

UNIVERSITY OF KWAZULU-NATAL

**Economic Cost and Benefit of Educating South African Medical Students in
Cuba.**

By

Student Name: Nonhlanhla Precious Mqadi

Student Number: 212561805

**A dissertation submitted in partial fulfilment of the requirements for the degree
of
Master of Business Administration**

**College of Law and Management Studies
Graduate School of Business & Leadership**

Supervisor: Dr. Muhammad Hoque

2015

Declaration

I Nonhlanhla Precious Mqadi declare that:

- i. The research reported in this thesis, except where otherwise indicated, is my original work.
- ii. This thesis has not been submitted for any degree or examination at any other university.
- iii. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- iv. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) their words have been re-written but the general information attributed to them has been referenced;
 - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
 - c) Where I have reproduced a publication of which I am author, co-author or editor, I have indicated in detail which part of the publication was actually written by myself alone and have fully referenced such publications.
 - d) This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

Signed:

Acknowledgements

As Hyland (2004) points out, acknowledgements are rarely easy to write. This is not because of narcissism and absence of gratitude but because so many people who have contributed to the study sometimes do not appear on the list. With this in mind I would like to extend my gratitude to the following:

- To my supervisor, Dr M. Hoque for his guidance and support throughout the thesis
- Professor R. Hift, the Dean and Head of School and the staff of the School of Clinical Medicine, KwaZulu-Natal. With heartfelt gratitude I acknowledge their support.
- To my family and friends, for their encouragement and emotional support throughout my journey.
- Finally I would like to extend my gratitude to all the students from the School of Clinical Medicine who gave up their precious time to participate in the interview process, thank you for your valuable input.

Abstract

A number of developing countries are faced with the challenge of shortages in specialised skills, more predominantly in the health care sector. South Africa is not unique in that the supply of medical practitioners is well below the demand required to service the population of the country, resulting in high doctor to patient ratios. With the supply of medical practitioners well below the demanded number to service the country's growing population, the need for drastic intervention to address the needs of the South African health community was realised. Increasing the number of students to be trained in the profession was seen as a viable option of eliminating the problem in future. To achieve this objective the government committed to an exchange programme to allow for South African students from disadvantaged backgrounds to be trained in Cuba. This qualitative study assessed the sustainability and cost efficiency of educating students in Cuba in an attempt to evaluate whether the option of sending students to Cuba was a sustainable and cost efficient alternative over investing on increasing the infrastructure of local training institutions. Semi-structured Interviews were conducted to collect primary data from eight students returning from Cuba to complete their degrees at the University of KwaZulu-Natal. The findings of the study reflect that there are a number of advantages associated with training students in Cuba that could benefit the proposed National Health Care model the government aims to introduce to ensure health equality for all South African citizens. The study also highlighted that the significant differences between the countries in terms of their health care systems which require different approaches to patient management and the shortcomings of the collaboration programme which pose challenges for the students recruited for this programme. The cost benefit analysis conducted reflect that it would be more cost effective to increase the capacity of local institutions, allowing for the same number of students that are recruited to study in Cuba to do so locally.

Table of Contents

Declaration	ii
Acknowledgements	iii
Abstract	iv
List of Figures	ix
List of Tables	x
Abbreviations	xi
CHAPTER ONE	1
Introduction	1
1.1 Introduction	1
1.2 Background to the Study	1
1.3 Problem Statement	2
1.4 Aim of the Study	3
1.5 Research Objectives	4
1.6 Research Questions	4
1.7 Rationale for the Study	4
1.8 Limitations of the Study	5
1.9 Summary	5
CHAPTER TWO	6
Literature Review	6
2.1 Introduction	6
2.2 International Mobility	7
2.2.1 Trends in International Mobility	7
2.2.2 Motivation for International Student Mobility	8
2.2.3 Push and Pull factors affecting Student Mobility	9
2.3 Economic Structures	10
2.3.1 Socialist Economics	11
2.3.2 Capitalist Economics	13
2.3.3 Mixed Economy	14
2.4 The Health Settings of Cuba and South Africa	16
2.4.1 The Cuba Health Setting	16
2.4.2 The South African Health Setting	18
2.4.2.1 Intervention Programme	19

2.5 Agreement between South Africa and Cuba	20
2.6 Role of Higher Education on the Production of Medical Doctors	21
2.6.1 The Traditional Recourse of South African Higher Education System..	21
2.6.2 The Challenge faced by Higher Education	22
2.6.3 Plans to Improve Higher Education Infrastructure	24
2.7 Cost Benefit Analysis	24
2.7.1 Cost Benefit Analysis in Education	25
2.7.2 Cost and Benefits of Training Medical Students in Cuba	27
2.8 Summary	28
CHAPTER THREE	29
Research Methodology	29
3.1 Introduction	29
3.2 Study Design	29
3.3 Sampling	30
3.4 Assumptions and Delimitations	31
3.4.1 Assumptions	31
3.4.2 Delimitations	31
3.5 Data Collection	32
3.5.1 Interviews	32
3.5.2 The Interview Process	32
3.5.2.1 Semi- Structured Interview Questions	33
3.5.2.2 Recruitment of Participants	34
3.5.2.3 Accuracy of Data Collected	34
3.5.2.4 Capturing the Data	35
3.6 Data Analysis	35
3.6.1 Interpreting the Data	35
3.6.2 Transcription	35
3.6.3 Coding and Theme Identification	36
3.6.4 Honesty and Trustworthiness	36
3.7 Ethics	37

3.8 Summary	37
CHAPTER FOUR.....	39
Presentation of Results, Discussions and Interpretation of Findings	39
4.1 Introduction	39
4.2 Costs Associated with Training Students in Cuba	39
4.2.1 Tuition Fees	40
4.2.2 Travel and Accommodation Costs	41
4.2.3 Stipend	42
4.2.4 Health Insurance	42
4.2.5 Adjustment to Environment.....	43
4.2.6 Technology	45
4.2.7 Pass Rates	45
4.3 Benefits Associated with Training Students in Cuba.....	46
4.3.1 Access to Medical Education.....	47
4.3.2 Exposure to Global Arena.....	49
4.3.3 Exposure to Two Health Care Systems	50
4.3.4 Value of Education	51
4.3.5 Political Education and Patriotism	52
4.3.6 Increased Interns.....	54
4.3.7 Personal Development	54
4.4 Summary	56
CHAPTER FIVE	58
Conclusion and Recommendations	58
5.1 Introduction	58
5.2 Overview of the Findings	58
5.3 Recommendations.....	60
5.4 Areas for Future Study.....	61
5.5 Closing Statement	61
List of References	62
Appendix 1: Ethical Clearance	68
Appendix 2: Letter to Participants	69

Appendix 3: Consent Form.....	70
Appendix 4: Interview Questions	71

List of Figures

Figure 2:1 Differences in the Economic Structures	11
Figure 2:2 Characteristics of a Mixed Economy	15
Figure 2:3 Higher Education Spending in South Africa	23
Figure 4:1 Cost Associated with Studying in a Foreign Country	39
Figure 4:2 Benefits Associated with Studying in a Foreign Country	47
Figure 4:3 Areas of Responsibilities Required in the Healthcare System.....	53
Figure 4:4 Three Spheres of Development	55

List of Tables

Table 4:1 Summary of Cost and Benefits of the Programme	56
Table 4:2 Summary of the Estimated Accounting Costs of the Programme	57

Abbreviations

CBA - Cost Benefit Analysis

DOE - Department of Education

DOH - Department of Health

KZN - KwaZulu-Natal

MEDUNSA - Medical University of South Africa

MP - Medical Practitioners

NHI - National Health Insurance

NMCFCP - Nelson Mandela Castro Fidel Collaboration Programme

SA - South Africa

UKZN - University of KwaZulu-Natal

CHAPTER ONE

Introduction

1.1 Introduction

The South African health sector is currently faced with the challenge where the supply of medical practitioners is well below the demanded number required to service the community (Bateman, 2013). The existing doctor to patient ratios in South Africa highlighted the dire need for strategies which are aimed at increasing the number of medical doctors produced to be put in place. Increasing the number of students to be trained in the profession was seen as a viable option to eliminate this problem in future. This study examines the cost and benefits associated with training future South African doctors in Cuba.

This study sought the views of students that were selected to participate in the medical exchange programme through reliable data collection methods. This chapter outlines the importance of the study, its focus and the questions that the study sought to answer. It also outlines what was done throughout the study in order to answer the research questions, and also highlight the limitations that were encountered.

1.2 Background to the Study

Documented literature highlights the challenge where the supply of medical practitioners is well below the demanded number required to service the community. This shortage is excessively prevalent in rural areas. The severe shortage in rural areas is a result of the attractiveness for medical doctors to work in private practice or in urban based government hospitals as opposed to rural hospitals. With the supply of medical doctors in the country being far less than what is demanded. These personnel, guided by the number of posts available in each discipline and province, have the option of selecting which hospitals they can be placed, leading to the saturation of the limited number of medical personnel in more advantaged communities. This creates inequality in health care services (Daniels, 2007; Erasmus & Breier 2010).

To respond to the countries needs for a more equitable health care system, increasing the number of students to be trained in the profession was seen as a viable option to eliminate this problem in future. In order to meet this objective, universities that offered medical training were obliged to re assess and revise their enrolment targets, making a transition from training the limited elite to attracting a large number of students predominantly from disadvantaged backgrounds (Bateman, 2013). This expansion necessitated for medical schools to find creative ways to overcome infrastructure constraints - campus teaching facilities, student accommodation - in a limited space of time. Moreover, it was necessary for universities to reassess their support systems - financial, academic and psychosocial - in order to realign them with the needs of the students that would be enrolled in their institutions.

Parallel to this, the government formulated links with Cuba to allow for students to study medicine through the Nelson-Mandela Castro-Fidel Collaboration Programme. The realisation of the Nelson-Mandela Castro-Fidel Collaboration Programme was two-fold, firstly to formulate a political affiliation between South Africa and Cuba. Secondly, as crisis management intervention programme that was aimed to address the needs of the South African health sector given the limited number of universities that produce medical practitioners.

In 2013, the minister of Health announced that they would be increasing the number of students pursuing their Medical degrees in Cuba. The programme is said to increase ten-fold for the next five years, increasing the number of undergraduate students by 1000 annually to be absorbed by the existing universities in South Africa from 2018 (Bateman, 2013).

1.3 Problem Statement

South African students that are selected and awarded the Nelson Mandela-Castro Fidel Medical Collaboration Programme (NMCFCP) scholarship are trained in Cuba for six years. These candidates are recruited by the Department of Health from disadvantaged communities across the country with significantly lower medical university entrance threshold (Bateman, 2013).

Upon their return such students are given eighteen months to integrate into South African universities, re-orientating them to English terminology and exposing them to the local disease profile.

In their six years of study in Cuba, the curriculum delivered to students would be offered in Spanish. Upon the successful completion of studies in the Cuba based institutions, the students then return to South Africa (SA) where they are expected to apply all the information they accumulated and display competence within the three semesters that they spend in the local universities. The Cuba trained students are then expected to be competent in all final year assessments - set according to the South African guidelines aimed at assessing the contents of the spiral curriculum offered to locally trained students - which precedes their Cuban final exams conducted in Spanish. Upon completion of both exams, these students then qualify to commence with their internship.

It can be argued that the mismatch in the curriculum offered by the SA and the Cuba universities could be the possible obstacle that results to a majority of these students taking up to two years or more to complete their degree after they return from Cuba. In total, it can take a student up to eight years to complete this degree. When compared to a local student enrolled at the University of KwaZulu-Natal, this is three years more than the expected time of degree completion (Motala, 2015).

To date, limited studies have been conducted to ascertain whether the programmes in place, which are aimed at increasing the number of medical practitioners produced annually, are effective. Moreover, there is limited documented literature on the review of the South African – Cuba collaboration programme. Thus, the research question this study aimed to address was: What are the economic costs and benefits of educating students in Cuba.

1.4 Aim of the Study

The study aims to investigate the cost and benefits associated with sending students to Cuba. In doing so it was anticipated that the study evaluate whether the option of sending students to Cuba was a sustainable and cost efficient alternative over

investing on increasing the infrastructure of local training institutions to allow for increased capacity of learners in the future.

1.5 Research Objectives

The objectives of the study are:

- 1.4.1 To identify all costs affiliated with training students in Cuba and compare them with costs affiliated with training students in South Africa.
- 1.4.2 Establish benefits associated with training students in Cuba (financial and non-financial)
- 1.4.3 Establish the economic impact of the collaboration programme on the local universities

1.6 Research Questions

The main inquiry that this study was intended to address was:

- 1.4.4 What are the economic costs and benefits associated with educating South African medical students in Cuba?

In an attempt to gather appropriate responses to the main question, the following sub-questions were addressed:

- 1.4.4.1 What are the costs affiliated with training students in Cuba vs South Africa?
- 1.4.4.2 What are the benefits of the Cuba trained students given the needs of the country?
- 1.4.4.3 What is the economic Impact of the Cuba programme on local universities?

1.7 Rationale for the Study

An evaluation of the preparedness and capability of students trained in Cuba to work in the South African environment needs to be assessed. Moreover, it is imperative that the cost and the benefits thereof are taken into consideration. The result of analysing cost benefit theories as well as theories associated with educating students in foreign countries may provide valuable information and assist in establishing a more cost effective way in which South Africa can increase its medical practitioners. The results of this study may further assist the Medical academic institutions and the Department

of Education (DOE) in engaging in a dialogue and set motion for finding a more viable alternative for increasing medical practitioner throughput rates.

1.8 Limitations of the Study

This study was limited to students who had studied the first three years in a University based in Cuba and were registered with the University of KwaZulu-Natal in 2013. The choice of students enrolled in one university was due to limited access to students who are enrolled in other medical schools outside the KwaZulu-Natal region. It is understood that conclusive findings cannot be generalised as the study focused on the perceptions of students from one university. Given that the students enrolled in this university are from different provinces, it can be argued that the responses gathered will not be bias. KwaZulu-Natal is one of the largest provinces in South Africa with a large number of HIV related illnesses. It can be argued that the students that train in these local hospitals receive more clinical exposure given the size of the population and the disease profile of the people residing in the province, due to this they are in a better position to compare the South African medical models to those exposed to in Cuba.

1.9 Summary

It is imperative that the number of medical practitioners available to service the growing population are increase in a manner that will be rapid, sustainable and cost effective. In this chapter we have highlighted the aims, objectives and research questions that this study aims to achieve. Chapter two focuses on the literature related to the South African health care and educational scenario, it also considers the different cost benefit models, providing guidelines for evaluating the cost and benefit analysis of educating students outside South Africa. Chapter three gives a detailed description of the sampling techniques that were used for the study, it also focuses on how primary data was collected and addresses issues of authenticity and trustworthiness. Chapter four outlines the results collected from the interviews conducted, these results are then analysed and discussed. The final chapter draws up conclusions and recommendations that have come about from the study.

CHAPTER TWO

Literature Review

2.1 Introduction

Over the past decade, a trend of increased international mobility of students has been observed. The drive towards globalisation has meant that students are not only restricted to study in their country of origin, but have an option to pursue and complete their degrees in all parts of the world. Aghion, Bechtold, Cassar and Herz (2014:2) argued that there are a number of factors that contribute to the recent rise in the trend of student mobility. Such factors include developments in communication, faster information flows and proactive recruitment policies. In this information age, students can compare and evaluate courses being offered in different countries as well as make informed choices on the degree they want to pursue. Moreover, the increased awareness of the perceived links between education and the economy have led to countries realising the need to invest a substantial amount of money on education. The purpose of this chapter is to review literature pertaining to the cost and benefit of educating students outside their country of origin.

Tremblay (2005) states that the inflow and outflow of students has a tremendous effect on the overall economy of the countries affected. It can be argued that host countries benefit from these students as increased spending is observed during the period that students are in the country. It is common that host countries are first world countries with improved infrastructure and attractive educational prospectus. The governments in less privileged countries such, as in Africa, support students by funding their education in foreign countries (Becker & Kolster, 2012) This then suggests that an outflow of money is observed in sending countries. Many economists justify this outflow as a potential investment made by these countries in an attempt to narrow the skills gap within their countries while promoting intercontinental relations. Moreover, exposing students to such environments allows for increased knowledge base through research and fosters a culture of collaborative efforts in order to keep up with world-wide trends.

2.2 International Mobility

The recent statistics gathered by the United Nations Education Scientific and Cultural Organisation (UNESCO, 2012) revealed that there were over 2.5 million students enrolled in universities outside their country of origin. In their findings it was suggested that these numbers were expected to double by 2020. It can be maintained that an increase in the number of student mobility could be attributed to the attractiveness of completing degrees in countries with better facilities and more prestigious institutions of learning. These were perceived to make the student more competitive in the workplace due to the experience they would have gained through the exposure of studying abroad. Upon completion of their studies, these students are expected to return back to their country and make a positive contribution to the economy and add value to the skills base of their countries. It is of interest to assess the existing global trends associated with student mobility.

2.2.1 Trends in International Mobility

An increase in the number of students enrolled in host countries such as United Kingdom and Australia from African countries has been observed over the years (Beine, Noel & Kagot, 2014). Countries such as Botswana and Zimbabwe send their students to the aforementioned countries in an attempt to gain the skills shortages that are lacking within their countries (Kritz, 2013). In most cases this was done due to the lack of capability or the resources to train such individuals who wish to study for a particular profession. Kritz (2013) concluded that by sending students outside of the country, such individuals would be able to obtain the necessary skills and return to the country to impart their knowledge and expertise to the benefit of the country. The aforementioned advantages could be seen as the reason why developing countries opt to send their students to other countries in an attempt to improve their skills base amongst other things. It however cannot be ignored that there are some disadvantages associated with sending students to other countries.

The challenge faced by the sending countries is that some of the students they send to host countries do not return back to their country of origin (LaPorte & Dondani, 2005). This is especially evident in the health field where there is a demand for trained health professionals in every part of the world. For these individuals it becomes more attractive to work in countries that will offer them better standards of living and higher

salaries. While money may not be the only motivating factor, others may deem a place with stable political conditions as a better place to settle down. Others feel that advanced technology offered by other countries is better than what is in their country of origin. This phenomenon is referred to by La Porte and Dodani (2005) as 'brain drain' whereby the effort of the country to educate its people is lost to developed countries. Perhaps it would be of interest to understand why countries, especially developing countries, send students to study outside their own universities. This then becomes one of the major challenges faced by sending countries as they invest substantial amounts of financial resources on their students and never get to receive the benefits associated with engaging with the process (Beine et al., 2014). In as much as mechanisms are put in place to ensure that students return back to serve in their country of origin, this is sometimes not possible. The former student may be able to get out their financial obligation by paying back the money that the country may have used to educate them but the skills acquired are lost. This is more of a loss for the country whose projections were based on the individual qualifying and actively contributing to the economic activity of the country (Kritz, 2013).

2.2.2 Motivation for International Student Mobility

Each year, it has been observed that universities in developing countries do not have sufficient capacity to meet the demand of students that complete high school with credits that qualify them to enter the higher education sector (Kritz, 2013). This is also evident in South African Medical educational institutions where eight universities with an intake capacity of two hundred and fifty students per year have to cater for the production of doctors for the entire country (Bateman, 2013). The production of 1300 doctors annually by the existing training platforms is not sufficient given the population size of South Africa. Tan (2013) argues that there is a perceived link between education and the performance of the country's economy. This then implies that governments must be proactive in ensuring that they strengthen their economies through education in order to remain competitive in the global arena. To understand the phenomenon of the link between education and the economy we will draw on the time allocation philosophy first established by Becker in 1964 (cited in Chaiporri & Lewbel, 2015). Becker's theory advocates the need for individuals to maximise utility by investing in human capital. He argues that by empowering the population through education, a positive economic yield can be gained through such individuals.

In agreement, Zaqqa (2006) further expanded on the theory of Becker by arguing that there is a strong relationship between investment in education and its returns. Through these models countries have realised the need to educate their youth in order to achieve sustainable economic growth. Moreover, how countries would fare in the global markets is determined by the skills that are available in their labour market (OECD, 2012). Better employment prospects and the increased earnings that come with higher education attainment can all contribute to the growth and prosperity of developing countries. Using this theory as a backdrop, we will ascertain the pull and push factors associated with international mobility of students.

2.2.3 Push and Pull factors affecting Student Mobility

It can be argued that the main reason encouraging developing countries to send their students to study elsewhere is the unavailability of and difficult access to higher education programmes. This is termed by Tan (2013) as a push factor. This is especially true for African countries that have a limited number of institutions of higher learning servicing a large population. This has been seen in Botswana where for years they have been sending their Medical students to countries such as South Africa, the United Kingdom and Australia (Kritz, 2013). In countries like Botswana, a large number of students matriculate with results that qualify them for university entrance. Due to the limited number of students taken by local universities, students are then forced to seek alternative sites where they can further their studies (Letseka & Maile, 2008). This argument also holds true for the South African population where school leavers are also faced with a similar dilemma. The increasing demand for skilled professionals and the restricted university access has meant that countries have to find alternative ways in which they can educate the increasing number of students that complete their matric (Kritz, 2013).

A majority of the students in the health field choose medicine as their first choice. Due to the high demand for students who would like to enrol for the medical programme, only a selected few can be accepted into the programme. This is due to the infrastructure and resource restriction that exists which make it difficult to increase the number of learners each of the eight universities in South Africa can take. The demand could also be attributed to the fact that there are no other institutions (private) that

produce doctors in the country hence students then opt for other alternatives such as studying in China or Cuba. For these two countries, their ability to attract students to study in their country is a 'pull factor (Zaqqa, 2006). Such countries are deemed as countries of choice as their government policies are favourable to foreign students.

It is important to note that there is sometimes an imbalance in the direction of student flows, where students in developing countries are most likely to be seen migrating to more developed countries (Wildavasky, 2010). This then may imply that in the short term, developing countries lose a substantial amount of money to fund the education of these students in foreign countries. This then leaves a question as to whether the sending country will fully receive their return on investments in future. As previously stated, some of the students do not return back to their country of origin and opt to remain in the country where they completed their studies. An example of this would be students sent by the Zimbabwean government to study in UK. Such students opt to not return to their country due to the political instability, while others return as means of fulfilling their contractual obligation and leave the country once they have served the required number of years (Beine et.al., 2014).

2.3 Economic Structures

Documented literature reflects that the economic structures of countries are determined by how governments function. As illustrated in the diagram below (figure 2.1) , there are primarily two opposing schools of thought in economics - capitalism and socialism- and somewhere in between, a mixed economy exists (Davis, 2010). An analysis of these economic structures will assist in understanding the economic climax of South Africa and Cuba.

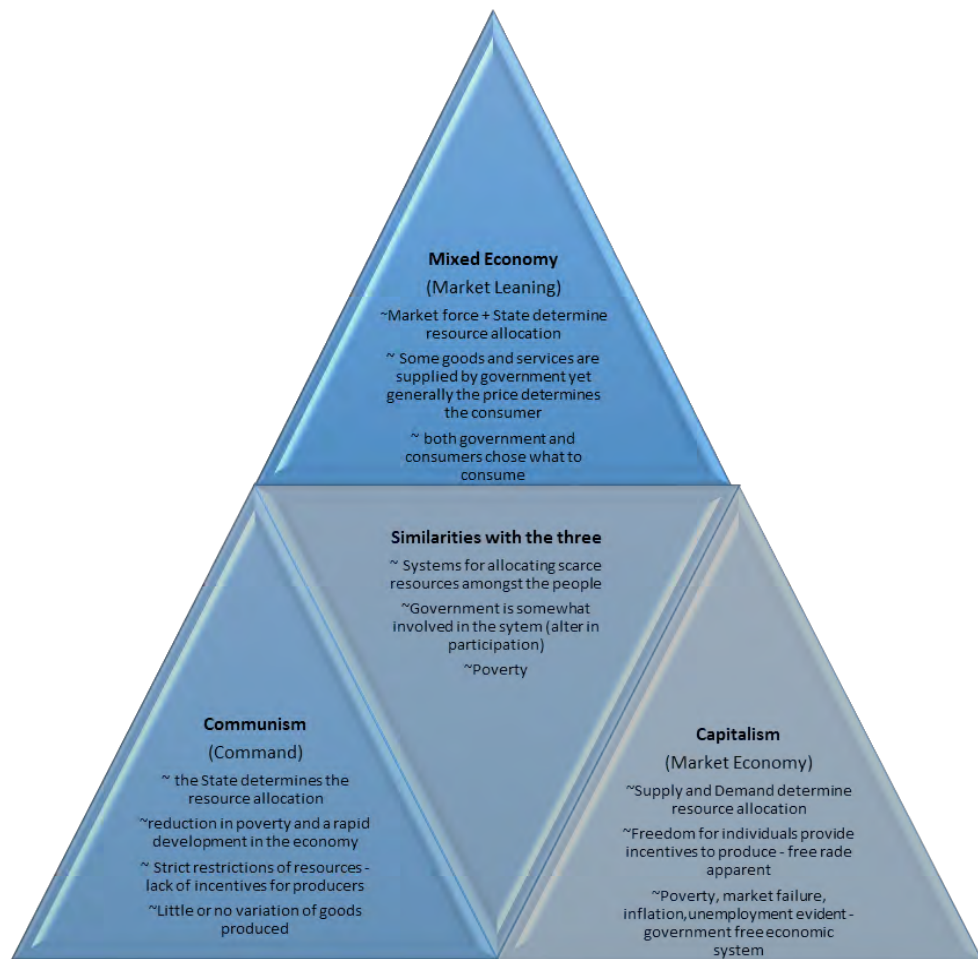


Figure 2:1 Differences in the Economic Structures
 (Adapted from Boulton and Lucas, 2011)

The diagram above illustrates the differences and similarities between the communist, capitalist and mixed economy structures. These different economic models will be discussed in depth in this chapter. The basis of this analysis is to assist in understanding how government structures function in each model, by understanding this, we will be able to establish the underpinning theory on how different countries allocate resources to the needs of their citizens.

2.3.1 Socialist Economics

The socialist school of thought believes that economic inequality is not good for society and hence the government is responsible for ensuring that equality exists within the country (Mesa-Lago & Vida-Alejandro, 2011). Here, it is believed that all members of the community have equal right to the distribution of wealth and sharing of the property within the country. Socialists believe that it is the government's responsibility to ensure

that everyone residing within the country has equal opportunities, this is addressed by implementing programmes such as free education, subsidized health care, high taxes for the rich in order to make provisions for the poor such as social grants (Boulton & Lucas, 2011). With this approach, production is owned by public enterprises or cooperatives and individuals are compensated based on the principle of individual contribution. The profits generated are distributed amongst the society to improve services rendered therefore diminishing class distinctions.

There are predominantly five economic models used within the framework of Socialism. These models are:

- Public-enterprise centrally planned economy
- Public-enterprise state managed market economy
- Mixed economy
- Public enterprise employee managed market economy
- Public enterprise participatory planning (Weber & Duderstadt, 2008)

Of the economic models listed above, the most popularly applied model in socialist economy is the public enterprise state managed economy model.

Critics of socialism argue that with this approach there is loss of individual freedom as the power lies predominantly with the government. This then implies that the government can be very prescriptive in term of where people work, where they may go and what they may say. In socialist countries there is one owner of goods –the government – as a result, rational pricing is not possible, leading to imbalances in production and distribution. The market can then be seen as non-reactive to prices and surpluses but only to shortages, leading to destructive economic decisions and policies being implemented (Weber & Duderstadt, 2008). Historical evidence reflect that most communist governments end up with severe poverty, extensive famine and a collapse in their economy.

2.3.2 Capitalist Economics

The capitalists on the other hand do not believe that the responsibility should be left to the government alone, they believe that the government does not use the economic resources as efficiently as private enterprises do. In this school of thought, it is believed that the society is left to a free market and this would determine economic winners and losers. This means that capitalism is a market based economy combined with private ownership as means of production (Bentley, Habib & Morrow, 2006). The goods and services are produced or offered to generate profits, these profits are then reinvested back to the economy to fuel economic growth. Characteristics of capitalism include class distinctions – classes exist based on their relationships to means of production- the ruling class owns shares and derive their income in that way whereas the working class is dependent on salaries and wages. This economic structure forces individuals within a community to make decisions as these will determine the quality of life they may live. It can be argued that these decisions are somewhat influenced by the individuals' backgrounds and hence those from an affluent background have a better chance of survival over those from poverty afflicted families.

The critics of capitalism argue that this system encourages exploitative practices and inequality between social classes, leading to monopolies and oligarchies. Monopolies are defined by Samuelson and Marks (2014) as a market that has only one seller, the monopolist is free to raise prices without being worried about losing sales to a competitor that could charge less price. Monopolies confer a greater profit to the firm than it would if the firm shared the market with competitors. Their excess profits depend directly on the position of the industry demand versus its cost (Wolff, 2008). Critics such as Wolff (2008) argue that capitalism is destructive to the stability of the economy due to recession, unemployment and competition. In agreement, Wallerstein (2005) added that the destructive nature of capitalism moves beyond workers and communities and further extend the destruction of natural resources. In capitalist driven countries, environmental concerns take back seat to growth and profits.

An oligopoly is a market dominated by a small number of firms whose actions directly effect on another's profits. Oligopolies can be identified by using concentration ratios proportion of total market share controlled by a given number of firms. When there is a high concentration in an industry, economist tend to identify the industry as an

oligopoly. Samuelson and Marks (2014) argue that competitive strategies find their most important applications within an oligopoly setting. With this competitive structure, the industry price and output are set by supply and demand. Unlike monopolies, the barriers to entry in this model are lower however the firms that are first movers tend to maintain their position of dominance making it difficult for rivals to enter the market. In oligopolistic markets the firms can choose to either be collusive or competitive. When firms are collusive, they almost act like a monopoly affording them the opportunity of gaining higher profits; when firms within the industry decide to compete against each other, this leads to little or no gain hence that is the reason why firms in this model opt for non-price competition. It can be argued that oligopolies generate a considerable share of the nation's income, this is more evident in the United Kingdom economy. Critics argue that oligopolies reduce consumer choice This then implies that with the lack of competition, such companies can manipulate consumer decision making (Ritzer & Jurgenson, 2012).

2.3.3 Mixed Economy

A mixed economy is defined as that which is a combination of market, command and traditional economies (Davies, 2010). In this model, the market economy requirements are protected this includes ownership of private property and limited government interferences to name a few. This model also gives provision for the government to have a full command role in order to safeguard the people of the country and the market itself, protecting the interest of all those residing in the country. Most mixed economies promote government ownership in areas such as health care, welfare, energy production and military services (Samuelson & Marks, 2014). Figure 2,4 illustrates the characteristics of a mixed economy. This diagram illustrates the circular flow ownership that exists within a mixed economy.

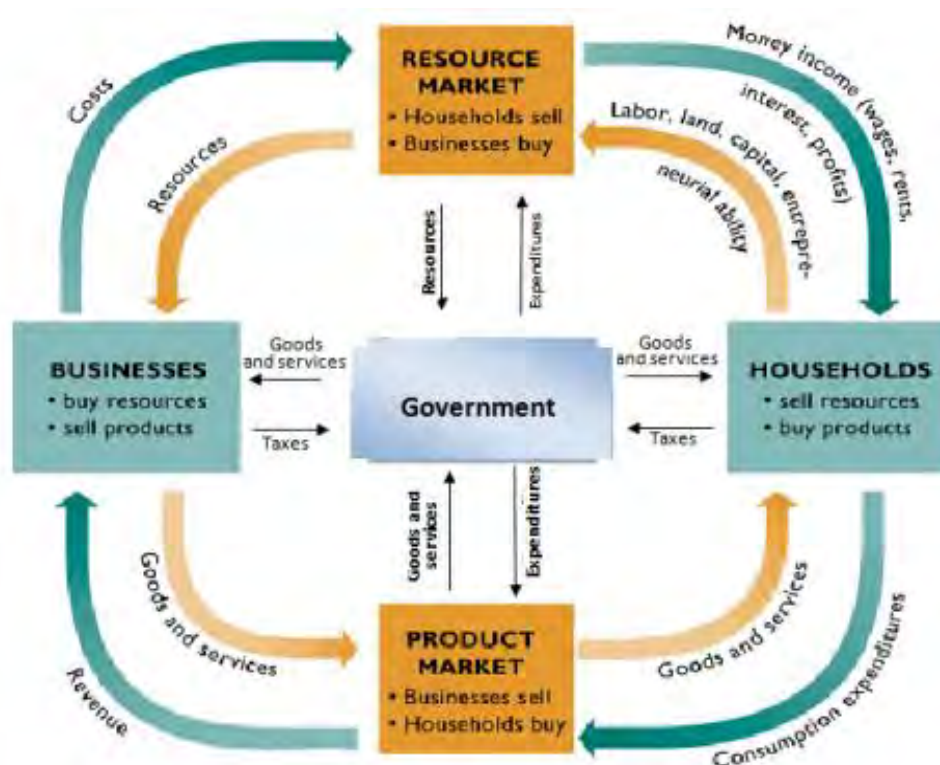


Figure 2:2 Characteristics of a Mixed Economy
(Adapted from Samuelson & Marks, 2014)

As illustrated in the diagram above (figure 2.4), a mixed economy is characterised by five classifications. In a mixed market, the law protects private property ownership and the people who reside in the country have the right to freely work, live, buy, sell and produce whatever they may choose. This ultimately leads to the citizens being given the freedom of pursuing self-driven interests which may generate income for their households (Davies, 2010). With this model, the classes that exist within the country will be determined by how much a person makes, dependant on how much income they generate. In mixed economies, competition is seen as being a healthy alternative to generate profits and is protected by law, the government's role here is just to ensure that markets are protected and that everyone wishing to partake has access. In this economy, the government's role is to outline its priorities by allocating the budget and communicating strategies for stimulating the economic growth of the country on an annual basis. Moreover, they highlight the allocation of resources through the use of taxes and provide subsidies aimed at encouraging activities within the country, not

neglecting the contribution of agriculture to the country's economy (Samuelson & Marks, 2014).

Those in support of this economic structure argue that this model promotes efficient allocation of good and services where they are needed thereby allowing a response of supply to the demand. Moreover, the model rewards efficient producers with high profits whilst ensuring that consumers get the value for their money given the competitive nature of the businesses within the different industries. Critics of this model however agree that if there is too much free market, the competitive members of society would be rewarded, leaving others with limited government support. Moreover, central planning may mobilise forces for defence creating government subsidised monopoly or oligopoly systems, this may result in the country being in debt subsequently slowing down the economic growth in the long run.

2.4 The Health Settings of Cuba and South Africa

The health care system is a major contributing factor in the economic growth and social development of a country. Scott, Solomon and McGowan (2003) argue that the application of basic textbook principles to understanding economic behaviour in the health care system is not straight forward given the complex nature of health care as a service. Even though the process of such application may be complex, the work of Kenneth Arrow (1963 cited in Folland 2008) has provided us with a health economic model. Cellini and Kee (2010) defines health economics as a branch of economics concerned with issues related to efficiency, effectiveness and behaviour in the production and consumption of health care. Smeeding (2005) further distinguished that the review of health economics requires extensive scrutiny on government intervention, intrinsic uncertainty to health and the context of infectious diseases. It is to this model that we evaluate the health economies of Cuba and South Africa. This will assist us in drawing up conclusive summaries of the current positions of both health care systems.

2.4.1 The Cuba Health Setting

Cuba is a small developing country with two distinct systems that operate side by side. The socialist economy is most prominent to a majority of the citizens of Cuba, providing

them with free education and health care. The substantial investment made towards education and health care has resulted in the country becoming a player on the world stage (Feinsilver, 2010). Campion and Morrissey (2013) argue that Cuba has one of the best health care systems in the world with a surplus of doctors, allowing for every family to have a family physician who is readily available free of charge. Even though the country has limited economic resources, its health care system has resolved many problems that developed countries have not managed to address. The Cuba health care model has a highly structured, prevention orientated system whose emphasis is more on prevention rather than cure.

The Cuba health care model consist of community based family physicians who, with the assistance of nurses and other health care workers, are responsible for providing primary health care and preventative services to their patients (Drain & Barry, 2010). The physician patient ratio for this country is 1:1000 in urban areas, allowing the physician to have intimate knowledge of their patients. Due to low patient doctor ratios, it is possible for patients to be categorised according to their level of risk and home visits are scheduled for each patient at least once a year and those with chronic conditions receive visits more frequently. Where necessary, patients are referred to Poly clinics.

Cuba has vaccination rates which are amongst the highest in the world. Their life expectancy is 78 years and their infant mortality rate is currently less than 5 per 1000 births (Campion & Morrissey, 2013). These health outcomes could be attributed to the improved education and nutrition which address the social determinants of health. The countries literacy rate is 99% as education is free and health education is fused into the curriculum from an early age.

The Cuban health model is not designed for consumer choice or individual alternative. This is a country where eighty percent of the population works for the government and the government manages the budgets. Resources and use of advance technology in the country is very limited. With limited internet connectivity, the country lags behind in communication with other countries. This is one of the reasons why their medication is manufactured within the country (Keck & Reed, 2012).

Cuba offers a six year program to students from developing countries provided for free for low income students who commit to practice medicine in underserved communities in their home countries upon graduation. The approach adopted by the Cuba trained doctors is unique in that such individuals prefer working in poor communities where local doctors may not want to work. This includes making house calls a routine part of their medical practice and readily available throughout the day and night free of charge. The 'treat the patient as a whole' attitude deviates from the norm which would be to 'treat a specific part or problem' presented (De Vos et.al, 2007).

It is evident that Cuba has, over the years, developed a system that has yielded positive results for its population. The main question to be addressed is whether it is feasible to adopt this health care system to the South African context given the current socio economic settings of the country.

2.4.2 The South African Health Setting

There are several authors that have argued that South Africa is a reflection of a country with extreme inequality with rising levels of unemployment and poverty (Netshietenzhe, 2012). This inequality is also evident when evaluating the countries Gini coefficient which is said to be at 0.68. The Gini coefficient has been defined by Smeeding (2005) as a measure of inequality in a distribution. According to Freund (2009), Gini indicators play an important role in formulation of redistributive policies drawn up by governments. It can be argued that inequality is one of the characteristics associated with the capitalist economy. South Africa however makes use of the mixed method approach defined above. This justifies why the country has a two-tiered system that varies from the most basic primary health care, offered by the state, to highly specialised hi-tech services available both in public and private sectors. The public sector is stretched and under resourced in most areas of the country. This is especially evident in rural areas. Statistics SA (2015) reveal that Eighty percent of the population is serviced by the state owned clinics and hospital with the doctor patient ratio of 1:4219. The rest of the population receives health care from private sector which caters mainly for middle to high income earners who are mostly members of medical schemes.

It can be argued that the system is not inequitable and is inaccessible to a large portion of South Africans. Reviewed reports reflect that state owned institutions suffer from poor management, underfunding and deteriorating infrastructure, irrespective of the 11 % government expenditure allocation to the health care sector – which is distributed to all nine provinces (Statistics SA, 2015). Against this backdrop the situation is further compounded by public health challenges, including the burden of the diseases such as tuberculosis and HIV, and the shortage of key medical personnel (Scot et.al., 2003).

The imbalance in the health setting could be attributed to the history of the country. Before South Africa's democratic elections, hospitals were assigned to particular racial groups and were mostly concentrated in white areas (Freund & Padayachee, 1998). This was further protracted by the increase in inequality within the country where high levels of poverty due to unemployment are evident, impacting on living conditions and nutritional deficiencies.

2.4.2.1 Intervention Programme

To address the aforementioned health care challenges, the government has devised a health care charter with the aim of creating a platform for engagement between public and private sectors. The aim of the charter is to address the issues of access, inequality and enhance the quality of health services. It can be argued that health inequalities are most prevalent in countries that have not implemented a universal health care system.

It is evident that there are discrepancies within the existing health care system. The financing sources in medical aid schemes is seen to be one of the causes of efficiency, offering only fifteen percent of the country suitable medical care (Statistics SA, 2015). The individuals that cannot afford medical aid schemes resort in the government public health care system which does not have the facilities that the private institutions have. It is anticipated that the implementation of the National Health Insurance (NHI), which is similar to the universal health care system that is used in other countries, will address the issue.

Comparing the health care system of Cuba with that of South Africa, it is evident that there are major differences between the two countries. There are significant differences between the health care models utilised by both countries.

2.5 Agreement between South Africa and Cuba

Many parts of South Africa face a shortage of doctors within the public health system. The shortage of doctors in the country has led to the government finding strategies in which they would best address the matter (Bateman, 2013). In his recent report, Motsoledi (2013) argued that the number of medical students taken in by the local universities is far below the number that is required to service the countries health needs. Moreover, further attrition of these doctors is observed as they relocate to other countries or opt to work in private institutions, leaving a few doctors available for practise in public sectors. This then meant that the country had to seek alternative methods of increasing the number of medical graduates. Such alternatives included building more government based institutions of higher learning to educate medical practitioners, allow private institutions to offer the programme to students who could afford the medical fees or alternatively send students to foreign countries to study medicine.

A government direction chosen in an attempt to address some of these inequalities resulted in a signed agreement between Cuba and South Africa in 1995. This agreement was two-fold – to strengthen the solidarity between the two countries as established during the apartheid era and to increase the number of doctors in the country especially those based in rural areas (JAM, 2013). Medical Diplomacy was established between Cuba and South Africa, this collaboration between these two countries allowed improved relations and simultaneous production of health benefits. Feinsilver (2010) perceived this relationship that has major benefits for both countries involved and should be seen as a model for international relations.

Medical diplomacy has been the cornerstone of Cuban foreign policy and foreign aid since the triumph of the 1959 revolution (Kirk & Erisman, 2009). Since then, Cuba has continued to provide medical assistance to developing countries throughout the world both on a long term basis and for short term emergencies. Moreover, the country has provided free medical education for foreign students in an effort to contribute to

sustainability of their assistance. Cuba has utilized medical diplomacy as an instrument of soft diplomacy, a way of winning friends and influencing people allowing for the country to gain prestige, influence goodwill and material capital given the hostile geopolitical environment the country is in. Moreover, it is also a way of projecting the country as increasingly more developed and technologically advanced in the world stage (DeVos et. al , 2007).

2.6 Role of Higher Education on the Production of Medical Doctors

The key role of higher education in the democratic South Africa is to make meaningful contribution towards forging critical and democratic citizenship. The change in the social and political landscape dictates that the quality of the graduates produced should not only be of capable professionals, but also sensitive intellectuals and critical citizens (McGrath & Akoojee, 2007).

It cannot be disputed that higher education is at the forefront of cultivating the knowledge, competencies and skills that enable graduates to contribute to the development of the economy. It can be argued that the skills acquired can expedite the process of addressing social equality and social development, which is one of the government's critical objectives (Asmal, 2005). This had then necessitated the need for transformation in academic programmes and institutional cultures and practices. Such transformations include revisiting admission requirements and enrolment targets in order to provide access to those from previously disadvantaged backgrounds. Moreover, It also compels higher education institutions to extensively reconstruct their programmes to make curricula more congruent with the knowledge, expertise and skills needed for a changing economy (Daniels, 2007).

2.6.1 The Traditional Recourse of South African Higher Education System

Historically, higher education institutions attracted individuals of the same class who were exposed broadly to similar socialization influences and shared common conditions of existence (Barone, 2006). This meant that the social skills, economic backgrounds and language styles were similar making it easier to differentiate them according to class origins. A trend was seen to emerge post 1994 as universities

allowed access to those coming from different social origins and had different educational background in comparison to those who were previously accepted.

An important corollary to the preceding statement is that social origins have a strong influence on students' abilities when they enter higher education. Documented literature reveals that students who were from well-resourced secondary schools had a better chance of exceptional performance in matric exit exams than those from underprivileged schools. This then placed the students from indigent schools at a disadvantage when competing for admission into institutions of higher learning. This necessitated the need to revise admission requirements in an attempt to redress inequalities of the past. Moreover, it highlighted a need for academic, financial and psychosocial support for these students (Letseka & Maile, 2008).

2.6.2 The Challenge faced by Higher Education

Higher education institutions are faced with the challenge of responding to the needs of the government, the market and communities at large. This often results in institutions experiencing the problem defined by Asmal (2005) as 'demand overload'. These institutions are faced with the challenges of coping with different goals that emanate from the expectation of the aforementioned stakeholders in order to respond to economic demands and public expectations not deviating from institutional policies and regulations.

The challenge is further exacerbated by the difficulty of securing and retaining specialist staff, who are increasingly attracted to the better remuneration offered by the public and private sectors. This is especially evident in Medical schools where the demand of specialist practitioners in public and private hospitals by far outweighs the supply of these personnel (Bickel & Brown, 2005). This results in specialists being drawn away from academic institutions to private practise as there are no incentive attractive enough to keep them in academia. Without adequate financial subsidies and with limited scope for increased finance from tuition income, institutions find it difficult to attract specialists based on remuneration.

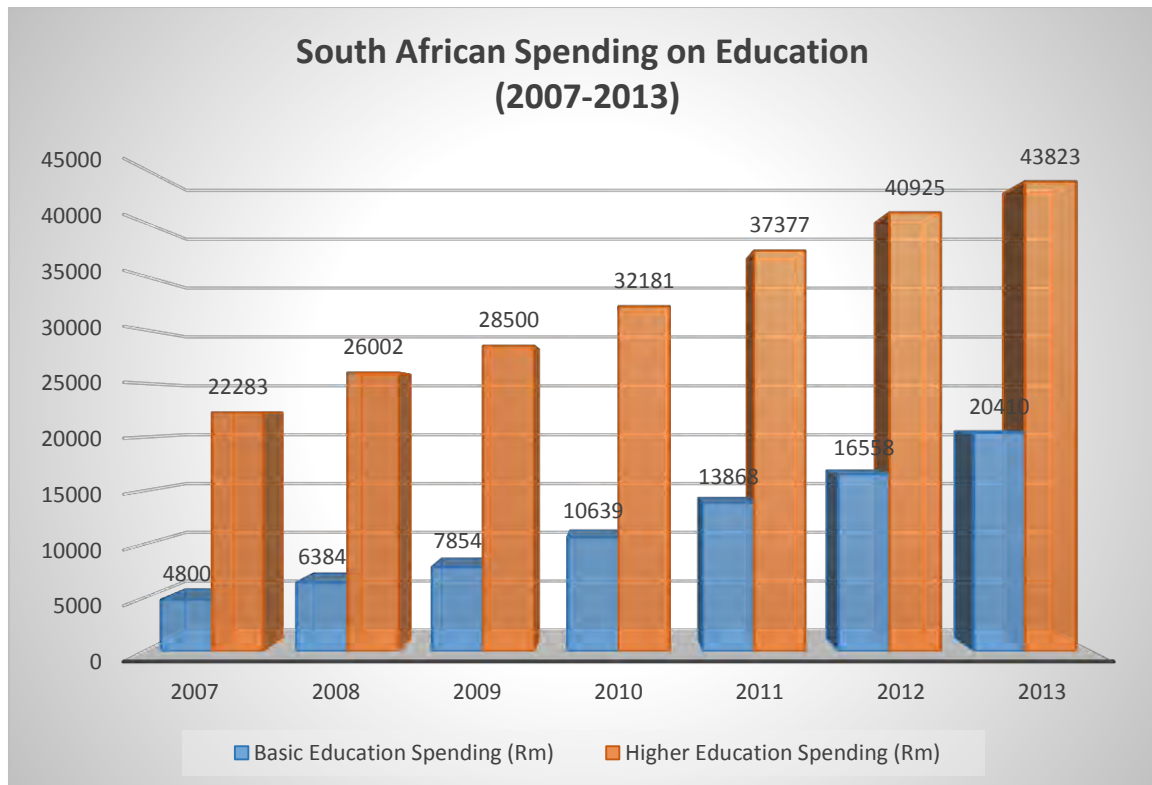


Figure 2:3 Higher Education Spending in South Africa
(Adapted from National Treasury, 2013)

The change that occurred in higher education is two-fold, firstly it was to ensure that practices are revised in order to provide support given the change of the student population. By doing this the institutions would ensure that their through put rates were not compromised as they addressed the issues associated with transformation; safeguarding that the quality of the programmes offered is comparable to that of the rest of the world. Secondly, to increase the number of skilled graduates produced in minimum time to allow such individuals to be contributors to the economy. The increase in higher education spending as highlighted in the diagram above indicates how the government has prioritised the need of the production of graduates to meet the needs of the country.

Nussbaum (2006) argues that in as much as the need for positive contribution to the economy exists, the fundamental existence of universities must not be forgotten. He advocates that focusing purely on producing just skilled graduates reduces the purpose of higher education institutions as establishments that offer vocational and career-focused programmes that prioritise skill, eradicating the chronological underpinning pedagogical discourses of higher education institutions. His views are of

the notion that higher education has more responsibility than just to produce skilled labourers. In agreement, Asmal (2005) further states that the purpose of universities is to develop a consciousness of countless economic, educational, health, environmental and other problems through teaching and learning. Moreover, the institutions can, through research, confront and help contribute to the management and resolution of the problems discovered. Alongside, community engagement and service-learning can serve as a “means for connecting universities and communities with development needs” and “for higher education staff and students to partner with communities to address development aims and goals” (Stanton, 2008:3; 2).

2.6.3 Plans to Improve Higher Education Infrastructure

South Africa has embarked on a project of establishing a new University of Health and Allied Science in Limpopo. Through this university the government aims to increase the number of student enrolment for medicine in order to address the issue of medical doctor shortages in the country. This University is said to be merged with the University of Medunsa (Medical University of South Africa) which was once linked to the University of Limpopo. It is anticipated that this medical school will have the capacity to train 7000 students by 2019 and 10 000 by 2024 (Nzimande, 2014).

The department has injected near on billion rand towards ensuring that the university has improved infrastructure to meet the targets stipulated. This includes new off campus housing for clinical training, alterations to lecture theatres and renewal of existing buildings. Historically, the University of Medunsa was recorded to be making a loss of up to eighty million per year which had to be funded in order for the university to keep afloat (Nzimande, 2014). It is anticipated that the merger of Medunsa and the new university will result in a financially and academically viable, closing the existing gap left by there being eight medical schools in the country (Motshoaledi, 2014).

2.7 Cost Benefit Analysis

Weintraub and Cohen (2005) have argued that cost effectiveness and cost benefit analysis are useful tools to evaluate the value of any programme. They further distinguish that there are differences between the two models. Boardman et. al. (2006) further differentiates the two models by stating that a cost effectiveness analysis is different to cost benefit analysis in that it relates the costs of a programme to its key

outcomes or benefits. As the cost effective analysis seeks to identify and place a rand value to the cost of programs and equates this to a specific measure of the program's effectiveness, it is only as valid as its underlying measures of effectiveness and cost. Weintraub and Cohen (2005) argue that cost effectiveness analysis will almost always include a series of assumptions as it is generally not possible to measure everything necessary for a comprehensive analysis. It can thus be argued that cost effectiveness analyses generally include sensitivity analyses in which the input variables for assessing both cost and effectiveness are varied.

Cost benefit analysis on the other hand takes that process one step further, attempting to weigh costs with the rand value of the programs benefits. This can assist decision makers in assessing the programmes efficiency. Throsby (2011) argued that the cost benefit model is simple in concept but it is often difficult to implement in real life situation as there are a number of factors to consider which sometimes cannot be translated to a monetary value. Historical literature in cost benefit related to student studies is best understood when considerations are given to education, political as well as economic impacts on the programme (Ramsey et. al., 2008).

In this study we will concentrate more on the social aspect of the cost benefit analysis model more than the financial analyses. The social aspect takes into account the cost benefit, whether monetary or non-monetary, that accrue to everyone in society (Cellini & Kee, 2010). Any negative impacts of the programme are treated as costs and are added to actual budgetary outlays in assessing the overall costs of a program, whereas positive impacts are counted as benefits. To assess the value to society, the analyst would consider all the costs and benefits that accrue to taxpayers, neighbours, participants, competing organisations or any other groups that are affected by the programme.

2.7.1 Cost Benefit Analysis in Education

Investment in human capital is said to be of benefit if the financial gain from that investment exceeds its added cost. This human capital framework has been the driving force for the huge investments in education in developing countries in the past 40 years (Jimenez & Patrinos, 2008). The realisation of the value of an educated

nation could be seen as one contributing factor for the growth of spending in higher education in South Africa.

A substantial amount of money is being injected to the NMCFC programme in an attempt to invest in human capital, capacitating such individuals so that when they return to the country, they are a valuable asset. Throsby (2011) points out that it is important that we understand the costs associated with training students in a foreign country. The costs associated with student training are defined below:

Instructional costs: These are related training materials that are used by the student throughout their studies. These cost can be incurred by both the student and the institutions to which students are taught. For the institutions, instructional costs are those which reflect how much it costs to educate a student each year, this includes provisions for lecturers, tutors, material used, cost of printing etc. Cellini and Kee (2010) have argued that marginal as opposed to average costs should be used as the aim of assessing these costs is to establish the change in instructional costs after foreign students join the programme.

Living resources: These are inclusive of housing, food, entertainment, healthcare and local transport. Such resources are seen as essentials for the survival of the students both in the host countries as well as back in their home countries.

Non-peculiar costs: It is imperative that we also establish the impact of returning students on the learning of local students given that a high proportion of students may require the lecture to alter class content to be more appropriate for the foreign students (Cellini & Kee, 2010)

Tuition fees: In most universities, international students are required to pay up to double the amount that local students are required to pay. Students are required to exchange from their countries currency to that of the host country which may lead to a further increase in their tuition fees if their country of origin have a weak currency. The costs noted above will be the underlying framework for the analysis of the cost associated with training medical students in Cuba. Where possible, estimates will be made of specific costs and benefits.

2.7.2 Cost and Benefits of Training Medical Students in Cuba

The economic costs and benefits of foreign students, when aggregated together, are borne by or enjoyed by society as a whole. This is especially true in the South African context where the amount of money being invested by the government on the education of doctors studying overseas is borne by the taxpayers and such benefits will be enjoyed by all the members of communities serviced by these individuals after they graduate. Throsby (2011) argues that the resources committed by sending countries to supporting their students include travelling expenses, tuition fees, accommodation and monthly stipend allowances amongst others.

It would be of benefit for us to conduct an analysis of the costs and benefits associated with educating students in Cuba by evaluating costs in terms of aggregate resource commitments to such students, and benefits in terms of projected increases in revenues generated, together with an assessment of intangible or non-pecuniary effects. These findings would then be correlated to the costs associated with educating a students for the same programme ate UKZN and the benefits thereafter generated once this student qualifies. Assessment of these costs and benefits may be carried out using the techniques of social cost-benefit analysis. Aghion et.al. (2014) argues that this analysis is well-known through their widespread use in public investment appraisal across a variety of sectors in many countries.

It can be said that there are two ways in which the cost and benefit of students can be interpreted, the accounting costs and benefit, as well as the economic cost and benefit (Thorsby, 2011).

Accounting costs and benefits: The most obvious and readily measurable economic impacts of foreign study for an individual are the financial flows generated. At the individual level, these effects are seen in the direct costs of fees, travel etc. These financial flows are an important first step in assessing the economic impacts of foreign study.

Economic costs and benefits: It has to be remembered, however, that accounting revenues and expenditures may not always measure the true economic costs and

benefits of foreign study (Becker & Kolster, 2012). Assessment of economic costs and benefits goes beyond purely accounting measures and attempts to measure the full economic value of the resources committed or the outputs produced in comparison with the alternatives available.

Economists have argued that in addition to these *direct* tangible and intangible economic effects, foreign study may also give rise to *indirect* effects in the form of positive and negative externalities. External benefits or costs are unintentional and uncompensated by-products or spill overs from some economic activity. When they arise, they accrue to or are borne by everyone within range, and no market exists whereby those who give rise to or who experience such effects can be compensated or rewarded (Throsby, 2011).

2.8 Summary

The aim of this chapter was to give an overview of the literature related to the factors that contribute to the phenomenon of the study. The purpose of this was to gain an in-depth understand the dynamics faced by both countries in question in order to effectively apply the cost benefit analysis model. Here, the factors that affect student mobility were discussed. The aim of this was to outline the literature related to the attractiveness of studying in foreign countries and the economic impact thereof. The literature related to economic structures was highlighted in order to gain insight on governance structures. Moreover, the health economic climate was out lined in the attempt to gain in-depth understanding to the backdrop of this study. The next chapter will outline the methods used to collect data.

CHAPTER THREE

Research Methodology

3.1 Introduction

To establish the cost and benefits of educating medical students in Cuba, It was imperative that primary data was collected in order to obtain results that would assist in responding to the research question. The purpose of this chapter is to outline the research design employed and to reveal how the investigations used to answer the research questions were developed. Moreover, this section will also detail how data was collected and analysed.

3.2 Study Design

Quantitative differs from qualitative research in that it seeks to search for imperative 'truth' whereas qualitative research is concerned with contextual understanding of a phenomenon (Maxwell, 2005). Even though these two styles of research share the basic principles of science, the manner in which they are approached may be different and each one has its strength and limitations. It is therefore important that the correct approach is chosen, given the nature of the study to be conducted. For the purpose of this study, qualitative research approach was used.

A qualitative cost benefit analysis differs from quantitative cost benefit analysis in that it draws on a range of evidence of costs and benefits, not all converted to monetary value, and therefore not producing a final ratio of costs to benefits. Employing the qualitative approach assists in formulating meaningful relationships between costs and benefits. In this study we will concentrate more on the social aspect of the cost benefit analysis model more than the financial analyses. The social aspect takes into account the cost benefit, whether monetary or non-monetary, that accrue to everyone in society (Cellini & Kee, 2010). Any negative impacts of the programme are treated as costs and are added to actual budgetary outlays in assessing the overall costs of a program, whereas positive impacts are counted as benefits. To assess the value to society, the analyst would consider all the costs and benefits that accrue to taxpayers,

neighbours, participants, competing organisations or any other groups that are affected by the programme.

A qualitative research design approach was employed for this study as the intended purpose of the study is to provide related understanding of the complex interrelationships associated with the benefits and costs of the collaboration programme (Houghton, Casey, Shaw & Murphy, 2010). This study will therefore be an interpretation of perceptions rather than scientific facts. Moreover, inductive reasoning will be utilised in this study, focusing on specific situations and drawing up conclusions (Bryman, 2012). An in-depth understanding and interpretation of the matters around the cost and benefit of educating medical students in Cuba was discussed openly and in detail.

3.3 Sampling

Maximum variation sampling was used to select students that would participate in the study. This was important as qualitative research requires a relatively small number of individuals or situations and preserves the individuality of each of these in their analysis rather than collecting data from large samples and aggregating the data across individuals or situations (Bryman, 2012). For this reason it is important to seek out a range of 'voices' as no one 'voice' is seen to hold the whole truth. In this study we hope to collect different opinions about the cost and benefits of educating medical students in Cuba.

Purposeful sampling (Denzin & Lincoln, 2005) was also used as it achieved representativeness. This sampling method is a non-random way of sampling where researcher selects 'information-rich' cases for an in-depth study. Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research. This form of sampling was used for this study to ensure that the broadest range of information and perspectives were collected, given the nature of the population size.

The participants selected for this study were extracted from the thirteen students that were trained in Cuba who joined the University of KwaZulu-Natal for an eighteen month integration programme in 2013. These were thirteen of out of the eighty four

students that returned from Cuba to be integrated to the South African Universities. The students selected to participate in this study were from different provinces in an attempt to ensure representativeness. As participation was voluntary, the total number of students that participated in this study was eight. The selection of students enrolled at UKZN to participate in this study was twofold, firstly, the students enrolled in UKZN are representative of all the provinces that participate in the collaboration programme. Secondly, this university agreed to provide data pertaining to these students and the students were easily accessible to the researcher.

3.4 Assumptions and Delimitations

3.4.1 Assumptions

In this study, it is assumed that the views of all the participants that have been interviewed for the purpose of drawing findings on the research questions above, are a true reflection of their feelings towards the study.

Inclusion criteria

In order to be included for participation in the study, participants had to comply with the following:

The participant had to be either a final year student rotating in their final block or a recently qualified medical practitioner in their first year of internship.

The participant had to have been registered with the University of KwaZulu-Natal in 2013.

The participant must have studied the first three years in a University based in Cuba. If the respondent complied with the inclusion criteria but their informed consent was not signed, their responses were excluded from this study.

3.4.2 Delimitations

This study was limited to students who had studied through the University of KwaZulu-Natal. It is understood that conclusive findings cannot be generalised as the study focused on the perceptions of students from one university. It can however be argued that the students in KwaZulu-Natal receive more clinical exposure given the size of the

population and the disease profile of the people residing in the province, due to this, they are in a better position to comment on their transition to the South African medical

3.5 Data Collection

3.5.1 Interviews

There are a number of ways that can be utilised when collecting primary data in qualitative research. Primary data is defined as that which is collected by the researcher to meet the objectives of the study. In this study, primary and secondary data will be used for analysis, however, in this chapter we will only concentrate on how primary data was collected. Secondary data to be used was already collected through other studies that were conducted in this field by other researchers.

Detailed data was collected through the use of interviews. Terre Blanche et.al. (2006:47) describe interviews as 'spoken language' data collection. In agreement, Kvale (2006) argued that face to face interviews have long been the dominant interview technique in the field of qualitative research, providing useful information in both spoken and body language. He further articulated that Interviews place the researcher at an advantage because the nature of the interview process allows for the possibilities to discuss issues that are important to the participants, rather than forcing them to respond to closed questions.

Sekaran and Bougie (2011) have argued that the flexible nature of interviews can assist the researcher in probing for clarification of ambiguities or confusion over concepts that may have emerged during the interview process. Moreover, social cues, such as the voice and body language of the interviewee can be observed by the interviewer, providing them with extra information that can be added to the verbal response of the interviewee (Kvale,2006).

3.5.2 The Interview Process

Interview is defined as 'the interchange of views between two or more people on the topic of mutual interest' (Cohen et.al., 2005:275) . In support of this statement, Maxwell (2005) further argues that interviews seek the centrality of human interaction for knowledge production and emphasize the social situated-ness of research data. In this

study, this meant that the understanding of Cuba trained students were collected in order to ascertain the perceived benefits of the programme and the associated costs. Interviews allowed the participants to discuss their interpretation on how the programme was useful to the South African medical fraternity and highlight the challenges associated with the programme. Moreover, it enabled them to express how they felt being a part of the programme and outline the costs that were attached to their education and the perceived value they are bring back to the country.

3.5.2.1 Semi- Structured Interview Questions

The interview format was semi-structured. An advantage of this synchronous communication was that the answer of the interviewee was more spontaneous and an extended reflection can be achieved by the interviewer formulating questions as a result of the interactive nature of communication. With structured interviews, the contents and the procedures are predetermined. This means that the 'sequence and wording of the questions are determined by a means of a schedule ' (Cohen et.al., 2006:276). This was not ideal for this research as it would have left us with limited freedom to modify questions to be directly related to the direction that the interviewee was going. With this in mind, semi structured interview format was chosen as it would allow modification of sequence of questions and changes of wording depending on the direction of the interview.

A list of interview objectives was drawn up in order to ensure that relevant and valuable information for this study was gathered (appendix 3) An open ended schedule was followed, this structure is defined by Cohen et.al. (2005:275) as that which supplies a frame of reference for respondents answers and puts a minimum of restraint on the answers and their expression . Open ended questions were used in order to capture the interviewees' insights into the subject matter and to allow us to make a fuller assessment of the respondents' views. This structure allowed unexpected or unanticipated answers to be received from respondents, resulting in unthought-of relationships.

Bryman (2012) suggested that the indirect approach of questioning is more likely to produce frank and open responses as opposed to direct questions which may cause

the respondent to become cautious and give a less than honest answer. For the purpose of this study, an indirect approach was adopted.

3.5.2.2 Recruitment of Participants

Once the process of sampling was concluded, participants were contacted to participate in the study. Initially an email was sent to all the sampled students, inviting them to participate in the study. In this initial email information detailing the purpose of the study and all other relevant contact details was attached. In this email it was also made clear to the participant that they had a right not to partake and if they did and at a later stage felt that they wanted to withdraw, they could do so. Participants were encouraged to contact the researcher if they were willing to participate in the study.

The students that responded to the email indicating their willingness to take part in the study were contacted telephonically in order to schedule an appointment. The researcher ensured that the scheduled times for interviews were of convenience to the student, ensuring that their academic activities were not affected in any way.

3.5.2.3 Accuracy of Data Collected

The interviews were conducted in a quiet, non-threatening environment in order to ensure that the participant was comfortable and that no interruptions would be experienced during the course of the interview. An assumption was made by the researcher that the respondents had no reason to give false or misleading information while conducting these interviews. This assumption was made on the basis that the participants had no reason to feel that they could not disclose the advantages and disadvantages of the programme despite it being a government sponsored – they were in their final year and any information disclosed would not have any negative implications to their studies.

It can be said that there could be some errors that could have occurred when collecting data as in interviews some statements made may be ambiguous and can be interpreted incorrectly. To avoid this, the researcher tried to repeat the response given by the respondent to confirm that the information captured was a true reflection of what they saying. Accuracy could have also been as a result of miscommunication. In as much as the interviews were conducted in English, students that have studied in

Cuba have stated that its easier for them to comprehend and answer addressed to them in Spanish or in their mother tongue as opposed to that posed in English.

3.5.2.4 Capturing the Data

The interviews were tape-recorded in order to capture what was discussed for transcription and analysis purposes. Using the tape recorder has the advantage that the interview report is more accurate than writing out notes and assists in the transcription process for the interview. (Bryman 2012). Recorders may have a negative effect on the respondents and may lead to constrained responses. To compensate for this, the importance of maintaining confidentiality was stressed and adhered to in order to put the interviewees at ease. A signed consent form to use the device was obtained from the interviewee prior to proceeding with the interview. Notes were also taken during the course of the interview.

3.6 Data Analysis

3.6.1 Interpreting the Data

Data analysis is a selective process of grouping collected data into fundamental components in order to reveal its characteristic elements and structure. This process allows for the researcher to engage with the data collected, gaining insight on the responses received. Data in qualitative research can be analysed using different methods but for the purpose of this study, thematic analysis was used. Thematic analysis is a technique that allows for critical conversation analysis from the responses generated from interviews (Bryman, 2012). This analysis allows us to classifying data thereby laying the conceptual foundations upon which interpretation and explanations can be based.

3.6.2 Transcription

Transcription can be conducted in two modes: naturalism and de-naturalism. In the naturalism approach, every utterance that is made by the interviewer and the interviewee are transcribed in as much detail as possible. This is different from the de-naturalism approach where distinctive element of speech is removed and a summary of the response is recorded (Oliver et.al, 2005). Denaturalised transcription draws out interesting information content allowing for researcher to focus on rich information. To

test the credibility of the transcribing process, a transcriber was requested to transcribe using the de-naturalism approach. The researcher then also actively participated in the transcribing process, verifying the information provided by the transcriber in order to eliminate transcription errors.

3.6.3 Coding and Theme Identification

Cohen et.al. (2005) define coding as the translation of responses or information provided by the participant to specific categories for the purpose of analysis. These categories can assist the researcher to identify themes that may merge from the responses received. These themes can then be coded, interpreted and presented and analysed accordingly. The transcribed interviews were coded using the NVivo statistical package. This qualitative software package was used in this study due to its capability to handle rich text records and to facilitate data management chores which are subject to error when done manually. The 'theory building software' package assisted in ensuring that the analytic process was more transparent and accountable, allowing for the researcher to display relationships between people, views and concepts. The use of Nvivo was at a basic level of linking similar ideas, identifying central issues and differences.

In order to ensure anonymity, all the data collected through the interview process was coded. A letter 'S' and a number was used to identify responses from the different participants, for example, if participant one was Joe Soap¹, he would be coded as S1 and the second participant, Mary Jane would be S2.

3.6.4 Honesty and Trustworthiness

'The most important test of any research study is its quality' (Bryman 2012). The quality of the study is said to be determined by its applicability, consistency and neutrality. It is important that we appreciate that there are fundamental differences between the rationalistic (or quantitative) and the naturalistic (qualitative) paradigms and that each study requires paradigm-specific way of addressing its validity and reliability. In the

¹Pseudonym

rationalistic paradigm, the criteria to reach the goal of accuracy are validity, reliability and objectivity. Alternatively, the criteria in the qualitative paradigm is to ensure trustworthiness and credibility (Cohen et.al., 2005). These criterions can further be distinguished to credibility, transferability and dependability. In this qualitative study, authenticity and trustworthiness were used as vital quality indicators.

Kvale (2006) recommended specific strategies be used to attain trustworthiness such as negative cases, peer debriefing, prolonged engagement and persistent observation, audit trails and member checks. As means of ensuring reliability and validity in the study, verification was conducted. This mechanism of checking and verifying the information was constantly conducted through the data collection and interpretation process.

3.7 Ethics

Houghton et.al. (2010) highlighted that there are disadvantages associated with qualitative research which need to be taken into account before embarking on a study. These disadvantages include researcher bias which may affect the design of the study, researcher bias which can enter into the data collection, sources which may not all be equally credible and a study group that may not be representative of the larger population (Denzin & Lincoln, 2005). It is therefore imperative that these disadvantages are addresses when data is being collected.

In an attempt to overcome some of these challenges, ethical clearance was obtained from the UKZN ethics committee (appendix 1). Moreover, permission from the School of Clinical Medicine to conduct interviews with their students was obtained and all participants were requested to document their willingness to participate in the study prior commencing with the interview process (appendix 2). Even though some of the challenges mentioned above may have been encountered, It was anticipated that the information received from the participants was a true reflection of their own views.

3.8 Summary

The purpose of this chapter was to outline the methods employed to collect data from those who participated in the study. The methods deployed are what constitute to the

credibility and trustworthiness of the study, which are the most critical ethical considerations to be taken into account when conducting a qualitative study. As highlighted in this section, quality research seeks to establish in-depth understanding of the phenomenon, this can only be achieved by ensuring that the correct data collection tool is used. In the next chapter, the results received from the respondents' will be presented and analysed.

CHAPTER FOUR

Presentation of Results, Discussions and Interpretation of Findings

4.1 Introduction

The aim of this chapter is to analyse and interpret the results gathered from the responses of those who participated in this study. The results gathered were coded, these codes were then translated to themes. In this chapter we will interpret the themes identified in an attempt to answer the research question. Moreover, the cost benefit analysis will be used as a tool to determine whether the costs associated with training students in Cuba outweigh the benefits achieved when these students qualify.

4.2 Costs Associated with Training Students in Cuba

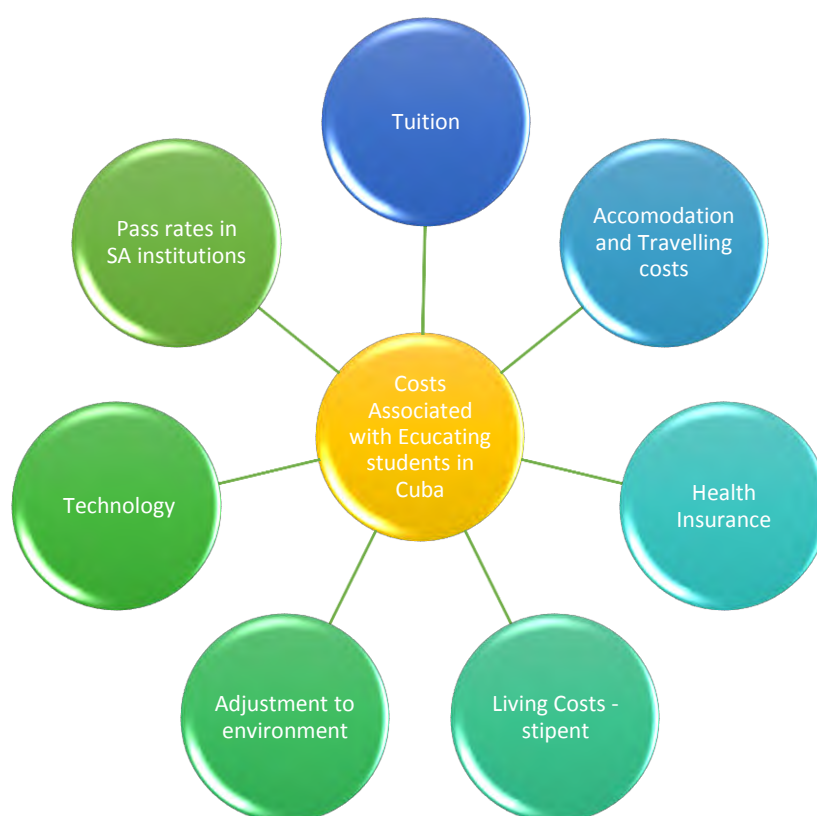


Figure 4:1 Cost Associated with Studying in a Foreign Country
(Authors own)

Figure 4.1 above illustrates the themes that were reflected by the students that participated in the study. These seven themes will be analysed in order to determine the cost associated with international training of medical students.

4.2.1 Tuition Fees

The respondents unanimously agreed that tertiary education in Cuba is free, being a communist country, the Cuban population enjoys the benefit of free education and this free education policy is said to also extend to students who are from other countries. *'Being a socialist country, education is free in Cuba but the government makes contribution – they voluntarily paid the fees... Cuba is education driven as money is not a driving factor'* (S1). It was however highlighted that even though the education may have been free, the sending countries did make a donation towards student's studies in good faith and in appreciation of the opportunity presented to their students. The respondents were not certain about the exact amount of money that was paid as this was an agreement between the two countries and not necessarily with the universities that offer training for the students. This agreement was a result of excellent historical relations between the two countries (Motsoaledi, 2013). Conversely, responded S5 indicated that *'There is a lot of money at stake here so dropping out was not an option... you sign a contract which stipulates that you pay back all the money that had been spent on you plus interest'* In their statement they denote that the voluntary fees paid by the government are somewhat costly to pay back, especially for a student that are from disadvantaged backgrounds. Secondary data revealed that a minimum of R48 000 is paid for the preparatory year where students are taught Spanish. The fees are then increased for the duration of the medical training thereafter (JAM, 2013).

'When we return to the South African institutions, we are treated like all other local students' (S2). Upon their return to UKZN, the students were required to pay a registration fee of R 3250 and are registered for a non-credit bearing module (UKZN, 2013). In this module they are expected to rotate within the six major disciplines, this forms a part of their orientation programme. Once the six months is over, they then register for all final year modules, like the local students, they were expected to pay student fees which amounted to R 5090 per block for six blocks in a year (UKZN, 2014). Pass rate statistics data revealed that in the past three years 40% of the students that return from Cuba pass all blocks at first attempt (Motala, 2015) this then implies that there is a high probability that there are a number of students who the government would be expected to pay additional fees for repeat modules.

4.2.2 Travel and Accommodation Costs

The contracts signed by all students who have been awarded the bursary to study in Cuba stipulates that all travelling costs from their home town to Cuba were absorbed by the provincial department of Health (Motsoaledi, 2013). These students were transported by airplane to Cuba and the cost for this trip is approximately R 28 000 per student, depending on which part of South Africa they reside. In 2009, it was recorded that 808 students had been recruited for the programme since the day it first began (JAM, 2013). These students were authorised to return back to South Africa once in two years in order to reduce travelling costs ‘ *I came back home for two vacations, and every time there was a funeral*’ S8. The limited number of trips to visit their families preordained students to make use of other modes of communication with their families back home in a technologically challenged country. The psychological effect of this distance away from their home and siblings can be argued to may have a negative effect on the students, thus leading to social and academic difficulties being experienced (Altbach & Knight, 2007). The consequences of these would be discussed at length later in the chapter. Upon arrival in Cuba, the students are transported to the different universities they would be studying in.

As with travelling, accommodation was also paid for by the sending country. The students are accommodated in student residences closer to campus, where meals are provided for the students. The report gathered by the delegation that visited Cuba in 2009 reflected that the students are accommodated in open plan dormitories. It can be argued that this set up was at times not very conducive for learning. Moreover the reports indicated that student were subjected to diets with low nutritional value (Altbach & Knight, 2007). The total cost of accommodation per year in Cuba is estimated to be in the range of R28 000 excluding the meal charges estimated to be R18 720.

Upon their return to South African institutions, the students are transported back to their provinces by the Department of Health per semester, these costs varied from student to student ‘*The guys from around here (KZN) went home often but as I’m from Limpopo I had to wait for the province to confirm my bus or airplane ticket*’ (S6). Accommodation is arranged for the students either through the Universities student housing division, if there are rooms available in student residence, or they are privately

accommodated in lodges or guest houses for the duration of their studies. Accommodating the students at res is R22 841 annually which works out to be far cheaper as opposed to being in a lodge which cost a minimum of R200 per night (UKZN, 2014).

4.2.3 Stipend

The respondents indicated that there was a monthly stipend amount that was given to all students by the department of Health. This stipend amount amounted to \$ 200 which was equivalent to approximately R2000 per month, depend on the rand dollar exchange. Stipulated in the contract, this amount was only available received for the six years in Cuba, thereafter, when the student returned to South Africa, the amount received was at the discretion of the province (DOH, 2014). The purpose of the stipend amount was mainly to be used for daily upkeep expenses.

It was evident from the conversation that the 'life in Cuba was very simple hence there living expenses were not very high' (S5). This may explain why concerns were raised that the stipend paid to students was excessive and almost equivalent to the salaries paid to the lecturers (Mesa-Lago & Vida Alejandro, 2011). It was argued that the surplus money for personal expenses encouraged participation in recreational and cultural activities which included the consumption of alcohol and not paying due attention to studies. The more responsible student opted to save up the stipend amount, this money assisted them when they returned back to South Africa, ensuring that they had spending money during the period where their bursary funds were not released (UKZN, 2013).

4.2.4 Health Insurance

It is common practise for universities to request for medical insurance for all international student, this is no exception for the Cuban universities. The main aim of this insurance was to ensure that the student is medically covered should they fall ill within the stipulated period they would be residing in the country (Wildavasky, 2010). In Cuba, the requirement is that South Africa pays the health insurance for all students in advance. Failure to which the students are liable for their own medical expenses should they fall ill whilst still not covered. In as much as the health care system is free

for those who reside in the country, the service is not readily provided for those that are there as visitors hence payment is required for services rendered (JAM,2013).

Prior to gaining permission to proceed with their academic studies, students are required to pass the health screening test indicating that they are clear of the forty three diseases that could disqualify them from entry to higher education in Cuba. *'We had to undergo a series of tests ... and if you fell pregnant you had to return back home'* S5. As reflected in respondent S5's response, students were also subjected to screening tests for HIV and pregnancy. If they were found to be positive, they were disqualified from part taking in the programme. The average cost of this insurance is R 3200

4.2.5 Adjustment to Environment

The respondents indicated that adaptation to change is very difficult for most students *'Change in environment, culture food, language'* (S4). After departing from the home country, the excitement is short-lived when they realise that they have to adjust to a new living conditions within a country where a foreign language is spoken and the cultural beliefs are different. Most if not all the students who are recruited for the programme had never been exposed to the Spanish language that is the medium of instruction in all their academic institutions (Nzimande, 2014). This implies that these students have to rapidly grasp the language and be able to comprehend and express themselves with it in order to survive in Cuba. Moreover, the culture shock is evident where they have to adapt to the Culture and the way of living of the country, adjusting to the staple diet available in the country (Boulton & Lucas, 2011).

Upon completion of studies in Cuba, the students are then expected to make yet another adjustment into South African institutions where the medium of instruction is English. Respondent S7 indicated that *"Adjustment is very difficult socially, academically and financially ... it made me feel like a foreigner in my own country (S.A) ... takes determination and emotional maturity"* From this quote it is evident that the social adjustment back to the home country is not always easy. It can be argued that this adjustment may affect the overall academic performance of the student. Documented literature reflects that students who have not completely adjusted to their

surroundings have difficulties in performing academically, this could be attributed to low self-esteem and self-worth, leading to negative attitudes and lack of enthusiasm (Beine et.al., 2014). By virtue of feeling like a foreigner in their home country, this indicates that the student had problems relating to their peers, leading to the student isolating themselves and being afraid to voice out their concerns should they not understand something in class. This is a factor of concern as if unnoticed, and unsupported, student may end up consuming alcohol and possibly drugs to cope (Letseka & Maile, 2008). As previously mentioned in the stipend section, the availability of money may assist in feeding this habit.

Financially, student S4 had a problem upon their return to South Africa, this was attributed administrative delays leading to the province not releasing funds timeously. Secondary data from the student funding office reflect that at times the provincial departments do not pay the universities timeously (UKZN, 2013). This delay resulted in student going for months without any funds available for meals and books. This can cause additional burden on the student, resulting in compromised performance.

Over and above the social and financial difficulties, students also experience problems academically due to the different models that are used by the two countries and the differences in disease profiles *“coming back home and realising that the disease profile is different, e.g. in a country with insufficient resources – Cuba- there is no management of HIV patient as no patients have it and coming to SA, most of the patients one deals with are HIV positive - throwing the student complete out.”* This dilemma of completely different disease profile is a global problem for students who study in different countries irrespective of which country studied in, be it Australia, New Zealand, China or Cuba, as each country is different (Bateman, 2013). Pathology differences seen as a disadvantage as people trained in first world country would not have exposure the dynamics and landscape of diseases in this countries. This can only be addressed through exposure on cases which are prevalent in South African communities, unfortunately for the student, this may come at the disadvantage of having to repeat a module (JAM, 2013). The Cuban universities have agreed to try and assist by redesigning the curriculum so that some of the health problems experienced in South Africa are addressed. This can only be to a limited scale as the students taught in their universities were not only restricted to South Africans. As a

result it would not be feasible to teach something that may not be of relevance to the rest of the class (Motala, 2015).

“Study through observation in specialised hospitals so initially we have difficulty with practising certain procedures” (S5). Another problem faced by the students returning from Cuba is the differences in study approaches. When they return to South Africa they are treated as junior interns hence are expected not only to know about certain procedures but to be able to effectively practise such procedures. This can prove to be difficult for someone who has never been given an opportunity to practise especially when they have to conduct this procedure to a live patient under pressure.

“The rationale is to learn their health system to come back and contribute to primary health care, problem is that when we came back to SA we were forced to conform to the currently existing system.” Respondent S6 felt that the adjustment is not justified as they are expected to make a transition from what they have spent years being taught – the primary health care model – to the existing curative model in a very short space of time. This then, according to S6, places them at a disadvantage and defeats the purpose of the training received in Cuba.

4.2.6 Technology

It can be argued that due to trade restrictions, Cuba is a self-sufficient country with limited exposure to advanced technology. As a result, most of the medical procedures are taught and practised manually. This can be seen as a positive in that it exposes students to the traditional way of practising medicine however when these students return back to South Africa, they are required to be taught to make use of modern technology. *“We realise that we are behind with technology”* This then implies that an extra effort from the student is required to familiarise themselves with the technological resources available to them in public hospitals and that they must be proficient in analysing reports produced by such devices (Keck & Reed, 2012).

4.2.7 Pass Rates

The respondents reflected that their peers had warned them about the low throughput rate of the programme once they had returned to South Africa. They indicated that this

low throughput rate was one of the barriers associated with transition from one mode of staying to another *‘as the two models are different we encounter problems when it comes to assessment... in medical school it is difficult to truly reflect what we have learnt because we are subjected to assessments aimed for students that studied here’* (S3). Data obtained from UKZN confirms this. In 2013, the throughput rate for students enrolled for this programme was below fifty percent this can be compared to the overall throughput rate of locally trained students which was recorded to be ninety one percent in the same year (Motala, 2015). An in-depth assessment per module reflects that the overall average achieved by students trained in Cuba is far less than that of students trained in UKZN for most modules. The students however performed well in Family Medicine and Psychiatry. Their performance in Family Medicine could be ascribed to the composition of the module whose emphasis is mainly on the primary health care model.

Having reviewed the aspect that could contribute to the costs associated with the programme, our conversation will now turn to the themes that were identified which speak to the benefits of the programme.

4.3 Benefits Associated with Training Students in Cuba

The figure below illustrates the perceived benefits that were reflected by the students that participated in the study. These seven themes will be analysed in order to determine the benefits associated with international training of medical students.

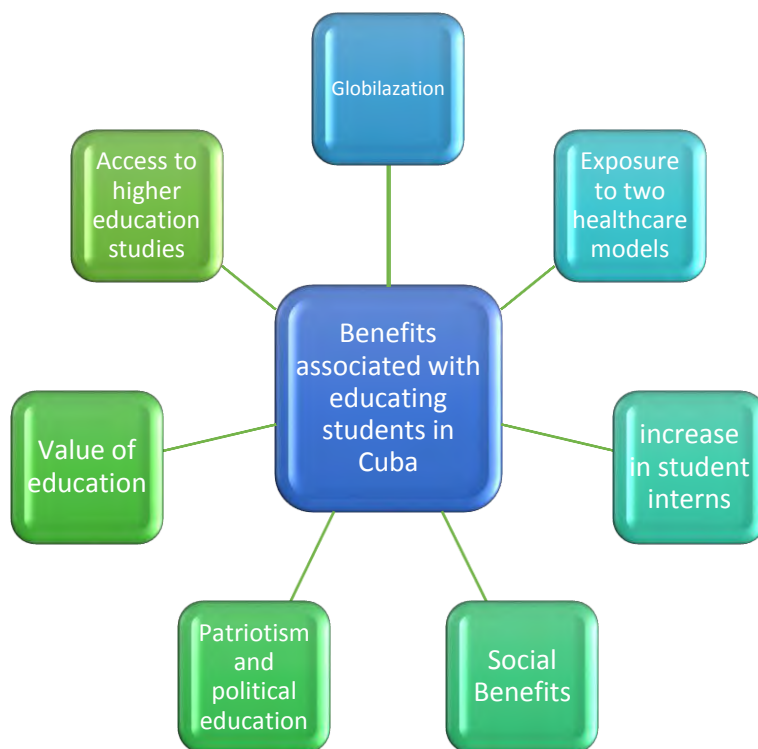


Figure 4:2 Benefits Associated with Studying in a Foreign Country
(Authors own)

4.3.1 Access to Medical Education

The respondents had different reasons for agreeing to take up the scholarship to study medicine in Cuba. Respondent S5 indicated that *“I decided to take up the offer to study in Cuba because I wanted to study medicine but was not accepted in local university”*. With the current intake of 250 students per institution, there are a number of students that may have the passion to become doctors and meet the requirements to enter into medical institutions however because of limited spaces available, end up having to pursue different degrees (Motsoaledi, 2013). In UKZN alone, a minimum of two thousand applications are received annually. Those that are not accepted end up pursuing other degrees within Health Sciences. Some pursue such degrees with the hope that they would stand a better chance of being admitted back to the medical school when they reapply as UKZN students.

An example of a student that dropped out while pursuing another degree was student S3 *“I was enrolled in a university but decided to drop out when I was offered a chance to pursue a career in medicine”* This respondent indicated that they were forced to pursue another degree as they did not want to stay at home doing nothing for the year.

They were awarded a bursary however because they were not accepted in any institution, hence they had to enrol for any programme that was available. This is one of the biggest challenges faced by South African institutions, student end up pursuing a course they have no passion for. It can be argued that this is one of the contributing factors to high dropout rates within institutions (Letseka & Maile, 2008).

Respondent S8 reflected that *“I always wanted to study medicine but knew that my mother would not be able to afford university fees”*. Without programmes such as these, students like respondent S8 are not given the opportunity to pursue their dreams. This student was from a disadvantaged background where they were not exposed to the best schools due to financial difficulties and other family dynamics. With such challenges, students in a similar situation as with respondent S8 obtain matric and end up looking for employment in order to support their families. This is especially evident in rural areas (Beine et.al., 2014).

The responses above reflect that even though the circumstances may be different, the students appreciate being given an opportunity to study towards being medical doctors. Even though some may have preferred to pursue their degree in South Africa, they were willing to embrace the challenge and excitement of studying in a foreign country in order to achieve their goals. In as much they appreciated the opportunity to study towards their intended degree they also suggested that if *‘eight medical schools integrate primary health care as opposed to sending more, there would be more control. Targets would be met quicker if increase number of students enrolled in SA as opposed to those sent in Cuba’* (S3); From this statement it appears as though students acknowledge the fact that it takes longer to qualify when the Cuban route is followed, moreover, the challenges they face when they have to integrated back to the South African health climate may possibly lengthen their training time.

With respect of the limited resources available in our local universities, Respondent S7 indicated that “Private universities being built to address the need of affluent communities – only attractive to those with money. It is difficult to get 1000 black guys from disadvantaged communities to enrol for 1st year in medical schools. This highlights the challenges faced by students that complete matric and would like to pursue a career in medicine. It appears as though the Cuba exchange programme is

the only strategy that is currently being used to address the needs of indigent students from disadvantage communities, especially those from rural backgrounds (Bateman, 2013). This confirms the need for strategies better equipped to increase student numbers as it appears as though ‘government is not aggressive enough in ensuring that increased enrolments are implemented ‘ (S4).

4.3.2 Exposure to Global Arena

Respondent S6 stated that the opportunity afforded to them ‘...gave me the opportunity to collaborate with people from different cultures, backgrounds and countries’. Being in a foreign country forced the students to interact with other students from different countries. As Cuba has an agreement with many countries to educate their medical students, this meant that the students in these institutions were not only from Cuba but from all countries across the world (Feinsilver, 2010). This then exposed students to different cultures and encouraged intercontinental relationships to be formed. In agreement to the statement made by respondent S6, respondent S2 further elaborated that “ *I learnt a new language faster than I thought, this helped me realise there were so many other languages I could learn*”. This can be seen in a positive light as it encouraged students to make an extra effort in learning other languages and realising that they were not only limited to the confines of the languages only spoken in their home countries. This promoted appreciation of other cultures and languages, embracing diversity within the community they resided in.

Respondent S5 further stated that “travelling and being away from my family is no longer a challenge” in addition respondent S1 reflected that “it is now easier for me to decide to live in a country that is not my country of origin”. The two quotations reflect that the students learnt independence, in as much as they may appreciate being home, they also realised that it was also possible to reside and survive in another country. This is one of the characteristics associated with studying in foreign countries, when students have been away so long they either go back to their home countries hoping that they would make a positive contribution given what they had been exposed to in their host countries. The negativity to this is that these individuals do not have a problem relocating to another country for better opportunities, leaving their home country (Zaqqa, 2006). This is seen as a huge loss to the country, especially in the health fraternity where there is already a shortage of skills.

4.3.3 Exposure to Two Health Care Systems

Respondent S1 indicated that one of the advantages of studying in both countries is that they were afforded the opportunity to see an efficiently run primary healthcare system in Cuba and upon returning back to South Africa they were exposed to the curative model (Campion & Morrissey, 2013). This then gave them the 'best of both worlds'. This can be seen in a positive light because it allowed them to compare both systems and due to this *'Students from Cuba have more focus on NHI as there is more emphasis in the curriculum on primary health care and are therefore better equipped to run with the health care programme that the government is introducing' (S1)*. In agreement, respondent S3 designated that *'Cuba trained students are ready for NHI due to the nature of training ... our exposure had more emphasis on polyclinic work and you were assessed by the amount of work done in the community and consultation room training, not relying on higher level medical care.'* Here, respondent S3 points out that the type of education they were exposed to while in Cuba best equipped them to work in remote areas of South Africa where there are limited resources and less technology readily available for use. This can be seen as a huge benefit for the country as one of the biggest problems faced is that of the limited number of doctors being saturated in urban areas leaving the rural areas with limited personnel (Nzimande, 2013). With a young breed of medical doctors that are willing to work in remote areas with infrastructure and resources limitations, rural areas will be in a better position than they were before.

Respondent S7 raised concerns in that they sometimes feel out of place as in the system they were trained in, they were taught to be *'passionate practitioners with a high level of engagement with patients.'* In agreement respondent S5 reflected that this approach is not seen in a positive when they return back home as they are constantly critiqued on *'paying too much attention to patients... this is seen by SA trained students as having a 'nurse' approach.'* This could be explained by the doctor patient ratios in both countries. In Cuba there is a surplus of doctors and the patient doctor ratio is low. As a result, the population they serve have the luxury of having a doctor that can pay house visits, inspect your home and assist in ensuring that all factors that could lead to a family getting sick are eliminated, thus there is a relationship that is formed between the doctor and his patients (Drain & Barry, 2010). Moreover, the treat of opening up a private practise in order to make additional income

is non-existent hence qualified practitioners remain in the system. It is different in South Africa, the high doctor patient ratios make it very difficult for doctors in the public sector to develop a close bond with their patients and visit them at home. Moreover, the doctors can open up their private practises or they can opt to work in private hospital, leaving a gap in the public health care system.

Respondent S4s assessment on both systems is that 'In as much as there are good lessons that can be taken from the Cuban model, the context to which it will be applied to will be completely different and this must be taken into consideration.' Given the differences and restrictions in both countries, it would be difficult to duplicate the Cuban model in the South African context however attempts must be made to achieve similar results taking into consideration the dynamics of the country. In agreement, repaint S5 reflected that the 'current curriculum covers primary and secondary health care... NHI integration would require people to be more conscience with their health and their environment'.

4.3.4 Value of Education

The respondents unanimously agreed that they were sensitised to the tremendous impact that education has in a countries livelihood and the economic and social contribution thereof. This was evident to them when they arrived in Cuba, a country characterised by a very literate population (Keck & Reed, 2012). Respondent S6 reflected that *'the communities are literate so people were well aware of treatments received and more alert to their health needs ... making it easy to pick up signs and address problems timeously'* In agreement, respondent S8 reflected that there is *'the well-educated culture in Cuba has highlighted the need for primary education in health and other spheres to be bought back to South Africa.'* One of the main advantages of providing compulsory free education for the population is the increase of literacy within the country. With a country like Cuba, the increase level of literacy encourages for people thriving to be professionals, with that comes the awareness of health related issues and the ability to ensure that the life span s increased by implementing strategies that could contribute to longer healthier lives. The population is made aware at an early stage about how diseases could be prevented, and once ill, they are educated about what they have been prescribed and how to take care of themselves (Boulton & Lucas, 2011).

This can be argued to be similar practise that is followed by those in the middle and higher social classes in South Africa, marginalising the impoverished and illiterate communities from this practise (Netshietenzhe, 2012). This statement was validated by a response given by respondent S2 where they stated that “*SA struggles to manage infections due to lack of education. Patients come in when at critical stage therefore more time and money is spent on curing diseases that could have been prevented*”.

The issue of literacy in South Africa is of concern as it is seen as one of the contributing factors of the current health care problems (McGrath & Akoojee, 2007). Respondent S2 felt that in as much as the level of literacy within the younger generation is increasing, a gap still exist in medical education within the country ‘*the main problem is that people are not educated, schools are not doing justice, there is a dire need for interaction with education sector and integration between education and health in curriculum so that when people grow up they are aware. This will increase consciousness and drive towards curative measures.*’ This then poses a challenge to the basic education department to collaborate with the department of health in order to ensure that health education is incorporated in the curriculum taught in schools from as early as grade one. This will assist in achieving the objectives of the primary health care model.

4.3.5 Political Education and Patriotism

“South Africa is very rich but poor due to mentality – it will forever be developing due to corruption and lack of patriotism. Cuba is how it is due to patriotism. This should be taught from an early age so they take pride in their country’ (S3). In the Cuban universities, students are encourage to learn about the history of the countries they come from (Freund, 2009). This instils a strong sense of identity and promotes pride in the county that the students may come from. In agreement respondent S4 further elaborated that ‘When outside the country there is a compelling need to know about where you come from’. The respondents reflected that the lack of patriotism is one of the missing elements in the South African community. They further recommended that if all health care professionals were as patriotic as those that serve the Cuban government, the health care system would not be in its current state. They further argued that with respect to resources, South Africa is in a better position than that available in Cuba however it appear that such resources are not efficiently being

utilized (Keck & Reed, 2012). In as much as they felt these sentiments, they were concerned that because they get absorbed to the existing system, it becomes very difficult to instil these values to their colleagues. Moreover, as they are a minority representative of the health care professional body and for the fear of being somewhat marginalised, they opt to conform to normal practise upon their return to South Africa. From the responses received from the participants, the areas of responsibilities for healthcare professionals can be summarised in the figure 4.3 below were highlighted.

It was a general feeling that there is a need for further assessment of the needs of the different communities in order to improve health care. *‘People live in areas where there is no sanitation, this is an example of how important primary health care education is important... failure to which we end up treating the same cases instead of preventing them’* (S1). It is believed that if the needs of the communities are assessed, the causes of many of the medical conditions that may be prevalent in that area may be eliminated given that the correct health care strategies are adapted and implemented. This includes communicating with the communities and educating them about their environment. This unfortunately cannot be achieved without the commitment of health care professionals who are willing to serve the communities that they serve (Motsoaledi, 2013).

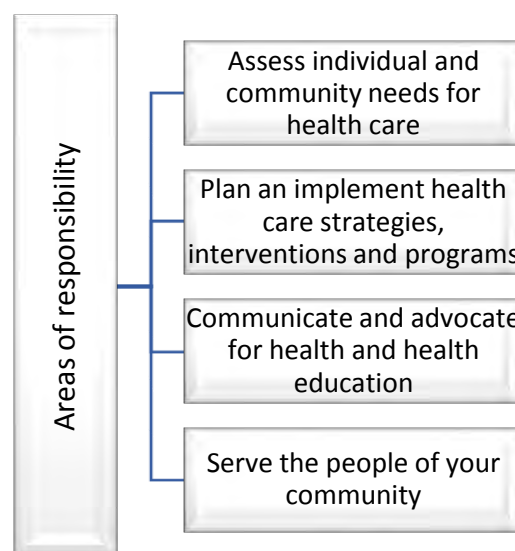


Figure 4:3 Areas of Responsibilities Required in the Healthcare System
(Authors own)

Figure 4.3 summarises what the respondents perceived to be their area of responsibility in the South African health care system. In as much as they pointed out the aforementioned four points to be the perceived areas of responsibility, they have reservations about the extent in which these were practised. Respondent (S5) indicated that South Africa has a long way to go in terms of ensuring that these points are all met like they are in Cuba.

4.3.6 Increased Interns

One of the main objectives of the collaboration programme is to increase the number of qualified graduates who will then enter the medical system as interns. This is aimed at addressing the dire need of medical doctors especially those who, once they have completed, would readily go back to serve in the rural areas. Statistics from the survey revealed that in 2009, 303 students out of 808 students that were recruited had graduated from the programme, increasing the number of graduates in the country (Nzimande, 2013). In as much as there is merit in the objective of this programme it is apparent as respondent S1 that the 'Systems not conducive for those who leave the country to pursue an undergrad degree, we are perceived as the people that come back and consume the same limited health care system in attempt to understand what is going on.' This perception is based on the perceived observation that these students are underprepared upon their return hence require additional resources to be put in place in order to ensure that they are brought up to speed. An example of this deficiency is that 'C- Section in Cuba is done by a specialist whereas this is done by interns who are still in training to be a general practitioner' (S5). This highlights that resources are needed to integrate the students back to the SA system, this then may create an impression that in the short run the project is a 'burden' to the local health care system and the universities, but long term the project assists the communities to which these professionals would work in.

4.3.7 Personal Development

Personal development is defined by Bennett (2006) as a process that enables a change in performance and attitude, promoting a positive change in an individual. He further elaborates that there are intrinsic and extrinsic factors that influence this change. Those who participated in the study indicated that when they reflect from the

time they started embarking on their journey to Cuba to commence with their first year of study to the day they returned back home after completing their fifth year, immense changes had been observed. *‘The experiences I have had through the programme have shaped me to the person I am today’* (S7). The diagram below summarise the areas of growth perceived by the respondents.

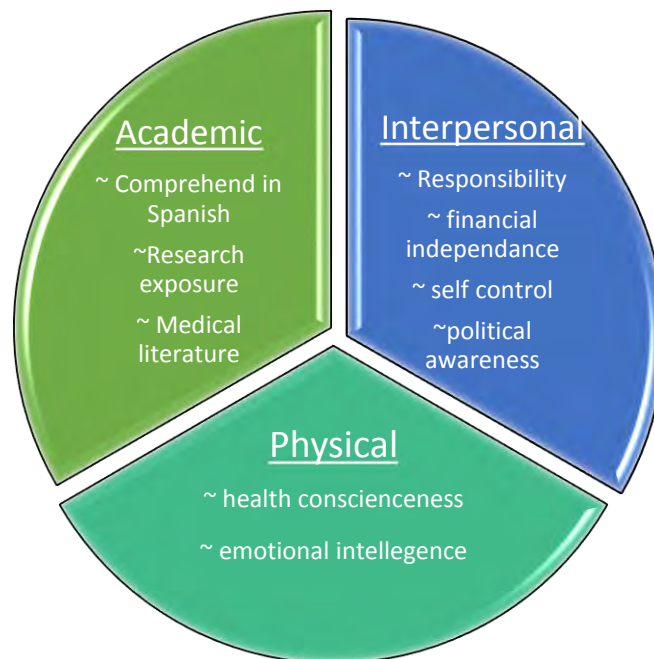


Figure 4:4 Three Spheres of Development
(Authors own)

As summarised in the diagram above, the respondents felt that the opportunity to study in Cuba assisted in three spheres of their development – academic, interpersonal and physical. The practise of medicine necessitates for life-long learning and requires the individual to engage in continuous professional development. The respondents felt that they were privileged as they have the opportunity to engage in more than just English, opening up opportunities to read Spanish medical literature. ‘I know my work, the problem is that the answer in my head is in Spanish and this needs to be translated to English before I can respond’ (S2). Moreover, as they had engaged with students from different countries, as professionals they have the opportunity to make links with colleagues from other countries, collaborate and embark on intercontinental research projects. Physically, the students felt that they were more health conscience and they had to learn the skill of controlling their emotions, finding ways to deal with situations

that they had to face in foreign country and making the mental adjustment of feeling at home away from home. Parallel to this, they felt that the exposure assisted them in gaining valuable interpersonal skills, learning to interact and form relations with people from different background and cultures. Moreover, the need for responsibility and accountability was perceived as essential skills for survival. *‘You learn to be strong’* (S1)

4.4 Summary

The purpose of this chapter was to present the responses from participants in an attempt to answer the research question outlined in chapter one. The cost and benefits outlined in this chapter can be summarised in the table 4.1 and 4.2 below. While table one presents an overview of the perceived costs and benefits of educating students in Cuba, table two presents the approximate accounting costs incurred per student for the duration of their study.

Table 4:1 Summary of Cost and Benefits of the Programme

Costs		Benefits	
Financial	Non-Financial	Financial	Non- Financial
Travel and accommodation	Adaptation to new environment	Increase in number of doctors	Global exposure
Tuition fees	Adjustment to technology	Economic activity	Knowledge of two healthcare systems
Stipend			Social benefit for students
Repeat modules and Number of years studying			Access to high education and value of education
Health Insurance			Patriotism and Political education

As indicated in preceding chapters, the costs and benefits of the collaboration programme have to be viewed both in a financial and non-financial aspect as some costs and benefits cannot be converted to monetary values. In the table above, we cannot put a value to the emotional aspect associated with relocating to a new country and having to learn a new language. Likewise, we cannot equate the benefits of the exposure associated with the social benefits attached to this programme

The figures presented in table 4.2 below reflect that over a million is spent to educate each student who is awarded with the bursary. It is unfortunate that the application of the cost benefit model is not as simple as assigning figures to all the components that contribute to the decision of whether the project is worth-while or not. In as much as we can estimate the costs associated with the programme, there is no figure that can be attached to the benefits of the project however, the themes presented in this chapter will assist us in trying to draw up conclusions in the next chapter.

Table 4:2 Summary of the Estimated Accounting Costs of the Programme

	Level of study	Registration	Tuition	Health Insurance	Meals	Accommodation	Stipend	Flights to Cuba	Total
Cuba	Prep	48 000	48 000	3200	18720	28759	19200	28000	193879
	1-5	0	552000	16000	93600	143795	96000	56000	957395
SA UKZN	Prep	3750	0	2000	12000	22841	12000	0	52591
	Final	3750	24552	2000	12000	22841	12000	0	77143

The table is a summary of all the financial figures disclosed by the respondents that are associated with training from the time they commence with the academic programme in Cuba until they qualify. These figures are only applicable to students who qualify in record time and are not required to repeat a module throughout their undergraduate studies. As indicated in chapter 2, the respondents indicated that the preparation year is for them to learn the Spanish language in order to capacitate them with sufficient knowledge of the language as they would be expected to study the duration of their degree in it. The figures presented in row two indicate the amount of money spent for each student over the five year period that they are in Cuba. When the students return to UKZN, the amount of money spent during their six month orientation is summarised in row three and finally the amount of money spent completing their final year In UKZN is summarised in the last row.

CHAPTER FIVE

Conclusion and Recommendations

5.1 Introduction

The purpose of this study was to gather responses aimed at assessing the feasibility of educating medical students in Cuba and the impact thereof to the country and the academic institutions. A detailed analysis of the themes identified in the responses were presented and interpreted in the previous chapter. There were a number of contributing factors to the cost and benefit of the programme that were identified. This chapter concludes the study by providing an overview of the findings and drawing up recommendations for the future.

5.2 Overview of the Findings

The data collected in this study could be defined using three categories

- a) direct and indirect costs and benefits
- b) tangible and intangible costs and benefit, and
- c) financial and social costs and benefits.

Of the three, it was most practical to use two, eliminating the tangible and intangible costs and benefits. This category was eliminated as it required all items to be converted to monetary values, which is at times most difficult to place a rand value on many intangible benefits.

Cellini and Kee (2010) argue that direct and indirect costs and benefits are those that closely relate to the primary objective of the project. The primary objective of the project analysed in this study was to increase the number of doctors in South Africa, hence the direct cost affiliated with the project were defined to be those related to the administration of the project, such costs included tuition, travel and accommodation amongst others. When these costs were compared to those which are paid by students who studied in the UKZN medical school it was evident that the cost of sending students to Cuba are far more than that of a student trained locally. The direct benefit can be argued to be similar between both modes of training as at the end the interns produced are sent to similar hospitals to gain more exposure to the medical field and practise learnt skills. The indirect costs or secondary benefits are those that

are by products or investment effects of the programme, in this case, the benefits of having additional professionals that would positively contribute to the economy of the country through social and financial investments. These professionals would not only be of values to their families – financial support for the family – but they have prospects of opening up practises or health organisations in future which may create job opportunities. Moreover, having acquired a highly paid skill in South Africa, these individuals have the potential to boost the economy through retail and property spending. The indirect costs are unintended costs that occur as result of an action; from the responses received, some of these may include the psychosocial aspect of the programme which at times resulted in substance abuse. This habit may, if untreated, result in people being unfit to practise – this could be seen as loss of investment. Moreover, as doctors deal with lives, an incorrect diagnosis may result in the death of a patient and possibly law suits against the individual doctor concerned, the hospital they work and the department of health as their employer.

It is important to distinguish between costs that are financial and those that are social. Financial costs are those that are cash expenditures made by the organisation in order to satisfy the project objectives. Social costs on the other hand are those that may not necessarily be cash outlays, but represent real costs to the society. The responses gathered outline the financial costs of the programme and equate those costs to the benefits of the programme. An analysis of the project reflect that in as much as there could be some merit to the programme there are also demerits. The responses received reflect a dire need for South Africa to invest in higher education institutions in order to increase the capacity of health training institutions. The literature reviewed reflect that the government has started rolling out plans geared towards this – with the new medical school being built in Limpopo, the Walter Sisulu school of health sciences expansion programme and the private medical school being built in New castle, however it is perceived that this expansion is not aggressive enough to address the current need of the country. The study also revealed that due to financial constraints, some students from the quintile 1 and 2 schools still have restricted access to study medicine. Moreover, the institutions are faced with the challenge of ensuring that once these students have been accepted into the system, interventions to support them financially, academically and psychosocially are put in place. These require additional

financial resources to be injected onto the programmes as additional human resources and infrastructure I required.

The findings further reflect that there is a substantial amount of resources required to assist students in making an adjustment both in the host country as well as when they return back home. The funding used for such resources could be more effectively used in strengthening the support system offered by local universities and instilling similar values to those learnt when in Cuba. This may possibly reduce the psychosocial trauma experienced by the students and assist the government in meeting its objectives in terms of increased number of doctors per more rapidly. Socially, this will benefit all involved as the students, the institutions, the community and the government would all benefit.

5.3 Recommendations

The findings of the study reflect that the main purpose of the project of sending students to Cuba was due to increase the number of doctors in the country that would willingly return back to serve rural communities in South Africa. The main challenge of not being able to implement this in-house was due to the limited enrolment plans of the local universities. In attempt to answer the research question it can be concluded that the project is serving its objectives however there are ways in which more effective results could be achieved. The cost benefit analysis conducted reflect that it would be more cost effective to increase the capacity of local institutions, allowing for the same number of students that are recruited to study in Cuba to do so locally. These students would then be subjected to similar contractual obligations as those they would be subjected to when studying in another country.

It is recommended that a task team is formulated to assess how best the process can be expedited to ensure that the training of students be increased locally, gradually decreasing the number of students sent to Cuba. This transition would need to take into account the finances required to increase infrastructure requirements. Parallel to this, institutions and curriculum expert can engage in order to find ways in which the structure of the curriculum is redesigned so that it allows for teaching not only to take place in universities but also in other available places such as fully functional hospitals around the country.

It is also imperative that a collaborative approach between the department of Health and the academic institutions is adopted. This will address a number of issues that affect both sectors. A memorandum of understanding between the two parties may possibly result in an increased number of qualified practitioners being requested to teach as part of their key performance area.

5.4 Areas for Future Study

It is recommended that further research is conducted to incorporate the views of the wider community. The study was restricted to students that studied in Cuba who completed their final year in UKZN. Due to this, it is not possible to draw definite conclusions of the general perception of all stakeholders affiliated with this project.

An in-depth study needs to be undertaken to evaluate the economic impact of the project for each province, equating this to the actual benefit received as this study only assessed the views of the students that were in their final year of study, not those who were back in the communities they were meant to serve. It would be of interest to gauge how many of these qualified individuals are based in rural areas and their perceptions of the programme.

A major impetus for the department of health to introduce this project is the lack of medical provision to the indigent community, particularly in rural areas. This study indicates the project has somewhat addressed this however further studies are required in order to assess the extent to which this was addressed.

5.5 Closing Statement

The findings of the study reflect that there are a number of lessons that South Africa can learn from the Cuban medical model. The study also highlighted that the significant differences between the countries and the shortcomings of the programme. Increasing the enrolment plan cannot be considered simply as addition of a few lecture theatres but comes with major impacts on how the programme is designed and executed. Moreover, the approval of relevant professional bodies and buy in from all stakeholders would have to be taken into consideration.

List of References

Aghion, P., Bechtold S., Cassar, L., Herz, H. 2014. The causal impact of competition on innovation. *The National Bureau of Economic Research*. No.19987

Altbach, P.G., Knight, J. 2007. *The Internationalisation of higher education: Motivations and realities*. Journal of studies in International Education. Vol. 11. No.3. pp 290-305.

Asmal, K. 2005. Academic Freedom and Institutional Autonomy: Beyond the Paradigmatic Traps of the Past and Towards New Conceptions More Appropriate to South Africa's Constitutional Democracy. University of Witwatersrand, Johannesburg, 10 March.

Barone, C. 2006. Cultural Capital, Ambition and the Explanation of Inequalities in Learning Outcomes: A Comparative Analysis. *Sociology Journal* Vol. 40. No.6. pp 1039-1058.

Bateman, A. 2013, Doctor Shortages: unpacking the Cuban solution. *South African Medical Journal*. Volume103. No. 9. Pp 603 - 605

Becker R., Kolster, R. 2012. *International student recruitment*. Nuffic, Netherlands.

Beine, M.; Noel, R.; Ragot, L. 2014. *Determinants of the international mobility of students*. Economics of Education review. [Online] Available at: <http://mpa.ub.uni-muenchen.de/4980/> (Accessed 12 May 2015).

Bentley, K., Habib, A., Morrow, S. 2006 'Academic freedom, Institutional Autonomy, and the Corporatised University in Contemporary South Africa'. Council on Higher Education, Pretoria.

Bickel, J., Brown, A. 2005. *Generation X: Implications for faculty recruitment and development in academic health centres*. Journal of the Association of American Medicinal Association. Volume 80 No.3 pp 205-210.

Boardman, A, Greenberg,D., Vining, A, Weimer, D. 2006. *Cost Benefit Analysis: Concepts and Practise*. 3rd edition. Prentice Hall, New Jersey.

Boulton, G., Lucas, C. 2011.What are Universities For? *Chinese Science Bulletin*. Volume 56. No. 23. Pp 2506 - 2517

Bryman, M. 2012. *Social Research Methods*. 4th edition Oxford University Press, New York.

Campion, E., Morrissey, S. 2013. A different Model- Medical Care in Cuba. *The New England Journal of Medicine*. Volume 368 Pp 297 - 299

Cellini, S. Kee, J. 2010. *Cost Effectiveness and cost benefit analysis Handbook of practical programme analysis*. Handbook of practical programme evaluation. Jossey-Bass, United States.

Chiappori, P. Lewebel, A. 2015. Gary Becker's theory of the Allocation of Time. *The Economic Journal*. Volume 125. No. 583. Pp410 – 442.

Council on Higher Education. 2006. *A Good Practice Guide and Self-evaluation Instruments for Managing the Quality of Service-Learning*. Council on Higher Education/Joint Education Trust, Pretoria.

Daniels, R.C. 2007. *Skills shortages in South Africa: a literature review*. University of Cape Town, Development policy research unit. [Online] Available at: www.academia.edu/528847/skills_shortage_in_south_africa (Accessed 12 May 2015).

Davis, A. 2010. Marx and the mixed economy: money, accumulation and the role of the state. *Science and Society* Vol 74. No. 3. Pp 409-428.

De Vos, P., DeCeukelaire, W., Bonet, M., Van der Stuyft, P. 2007. *Cuba's international cooperation in health: an overview*. International Journal of Health Services. Volume 37, No. 4. pp 761-776.

Denzin, N.; Lincoln, Y. 2005. *The Sage handbook of qualitative research*. Sage publishers, California.

Drain P. Barry M. 2010. *Fifty years of US embargo: Cubas health outcomes and lessons*. Journal of Medicine Vol. 2010, No 328 pp 572 -573.

Erasmus J., Breier, M. 2010. Skills shortages in South Africa: Case studies of key professions. HSRC publishers, Pretoria.

Feinsilver, J. 2010. Cuba's Medical Diplomacy. *National Library of Medicine Journal* Volume 41. Pp 85 – 104.

Freund B., Padayachee, V. 1998. *Post-apartheid South Africa. Key patterns emerge*. Economic and Political weekly, Volume 33 No. 20 pp 1173-1180.

Folland, S. 2008. *An economic model of social capital and health*. Cambridge university press, Cambridge.

Freund, B. 2009. *Inequality and the causes of poverty in South Africa*. Journal of African history. Vol. 50. No. 1 pp 129-132. Cambridge Journals.

Houghton, C., Casey, D., Shaw, D., Murphy, K. 2010. *Ethical challenges in qualitative research: examples from practice*. Sage Publishers, London.

Hyland, K. 2004. Graduates gratitude: the generic structure of dissertation acknowledgements. Pearson, New York.

Jimenez, E., Patrinos, H. 2008. *Can Cost benefit analysis guide education policy in developing countries?* The World Bank: Human development network. [Online] Available at: <http://papers.ssrn.com/sol3> (Accessed 4 October 2014).

Joint Academic Meeting (JAM). 2013. Ministry of Public Health Teaching and Research Department Cuba-South Africa Third Joint Inter-University Academic Meeting. 20 June. University of Pretoria.

Keck, C. Reed, G. 2012. *The curious case of Cuba*. American Journal of Public Health. [Online] Available at: <http://ajph.aphapublications.org> (Accessed 6 March 2015).

Kirk, J., Erisman, M. 2009. *Cuban medical internationalism*. McMillan, New York

Kritz, M. 2013. *International student mobility and tertiary education capacity in Africa*. [Online]. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/imig.12053/full> (Accessed 3 April 2015).

LaPorte, R., Dodani, S. 2005. *Brain drain from developing countries: how can brain drain be converted into wisdom*. Journal of the royal society of medicine. Vol. 98 No.11.

Letseka, M., Maile, S. 2008. *High university dropout rates: A threat to South Africa's future*. Human Science Research Council, Pretoria.

Maxwell, J.A. 2005. *Qualitative research design: An interactive approach*. 2nd edition. Sage publishers, California.

McGrath, S., Akoojee. S. 2007. Education skills for development in South Africa: Reflections on the accelerated and shared growth initiative. International Journal of education development. Vol.27 No.4 pp 421-434.

Mesa-Lago, C.; Vida-Alejandro, P. 2011. *The impact of the global crisis on Cubas economy and social welfare*. Journal of Latin American studies. Volume 42 No. 4 pp 689-717.

Motala, M. 2015. Exploring the impact of experience based medical learning on students' clinical preparedness: A case study of South African Cuba training collaboration programme at University of KwaZulu-Natal. University of KwaZulu-Natal.

Motsoaledi, A. 2013. *Cuba helps to train rural doctors*. [online] available at: www.universityworldnews.com/article accessed 08/07/2013 (Accessed 02 April 2014).

National Treasury. 2013. The estimates of national expenditure. FormeSet printers, Cape Town.

Netsietenzhe, J. 2012. *SA reflects extreme form of inequality*. The Sunday Independent Newspaper. 19 August 2012.

Ramsey, B., Rexhausen, J., Dubey A., Yu, L. 2008. *An Evaluation of the economic benefits of high school education*. Economics centre for education and research, Ohio.

Ritzer, G., Jurgenson, N. 2012. Production, Consumption, presumption: The nature of capitalism in the age of the digital 'prosumer. *Journal of Consumer Culture*. Vol 10 No. 1. pp 13-36

Samuelson, W.F, Marks, S.G. 2014. *Managerial Economics*. 7th edition. Wiley, Manhattan.

Smeeding, T.D. 2005. *Public policy, economic inequality and poverty: The United States in comparative perspective*. *Social Science quarterly*. Vol 86. [Online] Available at: <http://onlinelibrary.wiley.com> (Accessed 12 February 2015).

Tan. J. 2013. *The International Mobility of Students*. United Nations Educational, Scientific and Cultural Organization. [online] available at: www.unesco.com (Accessed 25 January 2015).

Throsby, D. 2011. *The Economic Cost and benefit of international student flows*. Centre for educational research and innovation. Macquarie university, Australia.

Tremblay, K. 2005. *Emerging Trends and Implications for public policy*. Symposium on international labour and academic mobility. Emerald Publishers, Toronto.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 2012: Report on the World Conference on Higher Education. [online] available at: www.unesco.org/new/en/education (Accessed 18 November 2014).

University of KwaZulu-Natal. 2013. College of Health Sciences Handbook and Fee guide.

Weber, L.E., Duderstadt, J.J. 2008. *Developed Universities and the Developing World: Opportunities and Obligations*. The Globalization of Higher Education. Economica limited, London.

Weintraub, W., Cohen, D. 2005. The limits of cost-effectiveness analysis. Cardiovascular health care economics. Humana press, New Jersey.

Wildavsky, B. 2010. The Great Brain Race: How Global Universities are Reshaping the World. Princeton, Chicago.

Zaqqa, N .2006. *Economic Development and Export of Human Capital - a Contradiction?* The Impact of Human Capital Migration on the Economy of Sending Countries. University Press, Kassel.

Appendix 1: Ethical Clearance



13 August 2014

Miss Nonhlanhla Precious Mqadi 212563805
Graduate School of Business and Leadership
Westville Campus

Dear Miss Mqadi:

Protocol reference number: HSS/0930/014M

Project title: Economic cost and benefit of training South African medical students in Cuba

Full Approval – Expedited Application

In response to your application dated 25 July 2014, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shemuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: Dr Muhammad Hogue
Cc Academic Leader Research: Dr E Munapo
Cc School Administrator: Ms Zarina Bullyraj

Humanities & Social Sciences Research Ethics Committee
Dr Shemuka Singh (Chair)

Westville Campus, Gordon Mbeki Building

Postal Address: Private Bag X6001, Durban 4000

Telephone: +27 (0)31 260 3687/3690/4567 Facsimile: +27 (0)31 260 4606 Email: ethics@uqn.ac.za / ethics@uqn.ac.za / ethics@uqn.ac.za

Website: <http://uqn.ac.za>



1910 - 2010
100 YEARS OF ACADEMIC EXCELLENCE

Commerce

Education

Health Sciences

Law

Life Sciences

Physical Sciences

Appendix 2: Letter to Participants



UNIVERSITY OF KWAZULU-NATAL

GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP

Dear Participant

MBA Research Project

Researcher: Nonhlanhla Mqadi (082 428 4785)

Supervisor: Mohammad Hoque (031-260 8690)

Research Office: Ms P Ximba 031-2603587

I, **Nonhlanhla Mqadi** an MBA student, at the Graduate School of Business and Leadership, of the University of KwaZulu Natal. You are invited to participate in a research project entitled **Economic Cost and benefit of training South African medical students in Cuba**. The aim of this study is to assess whether the option of training medical students in Cuba is a sustainable and cost efficient alternative over capacitating local institutions with adequate resources to allow for increased student enrolments.

Through your participation I hope to understand the overall costs incurred during your years of study towards your chosen degree and the benefits thereof. It is anticipated that through your response we would be able to gain a better understanding of costs associated with training medical students

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this study. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Graduate School of Business and Leadership, UKZN.

If you have any questions or concerns about participating in this study, you may contact me or my supervisor at the numbers listed above.

Sincerely

Investigator's signature _____ Date _____

Appendix 3: Consent Form

UNIVERSITY OF KWAZULU-NATAL
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP



MBA Research Project
Researcher: Nonhlanhla Mqadi (082 428 4785)
Supervisor: Mohammad Hoque (031-260 8690)
Research Office: Ms P Ximba 031-260 3587)

CONSENT

I..... (Full names of participant)
hereby confirm that I understand the contents of this document and the nature of the research
project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT _____ DATE _____

Appendix 4: Interview Questions

SEMI-STRUCTURED QUESTIONS

1. Please provide a brief background of where you come from and your socioeconomic status
2. When and where did you enrol for your MBChB programme?
3. What were your academic experiences during the years of study for this programme?
4. On average how much do you think you spent on your studies thus far?
5. What benefit do you feel are associated with pursuing your degree?
6. Do you think the amount spent on your studies thus far will outweigh future economic benefits?
7. What are the advantages\ disadvantages of studying abroad
8. If you had a chance to do things differently would you prefer to study in Cuba or at a local university? Elaborate
9. Do you have any intentions of relocating to other countries after qualifying?