of the variables that are critical to achieving representativeness (Burns and Grove, 2009: 351).

A random sample was drawn from the list of nursing students registered for the 2nd, 3rd and 4th year B. Tech Nursing Science degree at DUT. Students were grouped first according to level of study, then according to community placement. Using a table of random numbers 20 students were selected from each of the four community placement settings and each of the three cohorts of students included in this study. The targeted sample size was, therefore, 240 students. This constitutes 81% of the total headcount enrolment for the targeted years of study. It was believed that this sample size would be adequate to ensure a representative sample with regard to demographic variables such as age, gender, schooling language, and home language, educational and socio-economic background as well as variables of interest such as community placement site and year of study.

3.5 INSTRUMENTATION AND DATA COLLECTION

A self-administered questionnaire was used (Annexure B). This was a modified 4-point Likert scale version of the 10-point version developed by Ibrahim (2010). See Annexure C for permission from Ibrahim to use and adapt the questionnaire. Ibrahim rightly points out that there is a lack of research instruments that assess all or most of the possible outcomes of CBE in respect of student learning.

The original CBL scale designed by Ibrahim was a 38-item 10-point Likert scale. The scale is composed of four subscales that assess students' perceptions of the impact of CBL on four different domains of learning. These include (a) Academic Gains (items: 1-10), (b) Local and Global Gains (items: 11,-12, 14-18, 24, 34-36 &38), (c) Personal Gains (items: 19, 25-29 & 37) and (d) Intrapersonal Gains (items: 13, 20-23, 30-31). See Annexure B. In the present study a four point Likert scale

where 1 = strongly disagree: 2 = disagree: 3 = agree and 4 = strongly agree was used.

The questionnaire (Annexure B) was divided into two sections namely:

- **Section A**
 - Demographic data (gender, age, race, home language, schooling language, type of home residential area).
- **Section B**

Section B of the instrument measures students' perspectives of their learning in CBE. The section consists of four subscales, which included:

 - Academic Gains – assesses the extent to which students perceive CBE to have helped them understand the course related to CBE, e.g. community health nursing science.
 - Personal Skills - assesses students' views on the impact of CBE in facilitating their ability to think critically, communicate, work with and relate well with others.
 - Local/ Global Citizenship – focusing on the students' gains with respect to civic responsibility and critical citizenship.
 - Intrapersonal Development – “reflection on values, and cultural identification” (Ibrahim, 2010: 393).

Additionally, three open-ended questions aimed at seeking some supportive data to the responses made in the quantitative section of the questionnaire were included in the questionnaire.

An advertisement informing participants about the proposed study was displayed in the three classrooms (2nd, 3rd and 4th year) as well as on the department's notice boards a week before the actual study was conducted. During data collection, participants were invited to a large lecture hall where an independent trained research assistant informed them of their selection. The study purpose, research process, and ethical issues were clarified and the participants signed the completed consent form. Questionnaires were distributed to participants by the research assistant. The researcher was not at the venue to avoid any anxiety that might arise because the researcher was a lecturer at the institution under study.

Data collection took place in a classroom during a time slot deemed less disruptive to the academic programme and agreed upon with the programme coordinator. A time schedule was set and students were invited to participate. Information regarding actual purpose of the study, benefits, confidentiality and withdrawal from the study was communicated to all subjects. A research assistant who did not have any relationship with the programme was responsible for monitoring the instrument administration process to ensure that students did not feel pressured to participate in the study. The time taken to complete the questionnaire ranged between 30-45 minutes. However, participants were given adequate time to complete the questionnaire if such a need arose. A box was provided at the exit point for completed questionnaires. The research assistant delivered the boxes to each data collection session and collected the boxes immediately after each session. The research assistant handed over completed questionnaires to the researcher. These were then locked up in a place that was only accessible to the researcher. Data collection continued for 11 months.

3.6 DATA ANALYSIS

A total of 208 questionnaires were achieved from all three-cohort groups. However only 203 questionnaires were used as two from the 2011 and three from the 2012 cohort groups were grossly spoiled. Data were analysed using SPSS (Version 22). Specifically, descriptive statistics such as measures of central tendency and/or frequencies were computed. Differences between groups were analysed using the ANOVA statistical test. Qualitative data from the three open-ended questions was analysed by means of grouping together major themes and sub themes that emerged from the study.

3.7 VALIDITY AND RELIABILITY

Validity is the ability of an instrument to measure the phenomenon that it is supposed to measure and reliability is the ability of the instrument to give consistent results if used repeatedly over time on the same phenomenon (Polit and Beck 2012: 336).

Ibrahim (2010: 393) reports high levels of internal consistency for the CBL scale, with an overall Cronbach's alpha of .98. The Cronbach's alphas for the subscales ranged from .90 for Personal Skills subscale, to .96 for the Local / Global Citizenship subscale. The Academic Gains and the Intrapersonal Development subscales were reported to have registered Cronbach's of .95 and .91 respectively.

In view of the modification, that is, a 4-point Likert scale compared to the original 10-point Likert scale, reliability was once again tested by means of Cronbach's test. Tests for reliability for the modified 4-point Likert scale were indicative of high consistency for the instrument as a whole as well as its subscales. Cronbach's alpha results were: (a) .93 for the whole 38 item scale, (b) .81 for the 10 item Academic Gains subscale, (c) .87 for the 14 item local and global subscale, (d) .78 for the 7 item Intrapersonal subscale, and (e) .78 for the 7 item Personal Gains subscale.

Construct validity was achieved by ensuring that the CBL scale included most of the documented gains from CBE. Two independent CBL experts were invited to assess the instrument for construct validity.

3.8 ETHICAL CONSIDERATIONS

Ethical considerations were adhered to throughout the research process and the three fundamental ethical principles that the researcher needed to be mindful of when conducting a study were observed. These principles are: (a) respect for persons, (b) justice, and (c) beneficence (Brink, Van der Walt and Van Rensburg, 2007: 31).

Participants were the researcher's students and they could therefore feel that there was pressure for them to participate as the researcher was directly involved with their teaching and learning. The researcher tried to ease pressure by giving clarity during recruitment that participation in the study was voluntary and that they could withdraw at any stage of the research process if they wished to do so.

An independent research assistant was appointed to administer questionnaires during data collection and the researcher was only available for reading and making clarification of questions where necessary and then left the room. The following undertakings were followed;

- The researcher was granted ethics clearance from the Institutional Research Ethics Committee and permission was also granted by the HOD and programme co-ordinator (Annexure E and Annexure D).
- Permission to undertake the research was obtained from the Institutional Research Ethics Committee at Durban University of Technology.
- Written and informed consent was obtained from students (Annexure A) before completion of questionnaires.
- Respondents were informed that they had a right to participate or refuse to participate at any time and could opt out at any stage of research process should they deem it necessary, however they were told that information that had already been gathered at the time of withdrawal would be used.
- Respondents were told that information gained from them would be used with strict confidentiality.
- Respondents were advised not to write their names on the questionnaire, as coding was used to ensure anonymity.
- Data will be kept under lock and key for 15 years at Durban University of Technology and the password will only be known by the researcher and supervisor. The data will be disposed of by shredding and deletion.

3.9 CHAPTER CONCLUSION

The chapter has looked at the research methodology and how it was employed in the study. Steps in the methodology were discussed as well as measures to ensure reliability and validity of the instrument used in the study.

CHAPTER 4 : RESULTS

4.1 INTRODUCTION

This chapter presents the analysis and findings of a study, which aimed at exploring perspectives of undergraduate nursing students registered in a four-year pre-licensure nursing programme at the Durban University of Technology on CBE. The chapter presents the findings of the study in terms of demographic data and responses to closed and open-ended questions. The chapter also presents the findings on respondents' perspectives regarding the influence of CBE on the following variables:

- Academic and personal development.
- Intrapersonal development and civic responsibility.

4.2 SAMPLE REALIZATION

A sample size of 80% of the proposed population was targeted. Data collection process took place over a period of 11 months but still the sample size that was envisioned could not be reached as the 2010 cohort group graduated in April 2014 while the targeted sample size had not been realised. Although the calculated envisioned sample was 240, the researcher ended up having only 203 (69%) participants due to the reasons stated above.

4.2.1 Demographic profile

4.2.1.1 Gender Profile

From the gender profile that is presented in Figure 4.1 it is deduced that 71.4 % (n=145) of the participants in the sample were females and 28.6% (n = 58) were males. The findings therefore mean that there were more female respondents who were enrolled for the B. Tech Nursing Science programme than males.

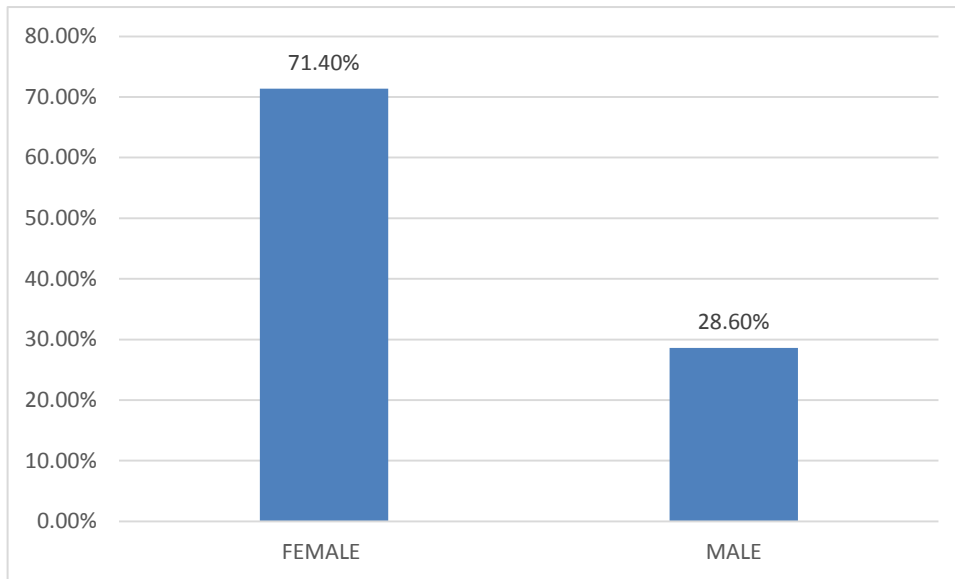


Figure 4.1: Gender profile

4.2.1.2 Age

Table 4.1 reveals that 16.3% (n = 33) of the study participants were between 18-20 years old. It is deduced that the majority of respondents (n =148, 72.9%) in the sample fell in the age category of 21-24 years. Twenty (n = 20, 9, 9%) of the respondents were in the category ≥ 25 . None of the respondents fell into the category of ≤ 18 years. The results therefore suggested that respondents who participated in the study were mostly young adults.

Table 4.1: Age

Age	Frequency	Percentage
≤ 18 Years	0	0%
18 – 20 Years	33	16.3%
21 – 24 Years	148	72.9 %
≥ 25 Years	20	10.8%
Total	203	100%

4.2.1.3 Race

Table 4.2 reveals that 96.5% (n = 196) of the respondents were African and 2.5% (n = 5) were Coloured respondents. The remaining two major South African population groups (Whites and Indians) were not represented in the study sample. Based on the findings, one can deduce that students who enrolled for B Tech

Nursing Science programme at Durban University of Technology (DUT) were predominantly African students.

Table 4.2: Race

Race	Frequency	Percentage
White	0	0%
African	196	96.5%
Coloured	5	2.5 %
Indian	0	0%
Unspecified	2	1%
Total	203	100%

4.2.1.4 Home Language

From the frequency distribution that is presented in Table 4.3, it is deduced that most (87.2%, n =177) respondents who were registered for the B Tech Nursing Science degree during the period 2010-2013 spoke IsiZulu at home, followed by 9.4% (n = 19) who spoke IsiXhosa. The findings revealed that other category had 2.0% (n = 4) and with English yielding 1.5% (n = 3). None of the respondents indicated that Afrikaans was their home language.

Table 4.3: Home Language

Home Language	Frequency	Percentage
IsiZulu	177	87.2%
IsiXhosa	19	9.4%
English	03	1.5%
Afrikaans	0	0%
Other	04	2.0%
Total	203	100%

4.2.1.5 Residential Area

Based on Figure 4.2, one can deduce that the largest number of respondents from the sample were from the rural areas 55% (n = 112) followed by respondents who were from the township category 30% (n = 61). The study revealed that suburban category had 12% (n = 25) and there were 3.0% (n = 6) respondents from informal settlements.

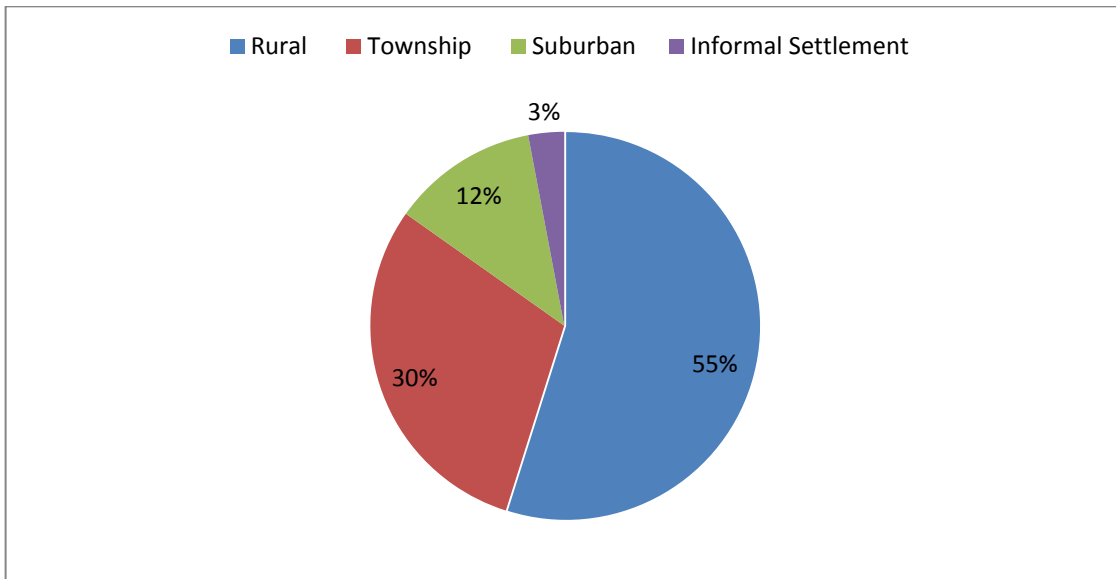


Figure 4.2: Residential area

4.2.1.6 Schooling Language

Table 4.4 reveals that 99% (n = 201) of the respondents were instructed in English at school followed by Afrikaans 1.0% (n = 2). The other schooling language category yielded 0% (n = 0). The findings, therefore, suggest that English was the main medium of instruction at school for students that participated in the study.

Table 4.4: School Language

School Language	Frequency	Percentage
English	201	99%
Afrikaans	02	1.0%
Other	0	0%
Total	203	100%

4.2.1.7 Year of Study

Table 4.5 indicates that 37.9% (n = 77) of respondents were in the second year of study. A total of 36.9% (n = 75) were in the third year of study, and 25.2% (n = 51) were in the fourth year of study. The results of the study reveal that the highest number of respondents were in their second year of training.

Table 4.5: Year of Study

Year of Study	Frequency	Percentage
2 nd Year (2012 Cohort)	77	37.9%
3 rd Year (2011 Cohort)	75	36.9%
4 th Year (2010 Cohort)	51	25.2%
Total	203	100%

4.2.1.8 Community Sites

From the frequency distribution that is shown in Table 4.6, it is deduced that Mpumuza community category had the highest sample size of 27% (n = 55) followed by Cinderella (25.6%, n = 53). The Copesville and Willowfontein community categories had 23.7% (n = 48) each.

Table 4.6: Community

Community Site	Frequency	Percentage
Cinderella	52	25.6%
Willowfontein	48	23.7%
Copesville	48	23.7%
Mpumuza	55	27%
Total	203	100%

4.3 PERSPECTIVES OF RESPONDENTS ON CBE

The study examined respondents' perspectives on CBE using the four domains conceptualised by Ibrahim (2010) in her study on CBL outcomes involving college students in Midwestern USA. These include:

- Academic Gains;
- Local and Global Gains;
- Personal Gains; and
- Intrapersonal Gains.

Analysis of data based on respondents' perspectives about CBE revealed that respondents were generally positive about what CBE helped them achieve. Mean scores for the 38 items were high, ranging from 2.94 (SD = .78) to 3.39 (SD = .65). The total mean score for the whole CBE scale was 3.22 with an SD of .35. The

overall mean score on Academic Gains was however, the lowest at 3.09 (SD = .38) compared to the other variables of interest on CBL outcomes (Table 4.7).

Table 4.7: Overall Perspectives Means on CBL Outcomes

	Mean	SD	Total n
Academic Gains	3.09	.38	203
Local and Global Gains	3.33	.38	203
IntraPersonal Gains	3.15	.48	203
Personal Gains	3.27	.43	203

The remainder of this section of the report presents results on differences between groups' perspectives on (a) Academic Gains, (b) Local and Global Gains, (c) Intrapersonal Gains, and (d) Personal Gains. The ANOVA test statistic was used to measure differences between groups with respect to their perspectives about CBE by gender, age, cohort groups, community placement site, home language and settlement.

4.3.1 Academic Gains

Table 4.8 presents data on **gender** differences on perceived outcomes of CBE on the Academic Gains domain. Results show that the Academic Gains mean score for males was 3.13 (SD =.40) and for females 3.07 (SD =.37). The ANOVA test statistic yielded no significant differences ($F = 1.34$, $df = 1$, $p = .248$) on Academic Gains between male and female respondents, as indicated by the alpha value of .248, which is higher than the alpha value of .05.

Table 4.8: Comparisons between Groups on Perceived Academic Gains by Gender

Gender	Mean	SD	F	df	p-value
Females (n = 145)	3.07	.37	1.34	1	.248
Males(n = 58)	3.13	.40			
Total	3.09	.38			

As apparent in Table 4.9, two respondents did not specify their **age**. Mean scores on Academic Gains by age group were high with the unspecified age respondents (n =2) registering a mean score of 3.50 (SD = 57). The mean score for the 21-24 years age group was the lowest for Academic Gains at 3.10 (SD = .39). For the 18-20 years group and the > 25 years group mean scores were also high at 3.15

(SD = .32) and 3.14 (SD =.41) respectively. No significant differences were found on Academic Gains between groups on ANOVA ($F = 1.53$, $df = 3$, $p = .208$).

Table 4.9: Comparisons between Groups on Perceived Academic Gains by Age

Age	Mean	SD	F	df	p-value
18-20 Yrs. (n = 33)	3.15	.32	1.53	3	.208
21-24 Yrs. (n = 148)	3.10	.39			
> 25Yrs. (n = 77)	3.14	.41			
Unspecified (n = 2)	3.50	.57			
Total(n = 203)	3.09	.38			

Data on Academic Gains by **cohort group** appears in Table 4.10. Mean scores on Academic Gains were high across all three cohort groups. Results for the 2010 cohort (n = 51) showed a mean score of 3.04 (SD = .43), the 2011 cohort (n = 75) mean = 3.10 (SD = .40) and the 2012 cohort (n = 77) mean = 3.10 (SD = .32).

Table 4.10: Comparisons between Groups on Perceived Academic Gains by Cohort Group

Cohort Groups	Mean	SD	F	df	p-value
2010 (n = 51)	3.04	.43	.466	2	.628
2011 (n = 75)	3.10	.40			
2012(n =77)	3.10	.32			
Total(n = 203)	3.09	.38			

Based on the findings which are shown in Table 4.10 above, one could deduce that there were no significant differences between cohort groups on ANOVA ($F = .466$, $df = 2$, $p = .628$). The level of significance value was .628, which is higher than the alpha value of .05. Hence, hypothesis (a), which stated that the 2012 cohort would have much more positive perspectives of the influence of CBE on their learning compared to both the 2011 and the 2010 cohorts is rejected, at least as far as perspectives on Academic Gains are concerned. Similarly, hypothesis (b), which postulated that the 2011 cohort would have perspectives that were more positive on the influence of CBE compared to the 2010 cohort is not supported by the findings of this study. Admittedly, mean scores for the 2010 cohort group on Academic Gains were slightly lower than those of the 2011 and the 2012 cohorts. These differences however, were not statistically different.

Another predictor variable believed to have a potential influence on respondents' perspectives about CBE was the type of **community site** at which the respondents were placed. The results in Table 4.11 reveal that the mean scores in all the four community settings were high. In the Mpumuza (n = 55) category, the mean was 3.03 (SD = .36), Willowfontein category (n = 48) the mean was 3.13 (SD = .30), Cinderella category (n = 52) mean 3.09 (SD = .50) and Copesville category (n = 48) mean 3.11 (SD = .34). The results of the study revealed that there were no significant differences between the different community settings with respect to respondents' perspectives on the Academic Gains domain (F = .660, df = 3, p = .578).

Table 4.11: Comparisons between Groups on Perceived Academic Gains by Community Placement Site

Community Site	Mean	SD	F	df	p-value
Mpumuza (n = 55)	3.03	.36	.660	3	.578
Willowfontein (n = 48)	3.13	.30			
Cinderella (n = 52)	3.09	.50			
Copesville (n = 48)	3.11	.34			
Total(n = 203)	3.09	.38			

With respect to **home language**, mean scores on Academic Gains were high across three groups. These were $\bar{x} = 3.10$ (SD = .36) for the IsiZulu Speaking respondents, $\bar{x} = 3.02$ (SD = .48) for IsiXhosa speaking respondents and $\bar{x} = 3.30$ (SD = .52) for English speaking respondents. Undeclared or other languages speakers registered a mean of 2.65 (SD = .40) on Academic Gains. These results were not significantly different on ANOVA (F = 2.41, df = 3, p = .068). See Table 4.12.

Table 4.12: Comparisons between Groups on Perceived Academic Gains by Home Language)

Language	Mean	SD	F	df	p-value
IsiZulu (n = 177)	3.10	.36	2.41	3	.068
IsiXhosa (n = 19)	3.02	.48			
English (n = 3)	3.30	.52			
Other (n = 4)	2.65	.40			
Total(n = 203)	3.09	.38			

Based on the findings that are shown in Table 4.13, one can deduce that there were no significant differences between groups by **residential area**. On ANOVA the alpha value of .728 was registered, which is higher than the alpha value of .05 (F =

.50, $df = 4$, $p = .728$). The four residential areas registered high mean scores. For the rural category, the mean score was 3.08 (SD = .40), suburban category mean = 3.17 (SD = .30), township mean = 3.12 (SD = .37) and informal settlement category mean = 3.08 (SD = .53).

Table 4.13: Comparisons between Groups on Academic Gains by Settlement

Settlement	Mean	SD	F	df	p-value
Rural (n = 112)	3.08	.40	.50	4	.728
Suburban (n = 25)	3.17	.30			
Township (n = 61)	3.12	.37			
Informal Settlement (n = 5)	3.08	.53			
Other(N = 0)	0	0			
Total(n = 203)	3.09	.38			

4.3.2 Local and Global Gains

Similar to Academic Gains, data on Local and Global Gains was computed using means, standard deviations and ANOVA. Results on differences between groups in Local and Global Gains by gender, age, cohort group, community site, home language and settlement are reported.

The results from Table 4.14 reveal that the mean scores for males were slightly higher than those for females; however, the overall mean scores for both males and females were high under the Local and Global Gains domain. The mean score for males registered at 3.46 (SD = .50) and for females at 3.34 (SD = .52). One can therefore deduce that there were no significant differences in perceived Local and Global Gains by **gender** as the significant value of .139 was achieved which is higher than the alpha value of .05, ($F = 2.206$, $df = 1$, $p = .139$).

Table 4.14: Comparisons between Groups on Perceived Local and Global Gains by Gender

Gender	Mean	SD	F	df	p-value
Females (n = 145)	3.34	.52	2.206	1	.139
Males (n = 58)	3.46	.50			
Total(n = 203)	3.37	.52			

As shown in Table 4.15, the means on Local and Global Gains domain were high across all **age** groups. The 18-20 years group showed a mean score of 3.47 (SD =

.50). The mean for the age 21-24 years category was the lowest at 3.34 (SD = .48) with the ≥ 25 yrs age category yielding a mean score of 3.46 (SD = .80). The undeclared age category registered the highest mean score under the Local and Global Gains domain at 3.57 (SD = .20). No significant differences were found by age on Local and Global Gains on ANOVA ($F = .842$, $df = 3$, $p = .472$).

Table 4.15: Comparisons between Groups on Perceived Local and Global Gains by Age

Age	Mean	SD	F	df	p-value
18-20 Yrs. (n = 33)	3.47	.50	.842	3	.472
21-24 Yrs. (n = 148)	3.34	.48			
> 25Yrs. (n = 19)	3.46	.80			
Unspecified (n = 2)	3.57	.20			
Total(n = 203)	3.37	.52			

With regard to **cohort groups**, Table 4.16 reveals that the mean scores across all three cohort groups were high with a very slight difference. The mean score on perceived Local and Global Gains for the 2012 cohort group was the highest of the three cohort groups at 3.42 (SD = .51), followed by the 2010 cohort group with a mean score of 3.36 (SD = .48) and the 2011 cohort group registering a mean of 3.34 (SD = .56). One could therefore deduce that there were no significant differences between cohort groups on ANOVA ($F = .479$, $df = 2$, $p = .620$). The result therefore shows that the hypothesis that respondents from the 2011 cohort group would have more positive perspectives of the influence of CBE on their learning compared to respondents from the 2010 cohort group with the 2012 cohort respondents having an even better perception on CBE than the 2010, 2011 cohort groups in regards to the Local and Global Gains domain was rejected.

Table 4.16: Comparisons between Groups on Perceived Local and Global Gains by Age

Age	Mean	SD	F	df	p-value
18-20 Yrs. (n = 33)	3.47	.50	.842	3	.472
21-24 Yrs. (n = 148)	3.34	.48			
> 25Yrs. (n = 19)	3.46	.80			
Unspecified (n = 2)	3.57	.20			
Total(n = 203)	3.37	.52			

Table 4.17 reveals that there was no significant difference in respondents' perspectives on CBE by community sites as revealed by data on ANOVA ($F = 1.008$,

df = 3, $p = .390$). The mean score for the Mpumuza site was 3.32 (SD = .56), Willowfontein 3.36 (SD = .43), Cinderella 3.34 (SD = .59) and Copesville 3.49 (SD = .47).

Table 4.17: Comparisons between Groups on Perceived Local and Global Gains by Community Placement Site

Community Site	Mean	SD	F	df	<i>p-value</i>
Mpumuza(n = 55)	3.32	.56	1.008	3	.390
Willowfontein (n = 48)	3.36	.43			
Cinderella (n = 52)	3.34	.59			
Copesville (n = 48)	3.49	.47			
Total(n = 203)	3.37	.52			

As depicted in Table 4.18, the mean scores on the Local and Global Gains domain were high across all **home languages**. The English category yielded the highest means of $\bar{x} = 3.46$ (SD = .41), with the rest of the languages yielding the following means: IsiZulu $\bar{x} = 3.32$ (SD = .39), IsiXhosa $\bar{x} = 3.36$ (SD = .40) and other languages yielding $\bar{x} = 3.32$ (SD = .41). Based on these findings, it is deduced that there were no significant differences between groups by home language in the Local and Global Gains domain on ANOVA ($F = .209$, $df = 3$, $p = .890$).

Table 4.18: Comparisons between Groups on Local and Global Gains by Home Language

Language	Mean	SD	F	df	<i>p-value</i>
IsiZulu (n = 177)	3.32	.39	.209	3	.890
IsiXhosa (n = 19)	3.36	.40			
English (n = 3)	3.46	.41			
Other (n = 4)	3.32	.41			
Total(n = 203)	3.32	.39			

The results from Table 4.19 below show that the mean scores were high across all four **residential areas** in the Local and Global Gains domain, with the township and the informal settlement categories registering the same mean scores. The township mean was 3.42 (SD = .46) and the informal settlement mean was 3.42 (SD = .53). The rural area category registered a mean score of 3.33 (SD = .57) and the suburban category 3.36 (SD = .33). There were no significant differences found between groups by residential area in the Local and Global Gains domain on ANOVA ($F = .493$, $df = 4$, $p = .741$).

Table 4.19: Comparisons between Groups on Local and Global Gains by Settlement

Settlement	Mean	SD	F	df	p-value
Rural(n = 112)	3.33	.57	.493	4	.741
Suburban (n = 25)	3.36	.33			
Township (n = 61)	3.42	.46			
Informal Settlement (n= 5)	3.42	.53			
Other(n = 0)	0	0			
Total(n = 203)	3.37	.52			

4.3.3 Personal Gains

Like the Academic Gains and Local and Global Gains, results also show that the Personal Gains domain yielded very high mean scores across all the six predictor variables, that is: age, cohort group, gender, community site, home language and settlement.

According to results shown in Table 4.20, one could deduce that there were no significant differences on Personal Gains by **gender** ($F = .14$, $df = 1$, $p = .907$). Means were very close between the two gender categories. The female category yielded a mean score of 3.29 ($SD = .44$) with the male category yielding a mean of 3.28 ($SD = .50$).

Table 4.20: Comparisons between Groups on Personal Gains by Gender

Gender	Mean	SD	F	df	p-value
Females (n = 145)	3.29	.44	.14	1	.907
Males (n = 58)	3.28	.50			
Total (n = 203)	3.28	.48			

Table 4.21 indicates that no significant differences were found on Personal Gains domain between groups by **age** on ANOVA ($F = 1.105$, $df = 3$, $p = .348$). Results depict that mean scores were high across all age groups with the unspecified age category ($n = 2$) yielding the highest mean of 3.86 ($SD=.0$), followed by the 18-20 years age category with a mean score of 3.31 ($SD = .41$). The 21-24 years age category had a mean score of 3.27 ($SD = .51$) with the ≥ 25 years with a mean score of 3.22 ($SD = .44$)

Table 4.21: Comparisons between Groups on Personal Gains by Age

Age	Mean	SD	F	df	p-value
18-20 Yrs. (n = 33)	3.31	.41	1.105	3	.348
21-24 Yrs. (n = 148)	3.27	.51			
> 25Yrs (n = 20)	3.22	.44			
Unspecified (n = 2)	3.86	.00			
Total(n = 203)	3.28	.48			

There were no significant differences between **cohort groups** on Personal Gains as indicated by the alpha value of .558 ($F = .586$, $df = 2$, $p = .558$) which is higher than .05. The means were high across all cohort groups for the Personal Gains domain with the 2011 cohort group registering the highest mean score of 3.31 (SD = .59) followed by the 2012 cohort group registering a mean of 3.23 (SD = .37). The 2010 cohort group registered the mean score of 3.22 (SD = .47). The hypothesis which stated that the 2012 cohort would have much more positive perspectives of the influence of CBE on their learning compared to both the 2011 and the 2010 cohorts is rejected (Table 4.22).

Table 4.22: Comparisons between Groups on Personal Gains by Cohort Group

Cohort Groups	Mean	SD	F	df	p-value
2010 (n = 51)	3.22	.47	.586	2	.558
2011 (n = 75)	3.31	.59			
2012(n =77)	3.23	.37			
Total(n = 203)	3.28	.48			

Table 4.23 indicates that mean scores for the personal gain domain for all **community settings** were high with Willowfontein and Copesville community settings achieving the same mean score of 3.35. For both communities, standard deviations were .39 and .38 respectively. Mpumuza yielded a mean score of 3.19 (SD = .39) with Cinderella yielding a mean score of 3.24 (SD = .69), otherwise the difference was very slight across all communities. There were no significant differences between groups by community sites in the Personal Gains domain ($F = 1.448$, $df = 3$, $p = .230$).

Table 4.23: Comparisons between Groups on Personal Gains by Community Placement Site

Community Site	Mean	SD	F	df	p-value
Mpumuzana(n = 55)	3.19	.39	1.448	3	.230
Willowfontein (n = 48)	3.35	.39			
Cinderella (n = 52)	3.24	.69			
Copesville (n = 48)	3.35	.38			
Total(n = 203)	3.28	.48			

Table 4.24 indicates that participants from all **home language groups** registered high mean score levels in the Personal Gains domain. The IsiZulu home language group registered a mean score of 3.27 (SD = .43), IsiXhosa home language group registered a mean score of 3.28 (SD = .47) and the English home language group registered a mean of 3.29 (SD = .49). The other language group registered a mean score of 3.18 (SD = .47). Data on ANOVA revealed that there were no significant differences found by home language in the Personal Gains domain ($F = .061$, $df = 3$, $p = .980$).

Table 4.24: Comparisons between Groups on Personal Gains by Home Language

Language	Mean	SD	F	df	p-value
IsiZulu (n = 177)	3.27	.43	.061	3	.980
IsiXhosa (n = 19)	3.28	.47			
English (n = 3)	3.29	.49			
Other (n = 4)	3.18	.47			
Total(n = 203)	3.27	.43			

Table 4.25 below illustrates that there were no significant differences between groups by **residential area** in the Personal Gains domain, as the alpha level of .966 was registered which is higher than the alpha of .05 ($F = .143$, $df = 4$, $p = .966$). The mean scores were high across all four residential areas with the rural area category yielding a slightly higher mean score than the other three categories. The residential areas registered the following means; rural category (n = 112) mean 3.29 (SD = .56), suburban category (n = 25) mean 3.26 (SD = .31), township category (n = 61) mean 3.31 (SD = .33) and informal settlement category (n = 5) mean 3.31 (SD = .57).

Table 4.25: Comparisons between Groups on Personal Gains by Settlement

Settlement	Mean	SD	F	df	p-value
Rural (n = 112)	3.29	.56	.143	4	.966
Suburban (n = 25)	3.26	.31			
Township (n = 61)	3.31	.33			
Informal Settlement (n = 5)	3.31	.57			
Other(n = 0)	0	0			
Total(n = 203)	3.28	.48			

4.3.4 IntraPersonal Gains

The IntraPersonal Gains domain is a subscale that assesses how an individual reflects on values and cultural identification.

Table 4.26 indicates that the mean scores for females and males were both high with the male category registering a slightly higher mean score than the female category in the IntraPersonal Gains domain. The mean score for females registered at 3.16 (SD = .62) and the male category registered at 3.27 (SD = .50). Data on ANOVA revealed that there were no significant differences that were found in the IntraPersonal Gains domain by **gender** (F = .491, df = 1, p = .845).

Table 4.26: Comparisons between Groups on IntraPersonal Gains by Gender

Gender	Mean	SD	F	Df	p-value
Females (n =145)	3.16	.62	.491	1	.485
Males (n = 58)	3.27	.50			
Total(n = 203)	3.18	.59			

From Table 4.27 results show that there were no significant differences between the four **age** groups in the intraPersonal Gains domain as the alpha value was higher than .05 (F=.041, df 3, p =.989). The mean scores for the four age categories were as follows; (a) 18 – 20 years \bar{x} = 3.12 (SD = .47), (b) 21 – 24 years \bar{x} = 3.18 (SD = .63) and (c) ≥ 25 years \bar{x} = 3.14 (SD = .52). The unspecified age category yielded a mean score of \bar{x} = 3.14 (SD = .20) in the IntraPersonal Gains domain.

Table 4.27: Comparisons between Groups on IntraPersonal Gains by Age

Age	Mean	SD	F	df	p-value
18-20 Yrs. (n = 33)	3.12	.47	.041	3	.989
21-24 Yrs. (n = 148)	3.18	.63			
> 25Yrs (n = 20)	3.14	.52			
Unspecified (n = 2)	3.14	.20			
Total(n = 203)	3.18	.59			

Findings from Table 4.28 below reveal that the following mean scores from the three **cohort groups** were yielded; 2010 cohort (n = 51) yielded a mean score of 3.16 (SD = .83), 2011 cohort (n = 75) yielded a mean score of 3.18 (SD = .58) with the 2012 cohort (n = 77) yielding a mean score of 3.19 (SD = .38). Based on the findings, it is deduced that there were no significant differences between cohort groups in the IntraPersonal Gains domain ($F = .054$, $df = 2$, $p = .947$). The 2010 cohort group registered a mean of 3.16 (SD = .83). The hypothesis that postulated that the 2012 cohort would have more positive perspectives of the influence of CBE on their learning compared to the 2011 and 2010 cohorts is rejected. Nevertheless, mean scores for all cohort groups were high.

Table 4.28: Comparisons between Groups on IntraPersonal Gains by Cohort Group

Cohort Groups	Mean	SD	F	df	p-value
2010 (n = 51)	3.16	.83	.054	2	.947
2011 (n = 75)	3.18	.58			
2012(n=77)	3.19	.38			
Total(n = 203)	3.18	.59			

Table 4.29 depicts that the IntraPersonal Gains domain also showed no significant differences by **community setting** ($F = .95$, $df = 3$, $p = .899$). The mean scores for the community placement sites were as follows: Mpumzuza (n = 55) mean 3.14 (SD = .76), Willowfontein (n = 48) mean 3.19 (SD = .43), Cinderella (n = 52) mean 3.17 (SD = .61) and Copesville (n= 48) mean 3.23 (SD = .47).

Table 4.29: Comparisons between Groups on IntraPersonal Gains by Community Placement Site

Community Site	Mean	SD	F	df	p-value
Mpumuzi (n = 55)	3.14	.76	.195	3	.899
Willowfontein (n =48)	3.19	.43			
Cinderella (n =52)	3.17	.61			
Copesville (n = 48)	3.23	.47			
Total(n = 203)	3.18	.57			

As shown in Table 4.30 below, one could deduce that there were no significant differences by **home language** in the IntraPersonal Gains domain ($F = .063$, $df = 3$, $p = .079$). The results for IsiZulu home language category ($n = 177$) registered a mean score of 3.15($SD = .47$), IsiXhosa home language category ($n = 19$) mean = 3.10 ($SD = .50$), English home language category ($n = 3$) mean = 3.19 ($SD = .16$) and the other language ($n =4$) mean = 3.14 ($SD = (.75)$).

Table 4.30: Comparisons between Groups on IntraPersonal Gains by Home Language

Language	Mean	SD	F	df	p-value
IsiZulu (n = 177)	3.15	.47	.063	3	.979
IsiXhosa (n = 19)	3.10	.50			
English (n = 3)	3.19	.16			
Other (n =4)	3.14	.75			
Total(n = 203)	3.15	.48			

No significant differences were found between groups by **residential area** ($F = 4$, $df = 4$, $p = .568$) on the IntraPersonal Gains domain. The informal settlement category yielded the highest mean score of 3.29 ($SD = .65$), otherwise the rest of the other categories yielded the following means; rural category mean score 3.14 ($SD = .57$), suburban category mean score 3.13 ($SD = .23$) and township mean score 3.22 ($SD = .64$) (Table 4.31).

Table 4.31: Comparisons between Groups on IntraPersonal Gains by Settlement

Settlement	Mean	SD	F	df	p-value
Rural (n = 112)	3.14	.57	4	.737	.568
Suburban (n = 25)	3.13	.23			
Township (n = 55)	3.22	.64			
Informal Settlement (n = 6)	3.29	.65			
Other (n = 0)	0	0			
Total (n = 203)	3.18	.48			

4.3.5 Hours dedicated to CBE per Semester

Based on the results depicted in Table 4.32, it is deduced that the study participants covered different CBE hours outside their CBE schedule. The table below shows that the majority of participants spent more or less the same hours for each semester. The results of the study revealed that the highest number of CBE hours that were covered was 800-1000 hours (n = 8) = 4% in the first semester and (n = 10) = 5% in the second semester. However, other study participants reported to have covered as little as 0-199 hours (n = 59) = 29% in the first semester and (n = 56) = 27.5% in the second semester. The majority of the sample reported to have spent 200-399 unscheduled hours (n = 119) = 58.6% in the first semester and (n = 120) = 59 % in the second semester.

Table 4.32 Clinical Hours covered during CBE

NUMBEROF HOURS	SEMESTER 1		SEMESTER 2	
	FREQUENCY	PERCENTAGE %	FREQUENCY	PERCENTAGE %
00-199	59	29	56	27.5
200-399	119	58.6	120	59
400-599	16	7.9	12	6
600-799	1	0.5	5	2.5
800-1000	8	4	10	5
TOTAL	203	100%	203	100%

4.3.6 Views on Community Based Education

4.3.6.1 Level of Interest for Participating in CBE

The level of interest was assessed using very low, low, moderate, high and very high responses. The researcher has combined the very low responses and low responses into low and the very high and high into high with moderate response remaining unchanged.

Based on the results as revealed in Figure 4.3, the highest percentage of responses was obtained from the study respondents who had a high interest in CBE 48.3% (n = 98), followed by the moderate responses which yielded 41.9% (n = 85).The low response yielded 9.9% (n = 20). It is therefore deduced that most participants had high interest in CBE (Figure 4.3).

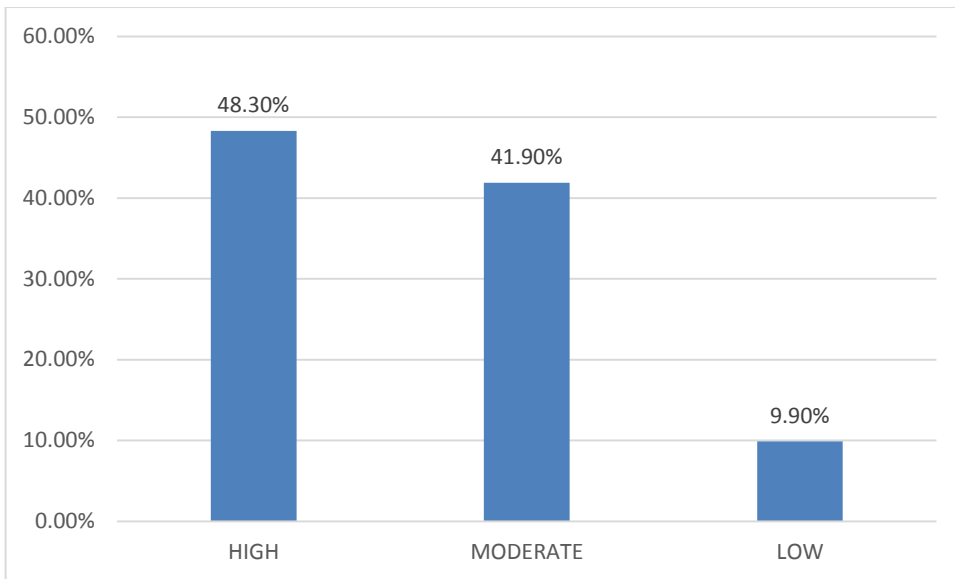


Figure 4.3: Level of interest in CBE

4.3.6.2 Level of Satisfaction for Having Participated in CBE

The researcher combined very low and low response into low and very high and high response into high. Moderate response remained unchanged.

From the study results shown in Figure 4.4 it is deduced that most respondents who participated in the study were satisfied with having participated in CBE. The high response yielded 53.7% (n = 109), the moderate response scored 39.4% (n = 80) and the low response scored 6.8% (n = 14).

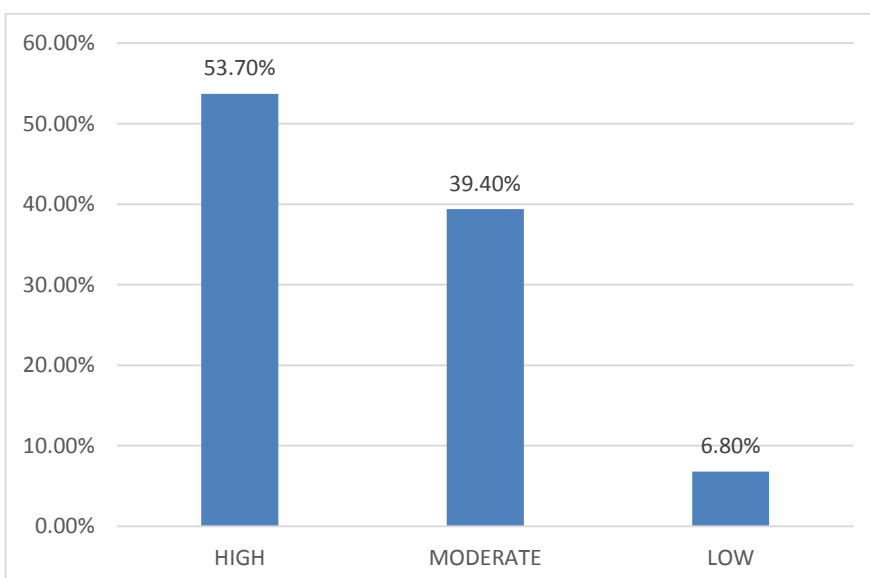


Figure 4.4: Level of Satisfaction with CBE

4.3.7 Preferred Practice Environment

Figure 4.5 below illustrates that most participants preferred clinic settings to hospital settings. The clinic category yielded the highest scores of 71.9% (n = 146) with the hospital category yielding 28.1% (n= 57).

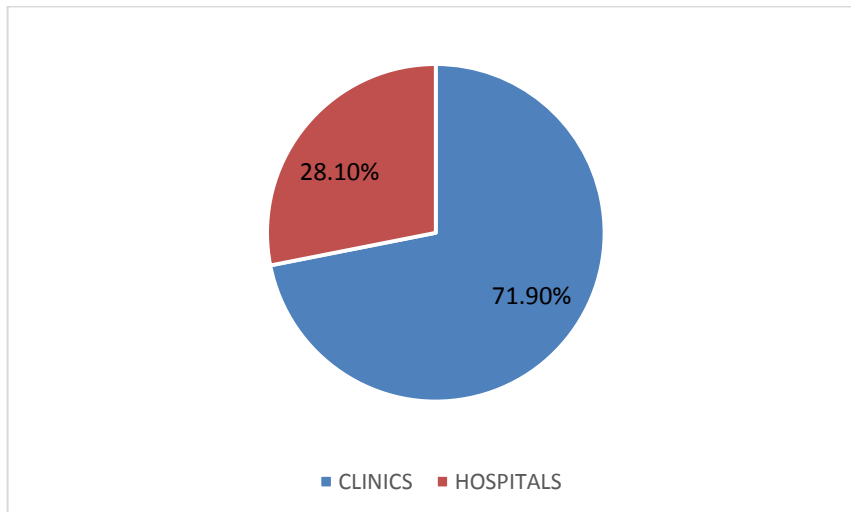


Figure 4.5: Preferred Practice Environment

4.3.8 CBE Experiences

4.3.8.1 CBE Rewards

Based on the study findings on open-ended questions, respondents reported to have acquired a number of skills and the following themes emerged: deeper understanding of CBE and skills acquisition, participation and team work, personal and professional growth, preventive and promotive health as well as subject awareness.

4.3.8.1.1 Deeper Understanding of CBE and Skills Acquisition

The study findings revealed that respondents reported to have gained a number of skills that they did not possess before CBE placement including writing skills, problem-solving skills, increased responsibility, communication skills and critical thinking skills. With regard to these themes, respondents expressed their views in the following manner:

The fact that I can now work effectively with others and it improved my communication skills with others. (Res 203)

Interacting with community members and being able to think critically. (Res 51)

It created the skill of working as a group and increased the skill of thinking critically. (Res 129)

Learning more about the community, the culture and values. It improved my communication. (Res 19)

It helped me to see myself as part of the solution in the community and made me think more deeply regarding community engagement and also enabled me to work and share my views with other people. (Res 164)

... Resolving community problems. (Res 98)

4.3.8.1.2 Participation and Team Work

According to respondents, working with different community members including the non-health care professionals was a rewarding experience. Since CBE requires group work, respondents reported that such practice taught them how to work in teams, as indicated by the following responses:

Working together as a team, trusting each other in order to solve a particular problem and taking decisions with community members. (Res 53)

Having helped people in need and everyone involved was happy with our work/ participation. (Res 88)

To work as a team and understanding other cultures and working with NGOs. (Res 93)

4.3.8.1.3 Personal and Professional Growth

Respondents in their reflection on CBE placement reported that they experienced tremendous growth both personally and professionally. According to them, their interaction with different individuals including their colleagues helped them to grow professionally. Respondents attested that CBE had taught them to behave ethically and thus grow professionally, expressed as follows:

Community based learning helped me to communicate and share experiences with other people and I learned how to communicate and respect other people's culture. (Res 112)

Working with stakeholders in the community as well as those at the district health offices for the improvement of people's lives at community level. (Res 31)

4.3.8.1.4 Preventive and Promotive Health

Through home visits and interventions, respondents expressed their appreciation in getting a chance of giving health education to community members on health related issues. Community members were educated on the use of drugs, teenage pregnancy and sexually transmitted diseases. Screening for HIV, estimation of blood pressure, pulse and respiration. Haemoglucotest tests were also carried out. Respondents reported to have diagnosed some of the community members as having certain conditions they were not aware of and they gave relevant health education and prompt referral for those who required urgent attention. The following statements from respondents evidence the appreciation of CBE:

It was very fascinating to see young people engaged in sports, health education and learning. (Res 20)

I became aware of diseases that are prevalent in the community and advised the community members to utilize clinics rather than consulting with traditional healers. It was a good experience for me to encourage community members to comply with treatment. (Res 1)

4.3.8.1.5 Subject Awareness and Correlation of Theory to Practice

Under this theme, respondents reported that CBE had created an awareness of Community Nursing Science as a subject as well as of the CBE programme. Other respondents reported that they found it much easier to correlate theory to practice. The following respondents stated that:

It helped me to apply what was taught in class to real life problem solving in the community. (Res 101)

... A better understanding of Community Health Nursing. (Res 97)

4.3.8.1.6 Improved Research and Writing Skills

Respondents claimed that the CBE programme had groomed them in research related skills as they were expected to undertake family and community studies

during CBE. Furthermore, they also reported that they gained research and writing skills in the last semester of their CBE course, as they were required to compile and write a detailed report pertaining to their CBE experiences as evidenced by the following reports from respondents:

I got to know how to compile community profile. (Res 4)

... Improved communication, writing skills. (Res 5)

We were able to identify strengths and weaknesses of the community we were allocated at and in that way we were able to deal with weaknesses and made community members aware of those weaknesses/problems. (Res 10)

4.3.8.1.7 Cultural Awareness

Respondents claimed to have learnt about different cultures that they were previously not aware of before the CBE placement as expressed in the following quotations:

It was good to take a break from the university and learn other cultures. (Res 24)

It helped me to understand diversity in our country. (Res 39)

Working with different people at the community level and other cultural groups. (Res 186)

It helped me understand other cultures. (Res 67)

4.3.8.2 Challenging Experiences during CBE

The following themes emerged under challenges experienced during CBE: relationships and teamwork, community participation and involvement, expectations from community members, mentoring, sponsors, and cultural diversity.

4.3.8.2.1 Relationships and Team Work

It was reported that some respondents were less active in their groups and as a result, the active respondents ended up having a greater workload than the rest of the other group members. Respondents, therefore, felt that the issue of grouping students and allocating marks based on the group effort is an unfair practice since the less active students receive equal benefits, yet they had less input. According to them, this approach should be re-considered.

Another theme that emerged was that some respondents from a particular group had the tendency of paying more respect to certain group members than to other group members, which led to a lack of group synergy and cohesion as highlighted by one student: “*conflict within group members as some group members did not take other people’s views*” (Res 180). Based on respondents’ perceptions, respondents requested that they be afforded an opportunity to elect their own team members.

It was difficult to work in a group as members because very often the group was involved in arguments. (Res 97)

Working in groups was very challenging as some group members undermined other people’s views. (Res 6)

Working as a large group caused conflict between team members. As an individual engaged in CBE you need to be patient with your colleagues as they have valuable contribution to the team. (Res 72)

Mentoring or lack thereof was one of the emerging themes with respect to challenges experienced during CBE. It was apparent under this theme that respondents received inadequate mentoring from lecturers/ clinical instructors during CBE placement; as highlighted by one student “*lecturers / clinical instructors must accompany us every day to the community as it is risky for us*” (Res 36). The following are excerpts from some of the statement made by respondents:

More involvement of the assigned lecturers to provide guidance and clarity when necessary (Res 96)

Lecturers should be more hands on and assist the students (Res 88)

4.3.8.2.2 Community Participation and Involvement

Some of the respondents reported that community members did not attend ordinary community meetings, yet when projects were implemented, they got excited and attended in numbers. Other reports were that in certain areas, political related conflicts existed among the key figures/stakeholders, which made it difficult for respondents to convene community meetings. Again, other themes that emerged under challenges in CBE were that some respondents were very shy to communicate with community members as well as a lack of trust on the part of the community.

It was also mentioned in the study results that while respondents were conducting family studies some families were reluctant to co-operate because they were not receiving any incentives from students. The following are the quotations from respondents:

Other community members were expecting us to do things that we could not afford to deliver as students. (Res 135)

The challenge I faced was that the community was not happy about us because we asked them too many questions every year and some were not attending the scheduled meetings. (Res 66)

Community members were not attending meetings. (Res 2)

Some of the community members did not have trust in us and they were not participating (Res 24)

Other community members were disrespectful to me they said who am I that I can bring change in their lives. (Res 199)

4.3.8.2.3 Difficulty in Securing Sponsors

Some of the study participants indicated that sponsors were difficult to find. There were reports that at times sponsors would promise to fund the project/s, and when it was time to sponsor would not keep to their promise, which made it even more difficult for respondents to carry out interventions. Another theme that emerged was that certain respondents were not eager to find sponsors, as this was a challenging exercise:

Finding sponsors to help the community was difficult. Sometimes sponsors would promise to fund us, but later on change their minds ... (Res 8)

Finding sponsors to implement our project was not easy and other group mates were reluctant to find sponsors

... (Res 43)

4.3.8.2.4 Cultural Diversity

Although respondents worked in groups in CBE, cultural diversity is reported to have posed challenges to certain respondents during CBE clinical placement, as they had to deal with community members whose culture was completely different from theirs. As a result, some respondents reported that it was difficult to relate to some

community members. However, most respondents expressed their excitement at being exposed to cultures that were different from theirs as they became more aware of other cultures, and as a result, they became more culturally sensitive. Participants also reported that it was difficult to gather community members as they had diverse cultures, as highlighted by the following participants:

Community members had different cultures and values so, it was difficult to get them together” (Res 142)

Difficulties in community with community members having different cultures ... (Res 109)

4.3.9 Recommendations for Change in CBE

Themes that emerged were sponsorship and refreshments, learning and support from clinical instructors / lecturers, early introduction of CBE and team building workshops.

4.3.9.1 Sponsorship and Refreshments

The majority of respondents felt that the Institution should assist with funds for projects, as sponsors are difficult to find as cited by the following respondents;

Lecturers also need to help us in finding sponsors and they can even help us to make contacts with different fields of sponsors. (Res 82).

Lecturers must help students in finding sponsors. (Res 22)

There should be a certain amount for funding CBE students whenever possible. (Res 70)

DUT to sponsor us for projects. (Res 49)

Respondents also suggested that the university should provide refreshments when they are back from CBE placement since they come back tired and hungry due to long CBE clinical hours. The following is a proposal from a respondent:

DUT should provide students with refreshments when they are back from CBE placement. (Res 170)

4.3.9.2 CBE Hours and Clinical Placement

The study revealed that about 60% of the students who participated in the study proposed an increase in CBE hours. The following responses highlight a variety of opinions:

I think we should engage more in CBE places so that we will learn more.
(Res 69)

Increase CBE hours and decrease theory hours. (Res 201)

The amount of time spent on community based learning must be equal to the theory time. (Res 140)

Another theme that emerged was over utilisation of community sites and 75% of the respondents from the 2012 cohort group who participated in the study suggested that community sites be changed, expressed as follows:

To change community every year to in order to avoid repeating what has already been done. (Res 130)

Change the community that has already been utilized. (Res 15)

I think is to change the community yearly for each group because the communities that are utilized at present are tired of us and they expect us to do more for them. (Res 160)

4.3.9.3 Learning and Support from Clinical Instructors / Lecturers

According to respondents' reports, lecturers / clinical instructors were to assist respondents in finding sponsors as they are difficult to find; one student reported that "*lecturers to do a follow up on sponsors*" (Res 115). Respondents' reports pointed out that lecturer/student relationships have to be improved and lecturers must be actively involved in CBE. One respondent reported that

Lecturers must show interest as no lecturers came to enquire about our progress in CBE as a result we had to rush to them when we had problems.
(Res 143)

Respondents felt that co-operation, love and respect on the part of respondents and lectures could take CBE and the institution to the heights as highlighted by one respondent:

I think if people work together, respect and love one another community based learning at DUT could be at its highest level. (Res183)

Respondents also proposed that lecturers must supervise them daily during CBE placement, as expressed by the following participant;

Daily supervision when in community. (Res 176)

Another theme that emerged was that self-directed learning should not be applied in CBE as students require a lot of assistance and guidance during the CBE programme, as reported by the following respondent:

Student nurses must always have a clear guidance from their lecturers/clinical supervisors. (Res 200)

Respondents proposed that the CBE hours should be increased, as reported by the following respondent: *“increasing hours in community”* (Res 100).

4.3.9.4 Early Introduction of CBE and Team Building

Participants attest to the notion that early introduction to CBE will give a good grounding if it is introduced early in the first semester of first year rather than in the second semester of first year, as reported by the following respondents:

I think CBE must be introduced early in the first year of study so that students will have a better grasp of CBE before it commences. Also knowing what CBE is all about early will create an interest. (Res 136)

Another theme that emerged was to allow students to select a group of their choice for CBE, as highlighted in the following response: *“the lecturers have to let the student choose for themselves a group they prefer to work with”* (Res 180).

The study findings also revealed that respondents appreciated the team-building workshop that took place before the commencement of the CBE course; however, some felt that it must not be a once off exercise but rather, run at certain intervals until the CBE programme is completed, as differences in groups still exist, as reported by the following respondents:

More team building workshops as it was very motivating. (Res 142)

Team building workshop must be done until we complete CBE because other students forget what we were taught in team building and they do not cooperate. (Res 159)

Other respondents felt that there is absolutely nothing that needs to be improved in CBE, as expressed in the following quotations:

Nothing needs to be improved. Community Based Learning is good. (Res 80)

There is nothing much to be changed for me everything is good because there is transport that takes students to community, facilitators do their work in an excellent manner, however they need to inspire students to commit themselves more in CBE. (Res 25)

Nothing I think everything is under control. (Res 28)

Nothing needs to be changed community based learning is good at DUT. (Res 55)

4.4 CHAPTER CONCLUSION

Data was presented, analysed and sample realisation was described. Respondents' perspectives on CBE was assessed using ANOVA, and their views on CBE, CBE experiences, CBE hours, preferred clinical settings as well as recommendations were explored. There were no significant differences in all the variables of interest. The qualitative results revealed that students perceived CBE experiences as very rewarding since such exposure promoted deeper understanding of CBE and they acquired a number of skills that they did not possess before their CBE placement.

CHAPTER 5 : DISCUSSION OF FINDINGS, RECOMMENDATIONS AND LIMITATIONS OF THE STUDY

5.1 INTRODUCTION

This chapter presents the discussion of research findings, interpretation of the findings, recommendations as well as limitations of the study. The aim of the study was to explore the perspectives of undergraduate nursing students on CBE at the Durban University of Technology in South Africa.

5.2 DISCUSSION OF THE FINDINGS

The discussion of the findings focuses on demographic data and perspectives of students of CBE with respect to Academic gains, Local and Global Gains, Personal Gains and IntraPersonal Gains. It also focuses on participants' views on preferred clinical setting as well as CBE experiences including perceived CBE rewards and challenges.

5.2.1 Respondents' Demographic Profile

The findings of the study indicate that the highest percentage of the sample was obtained from the female participants (71.4%) whilst the male participants constituted 28.6%. The high percentage of female respondents was expected since generally more females than males enrol for nursing studies. This is in contrast to medical education. For instance, a study conducted by Sharma and colleagues (2007: 197) revealed that there were more male medical students ($n = 30$) than female students who participated in their study ($n = 9$). This is not surprising as nursing has long been seen as a female dominated profession, whereas the medical profession had for a number of years been seen as a male dominated profession.

The high number of African participants was also expected as the campus at which the undergraduate nursing programme is located is in an African township. The

results indicate that 96.5% of participants were African 2.5% Coloured and 1% unspecified race. Effects of racial segregation created under the group areas act (Act No. 41 of 1950) have not yet been eradicated since the advent of democracy in 1994. Consequently, particular race groups still tend to dominate particular South African human settlements. According to Marx and Charlton (2003: 1) “eight years into the post-Apartheid era, urban areas by and large continue to reflect the pattern of racially homogenous and separate residential areas that are the product of the Apartheid years”.

With respect to age, one could deduce that nurses who were enrolled for the B. Tech. Nursing Science degree at DUT at the time of data collection were young adults. This is common as most students who enter Higher Education (HE) are students who have just matriculated. This is evident from the study results, which revealed that the majority of participants were in the age category 21-24 years (72.9%), followed by 18-20 years (16.3%), and ≥ 25 (9.9%) and $0\% \leq 18$ years of age. The large percentage (82.8%) of participants outside the traditional college students' age (18-21 years) group might be an indication that perhaps African students take longer than their counterparts in other race groups to graduate from high school or just that they delay entry into higher education. Reasons for delayed entry could be due to delayed admission to particular areas of study, financial and/or personal circumstances. This study however, did not explore the reasons behind this phenomenon. Nevertheless, whether the so called traditional college student age group still has relevance is debatable.

Literature (Adams and Corbett, 2010; Center for Institutional Effectiveness, KSU, 2004; Centre for Postsecondary Education and Economic Success, 2011; Deil-Amen, 2011) abounds with arguments for the need to revise the normative definitions of what constitutes “traditional” undergraduate students in higher education. Firstly, the terms traditional and non-traditional undergraduate students are American concepts. There has been no academic discourse on traditional and non-traditional students in South Africa.

With regard to the level of study, the study results show that the highest percentage of participants were from the second year of study (2012 cohort group) with 37.9%, followed by the third year (2011 cohort group) with 36.9% and fourth year (2010

cohort group) with 25.2%. The lowest percentage of participants was from the fourth year of study (2010 cohort group). This could be attributed to the fact that the 2010 cohort group completed their studies at the end of 2013 academic year while data collection process was still in progress.

The study revealed that for the majority of participants (87.1%) IsiZulu was their home language, 9.4% spoke isiXhosa at home, 1.5% spoke English and 2.0% spoke other languages. The high percentage of IsiZulu speaking participants could be because the university under study is located in KwaZulu-Natal where people predominantly speak IsiZulu. The highest percentage on school language was English, which yielded 99% with Afrikaans yielding 1.0%. This is not surprising since a large number of African students would have attended English medium schools. Furthermore, English as a language of instruction at school is a common norm in those countries that were colonized by Great Britain, now commonly known as Anglophone countries.

With regard to residential area, the study results indicate that more than half of the participants were from rural areas which is evidenced by the participant rate of 55% in this category, 30% were from townships, 12% from suburban areas and 3.0% from informal settlements. The study findings are well supported by those of Makhaye (2013: 10-13) from South African Parliament research, who found that, due to the Group Areas Act that was promulgated in 1966 (Act no 36 Of 1966), certain racial groups were allowed to occupy and have ownership of land/houses in specific relevant group areas. Makhaye reported that “movement to and from rural and urban areas was monitored and occupation in urban areas was restricted on the basis of race”. The author further reported that the Abolition of Influx Control Act (Act no 68 of 1986) and the introduction of the Free Settlement Area in 1986 that permitted free human settlement could not effectively redress the long standing effects of the apartheid era. This is evident by the vast majority of South African population still residing outside urban areas who are mainly the African population.

5.2.2 Hours Spent on CBE outside the Mandatory Scheduled CBE Hours

The study findings revealed that in addition to the scheduled/ timetabled CBE hours, the majority of the participants spent an extra 200-399 hours (n= 119) (58.6%) in the first semester and (n = 120) (59%) in the second semester. The results of the study showed that the highest number of CBE hours that the respondents covered outside of scheduled/timetabled CBE placement was 800-1000 hours. This is encouraging as it indicates a high level of commitment to CBE by some of the study participants. Nevertheless, this was a small number of respondents of eight (4%) and 10 (5%) in the first and second semester of CBE placement. Other study participants reported to have spent as little as 0-199 extra hours in each semester (n = 59, 29% & n = 56, 27.5%).

Furthermore, the results revealed that the majority of participants spent more or less the same hours for each semester. Other hours reported to have been covered by participants were 400-599 (n = 23, 7.9%) in the first Semester and (n = 12, 6%) in the second Semester. The 600-799 category registered very low response rate for both Semesters (n = 1, 0.5% and n = 5, 2.5%). Based on the above discussion it is therefore deduced that the participants covered different CBE clinical hours outside their CBE schedule before they completed their CBE program. However, some respondents reported to have covered as little as 0-199 CBE hours outside of scheduled CBE placement. This is in contrast to reports from some study participants who reported to have covered as high as 800-1000 CBE hours. Literature however revealed that transformative experiences have been reported even with minimal exposure to service learning (Furze *et al.*, 2011: 415). It is however worth noting that although students reported to have gained from a once off exposure to CSL, this was confined to self-actualization and self-discovery as opposed to their counterparts who reported to have had many more CSL rewards (Furze *et al.*, 2011: 415). For participants in the current study CBE placements were scheduled one day per week in the second semester of the first year of study and two days per week in first semester of the second year of study.

5.2.3 Perspectives of Respondents on CBE

5.2.3.1 Overall Perspectives of Respondents on CBE

Respondents' perspectives on CBE were explored using the following domains:

- Academic Gains;
- Local and Global Gains;
- Personal Gains; and
- IntraPersonal Gains

Similar to the study by Ibrahim (2010: 395) respondents in the current study rated the impact of CBE on Academic Gains lowest ($\bar{x} = 3.09$, $SD = .38$) with perceived impact of CBE on Local and Global Gains rated highest ($\bar{x} = 3.33$, $SD = .38$). Further analysis of the data on Academic Gains revealed that the least rated item on this subcategory was about whether or not CBE had increased their enjoyment of the course (community health nursing) with a mean score of 3.02 ($SD = .78$), followed by the statement CBE made them plan to take more courses in this disciplinary field ($\bar{x} = 3.03$, $SD = .68$). Respondents however reported that CBE had helped them participate in class discussion ($\bar{x} = 3.22$, $SD = .64$) as well as helped them “apply course material to real life problem solving and/ or decision making”.

It would seem therefore, that for this particular group of respondents, the most appreciated impact of CBE on the nursing students' careers were related more to perceived skills development rather than the actual course material. The results corroborate those of a study conducted by Ranse and Grealish (2007) and Narsavage *et al.* (2003) who reported that the findings of their studies revealed that students were delighted to be engaged in CBE practice as it enhanced course learning and it created a platform for correlation of theory to practice. This notion is well supported by Ngai (2006: 166) who stated that community service learning “provides opportunities for students to connect their personal goals with academic study and to apply what they are learning to real world situation”.

The current study findings show that the respondents rated the item on enjoyment of community health nursing the lowest are contrary to the results reported by Dumas (2002: 258) who found that participants reported that CBSL had led to

“deeper understanding of the subject matter”. Nevertheless, mean scores for this item were still high at 3.02 (SD = .78)

The high rating of the impact of CBE on Local and Global Gains corroborates the views by Redman and Clark (2002) who maintain that CBE should promote the development of civic responsibility. Redman and Clark reported on nursing students’ reflections on their experiences with a service-learning requirement that integrated social justice. These researchers attested that students’ reflections on their experiences with service learning in community based agencies helped them transform their meaning perspectives about nursing and the significance of serving those whose lives are affected by social justice issues. Within the Local and Global Gains domain, respondents saw CBE as having helped them appreciate that their actions can make a difference in the world ($\bar{x} = 3.49$, SD = .59) as well as increased their realisation of the need to improve the lives of disadvantaged people in their communities ($\bar{x} = 3.46$, SD = .59). The study results are congruent with those of a study conducted by Okayama and Kajii (2011: 4) who reported that during CBE “students provided health education to the community and discussed health risks at the individual and community level with participants”. Skinner *et al.* (2008: 2) attest to this notion by reporting that early experience in CBE improves students’ essential skills and understanding as to how living conditions influence health and disease.

Mean scores for Intrapersonal and Personal Gains domains were also high at 3.15 (SD = .48) and 3.27 (SD = .43) respectively. Perusal of the data revealed that for the Intrapersonal skills domain the highest rating was accorded the statement that CBE had made participants think about their future careers ($\bar{x} = 3.30$, SD = .74). The statement that CBE had made them reflect on their inclination to think that their own group’s values and practices were superior to those of other people was rated the lowest ($\bar{x} = 2.94$, SD = .78). This might be attributed to the fact that the majority of participants in this study were familiar with the lives of the people in the communities that were the site of learning in this study. Furthermore, the respondents were largely from the same racial group and if any diversity existed, it could only be attributed to home language and gender. Information on respondents’ religious backgrounds was not the subject of this study and therefore, if any differences on religious background existed, these remained outside the questions of interest of this study.

Perceived gains on personal skills as measured by the Personal Gains subscale were the second highly rated gains with a mean of 3.27 (SD = .43). According to Ibrahim (2010: 393), the Personal Skills subscale assessed mainly “critical thinking, communication and interpersonal skills. The item: CBE “developed my ability to think critically about the information presented to me” had the highest mean score (\bar{x} = 3.44, SD = .61) in this subscale; followed by the item; CBE “enabled me to work effectively with others” (\bar{x} = 3.37, SD = .67). The qualitative data obtained from the current study revealed that through CBE engagement, participants reported to have experienced transformation of their worldviews, how they viewed nursing as a profession in particular. In addition, participants reported that they had acquired a number of skills including writing skills, problem-solving skills, increased responsibility, communication skills and critical thinking skills. This is in line with Kear’s (2012: 1085) transformative learning model that views learning as a multifaceted transformational process, which involves human interactions.

Furthermore, the findings of this study on CBE as a transformative learning experience echo those reported by Eyler and Giles (cited in Mofidi *et al.*, 2003). These researchers, reporting on a study involving 1500 college students from 20 colleges in the USA found that student participation in community based service learning led to increased personal development and perspective transformation amongst others. Ability to work effectively with others is one of the most espoused outcomes of CBE along with the development of transferable core skills such as problem solving, critical thinking and communication (Mofidi *et al.*, 2003: 316). This is in accordance with the study conducted among undergraduate radiography students at Makerere University in Uganda by Mubuke *et al.* (2008: 6) who reported that “community based training prepares students for effective professional life through the acquisition of skills such as critical thinking, problem solving and innovation as they realize the realities of health care in the community”.

Based on a study that was conducted in Hong Kong from university students, Ngai (2000: 170) found that the exposure of students to community service learning provided them with insight about themselves and other people. The author further maintains that students reported that working in a team and with different academic disciplines had broadened their perspectives. Other skills that were reported to have been acquired during CBE were assessment/ nursing process skills, group skills,

management/ leadership skills and technical/clinical skills (Bramadat, Chalmers and Andrusyszyn, 1996: 1228). Barson (1993 cited in Barbee, Scherer and Combs, 2003: 109) attests that students who participated in community service learning reported to have experienced enhanced levels of personal and professional growth.

5.2.3.2 Demographic Variables and Perspectives about CBE

Based on the study results, there were no significant differences between group perspectives in terms of gender, age, cohort groups, community placement site, home language and settlement across all the above four main domains. The mean scores were high and above 3 on a 4-point Likert scale in all variables of interest across all domains, i.e. academic, local and global, personal and Intrapersonal Gains. These findings support the claims emanating from literature on the rationale for CBE (Skinner, Onoka and Ofoegu, 2008) as well as those reported by Ibrahim (2010) based on a study involving college students in the Midwest USA.

The current study had hypothesised that differences on perceived CBE gains would be found between the cohort groups. Specifically, it was expected that the 2010 cohort group, which was the first group to be placed in community sites in the second semester of 2010 and the first semester of 2011, would differ significantly from the other cohort groups with respect to perceived CBE gains. These expectations were premised on the fact that the planning and preparation for CBE for this cohort group and their clinical instructors, who were responsible for facilitation of learning in community sites, was minimal. Their lack of preparation was in contrast to the extensive CBE facilitation workshops for the facilitators and a team building workshop for students implemented for the 2011 and 2012 cohort groups. The results of this study did not support this hypothesis.

Furthermore, it was expected that the 2012 cohort group would differ significantly from both the 2010 and the 2011 cohort groups with respect to perceived gains in all four domains. This proved not be the case, at least statistically. Nevertheless, all cohort groups reported gains in the four domains of interest in this study, that is, Academic, Local and Global, Personal and IntraPersonal Gains.

Differences between groups were however found albeit, not statistically significant. For instance, the 2010 cohort group's mean scores were the lowest on three

[Academic Gains ($\bar{x} = 3.04$, $SD = .43$); Personal Gains ($\bar{x} = 3.21$, $SD = .47$); IntraPersonal Gains ($\bar{x} = 3.16$, $SD = .83$)] of the four variables of interest measured by the modified CBE scale developed by Ibrahim (2010). On the other hand the 2012 cohort group's mean scores were the highest on two domains, including Local and Global Gains ($\bar{x} = 3.42$, $SD = .51$) and IntraPersonal Gains ($\bar{x} = 3.19$, $SD = .38$). The 2012 cohort group's mean score on Academic Gains was equal to that of the 2011 cohort group, both at $\bar{x} = 3.10$.

The lower mean scores for the 2010 cohort group compared to the 2011 and 2012 cohort groups could be viewed as a convincing, if not strong argument for the significance of staff and student preparation for implementing a CBE programme in undergraduate nursing education. This is more true in the context where both the students' and staff's educational experiences had been largely dominated by the traditional classroom and hospital-based learning environments.

Based on the above findings one could thus deduce that, respondents valued CBE and they did not only benefit in one area/ domain, but rather in all domains. Respondents benefited as individuals and as groups. Their interest in learning improved. According to the results of the study, respondents realised that life does not only revolve around a person in isolation but it involves other people as well. Respondents appreciated diversity when they worked in teams and when they were exposed to communities with individuals who had diverse social backgrounds. Most respondents in the qualitative section of the study cited growth following CBE engagement. Mudarikwa *et al.* (2010: 994) attested that CBE had proved to have the following benefits: (a) students gain insight into real life learning experience, (b) broadens students' understanding of health professional roles in the community whereby students interact with different professional disciplines and (c) students' communication and research skills are improved.

5.2.4 Views of CBE

5.2.4.1 Level of Interest and Satisfaction in CBE

The level of interest on CBE was assessed using very low, low, moderate, high and very high responses to gauge the interest of the participants. Based on the study findings, it is deduced that the majority of the participants were highly interested in

participating in CBE in the future as the 'high' response rate was 48.3%; the 'moderate' response rate was 41.9% and the 'low' response rate was 9.9%. The results of this study are in line with the study conducted by Kaye *et al.* (2010: 3) on medical students in Uganda, which revealed that the majority of medical students appreciated the inclusion of CBE as part of their medical training.

Based on the study findings, it is apparent that the participants from the HEI under study had high interest in CBE as the study findings revealed that the majority of the participants were satisfied with having participated in CBE. This is evidenced by the 'high' response rate of 53.7%, the 'moderate' response rate being 39.4% and the 'low' response rate being only 6.8% (Figure 4.3).

5.2.4.2 Preferred Practice Environment

The majority of the study participants preferred to be placed in clinic settings rather than in hospital settings. The PHC category had highest scores of 71.9% with the hospital category only yielding 28.1%. These results support the claims made by the WHO's Study Group (1987) on CBE of health personnel based on an analysis of 22 CBE programmes in a number of countries. According to the WHO Study Group (1987: 18) research on whether or not CBE leads to an increase in the number of health personnel choosing to practice in PHC settings were inconclusive, however there was some evidence that "more graduates were choosing to practice at primary care level".

5.2.4.3 Challenging Experiences during CBE

Themes emerging from the open-ended responses included (a) Lack of co-operation by team members (b) Community fatigue (c) Community political dynamics and (d) Language barriers.

The majority of respondents in the study were concerned with colleagues who were not co-operating in their teams and this theme emerged from participants across all three cohort groups. It is therefore deduced that **lack of co-operation** was a major problem in all cohort groups. The study also revealed that respondents claimed that the support that they received from lecturers/ clinical instructors was inadequate.

These findings corroborate those reported by Salmon and Keneni (2004), who found that some respondents reported to have had irregular contacts with mentors.

The current study participants on their reflection on CBE clinical placement reported that some of the community members were not keen to participate, as they were not receiving any incentives from students. Reports also indicate that other community members were vocal about the fact that they were over utilised by students as they had been exposed to the same questions repeatedly when the previous groups interviewed them. The findings of the study are congruent with those of Mbalida *et al.* (2011: 6) who found themes of community fatigue and a concern by community members regarding being used as a teaching laboratory. Mbalida and colleagues further indicated that students also reported that community members expected incentives in return for their favour.

Community political dynamics presented a challenge for respondents. This was more apparent when there was a change in community leadership in which case respondents were uncertain whom to report to regarding community meetings and interventions. According to students' reports, this challenge consequently led to poor attendance of community meetings by community members.

Language barriers were reported as some of the challenges that were faced by students as some of the study settings comprised diverse population groups. This is in line with the study that was conducted by Salmon and Keneni (2004: 176) on university nursing students in Ethiopia who found that their participants reported difficulty in understanding the local languages/cultures. The results also corroborate those of Chang *et al.* (2011: 14) who conducted a study evaluating student and educator perceptions on CBE and COBES in Uganda and found that participants in their study reported language barriers during their engagement in COBES.

5.2.4.4 Recommendations for Change in CBE

Respondents were asked to suggest how Durban University of Technology (DUT) could improve CBE. A number of recommendations were made, however, only highly recommended themes were considered in the study. Respondents recommended that DUT should provide the resources for projects, as it was not easy to find sponsors. Similarly, Kristina, Majoor and Van Der Vleuten (2006: 804)

reported that students who participated in their study commented about the lack of budget for their interventions. It is widely accepted that CBE is not a cheap option. This is especially so in cases where student placements take place in remote areas and where needs for transport and subsistence are great. In this regard, the WHO Study Group on CBE (1987), although not advocating for the payment of students involved in CBE, do recommend that they be given an adequate allowance to cover travel and subsistence. For the students in the B. Tech Nursing Science programme at DUT, the institution provided transport. Other participants reported that the DUT should provide refreshments after CBE clinical placement as CBE involves long exhausting hours. Perhaps, there is a need for the institution to consider subsistence as well although CBE is already expensive to run.

Although the current study participants received two days a week of CBE placement in the first semester and one day a week clinical placement in the second semester not to mention the fact that over and above their mandatory CBE clinical placement students covered extra hours on CBE, most participants recommended that CBE hours be increased so as to get more grounding and exposure to CBE.

Participants felt that student-lecturer relationship be improved to enhance learning in CBE.

Lastly, the current study participants on their reflection on CBE engagement recommended that team-building **workshops** be offered intermittently rather than being offered only at the beginning of the CBE programme.

5.3 LIMITATIONS OF THE STUDY

The researcher acknowledges several limitations in the study. Firstly, the study was not generalised as it was conducted in one HEI. Secondly, a large portion of participants was predominantly female which could alter perceptions. However, the nursing profession is predominantly a female dominated profession. Thirdly, although the study was conducted in KwaZulu-Natal where most study participants originated, language barriers were experienced as the population in the community sites where CBE was undertaken was diverse. Lastly, data collection was conducted at intervals when participants were at campus, otherwise the researcher had to wait until the participants had completed their clinical placement and this led

to one group completing training while the data collection process was in progress. Again, this led to the utilization of a sample size of 203 compared to a sample size of 240 as originally envisioned. It is however, believed that a sample of 203 (69%) out of 295 students who constituted the three cohort groups included in this study is a viable sample size.

5.3.1 Recommendations of the Study

The following recommendations arise from the findings of the study:

- A follow up study is recommended that will also include other HEIs that offer CBE programmes.
- Lecturers/ clinical instructors to make an effort to support students as study results revealed that there was inadequate support from lecturers/ clinical facilitators.
- Team building workshops for students to be offered at least twice to re-enforce skills required for CBE and promotion of group cohesion although this could have financial implications for the institution.

5.4 CHAPTER CONCLUSION

It is apparent that CBE was of interest to students as most students reported to have experienced heightened perspectives following CBE exposure. Others reported to have experienced transformation as they acquired skills that they did not possess prior to CBE engagement. Data revealed that there were no statistically significant differences across all four domains in terms of gender, age, cohort groups, schooling language, home language and settlement. Challenges that were cited by most students included lack of co-operation by team members, community fatigue, community political dynamics and language.

Finally, success of a CBE programme is largely dependent on the availability of resources (financial, human and material), especially as this relates to transport for staff and students, and good working relationships with communities and local health /political authorities. The significance of preparing students, staff and the community for teamwork and community participation cannot be overly emphasized. A clear understanding by the staff that SDL does not mean abdication of one's responsibilities to facilitate learning is essential for CBE.

It could be concluded therefore, that the main purpose of CBE that the Institution had set for itself was achieved. However, a lot can still be accomplished with concerted effort to address the challenges raised by students, especially those related to (a) provision of adequate support by facilitators, (b) minimally assisting students with fund-raising efforts for community projects and interventions and strengthening group cohesiveness and students' ability to work in teams.

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ANNEXURES

Annexure A: Letter of Information and Consent Form



Title of the Research Study: Perspectives of Undergraduate Nursing Students on Community Based Education in Umsunduzi Municipality

Principal investigator/researcher: Thokozani Octavia Zondi- (Master's student)

Supervisor: Professor N. Gwele - (PHD)

Dear Participant

I am Thokozani Zondi an M – Tech student who is undertaking a research study at DUT on the above title.

Purpose of the study

The purpose of the study is to examine the students' perspectives regarding their learning in a CBE undergraduate nursing programme. Community Based Education is a new teaching strategy that has been embraced by few Higher Education Institutions. Few studies regarding this teaching strategy has been conducted, therefore the findings and recommendations will be used in the improvement of Community Based Education programmes.

Outline of the Procedure

May I request your voluntary participation in the study as you meet the criteria for the above. You will be informed about the nature of research undertakings and you will be requested to sign consent before the study is conducted. As part of the research process, you will be required to complete a questionnaire which will take approximately 30 minutes of your time. Analysis will be done using the SPSS computer system.

Completion of the questionnaire will take place in the classroom during a time slot that is deemed to be less disruptive to academic programme as agreed upon with the programme coordinator.

Data Collection

A questionnaire will be administered by a trained independent researcher and will comprise of closed and open-ended questions (Annexure B). Completed questionnaires will be posted in a box that is provided at the exit point which will be collected daily by an independent person. There will be only

one sitting for completion of questionnaire, however if the response is not good, a follow up session will be set.

Risks or Discomfort to the Participant: This is a non-interventional study which only involves the completion of a questionnaire, therefore there will be no pain or risk involved.

Benefits: There will be no direct benefit to you, however the study will contribute to improvement of community based education program.

Reasons Why The Participants May Be Withdrawn From The Study: if you would like to withdraw at any stage of the research process, you are free to do so without providing an explanation and at no detriment or negative consequence to you.

Remuneration: There will be no remuneration offered to you.

Costs of the Study: You will not cover any costs towards the study.

Confidentiality: Your identity will not be disclosed, as this is unethical. You will remain anonymous, as you will not write your name on the questionnaire.

Research related injury: No injury will be sustained, as the study is non-invasive.

Persons to Contact In The Event Of Any Problems or Queries:

The researcher: Thokozani Octavia Zondi (Cell: 0846799900); **Supervisor:** Prof N Gwele (Tel: 031- 373 2284); **The Institutional Research Ethics Administrator** (Tel: 031 – 3732900)

Complaints may be directed to the: Prof F. Otieno (Tel: 031 373 2382)

CONSENT

Statement of Agreement to Participate In Research Study

- I hereby confirm that I have been informed by the researcher
(Name & Surname)
about the nature, conduct and the benefits of this study
Research Ethics Clearance Number
- I have also received, read and understood the above written information (Annexure A) regarding this study.
- I am aware that the results of the study, including all my personal details / information will be anonymously processed into a study report.
- I fully agree that the data collected during this study can be processed in a computerised system by a researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in this study.
- I have had sufficient opportunity to ask questions and of (my free will) declare myself prepared to participate in the study.

- I understand that significant new findings during the course of this this research which may relate to my participation will be made available.

Full Name of Participant	Date	Time	Signature
---------------------------------	-------------	-------------	------------------

I, _____ (name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher	Date	Signature
--------------------------------	-------------	------------------

Full Name of Witness (If applicable)	Date	Signature
---	-------------	------------------

Annexure B: Student Questionnaire



STUDENT QUESTIONNAIRE

Title: Perspectives of Undergraduate Nursing Students on Community Based Education in Umsunduzi Municipality

INTRODUCTION

The purpose of the study is to examine the students' perspectives regarding their learning in a CBE programme. You are therefore, requested to answer questions below. The whole process will take about 30 minutes. Kindly be assured that confidentiality will be maintained throughout the research process and you are requested not to write your name on the questionnaire. Please indicate where you need help regarding a certain question so that clarity will be made. Kindly note that there is no Right or Wrong answer.

SECTION A

1. This section of the questionnaire comprises of closed ended questions. Kindly answer all questions provided below by means of using an X in an appropriate block.

Demographic Data

1. Gender

Male		Female	
------	--	--------	--

2. Age

≤ 18 yrs.		18 – 20 yrs.		21 – 24 yrs.		≥ 25yrs	
-----------	--	--------------	--	--------------	--	---------	--

3. Race

White		African		Coloured		Indian	
-------	--	---------	--	----------	--	--------	--

4. Home Language

IsiZulu		IsiXhosa		English		Afrikaans		Other language specify	
---------	--	----------	--	---------	--	-----------	--	------------------------	--

5. Your Home's Residential Area

Rural		Suburban		Township		Informal Settlement		Other specify	
-------	--	----------	--	----------	--	---------------------	--	---------------	--

6. Schooling Language

English		Afrikaans		Other specify	
---------	--	-----------	--	---------------	--

7. Year of study

Second year		Third year		Fourth year	
-------------	--	------------	--	-------------	--

8. Community Name

Mpumuza		Willowfontein		Cinderella		Copesville	
---------	--	---------------	--	------------	--	------------	--

SECTION B

The following statements are related to your experiences in Community Based Education. Kindly Respond to each statement by means of using an **X** in a column provided.

Sub-scale	Item No.	Item	Strongly Agree	Agree	Disagree	Strongly Disagree
A	1.	Increased my interest in the course topics				
A	2.	Motivated me to stay up to date with readings and course work in this class				
A	3.	Enabled me to better learn fundamental principles and theories in this course				
A	4.	Helped me understand issues related to this course's content				
A	5.	Enabled me to apply course material to real life problem solving and/or decision making				
A	6.	Contributed to my participation in class discussion				
A	7.	Increased my overall enjoyment of this course				
A	8.	Stimulated me to discuss class topics with others outside of class				
A	9.	. Increased my curiosity about topics related to this course's disciplinary field				
A	10.	Motivated me to plan on taking more courses in this disciplinary field				
C	11.	Stimulated my interest in other cultures or groups in my community				
C	12.	Increased my appreciation of the variety of existing cultural values and practices				
I	13.	Stimulated me to reflect on my tendency to think that my group's values and practices are superior to those of other groups				
C	14.	Stimulated me to examine some of my own stereotypes and biases				
C	15.	Helped me gain a deeper appreciation of cultural diversity as a societal strength				
C	16.	Helped me see people as individuals rather than members of stereotyped groups				
C	17.	Encouraged me to share experiences with others whose backgrounds or views differ from my own				
C	18.	Improved my ability to communicate with people different from myself				
P	19.	Enabled me to work more effectively with other				
I	20.	Increased my understanding of my own culture/group and its practices				

Sub-scale	Item No.	Item	Strongly Agree	Agree	Disagree	Strongly Disagree
I	21.	Helped me develop a clearer understanding of my personal values and beliefs				
I	22.	Helped deepen my commitment to my values and beliefs				
I	23.	Inspired me to think about my future career				
C	24.	Helped me realize that my actions can make a difference in this world				
P	25.	. Increased my effectiveness in expressing myself overall				
P	26.	Improved my writing skills				
P	27.	Increased my ability to analyze information				
P	28.	Developed my ability to think critically about the information presented to me				
P	29.	Helped me become a more thoughtful reflective person				
I	30.	Stimulated me to set more challenging goals for myself				
I	31.	Inspired me to think about my purpose in life				
C	32.	Strengthened my commitment to work towards a society that respects all people				
C	33.	Helped me examine my society more closely				
C	34.	Increased my awareness of the need to improve the lives of disadvantaged people in my community				
C	35.	Helped me see myself as part of the solution to the problems in my society				
C	36.	Stimulated me to think more deeply about my social responsibilities				
P	37.	Helped me develop the skills necessary for being an active member of the community				
C	38.	Increased my commitment to a life of active service to my community				

Subscale Legend: A = Academic Gains; C = Local and Global Gains; I = IntraPersonal Gains; P. Personal Gains

The following section of the questionnaire comprises of both closed and open-ended questions. Your thoughtful responses will be helpful to us in assessing the effectiveness of the Community Based Education Learning experience and in designing future experiences. Kindly answer all questions provided below.

2.1. Outside of the scheduled community placements, approximately how many hours did you dedicate to Community Based Learning per semester? Kindly insert in a space provided.

Semester 1	Semester 2

2.2 Please rate your level of interest in participating in Community Based Learning opportunity when you first heard about it: Indicate by means of using an X.

- a. very low b. low c. moderate d. high e. very high

2.3 Please rate your level of satisfaction for having participated in this Community Based Learning opportunity: Indicate by means of using X.

- a. very low b. low c. moderate d. high e. very high

2.4 What did you find to be most rewarding about Community Based Learning experience?

.....

2.5 What did you find to be most challenging about the Community Based Learning experience?

.....

2.6 In your opinion, what could be done to improve Community Based Learning at DUT?

.....

2.7 Based on your experience in diverse clinical settings, choose your most preferred future clinical practice area below. Indicate by means of using **X** in a column provided.

Hospital settings	PHC clinics

Adapted From: (Ibrahim: 2010)

Annexure C: Permission for Use and Adaptation of Questionnaire

Dear Dr/ Ms M. Ibrahim

My name is Thokozani Zondi an M Tech student at Durban University of Technology (South Africa). My study is on Community Based Education. Through literature search, I came across a journal article that was of interest to me titled " The use of community based learning in educating college students in Midwestern USA "

May I request permission to use your questionnaire, as it is relevant to my study?

Thank You

Thokozani

From: monaibrahim88@gmail.com [[mailto: monaibrahim88@gmail.com](mailto:monaibrahim88@gmail.com)] **On**
Behalf **Of** Mona Ibrahim
Sent: Tuesday, February 12, 2013 8: 29 PM
To: Thokozani Octavia Zondi
Subject: Re: FW: request for use of a questionnaire

Sure. Go ahead. You have my permission.

I would like to know what you found. Please share a summary of your study with me when you are done.

Thanks.

Mona.

On Tue, Feb 12, 2013 at 10: 17 AM, Thokozani Octavia Zondi
<thokozaniz@dut.ac.za> wrote:

Dear Dr/Ms M. Ibrahim

Thank you very much for granting me permission to use your questionnaire, I will definitely acknowledge you and share my findings with you.

Thank You

Annexure D: Letter of Request to Conduct Research – Prof. Sibiya



14 Hortensia Road
Napierville
Pietermaritzburg
3200
18.07.2013

The Head of Department
Department Of Nursing
Durban University of Technology
Durban
4000

Dear Dr N Sibiya

Kindly receive my request to conduct a research study in your institution. It is a requirement for the completion of a degree in Master of Technology. The purpose of the study is to examine the students' perspectives regarding their learning in a Community Based Education (CBE) Undergraduate nursing programme.

The participants will not be at risk as the study is a non-interventional study which only involves the completion of a questionnaire. The results of the study will be incorporated into the CBE curriculum and it will highlight areas of focus to educators during CBE teaching and learning.

It is envisaged that data collection period will be July to August 2013.

Thank You
Yours Faithfully
Thokozani Octavia Zondi

Annexure E: Ethics approval letter



INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)

19 July 2013

IREC Reference Number: **REC 41/13**

Mrs T O Zondi
14 Hortensia Road
Napierville

Dear Ms Zondi

Perspectives of undergraduate Nursing students on community-based education in Umsunduzi Municipality

I am pleased to inform you that Full Approval has been granted to your proposal REC 41/13.

The Proposal has been allocated the following Ethical Clearance number IREC 053/13. Please use this number in all communication with this office.

Approval has been granted for a period of one year, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's. In addition, you will be responsible to ensure gatekeeper permission.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely



Prof J K Adam
Chairperson: IREC

Annexure F: Letter of Request to Conduct Research – Prof. Moyo



14 Hortensia Road
Napierville
Pietermaritzburg
3200
18.07.2013

Director: Research and Postgraduate Support
Durban University of Technology
Durban
4000

Dear Professor S Moyo

Kindly receive my request to conduct a research study in your institution. It is a requirement for the completion of a degree in Master of Technology. The purpose of the study is to examine the students' perspectives regarding their learning in Community Based Education (CBE) Undergraduate nursing programme.

The participants will not be at risk as the study is a non-interventional study, which only involves the completion of a questionnaire. The results of the study will be incorporated into the CBE curriculum and it will highlight areas of focus to educators during CBE teaching and learning.

It is envisaged that data collection period will be July to August 2013.

Thank You
Yours Faithfully
Thokozani Octavia Zondi

Annexure G: Letter of Request to Conduct Research – Mrs Thakurdin



14 Hortensia Road
Napierville
Pietermaritzburg
3200
18.07.2013

The Programme Co-Ordinator
Department Of Nursing
Durban University of Technology
15 F.J. Sithole Road
Imbali Township
Pietermaritzburg
3200

Dear Mrs S Thakurdin

Kindly receive my request to conduct a research study in your institution. It is a requirement for the completion of a degree in Master of Technology. The purpose of the study is to examine the students' perspectives regarding their learning in Community Based Education (CBE) Undergraduate nursing programme.

The participants will not be at risk as the study is a non-interventional study which only involves the completion of a questionnaire. The results of the study will be incorporated into the CBE curriculum and it will highlight areas of focus to educators during CBE teaching and learning.

It is envisaged that data collection period will be July to August 2013.

Thank You

Yours Faithfully

Thokozani Octavia Zondi

Annexure H: Advertisement



ANNEXURE G: LETTER OF ADVERTISESEMENT

Title of the Study: Perspectives of Undergraduate Nursing Students on Community Based Education in Umsunduzi Municipality.

Supervisor: Professor N. Gwele - (PHD)

Dear Prospective Participant

I am Thokozani Zondi an M – Tech student who is undertaking a research study at DUT on Community Based Education (CBE). As a 2010, 2011 and 2012 nursing student, your voluntary participation will be highly appreciated. The research study seeks your views regarding CBE. The findings of the study could be used in the improvement of Community Based Education in undergraduate nursing programmes.

You have been randomly selected to participate in the research study. If your student number appears in the list below, you are kindly requested to report the venue and at the time as stated below. May I kindly request 15 – 30minutes of your precious time to participate in the study. A full briefing session and actual questionnaire administration will take place on:

Dates: 26.09.2013, 03.10.2013 and 10.10.2013

Venue: Computer Laboratory (Indumiso Campus)

Time: 15H00

An independent researcher who is not connected to the nursing programme will administer questionnaires. Your participation in this study will be greatly appreciated.

GROUP 2010		GROUP 2011		GROUP 2012	
STUDENT NUMBER	STUDENT NUMBER	STUDENT NUMBER	STUDENT NUMBER	STUDENT NUMBER	STUDENT NUMBER
21032575	21018055	21119025	21143238	21113743	21205292
21032109	20900415	20803501	21142764	21208849	21203110
21000392	21004340	21120362	21121044	21215487	21206016
21031013	21031079	21121297	21143427	21217845	21213154
21032417	21025002	21132820	21116065	21205390	21240526
21029927	21031122	21109115	21101168	20821866	21214784
20905106	21003315	21142745	20922262	21127130	21233558
21002370	21030967	21111830	21142742	21118773	21206869
21032125	21031088	21019203	21106430	21218749	21228570
20917602	21007818	21112428	21013063	20807770	21241555
20907423	21003293	21106630	21142790	21123498	21204950
21030986	21030742	21117595	21122614	21224327	21229523
21032403	20935459	21110370	21031006	21232941	21129404
21023340	21032540	21142748	21139704	21221083	21223770
21029916	21032405	21118428	21113916	21214976	21240200
21032048	21031004	21110533	21111720	21241552	21241774
20900401	21030599	21117094	21119383	21233215	21240536
21031002	21019542	21124133	21123707	21241600	21210288
21030616	21002487	21106630	20931140	21241590	21222605
21032012	20905058	21139235	21102897	21205619	21012718
20924470	21031098	21117211	21108479	21215487	21208036
21030991	20935117	21142778	21119851	21215312	21210554
21009265	21030985	21142747	21117125	21218839	21241560
21009226	21031040	21113559	21116976	21200583	21213794
20905056	21030659	21140626	21139703	21241474	21127589
21005775	20903076	21116996	21142768	21008943	21210788
21010963	21030680	21113248	21112166	21230997	21113234
20900356	21030605	21106328	21128284	21227531	21140278
21020819	21032574	21112084	21111306	21241474	21201961
20935984	20932468	21031122	21142749	21109112	21207191
21029912	21027722	21142744	21118121	21202788	21203585
21031035	20905270	21142766	21139703	21216991	21232729
20818350	20908852	21113620	21105144	21225851	21240518
21031139	21029070	21008134	20922095	21200081	21240502
21032017	21008092	21109085	21107894	21241762	21142419
21023440	21011536	21921533	21120458	21208035	21142755
21032542		21142754		21114020	
20811915		21121063		21104362	
21031007		21102669		21114370	
21032418		20803705		21241732	
21029209		21113220		21206475	
21015024		21122189		21223770	
21032041		21120324		21241553	
21018055		21107028		21202687	

Date: 19.09.2013

DUT DURBAN
 UNIVERSITY OF TECHNOLOGY
 NURSING DEPARTMENT
 19 SEP 2013
 Signature.....
 Indumiso Campus
 Faculty of Health Sciences
 P O Box 101117

Annexure I: Depicting Themes Derived From The Analysis of Data Obtained From Open-Ended Questions.

No	CBE Experience	Themes
1.	CBE Rewards	1.1 Deeper understanding of CBE and skills acquisition. 1.2 Participation and team work. 1.3 Personal and professional growth. 1.4 Preventive and promotive health. 1.5 Subject awareness. 1.6 Improved research and writing skills. 1.7 Cultural awareness.
2.	Challenging experiences during CBE	2.1 Relationship and team work. 2.2 Community participation and team. 2.3 Difficulty in securing sponsors 2.4 Cultural diversity.
3.	Recommendations for change in CBE	3.1 sponsorship and refreshments 3.2 CBE hours and clinical placement

		<p>3.3 learning and support from clinical instructors/lecturers</p> <p>3.4 Early introduction to CBE and Team Building</p>
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Annexure J: Letters of Request to Access Students' Profiles for Research



14 Hortensia Road
Napierville
Pietermaritzburg
3200
04.08.2015

The Head of Program
Durban University of Technology
Durban
4000

Dear Mrs C. Adams

Kindly receive my request to access students' profiles for Community Based Education for cohort groups (2010, 2011 and 2012) from Indumiso Campus DUT. This information is needed for the qualitative section of my study due to the themes that emerged from the study participants.

Please be assured that ethical consideration will be ensured while handling the students' profiles.

Thank You
Yours Faithfully
Thokozani Octavia Zondi

14 Hortensia Road
Napierville
Pietermaritzburg
3200
04.08.2015

The Head of Department
Durban University of Technology
Durban
4000

Dear Professor N Sibiyi

Kindly receive my request to access students' profiles for Community Based Education for cohort groups (2010, 2011 and 2012) from Indumiso Campus DUT. This information is needed for the qualitative section of my study due to the themes that emerged from the study participants.

Please be assured that ethical consideration will be adhered to while handling the above documents.

Thank You
Yours Faithfully
Thokozani Octavia Zondi

Annexure K: Application for Approval of Amendment



APPLICATION FOR APPROVAL OF AMENDMENT			
<i>To be completed by the principal investigator/researcher in accordance with the Standard Operating Procedure for the IREC.</i>			
Title of the study: Perspectives of Undergraduate Nursing Students on Community – Based Education in Umsunduzi Municipality			
Institution: Durban University Of Technology		Date: 14.07.2014	
Name and qualification of principal investigator/researcher: Thokozani Octavia Zondi BA Honours - Nursing		Name and qualification of supervisor(s): Professor N.S. Gwele PhD	
Name of qualification: M Tech - Nursing		Student Number: 21143664	
Ethical approval number: REC 41/13		Research site: Indumiso Campus- Pietermaritzburg	
Nature of amendment: The data collection process has taken eleven (11) months and the targeted sample size of 240 students could not be obtained. One group of cohort students has graduated in April 2014, which even made it difficult to obtain the desired sample size. Application to proceed with the obtained sample size of 203 students is hereby requested.			
Effect on risk benefit profile of participants: None			
Please submit the following documentation: <ul style="list-style-type: none"> Approved proposal Changes to letter of information and consent N/A: No change to the letter of information. Any other relevant documentation 			
Signature:		Date:	
Researcher: [Redacted]		14/07/2014	
Supervisor: [Redacted]		14/07/2014	
Head of Department: [Redacted]		14/07/2014	
TO BE COMPLETED BY THE CHAIR OF THE IREC.			
Date received:		Review required:	
		Expedited	Full committee
To be completed by the chairperson of the IREC			
The amendment is:			
Approved – there are no evident grounds for concern or further investigation.			Yes No N/A
Approved subject to minor changes			
Needs to be re-submitted after recommendations are met			
Approved however a site inspection is recommended.			
Denied (please see attached)			
Signature:		Date:	
Chairperson of IREC			