

IMPROVING CULTURAL INTELLIGENCE OF EDUCATION STUDENTS THROUGH AN EDUCATION MODULE

by

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DECLARATION

I hereby declare that this dissertation is submitted in fulfilment of the degree:

Master of Arts in Higher Education Studies in the School for Higher Education Studies,
Faculty of Education,

is entirely my own work, except where references to other sources have been indicated,
which I did under the guidance of my supervisor.

I further certify that this dissertation has not previously been presented for a degree at this
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COMMENT

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- The references and the editorial style that was used in this dissertation is as prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA).

ABSTRACT

The value of teacher Education programmes should be recognised as being instrumental in the development of future learners and citizens of South Africa. Furthermore, the intention of specific Education modules should be planned according to outcomes based on contributing to more Culturally intelligent teachers.

Nevertheless, many South African teachers do not have the necessary skill set to provide students in their classes with an appreciation for diversity and social differences. Students need to be nurtured to understand different cultures and have to interact with different cultures to learn from one another. This learning process contributes to Cultural intelligence, in short, CQ.

This research study was conducted on the University of the Free State's South Campus to determine whether a possible change in CQ was evident amongst two groups of students. The Education module, which specifically focuses on social reflections and issues of diversity, was compared to a control group of students in Economic and Management Sciences. This was done to determine if the Education module might have contributed to an increase in CQ as one of its unintended outcomes.

Furthermore, a document analysis was conducted on the materials used in the Education module. This was done using the guidelines provided by David Plowright, namely deconstructing the materials to determine the informational, presentational, representational and interpretational value thereof.

After analysing the data, I can confirm that the Education group of students had improved their levels of CQ in all domains of CQ, compared to the control group of students, who had only improved in the behavioural domain of CQ. Additionally, the growth in Meta-cognitive CQ that Education students had experienced was statistically significant, compared to the control group of students. This contributes to my argument that the materials used in the Education module had nurtured a deeper understanding and higher reflective ability in these Education students.

In conclusion, I can recommend that, firstly, the relevant lecturer plays an important role in shaping the students in classroom by starting these difficult dialogues. Secondly, having lesser

students in a classroom, as was the case on South Campus, also contributes to a better relationship between the lecturer and the students. Finally, the content used in an Education module should be designed according to definite outcomes to contribute to delivering a better teacher when leaving university.

SAMEVATTING

Die waarde van onderwyseropleidingsprogramme moet erken word as instrumenteel in die ontwikkeling van toekomstige leerders en burgers van Suid-Afrika. Verder moet die voorneme van onderwysmodules volgens spesifieke uitkomst beplan word wat gebaseer moet wees op die ontwikkeling van Kultureel-intelligente onderwysers.

Nogtans het baie Suid-Afrikaanse onderwysers nie die nodige vaardigheid om studente in hul klasse te onderrig met vaardighede wat bydra tot die waardering van diversiteit en sosiale verskille nie. Studente moet gevorm word om verskillende kulture te verstaan en geleer word om met verskillende kulture saam te werk om sodoende van mekaar te leer. Hierdie leerproses dra by tot kulturele intelligensie, kortliks, KI.

Hierdie navorsingstudie is uitgevoer op die Universiteit van die Vrystaat se Suidkampus ten einde te bepaal of 'n daar 'n moontlike verandering in KI tussen twee studentegroepe was. Die onderwysmodule wat spesifiek fokus op sosiale refleksie en diversiteitskwessies is vergelyk met 'n kontrolegroep van studente in Ekonomiese- en Bestuurswetenskappe. Dit is gedoen om te bepaal of die onderwysmodule kan bydra tot 'n toename in KI as een van sy onbeplande uitkomste.

Verder is 'n dokumentanalise gedoen wat spesifiek gefokus het op die materiaal wat in die onderwysmodule gebruik is. Dit is gedoen deur gebruik te maak van die lens van David Plowright ten einde die materiaal te dekonstrueer om die inligting-, aanbieding-, verteenwoordigende en interpretasiewaarde daarvan te bepaal.

Na die ontleding van die data kan ek bevestig dat die onderwysstudente hul vlakke van KI op alle domeine van KI verbeter het, in vergelyking met die kontrole groep van studente wat net in die gedragsgebied van KI verbeter het. Daarbenewens was die groei in Meta-kognitiewe KI by die onderwysgroep statisties beduidend in vergelyking met dié van die kontrolegroep. Dit dra dan ook by tot my argument dat die materiaal wat in die onderwysmodule gebruik is 'n dieper begrip en hoër reflektiewe vermoë in hierdie studente tot gevolg gehad het.

Ter afsluiting kan ek aanbeveel dat, eerstens, die betrokke dosent 'n belangrike rol in die vorming van die studente in die klaskamer speel deur hierdie moeilike dialoë aan die gang te kry. Tweedens, met minder studente in 'n klaskamer, soos in die geval van klasse op die

Suidkampus, dra dit ook by tot 'n beter verhouding tussen die dosent en die studente. Laastens moet die inhoud wat in 'n onderwysmodule gebruik word volgens bepaalde uitkomst ontwerp word om sodoende by te dra tot die aflewering van 'n beter onderwyser.

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CHAPTER 1: OVERVIEW

1.1 BACKGROUND

The world we are living in is getting smaller each day. This statement is commonly associated with the term globalisation, which is the single most important phenomenon contributing to more interaction and subsequent understanding between cultures. Globalisation denotes a progression that includes the reasons, sequence, and significances of transnational and transcultural activities (Al-Rodhan & Stoudmann, 2006). However, in South Africa, where there are more than three million young South Africans (Stats SA, 2010), we are still largely living in a society where different groups of South Africans know very little about cultures other than our own (Jansen, 2004), and where values such as tolerance and acceptance are lacking (Jacobs & De Wet, 2014).

When the country was freed from the oppression of Apartheid, we were given an opportunity to collaborate and diversify for the greater good. Archbishop Desmond Tutu gave us a symbolic way of recognising it when referring to us as a rainbow nation (Baines, 1998). This symbolises the expected unity of South Africans. Jansen (2004), however, argues that we failed in our efforts to transform all sectors of society and that this, in affect, contributed to the segregation among cultures and how we chose to spend time and with whom. Although the workforce is diversified in many areas, most South Africans still live in neighbourhoods with cultures similar to their own. At schools and at many higher institutions, language and socio-economic circumstances force the majority of students to be separated from their respective familiar groups (Jansen, 2004). This in turn never leads to any form of demonstrable diversification, and stands in the way of true unification and the construction of the rainbow nation referred to above. This perception is supported by Habib (2016), who noted the lack of transformation in Higher Education institutions, both in terms of student profiles, and staff profiles. In addition, Meier and Hartell (2009) comment that what we achieved was in fact further racial segregation, in spite of the communal integration of our cultures. It therefore seems as though the better understanding that is expected through globalisation is lacking within our own country.

To move towards a more unified society, we need to intermingle with one another, and to interact in some way or another in a variety of settings (Ng, Van Dyne, Ang, 2012). Having an understanding of the historical roots of this country and its people and working together to achieve unity amongst us, have the potential to contribute to a collaborative approach to problems we might encounter (Baines, 1998). This idea is further emphasized by Botha (2014), who states that positive relations can only be built with another culture when interacting with them. Therefore, the learning process involved can only take place when direct contact occurs. In contrast, someone who fails to interact and learn might be faced with difficulties in social contexts where interaction does occur. Without this practical knowledge, a person would be left without the right tools to take on the challenge. This in turn can lead to unsuitable conduct towards another culture and can negatively effect relationship building between the relevant cultures (Sternberg, 2006).

There are also other factors to consider. The matter of identity is more evident in South Africa than anywhere else in Africa, where a sense of identity and belonging to a certain group has always unmistakably been a part of all South African cultures (Botha, 2014). Generally, the rest of Africa classify themselves as African and see themselves in that way (Mdepa & Tshiwula, 2012). Many South Africans, on the other hand are unsure if they belong to this group or if they should in fact retain the designations given to them during the Apartheid administration (Mdepa & Tshiwula, 2012). It seems that more than twenty years of freedom and democracy is required to change the way people think about themselves and those different to them, and whose cultures are different.

This segregation between cultures is particularly noticeable in many schools and universities in South Africa, where language acts as a barrier in creating new diverse contexts in which students can engage with one another in a learning environment (Jansen, 2004). The Higher Education Act (1997) declared that one of its aims was to increase access to Higher Education, especially for students from previously disadvantaged backgrounds, and although prospective first year students are still challenged to gain access to Higher Education (Mouton, Louw, & Strydom, 2013), South African Higher Education institutions are becoming more diverse each year (Higher Education and Training, 2013). However, once students, particularly first generation students, overcome the challenge of gaining access, they face huge financial

challenges, as was highlighted by the #FeesMustFall protests. Badat (2015), however, points out that they also find themselves in a space that is still in need of decolonization. To summarise, issues of culture, race and diversity in South Africa are complex, and Higher Education settings are no exception to this.

Culture should, however, not be narrowly seen as ethnicity. Culture can be regarded as a set of collective, deeply rooted, insentient and even illogical principles and viewpoints that an individual can portray in certain situations (Botha, 2014). Culture is by far the most influential part in someone's perception of the world and how he/she differentiates one group from another. This perception influences the way someone interacts with cultures other than their own, and it differs from one culture to another (Cochran-Smith, 1995). In other words, it affects each part of our being and the way we perceive things and act on them. Awareness of why people act in certain ways can be more influential than merely understanding them as a group (Earley & Mosakowski, 2004). The understanding of the definite influence of culture on people's thoughts and decisions, and the importance of working in diverse societies, requires a new type of intelligence (Ang, Chandrasekar, Koh, Tay, Templer, Yee, Van Dyne, 2007a). In some instances, a stranger to another's culture seemingly has some sort of capability to understand the other's culture in the same way that his/her friends and family would (Earley & Mosakowski, 2004). Such intelligence was conceptualised by Ang, Koh Van Dyne, (2007b), and is referred to as Cultural intelligence (CQ for short).

CQ is recognised as a distinct ability to notice, recognize and even predict behaviours in various cultural settings (Putranto, Gustomo, & Ghazali, 2015). This understanding and predictive ability of cultural behaviour is what distinguishes some individuals from others, and can vary from one person to another. Therefore, someone who acquires CQ and conveys high levels thereof should find it less difficult to work, study or engage in different cultural settings. Similarly, this person might also find it easier to adapt to the working environment after his/her studies. While a high CQ should be an asset, particularly in the South African education context, low CQ could become a barrier between learners and teachers (Boutte, 2008). In the light of the above, it is therefore imperative for teacher education programmes to strive towards increasing the CQ of teacher education students.

1.2 PROBLEM STATEMENT

Education students aim to become teachers after completing their studies. In its *National Qualifications Framework Act (67/2008): Revised policy on the minimum requirements for Teacher (2015)* (hereafter MRTEQ) the Department of Higher Education and Training stresses the importance of teachers' ability to relate to learners of cultures and backgrounds different to their own. This also highlights the need to provide students with an understanding of the various challenges in the South African society, such as diversity and social challenges that form part of this. Teacher education institutions should therefore ensure that the programmes address issues of culture and diversity.

In line with the directives in the MRTEQ document (Department of Higher Education and Training, 2015), the Faculty of Education at the University of the Free State designed a generic first-year Education module specifically focused on issues of diversity and social justice.

The module was not informed by the notion of CQ. I did, however, argue that in order for this module to have the desired effect on prospective teachers, namely to be able to relate to learners of cultures and backgrounds different to their own, aspects of CQ had to come to the fore through the module. In this study, I therefore aimed to determine if this module had contributed to an increase in CQ as one of its unintended outcomes.

1.3 RESEARCH QUESTIONS

The predominant research question that guided this study was, *To what extent can a single Education module, focusing on issues of diversity, positively influence the Cultural intelligence of the students?*

In attempting to answer this question, three sub-questions were posed:

1. What is the importance of Cultural intelligence in the South African education context?
2. How does the possible change in Cultural intelligence in an Education student differ from similar students after completion of the EDUB1613 module?
3. What aspects of Cultural intelligence are present and what could still be included in the EDUB1613 module, towards improving the Cultural intelligence of Education students?

1.4 AIM AND OBJECTIVES

Towards achieving the aim of the study, namely to determine if the EDUB1613 module has contributed to an increase in Cultural intelligence of Education students, the following objectives were identified:

1. To review literature on the concept of Cultural intelligence and its importance in the South African context.
2. To compare the change in the Cultural intelligence of the two student groups on one campus - one enrolling for the EDUB1613 module and the other not.
3. To analyse the content and presentation of the EDUB1613 module in the University preparation programme in order to identify aspects of Cultural intelligence that are present and expose aspects of CQ that could still be included, towards improving the Cultural intelligence of Education students.

1.5 VALUE OF THE STUDY

The importance of teacher education programmes in addressing challenges in South African education is set out as a minimum requirement for supporting teachers to advance their skills in dealing with diversity and transformation (Department Of Higher Education and Training, 2015). The *EDUB1613* module, *Individual in the Learning Context*, specifically focuses on issues of diversity and social justice, and is therefore in line with the relevant minimum requirement set out by the Department of Higher Education. I aimed to determine if this module had contributed to an increase in CQ as one of its unintended outcomes, and to provide feedback on the content of the module through the lens of CQ, towards improving the module.

In view of the directives in the MRTEQ, not only does this study contribute to the programme's internal evaluation, but other Higher Education institutions who offer teacher education programmes can also learn from the findings for the improvement of their programmes.

1.6 OVERVIEW OF THE RESEARCH METHODOLOGY

In this section I provide a brief overview of the research methodology in order to provide the reader with insight into the process conducted to complete this research project. More details follow in Chapter 2.

1.6.1 THEORETICAL FRAMEWORK

The theoretical framework used in the study was that of Cultural intelligence (CQ). CQ consists of four main components, which include Meta-cognitive CQ, Cognitive CQ, Motivational CQ and Behavioural CQ. Meta-cognition, as a domain of CQ, focuses on the mental ability of individuals to control cognitive processes in the mind (Thomas, Elron, Stahl, Ekelund, Ravlin, Cerdin, Poelmans, Brislin, Pekerti, Aycan, Maznevski, Au, Lazarova, 2008). In terms of Cognitive CQ, commonly referred to as cultural knowledge, points to the informational facet of CQ (Thomas et al., 2008). Motivational CQ refers to the will of persons to reach their goals (MacNab, 2012), while Behavioural CQ can be seen as the outcome of the other three intelligences. This fourth domain leads to the execution of one's goals (MacNab, 2012).

When applying these to teachers in practice, Meta-cognitive CQ refers to the way a teacher perceives the world and the extent of awareness that that person has about himself/herself. Cognitive CQ can reveal his/her knowledge about the differences in certain cultures. Motivational CQ can, for example, indicate readiness to thrive in diverse classrooms. A teacher with Behavioural CQ does not force his/her own culture and beliefs upon his/her students, but will rather be open to embrace the differences between them (Molina, 2012).

1.6.2 RESEARCH APPROACH

This study was guided by an integrated methodology design through the framework provided by David Plowright. Plowright moves away from attaching the label "*mixed methods*" to this type of research, as he sees different methods as tools that can be used in an integrated matter (Plowright, 2011) (also refer to 2.2 in this study). Therefore, multiple means of data collection were used. This was done by using a standardised questionnaire alongside a document analysis in a narrative, on top of a literature study.

1.6.3 RESEARCH METHODS

Plowright (2011:22-23) suggests a different take on what he calls “the process of data source management” towards selecting data sources. These can be organised into three different categories, namely *case study*, *experiment* or *survey*, although lines between these can become blurred. Plowright (2011) explains that there are three ways to generate and collect data, namely through *observing*, *asking questions* and *analysing artefacts*. Observation can be done overtly or covertly, and I did not select this approach, because it would not have led to answers to my research questions. Asking questions can involve conducting interviews, but also self-completion questionnaires. Two categories of data exist, namely *numerical* data, and *narrative* data, which are both fairly self-explanatory.

All of the above are summarised in the diagram below, provided by Plowright:

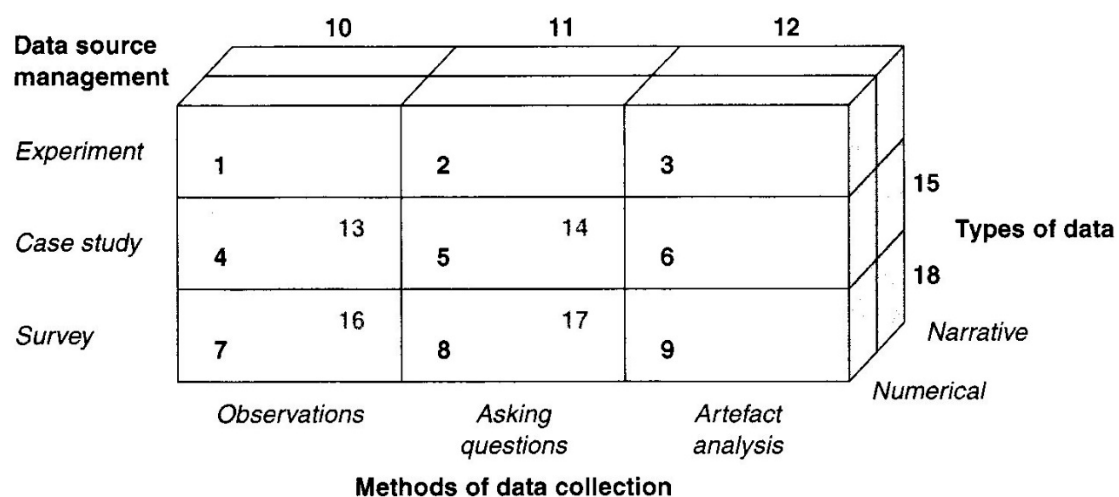


Figure 1: Simple three-dimensional model of an integrated approach to designing research (Plowright, 2011: 19)

In this particular study, cell number 2 and cell number 15 applied, which I explain below (1.6.3.2 & 1.6.3.3).

1.6.3.1 LITERATURE REVIEW

For the literature review, I initially identified mostly recent relevant books, dissertations and articles pertaining to this study through computer searches via different databases. Plowright (2011) highlights the importance of a literature study to provide a conceptual understanding

of the topic of research, based on what others have written. Therefore, I provide an overview of literature regarding personality, identity, culture and CQ.

1.6.3.2 EXPERIMENT

My first set of data was collected by *asking questions* before and after intervention (i.e. *experiment*), on a closed-item questionnaire that provided *numerical data* (cf. Fig 1, cell 2). I opted for a field experiment Plowright (2011: 29) to collect data on the effect of the module on the CQ of Education students. A field experiment takes place in natural settings and not in a laboratory, and I therefore collected the data in the lecture halls where the students normally attended classes. I collected the numerical data through the use of an existing close-ended self-responding questionnaire. The self-reported 4-Factor model of CQ Scale (CQS) was used. A pre- and post-test were conducted with the Education students enrolled for the EDUB1613 module (experimental group), as well as students enrolled for the EFEC2614 module¹ (control group). The numerical data were analysed using descriptive and inferential statistics. The data were analysed using the STATA-12 statistical package. I mainly worked with the aggregated mean score as a central tendency of groups.

a) *Research participants*

The participants were first-time undergraduate students on the University of the Free State South Campus. All these students were enrolled for the UPP (University Preparation Programme) to gain entrance into the mainstream programmes. Their classes were smaller and interaction happened more frequently, compared to what happened in mainstream classes on the Bloemfontein or QwaQwa campuses.

The change in CQ of students enrolled for the EDUB1613 module was compared to that of students enrolled for the EFEC2614 module. Both these modules were offered under similar circumstances in the same semester for students in their entrance year of study. Participants were asked to take part in the research during the first lecture of the semester. They were informed of the project and were allowed to decide for themselves whether to take part or not.

¹ Both modules were offered to students in their *first year*, on the South Campus of the University of the Free State, where I worked at the time.

For selection purposes, the comparative module had students of similar age, gender and total students to the Education module. The main objective was to measure the change, if any, of Education students through an Education module and that is indeed why these students were selected to participate. The module drew similarities with the domains of CQ and should have been able to introduce students to the concepts of CQ.

1.6.3.3 NARRATIVE ARTEFACT CASE STUDY

Considering that the focus was on a particular module, I was restricted to use the study materials prepared for this specific module (EDUB1613). This included the module guide, as well as presentations used in class. This therefore constituted a numerical artefact analysis of a restricted case. I tried to identify aspects related to the different domains of CQ, while using the framework provided by Plowright (2011) to deconstruct the materials according to their different characteristics, namely informational, presentational, representational and inspirational.

a) Selection of material

In order to analyse the study material, I used the English version of the module guide, as well as PowerPoint presentations that were prepared by the lecturers.

1.7 INTEGRITY OF THE STUDY

When considering the integrity of the study, one has to consider ethical issues in the first place. Thereafter, one has to consider whether the study is valid and “warrantable” (Plowright, 2011).

1.7.1 ETHICAL CONSIDERATIONS

All participants voluntarily participated in the research and provided their consent for the data to be used by the researcher. The confidentiality of the participants was guaranteed in both modules. All surveys conducted amongst the students were only dealt with by the principal researcher and the promoter. Students did not indicate particulars such as their student numbers or identification numbers. There were no items in the questionnaire that were offending in any way to anyone, as it is a standardised questionnaire.

The study was ethically cleared before data collection commenced (ethical clearance number: UFS-HSD2016/0046).

1.7.2 WARRANTABLE RESEARCH

Plowright (2011) draws from Toulmin when using the concept “warrantable research” to cover all issues related to the trustworthiness of the research. This includes concepts such as reliability and validity, typically referred to in a quantitative approach, and also transferability, credibility and other foci typically found in qualitative studies. He explains that, ultimately, researchers have to provide evidence for the claims that they make. These are supported by backing conditions as well as qualifying conditions. Backing conditions depend on the support that one can provide from literature, while qualifying conditions are linked to critical scepticism that is needed not to generalise too broadly.

The research conducted in this study was directed by the self-reported 4-Factor model of CQ Scale (CQS). The scale was validated by Ang et al. (2007b) and indicated positive feedback on the reliability thereof.

In terms of validity in line with the research question I focused on what I claimed to do, namely to measure CQ. Plowright (2011) highlights the importance of ecological validity, which relates to the extent to which the natural circumstances are natural or uninfluenced. The more the researcher intervenes, the lower the ecological validity becomes (Plowright, 2011). For the purpose of this study, students did not know of the survey before the class started. They were not motivated for ulterior reasons and was only asked to participate if they wanted to. The research instrument was appropriate for adult students and portrayed high levels of ecological validity, as interference was minimal, and therefore validity was addressed. More details are discussed in Chapter 2.

1.8 DEMARCATION OF THE STUDY

A demarcation provides the reader with the different boundaries for research studies.

1.8.1 SCIENTIFIC DEMARCATION

Given that the aim of the study was to determine whether a possible change in CQ was evident amongst two similar groups of first-year students at a specific university (Higher Education) campus, this project was situated in the field of Higher Education Studies.

Bitzer and Wilkinson (2009) point out that Higher Education in South Africa should be characterised as an emerging field of study that can be researched through different types of perspectives using an endless number of methods to do so. Furthermore, the focus of the field is on Higher Education and Training (Bitzer & Wilkinson 2009). This comprises formal education and training for post-secondary students, and is consequently in agreement with my problem, as outlined in 1.2, where the main objective was to determine whether a single Education module had the unintended outcome to improve the CQ of the students being studied.

According to Bitzer and Wilkinson (2009) extensive research conducted by Tight (2012) should be regarded as a practical foundation to research in Higher Education Studies. Tight (2012) identifies eight major themes in this field, namely *Teaching and Learning, Course Design, The Student Experience, Quality, System Policy, Institutional Management, Academic Work, and Knowledge*.

Despite the fact that specific themes were identified, Tight explains that overlapping always occurs. Bitzer and Wilkinson (2009) concurs with this view, pointing to the benefit of using the overlapping themes. For instance, combining teaching and learning with any of the other themes would contribute to one's understanding of the influence these themes has on one another (Bitzer & Wilkinson, 2009). Furthermore, they identify two additional themes specifically for the South African context, namely *Transformation of Higher Education in South Africa*, and *Higher Education and social-cultural links or responsibilities*.

The main theme for this study included *Course Design*, which comprises all assessments and curriculum activities included in the relevant Education module. This surely overlaps with *Teaching and Learning* as a theme, as the pedagogical style used in this module had a large influence on the potential outcome of the module. *Student Experience*, as a theme, refers to the motivation of the students to participate in content discussions and to the way they

experience the module. Consequently, these three themes or issues, as outlined by Tight (2012), were clearly incorporated in the background (1.1) and problem (1.2) outlined in the study. One could also argue that the two additional themes identified by Bitzer and Wilkinson (2009), specifically in a South African context, subsequently agreed with the context of this study. This research project, at all stages, included issues of race, culture, diversity, and social practices, and the focus was on students in Higher Education and their relevant module, compared to another module. This research study aimed to improve my understanding of the influence the Education module had on the relevant students and what other aspects could be included in the module to improve the CQ of students. The relevant Education module therefore focused on issues of *diversity and transformation* and, more importantly, *social and cultural matters*. Based on the above, this study clearly fitted into the scientific field of Higher Education Studies and related to a number of themes within this field.

1.8.2 GEOGRAPHICAL DEMARCATION

The research was conducted on the University of the Free State's South Campus. The South Campus of the University of the Free State is situated on the outskirts of Bloemfontein. It was incorporated to make a contribution to the social-economic circumstances of nearby areas, where it mainly accommodated students in the University preparation programme on campus, whilst also accommodating distance learning students in different centres across the country. The University preparation programme was created to accompany students who had not achieved the required marks to gain access to mainstream or extended programme Higher Education studies. This can therefore be seen as a preparation program for the Bloemfontein Campus or QwaQwa Campus, by preparing students to move into bigger classrooms and feeling comfortable using all the resources at their disposal. The focus centres around the student, and all systems on campus are developed around this methodology. For the purpose of the study, I chose the specific campus, firstly, because of my relationship with the University as an employee, and, secondly, because of the unique methodology used inside the classrooms to assist students in as many ways possible. Thirdly, and most importantly, students on the South Campus do not take the module UFS101 in their first year of study, while those on the other two campuses are compelled to do so². UFS101 is a compulsory

² The South Campus students enrol for the module in their second study year

module that also includes aspects of diversity and transformation, and therefore had the potential to influence the outcome of the study.

1.9 CHAPTER OUTLINE

This dissertation was structured around six chapters. The aim of the study was to measure the effect the EDUB1613 module had on CQ. This would in turn provide an indication as to what extent the module influenced CQ and how it could be improved, if at all.

Chapter 2 provides the reader with information on how the study was guided and the different research methods used to achieve the relevant objectives. The reader is introduced to the specific research design and each research method is discussed in further detail.

Chapter 3 provides an overview of literature, firstly, of the historical background of South African education, assisting the reader to understand the broader view of South African education and concentrating on certain events that shaped education in South Africa. Secondly, it concentrates on all the historical Education systems in South Africa, since missionary education, up to post-Apartheid education. Thirdly, it elucidates the important role language plays as an oppressive instrument, even in present times. The next two concepts form the basis for CQ, namely identity and then culture itself. In conclusion, CQ is explained in a theoretical overview.

Chapter 4 reports on a survey conducted using the 20-item, Four Factor Model of CQ Scale, developed and validated by Ang et al. (2007b). Participants were required to complete a standardized 20-item CQS psychometric test. A pre- and post-test were conducted at the start and end of the first semester respectively. The questionnaire was used to determine whether a single module over the course of six months could in fact influence the CQ of those relevant students. A non-Education group on the same campus was used as the control group

In Chapter 5 a document analysis on the EDUB1613 module is conducted. This is done using all the relevant materials used in the module and therefore uses "*narrative data*" Plowright (2011, p. 17).

Chapter 6 critically reflects on the findings and conclusions drawn from the different research methods and provides recommendations for future research on this topic.

1.10 CONCLUSION

In this chapter an introductory description was provided for the research. It was said that people interact in a diverse setting at universities and schools each day. Nevertheless, many people have encounters with cultures different to theirs and act inappropriately towards them. This in turn can lead to misunderstandings and negatively affect relationship building between different cultures. Consequently, a new set of skills is needed to deal with situations where one meets others different from oneself. This concept of CQ was therefore explained. This new phenomenon, CQ, could assist students in this study by giving them the necessary tools to work and learn from cultures other than their own.

The research study used findings of the literature review, combined with the pre- and post-test questionnaire and document analysis for making findings and drawing conclusions. It was my argument that the research would assist me to identify similarities between the concepts used in the subject and those of CQ. As a result, the module might already have contributed to CQ as an unintended outcome.

As stated in the chapter layout above, the next chapter attempts to provide the reader with information on how the study was guided, and the different research methods that were used to achieve the relevant objectives.

CHAPTER 2: RESEARCH DESIGN AND METHODOLOGY

2.1 INTRODUCTION

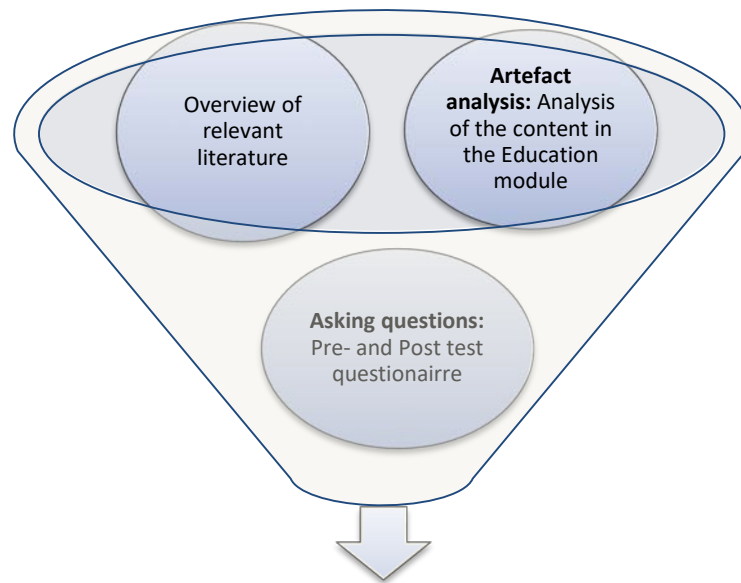
The predominant research question that guided the study was to what extent a module can influence the CQ of Education students. Although I briefly explained the research plan in Chapter 1 (1.6 and 1.7), in this chapter I discuss the integrated methodology approach that guided this study from a pragmatic point of departure. Correspondingly, the emphasis falls on each method in the research design and to what extent it was used to guide the study.

2.2 RESEARCH DESIGN

A pragmatist ponders actions and consequences and uses a practical way in solving problems (Feilzer, 2010). Clark (2010: 27) explains this as follows, “Pragmatism allows the researcher to be free of mental and practical constraints imposed by the forced choice dichotomy between postpositivism and constructivism.” This perception is maintained by Plowright (2011), who explains that his Framework for an Integrated Methodology (FraIM) has a pragmatic methodology which focuses mainly on research that has a clear purpose. Plowright (2011: 186) describes the use of FraIM as follows: “Drawing on a pragmatic methodology, a relativist social epistemology that is fallibilist and instrumentalist, and using realist ontologies to explain one’s research”. Consequently, this study was also conducted pragmatically.

This study was guided by an integrated methodology of design through the FraIM provided by Plowright (2011). Plowright (2011) explains that a large number of textbooks exist with confusing ideas on how to conduct research. He combines all these ideas to formulate a new way of conducting research using this type of framework.

Plowright (2011) argues that this type of methodology merely builds upon current research on mixed methods of design. Plowright (2011) identifies three ways of generating research data, namely *observation*, *asking questions*, and *artefact analysis* (cf Figure 1). Below is a collective illustration of the research design that was used in this study, presenting the result of each individual study when combined.



To what extent can a single Education module focusing on issues of diversity influence the cultural intelligence of the students?

Figure 2: Collective illustration of the intergrated research design used in this research study

As indicated above, I did a review of the relevant literature, analysed the content of the relevant module, and conducted a survey amongst students. Each of these are discussed below.

2.3 LITERATURE REVIEW

Webster and Watson (2002) argue that a review of related literature is a crucial part of any research project. Importantly, they also emphasise the way a literature review can reveal potential aspects where investigation is still needed. This was also evident in my study, where I found new ways of thinking about the problem whilst drawing on relevant literature. In addition, literature should be read across geographic borders to ensure that a comprehensive review of literature is done (Webster & Watson, 2002). Similarly, Booth, Sutton & Papaioannou (2016, p. 11) outline a good research synthesis by writing that “A good research synthesis can generally give us the most trustworthy answer to a specific review question, and it can identify gaps in our knowledge that require further research.” The research question that I answered in my literature review, is: **What is the importance of Cultural intelligence in the South African education context?**

My overview of literature was done by placing my study within the context of the subject it contributes to; that is, reviewing CQ from a South African point of view, whilst staying focused on Higher Education in South Africa. An analysis of related articles was done using CQ as a point of departure. My literature study comprised of four parts. In the first part I investigated oppressive practices in each different era of education in South Africa. The main focus was on oppressive practices and how they manifested in education. Then I looked at language as an instrument of learning and how it was used as an obstacle to learning. Following this, individual and group identity was investigated in context of culture, and I reviewed relevant literature about culture as a construct itself. Finally, this was followed by examining CQ as a construct through relevant literature. For the purpose of this study, this method outlined by the author as a method of analysis was used to conduct the literature review.

2.4 ASKING QUESTIONS IN A FIELD EXPERIMENT

In his seminal work on the FraIM, Plowright explains that in social and Education studies, we do not engage in research in human laboratories where all conditions are controlled. Rather, we engage in quasi-experiments, which he calls “field experiments” (Plowright, 2011: 29). The advantage of such field experiments is the element of naturalness of the situation, which relates to ecological validity. For the purpose of this study, participants were selected due to their enrolment in a specific module, and their presence in class, on the first and last day of a semester. This allowed me to pose questions to them in a setting where they were without any unusual interference.

Plowright (2011) explains that we often ask questions to generate the required research data. The author explains that questions can either be verbal or printed and supplied through different types of media. I used a printed questionnaire to pose the questions to the students.

2.4.1 QUESTIONNAIRE

A questionnaire is a data collection tool used to analyse responses provided by participants in order to generate statistics for further analysis (Fowler, 2014). The author adds that a broad range of questionnaires are available and that multiple ranges of questions are possible. Moreover, questionnaires provide for a range of data needs that would not be possible in another way (Fowler, 2014).

During my overview of the literature on CQ, I was directed to the 20-item, self-reported Four Factor Model of CQS developed and validated by Ang et al. (2007b). The scale was used to determine the amount of CQ each participant possessed pertaining to each domain of CQ. The CQS is a standardised test, since each test completed by a participant will be similar and processed in the same manner (Ang et al., 2007b).

Van Dyne, Ang, & Koh (2016, p.1) summarise the development of, and the CQS itself in the following way:

“Following rigorous scale development procedures, the Cultural intelligence scale (CQS) was developed, refined, validated, and cross-validated using a series of culturally diverse samples that included executives, expats, professionals, students, and members of multicultural teams throughout the world. CQ has predictive validity over and above social desirability, personality, experience, and a host of other constructs. Accordingly, it’s not easy to “game” the assessment and there’s a high level of convergence between self-ratings and observer ratings across several thousand participants.”

Ang et al. (2007b) illustrate that the scale comprises four domains. The scale includes four items for Meta-cognitive CQ. Meta-cognitive CQ, as a construct, is used to determine the level of awareness an individual possesses before cultural interaction takes place. Furthermore, the scale includes six items for Cognitive CQ, which refers to how much an individual understands his/her own, and other cultures. Then there are five items for Motivational CQ, which refers to the interest an individual has in operating in another culture. Finally, there are five items for Behavioural CQ, which is seen as the result of the other three domains, whereby an individual portrays the correct behaviour in another cultural group.

The 20-item, self-reported Four Factor Model of CQS is, in fact, a cross-sectional survey used to inspect more than one group at the same time (Salkind, 2009). I also included a biographical questionnaire to gain more information about the participants. This included age, gender, race and their names and surnames.

Patten (2016: , p. 4) identifies the following three advantages in using a survey questionnaire; “It provides an efficient way to collect specific data, can be useful in collecting information on

sensitive matters and is economical as a research method". Patten (2016, p. 5) also alludes to the following disadvantages; "The response rate by participants can be low, questionnaires may only provide a snapshot to the true feelings and finally, questionnaires elicit socially desirable responses from participants." Plowright warns that using a printed format would not make provision for the circumstances under which the survey is completed, which may be challenging in generating the appropriate results (Plowright, 2011). I partially overcame the above challenge in various ways. Firstly I was present when the questionnaire was being completed, thus allowing me not only to explain to the participants the importance of responding frankly, but also to make it easy for them to submit the questionnaires after completion.

2.4.2 INTEGRITY OF THE SURVEY

I endeavoured to ensure that the survey was conducted with integrity. This relates to ethical issues, as well as issues of reliability and validity, or what Plowright calls issues related to warrantable research. This was not only relevant for the survey, but also for the document analysis.

2.4.2.1 ETHICS

Plowright (2011: , p. 150) describes ethics in research as "General moral principles that determine attitudes, beliefs and relations between people and more specific, moral principles that are associated with, say, a particular profession or specific activity". Gwartney (2007) outlines guidelines for respectable research. Firstly, participants should always participate willingly in the research process. Secondly, participants should be fully aware of the reasoning behind the research. Furthermore, they should also be informed about how their data will be used and who will be responsible for it. Finally, participants should be pleased with the procedure. In short, I had to make sure that the identity of the participants was protected, that they were not forced to take part, that no harm came to them, and that I processed the data and reported on it in a responsible and honest manner (Kelley, Clark, Brown and Sitzia, 2003).

The research study had to make use of students to determine what levels of CQ they possessed during the pre-test and post-test phases of the field experiment. Students are

regarded as a vulnerable group, and therefore I had to carefully consider how I would protect them. Firstly, as a researcher, I had to apply for ethical clearance for my study before I could commence with my sampling methods. I had to submit my research design, as well as documents such as the questionnaire, permission letters from the lecturers to make use of their time in class and recruiting details and letters of consent. Based on all the documentation that I submitted, the Faculty of Education at the University of the Free State granted me ethical clearance for my study (reference number: UFS-HSD2016/0046).

Finally, the aim of the research was explained to the students both verbally and in printed format. Each student had to fill in a consent form granting me access to make use of their questionnaires for research purposes. All participants voluntarily participated in the research and gave their consent for the data to be used in this regard. The confidentiality of the participants was guaranteed as data were only dealt with by me and my supervisor.

2.4.2.2 RELIABILITY

Cronbach's alpha coefficient is a reliability testing procedure used to provide an estimate of reliability for a specific test. The Cronbach alpha indicates the average value of coefficients obtained for any arrangement of items (Gliem & Gliem, 2003). Stuwig and Stead (2001, p. 130) explains reliability in the following way; "A test score's validity is dependent on the score's reliability since if the reliability is inadequate, the validity will also be poor."

For the purpose of this study, a standardised questionnaire was used. Siniscalco and Auriat (2005) explain that standardised questionnaires are frequently used for the main purpose of collecting information on numerous topics. Furthermore, the author indicates that a questionnaire can only be standardised when each respondent receives the same questions, and the same coding system is used to generate results. The CQS was developed by consulting current intelligence and intercultural capability literature, specifically to measure CQ (Ang et al., 2007b). Furthermore, the same set of items in the CQS was used for all participants.

Nevertheless, reliability of the questionnaire was measured using Cronbach's alpha coefficient. Cronbach's alpha coefficient is used to measure internal consistency in determining whether a scale is reliable (Tavakol & Dennick, 2011). The alpha scale can range between 0 and 1, where higher scores indicate higher reliability (Gliem & Gliem, 2003). An

alpha score above 0.7 is generally regarded as being reliable (Tavakol & Dennick, 2011). For the purpose of this study a pre-test and post-test were conducted on both groups. The Alpha scale reported that the pre-test for Education students indicated an Alpha value of 0.5988. This indicates that the research instrument was fairly reliable (Tavakol & Dennick, 2011). The pre-test for the control group indicated an Alpha value of 0.7235. This indicates a highly reliable research instrument (Tavakol & Dennick, 2011). The post-test Alpha value of the Education students indicated a score of 0.7874 and 0.8194 for the control group of students, both indicating high reliability. The Alpha value for both groups combined was 0.7707 during the pre-test and 0.7895 during the post-test.

2.4.2.3 VALIDITY

Drost (2011, p. 114) points out that “Validity is concerned with the meaningfulness of research components. When researchers measure behaviours, they are concerned with whether they are measuring what they intended to measure.” Furthermore, Stuwig and Stead (2001) supplements this idea whilst connecting the success of the research design of the study to the validity thereof. Since a generic standardised questionnaire was used that had been developed by consulting current intelligence and intercultural capability literature, specifically to measure CQ, and used in numerous research projects regarding CQ, I can conclude that this instrument was valid for the measuring of different domains of CQ for Higher Education students. To affirm the validity of the CQS, Ward, Fischer, Zaid Lam, and Hall (2008), and Ang et al. (2007b) analysed the validity of the CQS and validated that it measures different domains of CQ.

2.4.3 SAMPLE TECHNIQUE

For the purpose of this study a sample was chosen on the University of the Free State South Campus, firstly, as I am an employee on the campus and, secondly, because the methodology on campus limits the number of students in class to improve the learning experience for students, which might contribute to an overall improvement of CQ. Furthermore, a convenience sample and quota sample were used to select the participants. Stuwig, Stead (2001, p. 111) state that convenient samples are “chosen purely on the basis of availability. Respondents are chosen because they are accessible and articulate.”

Moreover, participants were also chosen because of characteristics associated with them, in terms of either being in the Education group or in the control group. In some instances, specific groups were targeted within large groups, whilst others could merely be selected randomly to increase the number of participants (Levy, 2008). Consequently Stuwig and Stead (2001) refer to this type of sampling as quota sampling. The sampling procedure was followed by myself; firstly, as a pre-test to determine the amount of CQ each group possessed before the semester commenced, and, secondly, as a post-test to determine the possible amount of CQ both groups might have gained during the first semester.

2.4.3.1 RESEARCH PROCEDURE

For the purpose of this study a pre-test and post-test were conducted in exactly the same manner with all the students in the two modules on the same days. This was done at the onset of the first semester, and again at the end of the semester.

Each student received a booklet that included a biographical questionnaire in order for the researcher to gain more demographic information about the participants, as well as the 20-item, self-reported Four Factor Model of CQS to measure the CQ of each student. Participants were reminded that the study was voluntary and then proceeded to the completion of the questionnaire during their class time. The aim of this study was communicated to the students both in writing and verbally before they completed the questionnaire. Participants were given 30 minutes to do so, after which I collected the questionnaires and stored them in a safe in my office on the South Campus.

2.4.3.2 PARTICIPANTS IN THE STUDY

Based on the demographic data that were collected, the sample of students included students from the Education module, and a control group of students in another module. Both groups were similar with regards to the number of students selected. During the pre-test, the Education group consisted of 31 participants, whilst the control group had 30 participants. The post-test included 30 students for the Education group and 28 students for the control group. However, because the scores were aggregated to determine the mean, I believed that the small variation would not significantly influence the results. Both groups proved similar in age, gender and racial qualities as well. Details of the sample are provided in Chapter 4.

2.4.4 DATA ANALYSIS

The research questionnaire permitted me to make use of an asking questions method outlined in FraIM to analyse the data I received. This allowed me to make use of descriptive and differential statistics after capturing the data into MS Excel. I found no mistakes after doing quality checks. The data were then processed using the STATA-12 statistical package for analysis.

2.4.4.1 DESCRIPTIVE STATISTICS

Descriptive statistics entail the demonstration of data through a statistical summary and showing a complete picture of a big amount of data (Stuwig & Stead, 2001). Plowright (2011) classifies this as numerical data used in data transformation. He argues that this is done by grouping data into different sets. Moreover, this was also done in this research study, where different questions were grouped in different domains of CQ. In addition, it is used to calculate different measures such as central tendency and dispersion (the median, mean, range and standard deviation), as well as skewness and kurtosis.

2.4.4.2 INFERENCE STATISTICS

Stuwig, Stead (2001, p. 159) define inferential statistics by stating, "Drawing a sample from the population and making inferences about the characteristics of that population helps one generalise one's findings from that sample to the larger population." The larger population in this regard refers to all University of the Free State students that participated in the EDUB1613 module. The sample in this regard was the first-year Education students from the University of the Free State South Campus who formed the focus of this study. Importantly, all first year students on the Bloemfontein Campus of the UFS are enrolled for a compulsory course (UFS101), which also focuses on issues of diversity, which might have influenced the results of this research study, had it been conducted on students from the Bloemfontein campus.

Inferential statistics draw conclusions from the gathered data. In this study I inferred findings in one EDUB1613 class, in terms of all students taking this module in the year that the survey was conducted (before any possible changes were made to the module). For the purpose of

this study the following inferential statistics were used; the one-way ANOVA test, and the *student's t-test*.

a) *Student's t-test*

The *student's t-test* measures statistical differences in the mean score between two independent groups to determine whether that difference is influential or merely coincidental (Stuwig & Stead, 2001). If a statistical difference does occur where the value of $p \leq 0.05$, the nil-hypothesis of these groups can be rejected with a 95 percent certainty (Gin & Myles, 2000). De Winter (2013) argues that the *student's t-test* is well suited for small samples as well, even if larger groups will always provide larger confidence intervals and could therefore be more trustworthy.

b) *One- way ANOVA Test*

The One-way analysis of variance or ANOVA is used in the same way as the Student's- Test, i.e. to determine a statistical difference, but it is conducted on more than one group of samples (Cohen, Manion, & Morrison, 2007). This was used to determine whether a statistical difference is present between the groups in the research study.

2.5 ARTEFACT ANALYSIS, ANALYSING TEACHING MATERIAL

Document analysis, as part of the integrated framework, formed a critical part of this research project. In an attempt to address the third objective, i.e. towards answering the main research question, materials used in the relevant Education module had to be considered. Merriam (2009, p. 163) provides a summative explanation of how document analysis fits into qualitative studies:

"Documents that are produced for reasons other than the study at hand needs some ingenuity from the researcher analysing their content. Congruence between documents and the research problem depends on the researcher's flexibility in construing the problem and the related questions. Such a stance is particular fitting in quantitative studies, which, by their very nature, are emergent in design and inductive in analysis"

Stuwig and Stead (2001) adds that that the use of artefacts in research is an unobtrusive means to collect data without direct contact with individuals.

Plowright (2011) refers to the procedure of artefact analysis as artefact deconstruction, which he then explains as a critical inspection of objects created by people. He provides a list of such objects, such as books, newspapers, photographs, presentations, radio, music and clothes. Plowright (2011) argues that artefact analysis, from a narrative point of view, should not be restricted in any way and that data can be collected through a broad domain of sources. Merriam (2009), however, distinguishes between documents and other artefacts, and explains that the term artefact refers to physical things detached from documents, as the latter symbolise communication as well. In this study I therefore simply referred to document analysis as a form of artefact analysis, as the documents were intended to communicate with students.

Plowright argues that documents have four central features applicable to their use in research studies. These include informational, presentational, representational or interpretational characteristics (Plowright, 2011). Consequently, the module guide and classroom presentations used in the Education module formed part of the documents that were analysed. The different features are explained below.

- **Informational**

Informational documents have the essential purpose of keeping information until it is needed for its purpose (Plowright, 2011). This forms the basic but valuable part of any document. Furthermore, it serves as a justification as to what the document is about and why it exists at all. I, for instance, investigated the informational aspect of the module guide and relevant classroom presentations to determine the aim of the module and other bits of information.

- **Presentational**

Plowright (2011, p. 94) defines presentational documents as “presenting information to others. This can be achieved through showing and describing ideas, events, information, knowledge and understanding.” In an academic module the focus on presentational PowerPoint slides that were used in the classroom were relevant in this study. This formed

an integral part of my study, where the role of the lecturer with the relevant presentation documents was investigated.

- **Representational**

The focus of representational artefacts is on what the artefact might represent (Plowright, 2011). Materials in an academic module may embody a deeper meaning than what seems obvious. The module focused on issues of diversity and this would noticeably form an integral part of the success of this module.

- **Interpretational**

The main purpose of this feature was to determine whether the documents used in the study had any bearing on the participants at all (Plowright, 2011). The way an artefact is interpreted by a student depends on the explanation provided by the creator / presentation of this artefact (Plowright, 2011). For the purpose of this study, I investigated the meanings about the documents used in the module and whether they were aligned to assist students in their understanding of certain issues. By studying the material, I attempted to draw on particular content that could have an influence on students.

2.6 CONCLUSION

In this chapter a comprehensive overview was provided regarding the research design and methodology of this study. The first sections of the chapter placed the study in the domain of a pragmatist point of departure, using an integrated methodology of design. A comprehensive explanation of the survey questionnaire was provided, and this included the integrity (ethics, reliability and validity), sampling technique, and data analysis methods used. Finally, the chapter concluded with a summary of the document analysis method that was used in the research process.

The chapters that follow focus on the literature study (Chapter 3), the survey (Chapter 4) and the document analysis (Chapter 5). I conclude the study in Chapter 6.

CHAPTER 3: THE IMPORTANCE OF CULTURAL INTELLIGENCE IN THE SOUTH AFRICAN EDUCATION CONTEXT

3.1 INTRODUCTION

Under previous regimes, social engineering towards separation and inequality was masterminded, and tools such as language were used to strengthen certain people's power. The South African society, and the social structures within the society, are still very much under duress. One such a structure is the education system, where the effect of oppression is still evident. Msila (2007, p. 1) explains that “[e]ducation is always about identity formation. The legislators or other who formulate education policies always have certain goals in mind which can be political, social or cultural of nature.” Moreover, one needs to realise that even though classrooms are separated from the general public they will always be influenced by daily life outside (Msila, 2007). Additionally, technology and social media contribute to this influence from outside. Therefore, the legislators, with their cultural, political or social objectives, can easily influence the stakeholders within the education system by indirectly manipulating students to achieve their goals (Alsubaie, 2015).

A new-born child is an open possibility that has to be directed by individuals in society in a certain way (Pienaar & Smith, 2014). Education and all the role players involved in an individual's life play an important role in this regard. Equally important is the way this is conducted, as this has an influence on the students in classes (Kiggundu & Nayimuli, 2009). In this study I thus argued that it is essential to address issues of inequality, also in schools, in order to move towards social justice. My assumption in this study was that CQ could contribute to social cohesion, and that it is therefore important for teachers to have such intelligence. Teachers with a high CQ might be able to understand and relate to learners from diverse background. To support or refute this assumption, this chapter therefore discusses aspects of South African education that have relevance to culture and diversity, either directly or indirectly, and draws on literature to respond to the research question, *What is the importance of Cultural intelligence in the South African education context?*

This is achieved by providing a brief overview of the historical background of South African education and Higher Education, mainly to understand the context of education in South Africa. Different elements that have influenced CQ will be reviewed. This includes language and how it has been used as a separation tactic by those in power, identity as a construct, and its influence on someone's CQ as a whole. This is followed by culture, which forms the basis of CQ, and, finally a study into CQ itself that also includes recent findings in other studies related to CQ as a construct. Finally, CQ as a concept will be examined to explain its significance in this study.

3.2 HISTORICAL BACKGROUND OF THE SOUTH AFRICAN EDUCATION SYSTEM

The historical background to any research study provides the reader with a understanding of the past and the legacies that the past left us with in the present (Corfield, 2008). What follows is a review of the different education structures that were present in South Africa in order to gain an understanding into the cultural dynamics of South Africa in present times. This includes missionary education, followed by Afrikaner Nationalist education and, finally, post-Apartheid education in present times.

3.2.1 MISSIONARY EDUCATION

The protestant and Roman Catholic Churches established missionary schools in South Africa, mainly to accomplish their duty through evangelisation and Christianisation (Ndlovu, 2002). Accordingly, the first missionary activities started in the Cape Colony, where the first school was set up by Dr JT van der Kemp of the London Missionary Society in King Williams's Town. This school was established in 1799, largely to accommodate the native Black people through teaching them in the English language and according to Western customs (Ndlovu, 2002). According to Fiske and Ladd (2004), Nelson Mandela similarly attended Methodist schools and schools funded by Scottish missionaries.

The Education system introduced in South Africa was comparable to that of other British colonies in Africa, and its main objective was to enforce their values, language and ideas on the people of the particular colony, in this instance, South Africa, as a mean of staying in

power (Msila, 2007). The government, churches and schools were all operating in English as the official language and Anglican Christian values were practiced (Msila, 2007).

As apparent from above, the British had an ulterior motive with colonialism in South African education, mainly to maintain power through a common faith with the citizens, i.e. to transform the residents in such a way that they would be British-like, thereby making them part of themselves (Msila, 2007). Sir George Grey (Governor of the Cape Colony in 1855), accentuated this by once referring to the native settlers as ignorant barbarians who would remain troublemakers unless they were included in British society as useful workers and servants to the crown (Keegan, 2015). Although Alsubaie (2015) believes that missionary schools had an outright positive influence on South African society, hidden curriculum used in this instance contributed to the political, social and cultural aims of those in power.

3.2.2 AFRIKANER NATIONALIST EDUCATION AND APARTHEID

Afrikaner Education originated from the first settlers in the Cape, namely the Dutch. The “*Groot Trek*” is a term describing the way many Afrikaners moved out of the Cape, away from British rule, when they headed into unknown territories back then, or the Transvaal and the Orange Free State as they became known later. The two separate states constituted the Boer nation (Unesco, 1967). Diamonds and gold were discovered in the Boer Republics, which ultimately led to the British invasion of the two Boer republics (Horsthemke, Siyakwazi, Walton, & Wolhurter, 2013). The scorched-earth policy inflicted by the British in the final part of the war, devastated the Boer nation (Wessels, 2011). As a result, the Boer nations were again subjected to education under British rule after the Anglo Boer war (Horsthemke et al., 2013).

Under British rule, the Afrikaners became discontented with the Education system used, which according to them, obstructed them in many ways to practice their own cultural beliefs in schools (Msila, 2007). These beliefs were fundamental to many Afrikaners who originated mainly from French, German and Dutch settlers, who moved out of Europe because of their strong Calvinistic religious beliefs. During this period, the main objective of Sir Alfred Milner, State Commissioner in South Africa, was to Anglicise and denationalize the Afrikaner States and their beliefs (Van Eeden & Vermeulen, 2005).

What followed was the removal of public schools and the opening of private schools, under the concept of “Free Christian National Education”, or commonly known as CNE schools. The fundamentals of CNE later formed the basic fundamentals of Apartheid, which was adopted by the National Party after the 1948 election (Van Eeden & Vermeulen, 2005). Ironically, the same Afrikaners that was obstructed by the British to practise their cultural beliefs later oppressed all the non- White citizens in the same manner. Moreover, CNE can be seen as a stepping stone to White supremacy in South Africa (Van Eeden & Vermeulen, 2005).

Apartheid was a system established through a policy of racial segregation, used to abuse police force to govern the state and segregating the White cultures from the rest of the cultures in South Africa (Unesco, 1967). According to Msila (2007), the main objective of Apartheid was to protect the master-servant affiliation. This is further reinforced by Fiske and Ladd (2004), who describe Apartheid as a system designed to strengthen the Afrikaner culture and identity, and debilitating and oppressing other cultures. Through the arrangement of Bantu-Education, black teachers and learners were educated in such a way as to inhibit the formation of knowledge, thereby maintaining control over their intelligence, and consequently controlling them as human beings. Undeniably, this was used as a way to maintain power. Fiske and Ladd (2004, p. 42) support this idea by stating that “The education Africans received was poor in quality and designed to keep them out of the modern sector of the economy- thus ensuring a steady supply of cheap labour.”

Once again the education system in South Africa was seen as a weapon to influence the politics, and social and cultural being of South Africans (Msila, 2007). This inhumane act against the black people of South Africa had consequences that are still relevant today.

3.2.3 POST-APARTHEID EDUCATION

The fall of Apartheid in 1994 was a great milestone for democracy around the world (Department of Education, 2001). Almost as soon as Apartheid ended, the need to reform education became a priority. Berger (2003) points out that true democracy can only come about in a system where education is functioning well and available to all citizens.

The situation of schools did not transform overnight when the new government took over in 1994 (Case & Yogo, 1999). It was during the transitional years that the Education curricula

also changed more than once to work through the challenges it faced to provide quality education to all. Nonetheless, this fundamental right is still largely withheld from the same learners it was designed for. Most students still don't have access to quality education. This concern is highlighted by Spaul (2013, p. 3), who refers to the annual national assessments (ANA) papers written in 2011; "The vast majority of pupils in South Africa are seriously underperforming relative to the curriculum". Furthermore, Spaul (2013) emphasises that the increase in the pass rate of the National Senior Certificate examinations (NSC) ,is not a true indication of the quality of education in South Africa. This is due to the fact that the pass rate has decreased over the years, but also the lack of indication as to how many learners dropped out of school before they progressed to Grade 12. It is evident that the effects of Apartheid are still crippling the education system in South Africa.

Therefore, the challenge needs to be accepted by government and educating authorities, and it lies in the hands of hardworking teachers in all of the provinces to turn the situation around.

3.3 BRIEF HISTORY OF HIGHER EDUCATION IN SOUTH AFRICA

In line with basic education under Apartheid, Higher Education was also guided by racial practices and were severely limited for any non-White races during Apartheid (Fiske & Ladd, 2004). Furthermore, those who had access were limited to poor standards and facilities.

Higher Education opened its doors for all South Africans after the demise of Apartheid in 1994. New Education policies and legislations was therefore needed to accompany the change that manifested in the new reformed South Africa. The first of its nature was the White Paper on Higher Education and Training (1997), which was mainly meant to start transformation of Higher Education in South Africa. In addition, ethics, main concerns and values were clearly outlined in the paper when referring to access for all, and fundamental rights of all citizens to Higher Education (Department of Education, 1997).

Furthermore, an increase in participation and rectifying past inequalities was set out to be the main goals Higher Education institutions in South Africa had to implement (Department of Education, 2001). Obviously, this had to be a priority, whilst institutions still had to sustain and promote research, contribute to quality Higher Education, and deliver quality outcomes

each year (Department of Higher Education and Training, 2015). Therefore, the main purpose of these policy documents were to convert education to be in line with the new democratic ideals of South Africa, namely overcoming unfair discrimination, an increase in admissions to education, training opportunities, and improving the quality of education, training and research for all. Moreover, Higher Education facilities were at the centre of delivering access to all students of all colours.

This is evident in a review of Higher Education that was done in 2016. The report argues that Higher Education should focus its teaching and learning around social justice to include students of all races (Bokana et al., 2016). Higher Education, as a whole, was mostly accessible by White students before 1994, which contributed to this drive for Higher Education and social justice in society (Bokana et al., 2016). Badat (2015) believes this drive for Higher Education also contributed to the recent student protest actions at South African universities. Although this drive was intended to drive social justice, 55% of students who enter Higher Education never graduate from it (Bokana et al., 2016).

When referring to the Higher Education institutions in South Africa from 2002 until 2014, full time statistics show that African and Coloured students increased in numbers, compared to a decline in student numbers classified as of Indian, Asian or White origin (Cronje et al., 2017).

Although we are all individuals in our societies, we share beliefs, rituals, ceremonies, traditions and assumptions about people whom we grew up with (Perry, Moore, Edwards, Acosta & Frey, 2008). A learning process started since the first direct contact occurred between individuals and who they grew up with. Students come from different societies to campuses and do not always know how to relate to other students. Sharing classroom space does not automatically translate into social integration between cultures.

3.4 LANGUAGE AS AN INSTRUMENT OF LEARNING

During the years of Apartheid, Afrikaans had become the main medium of instruction for black education, and also for teacher training. Ndimande (2013) points out that the language subject became a serious concern for African students when forced to study in the language of the oppressor. According to Heugh (1999) language, as an instrument of learning, has been

used to cripple the African child and affirm this struggle with education for many generations to come. In historic terms the struggle referred to above reached an essential point in history on the 16th of June 1976. The 1976 uprising resulted because of African students' reluctance to be taught in Afrikaans as the main language of instruction (Ndimande, 2013). Students in Soweto rebelled against the language-in-education policy, which required them to learn in Afrikaans and English in secondary schools, in a 50/50 dispensation (Heugh, 1999).

Obviously, this can be seen as a movement by the government of the time to ensure that black education would be set up for failure. Moreover, the government of the time, with their political and social agendas, achieved their goal: to cause unequal separation in our society, by controlling knowledge and information (Heugh, 2000). In 1979, the government eventually gave in to some of the demands and students were given a choice between English and Afrikaans as a language of instruction. For this reason, it could be seen as a small victory over the oppressive circumstances they were in, but the damage was already done.

Most schools opted for English for what Heugh (1999) views as obvious reasons. Nonetheless, one needs to remember that most of these learners had another language other than English as their first language. This in itself posed a challenge. Firstly, teachers in these schools were mostly speakers of another first language and in many cases were not ready to teach through English as a medium of instruction (Heugh, 1999). Ndimande (2013) agrees with this, when noting that English is either a second or third language for both the learners and the teacher in the classroom. Secondly, mother tongue as a medium of instruction was still practiced in the first four years of primary school, and learners were not ready for the challenge that English posed to them in schools (Heugh, 1999). All of these issues, combined with the lack of resources, especially teachers and text books, once again set learners up for failure.

If one assesses this lack of home language education to the black community and the effect thereof, it is ironic that the same problem seems to persist in schools today. In the Constitution of South Africa, it is clearly stated that multilingualism and the development of African languages should be promoted in schools (Heugh, 1999). Despite this being provided for in the Constitution, the Department of Education is still overlooking home language as a medium of instruction from grade 4 to grade 12. The concern from their point of view is to develop materials in all 11 official languages, training of teachers for bilingual teaching, and

the shortage of funds and corruption, which are all factors contributing to history repeating itself once again, with the focus on home language as an instruction to all (Msila, 2007).

A language policy does exist for South African schools, but no policy will achieve anything without the correct execution thereof (Heugh, 2000). Language in education will without a doubt become the main reason for success or the lack thereof, and it seems certain that English will become the main medium of instruction for the majority of schools, unless something extraordinary happens.

Language often forms a barrier in bringing the youth together, and it negatively impacts relationships among communities and learners of different cultures in schools. In the South African Education system there are mainly two types of schools. The first is single medium schools, which refers to schools using one medium of instruction for all learners in all grades of the school (Department of Basic Education, 2010). The second is parallel medium schools, which refers to schools which practice parallel medium of instruction in all grades in the school and where races might be segregated due to a students' selection of language (Department of Basic Education, 2010). This formation of schools, combined with the knowledge gained of why black students chose English as a medium of instruction during Apartheid education, provides insight into the racial segregation of schools that is still apparent today.

According to Jansen (2004), after meetings with several principals in Afrikaans single medium High Schools, he failed in his attempt to convince them to transform to parallel medium schools. This would have opened the doors for the majority of black students that could only be taught in English as a medium of instruction, as Afrikaans cannot be seen as a viable option, especially if one takes historical events into account. Furthermore, he also pointed out the negative impact this has on the white Afrikaans students that never get the opportunity to mix with their fellow students and in turn get familiar with one another. Ndimande (2013) agrees with this and points out how some staff members in schools use language to separate races into different classrooms.

Post-Apartheid education was centred around inclusion for all students, but language as a medium of instruction is a definite loophole that still contributes to the segregation between

cultures (Ndimande, 2013). Furthermore, the lack of support given in the development of African languages should also be of concern (De Wet & Wolhuter, 2009). Ndimande (2013) agrees with this and notes that the importance of mother tongue as medium of instruction, and the loss of cultural values as a result of not using a native language, also have a negative effect on the students involved. Education should be a system of personality creation, and not merely one that stays unchanged for years to come.

Fiske and Ladd (2004) stating that since 1994, thousands of Black middle class individuals have moved to traditional white areas, yet almost no White individuals moved into traditional black areas. As mentioned before, there is a learning process taking place between individuals of different cultures when direct contact takes place. Consequently, direct contact is not possible. Crowne (2008) warns that, if neglected, such as in the above scenario, this in turn could lead to unsuitable conduct towards another culture and will negatively effect relationship building between the relevant cultures. Therefore, in circumstances such as these, language can be seen as a barrier to learning.

Moving towards a Higher Education perspective, it is important to note that many of the problems discussed and pointed out are also prominent in Higher Education institutions. Importantly to note is that English acts as a second or third language for most students in South Africa and therefore acts as a barrier to success for most Black students (Mouton et al., 2013). As in schools, it seems that Government's efforts to create these ideals fail when implementing them in society. We have eleven official languages, which in turn creates logistical problems concerning adequate number of teachers to teach in these languages, as well as translation to all these languages in all subjects at all schools and Universities. Accordingly, language creates the opportunity to access to one's full potential (Department of Education, 2002).

Therefore, a compromise will have to take place in Higher Education situations. When looking at the problems that society are faced with, namely quality education and social segregation, one needs to realise that all problems will not be solved at once (De Wet & Wolhuter, 2009). It is therefore impossible to create a society that strives to fulfil the Constitutional rights to home language education, as well as striving not to create further separation and contributing to a diverse classroom (Heugh, 1999). One such an example that might be a step in the right

direction is that of the University of Witwatersrand in Johannesburg, which declared that Sesotho would soon be partly used as an instructional language on their campuses (Ndimande, 2013). Another example is the new language policy adopted by the University of the Free State that holds English as the primary language of instruction from the 1st of January 2017 (Grobler, 2017). In agreement with this, Stellenbosch University also approved a similar language policy that designated English as the primary language of instruction from the 1st of January 2017 (Etheridge, 2016).

However, unless some fundamental changes in policy and resources occur, language will continue to be a barrier to admissions in Higher Education institutions, and it will continue to separate English and Afrikaans students.

3.5 IDENTITY AS AN INTEGRAL PART OF CULTURAL INTELLIGENCE

The term identity can be seen as a personal and collective perception of oneself, and it is influenced by a number of factors, including personal, communal and theoretical factors that influence one's daily life (Adams, Van de Vijver, & De Bruin, 2012). The personal perception of oneself comprises of skills and qualities that one would familiarise oneself with, which will affect one's daily actions. On the other hand, the collective perception refers to the group one belong to, specifically pointing to their values, ideas and what type of behaviour is expected of oneself (Adams et al., 2012). This effect on one's actions is noteworthy, because it happens subconsciously when contact does occur with other cultures (Botha, 2014).

Furthermore, Hadland (2008, p. 17) defines identity as "The sense and continuity of self that first develops as the child differentiates from parents and family and takes up an individualised place in society." This is further emphasized by Riesman (2015), describing identity as a way one feels about oneself because of other people one came in contact with. Therefore, someone who only came into contact with people similar to himself or herself, will have an identity only limited to what they know.

Accordingly, South Africans and their identities are categorized according to their ethnic origins, religious affiliation, linguistics, class and political affiliation (Hadland, 2008). Also, ethnicity is undoubtedly the easiest way to identify someone by. The four main racial groups

in South Africa consist of the African, Coloured, Indian and White groups. Africans represent the largest proportion, namely 79.4%, of the population, Coloureds 8.8%, Indians 2.6%, and Whites 9.2% of the population (Stats SA, 2010). In contrast to this, Hadland (2008) believes that identity is only a fictional community to which someone believes he/she belongs, especially when constructing his/her identity on the basis of ethnicity. Nevertheless, individual or collective identity, both contribute to the way one perceives oneself and those around you, whether it be fictional or not (Riesman, 2015).

Furthermore, research done indicated that opinions of one's own skilled identity can also influence task performance and eagerness to handle challenging situations (Beijaard, Verloop, & Vermunt, 2000). Therefore, someone who formed a clear identity through daily experiences, either personally or collectively, where self-evaluation was applied, will most probably have a better sense of himself/herself and what is expected of him/her (Beijaard et al., 2000). Furthermore, one's formulation of identity will influence the people one came in contact with, and the way one was raised; type of education one received; what happened in one's past, and one's age are all factors that influences ones actions towards other people (Beijaard et al., 2000).

Nevertheless, teaching and lecturing as a profession currently poses more challenges than ever been before (Beijaard et al., 2000). In the past a teacher was merely seen as someone who had adequate knowledge of a subject and some qualities to reveal this knowledge to his students. In contrast to this, teaching has transformed to a profession where teachers have to engage with learners and their way of thinking, also being sensitive to the new challenges it poses to them each day, and alternatively acting as a facilitator of learning (Beijaard et al., 2000). Accordingly, the perception of oneself, which was formed through one's personal and social identity, will also have an influence on one's professional identity and the way one handles daily activities.

Furthermore, the identity of a student will influence their whole being. The individual and collective perception one has of oneself, will most certainly have an effect on all one's actions and should also be taken into consideration when dealing with other people who are different from oneself (Hadland, 2008). This should be taken into consideration when planning a curriculum based on understandings of identity and diversity in society.

3.6 CULTURE

South Africa is regularly regarded as the rainbow nation, by the way referring to the cultural diversity in the country, also referring to the eleven official languages used.

Moreover, diversity is nothing new to South Africans, despite our troubled pasts. South African have been living in a diverse society for hundreds of years, compared to the rest of the world (Meier & Hartell, 2009). Therefore, it should be seen as an opportunity that we were presented with, but that was never fully realised until it was too late. This was especially evident during Apartheid, where racial segregation forced cultural groups to be kept separate from one another (Ramsay, 2009).

Culture describes many characteristics, such as: gender, appearance, context, ethics, music, food and traditions. It is in many cases connected to a certain racial group, but can function separate from it as well (Riesman, 2015). South African cultures are largely unconnected to one another due to geographical boundaries that separate racial groups. In addition to this, Sternberg (2006) puts this separation down merely to the fact that cultures reflect and perform differently on things and will tend to stay together with their compatriots. Moral ethics and traits such as these has helped cultures survive in their environments (Hampden-Turner, 2006).

Despite the change that was brought through the destruction of Apartheid, most families will still choose to stay in neighbourhoods where people similar to them stay (Botha, 2014). This tendency towards unity is still dividing us and contributes to separation between cultures (Botha, 2014). Although people work together in a diverse workplace, in most cases we live separate from one another. According to Jansen (2004), a fundamental element of learning that we tend to overlook is to find out what it would be like to stay together. This lack of knowledge of someone else's culture can bring about barriers against people of another culture. These may include stereotyping, and social categorisations and attributions towards another culture (Botha, 2014).

Nevertheless, cultures differ from one another and learning will not occur the same for all people. Values and practices differ, as well as the way problems are dealt with. Furthermore,

it has become clear that culture also has an influence on the way someone prefers to learn and how difficult they might find it to do so (Ramsay, 2009). Therefore, if a teacher conducts his/her classroom lessons only according to his/her learning style that would definitely have a direct effect on the success of learners that are of different cultural groups than the teacher (Bennett & Bennett, 2003).

Looking at culture in a symbolic way might help as well. Symbolically speaking, I would like to compare culture to a backpack a student carries around. Inside this backpack one might find different items such as a book, laptop, food, stationery etc. Surprisingly, some students' backpacks might be similar to others', or completely different. The possibilities of ways in which it might be the same or differ are endless. In brief, what students carry around in a symbolic way are essentially their values, beliefs and feelings towards certain things.

Finally and more importantly, the significance of cultural issues, together with the mental power thereof, form the basis of understanding others other than oneself (Ang et al., 2007a). Therefore, forming respect for other cultures starts with realising that one's culture is not more important than different cultures to one's own. Consequently, this realisation will help individuals to form a basis for gaining new skills in working with others.

3.7 CULTURAL INTELLIGENCE

CQ, as an isolated construct, refers mainly to one's cross-cultural capabilities (Ang et al., 2007a). CQ is deconstructed here to analyse the important aspects thereof. This includes the four domains of CQ and an analysis of recent findings in studies where the focus was on CQ as a construct.

3.7.1 OVERVIEW OF CULTURAL INTELLIGENCE

Interaction with people like ourselves comes naturally in a sense. However, interactions with people who act differently to us tend to be more problematic for most people (Thomas, 2010). Furthermore, the way we interact with different cultures is subconsciously embedded in our values and norms and come to us subconsciously (Bucker, Furrer, & Lin, 2015).

Furthermore, CQ or a measure thereof, is becoming essential for progressive cross cultural interaction in any circumstances. CQ refers to an individual's capability to effectively interact

across different cultures, but, more importantly, the need to understand those differences and learning from them (Bucker et al., 2015). This is especially noteworthy in today's classrooms where the teacher/lecturer needs to look after the minority of learners different from the rest in assisting them in their studies (Ramis & Krastina, 2010). Failure to do so will be more applicable in an instructive environment where the teacher or lecturer will have a direct impact on the lives of the students in his/her classroom.

Moreover, a definite need for a specific kind of intelligence is needed to behave in an appropriate manner. Nevertheless, only a few studies exist which could contribute to better intercultural relations (Ang et al., 2007a).

Intelligence, as an expression, is hard to describe. It is, however something, that is associated with what a specific culture perceives as intelligence (Sternberg & Grigorenko, 2004). When focusing on schools, which mainly assess academic intelligence, the reality is that some children identify with certain topics easier than others. This can merely be due to the fact that one child might have had more opportunities to experience a matter in his daily life than the other, and, more importantly, refers to a certain type of intelligence, not intelligence as a whole (Ramis & Krastina, 2010).

Therefore, learning should not only be seen as a cognitive process, but something that is influenced by many factors, including the people one spend time with (Ramis & Krastina, 2010). Moreover, one's intentions are connected to one's culture and what one perceive as being well-mannered. However, some people would find it easier to interact and understand other cultures (Earley & Mosakowski, 2004). This unexplained phenomenon is commonly known as Cultural intelligence. Hereafter, Cultural intelligence will be referred to as CQ, which, according to Ang et al. (2007a), can be seen as a practical approach to globalisation and diversity.

Thomas et al. (2008) credited this unexplained ground to the acquisition of traits and information across cultures. More importantly, when someone spends time with another culture there seems to be some sort of learning process taking place that gives way to new knowledge being gained. CQ consequently differs from successful intelligence, whereby the individual could be perceived as being intelligent in his cultural setting, despite not having CQ

towards other cultures. Therefore, the perception of intelligence differs in each perceptive structure an individual might find himself in (Sternberg & Grigorenko, 2004). More importantly, it illustrates how CQ differs from what is commonly associated with intelligence (Sternberg, 2006). In some instances, a stranger to another's culture seemingly has some sort of capability to understand the other's culture in the same way that his friends and family would (Earley & Mosakowski, 2004). In a symbolic way, I would compare CQ to a chameleon in many ways. Like a chameleon, this person would change the way they are, so that they would in a sense blend in with the others.

This provides a definite advantage to the person that has acquired CQ, when interacting with cultures other than his own, thereby preventing a variety of misinterpretations, encounters and prejudice towards one another. This acquirement of CQ is defined by Earley and Mosakowski, (2004) as an unordinary talent to understand people's behaviour and acting on it accordingly. In other words, such a person might follow a process where the person has thoughts on the situation he/she is in and anticipates the outcome before engaging in the situation. This understanding of another culture might not be enough to gain CQ, however. The concept of CQ is far more complex than this. CQ should be seen as a construct that can assist someone to become accustomed to, choose, and influence the cultural situation they might find themselves in (Thomas et al., 2008). In conclusion, cross cultural encounters are happening on a daily basis. This will only increase and it is essential for all students to make sense of the variety of cultures they come in contact with. On the whole, students who gain CQ will have a definite advantage during their student and working lives to come.

3.7.2 FOUR DOMAINS OF CULTURAL INTELLIGENCE

Thomas et al. (2008) refer to four domains of CQ, namely Meta-cognitive-, Cognitive- , Motivational- and Behavioural CQ, which together formulate the total being of CQ.

3.7.2.1 META-COGNITIVE CULTURAL INTELLIGENCE

Meta-cognition, as a domain of CQ, is clearly separated from culture and focuses on the mental ability of individuals to control cognitive processes in the mind (Thomas et al., 2008). In addition to that, it is a psychological process whereby cultural information is understood (Ang et al., 2007a). Moreover, it refers to the need to learn about these differences in many

ways (Bucker et al., 2015). It is, therefore, thinking about one's thoughts in a sense. Thomas et al. (2008) feel that Meta-cognitive thoughts are premeditated and the thought process involved will analyse any given situation before acting on it.

Also, when connecting culture and meta-cognition, Thomas et al. (2008) perceive cultural meta-cognition as a precise domain of thinking, focusing on culture and every aspect thereof. For example, when a White Afrikaner teacher in a diverse school is teaching a class on History, he/she has to bear in mind that the perceptions and ideas he/she holds over a topic might not be considered the way the child would. Therefore, it is a system of getting information on other cultures and using this information for one's own good, especially in probing stereotypes about another culture (MacNab, 2012). This first part of the domain is being conscious of the cultures in front of oneself. The second part of the domain is being aware of one's own feelings, driving force, traits and ideals, yet also being aware of these factors when working with different cultures and acting in an insightful way to build relationships that could, to a certain extent, lead to mutual respect (Thomas et al., 2008).

More importantly, higher levels of Meta-cognitive CQ will formulate a realisation about the working of other cultures, even before encountering them. It will also assist someone with superior levels to identify the right time to encounter a new cultural group (Ang et al., 2007a). Accordingly, a teacher with high Meta-cognitive CQ would most likely be able to predict ways in which he/she can assist learners of cultures other than his/her own. The process of thinking about his/her thoughts will ensure that he/she realises the differences in cultures and ways to engage with the differences between cultures.

3.7.2.2 COGNITIVE CULTURAL INTELLIGENCE

Cognitive CQ, commonly referred to as Cultural knowledge, refers to the informational facet of CQ (Thomas et al., 2008). MacNab (2012) refers to it as thought awareness. Forming knowledge and gaining information is the root of CQ, whereby one learns from perceiving the other culture (Thomas et al., 2008). More importantly, it reflects one's intellectual abilities and the amount thereof that one might possess (Ang et al., 2007a). This knowledge could also include previous knowledge one gained from schooling, stories or stereotypes which can be acknowledged or else eliminated through experiences.

Furthermore, it conveys one's understanding of cultural patterns and what one perceives as normal (Ang et al., 2007a). Every culture functions in a certain way, with certain things that give a value to them. This might be either in a social or theoretical way. This observance of the other culture, in addition to the knowledge one already has about them, the knowledge of oneself and one's culture is the starting point to gaining any form of CQ knowledge (Thomas et al., 2008). More importantly, it involves the acknowledgment of different cultures and pinpointing these exact differences that may arise from studying them, which, accordingly, is the fundamental basis for intelligence (Sternberg, 2006).

In other words, this basis will give one a better understanding of one's experiences with the group, helping one anticipate communal relations and in the end providing one with a sense of logic to act fruitfully when dealing with intercultural situations. Importantly, the more experience one gains in either studying or dealing with a different cultures, the more one will ultimately act accordingly towards other cultures, which will enable one to deal with future situations in a proper manner of conduct (Thomas et al., 2008).

3.7.2.3 MOTIVATIONAL CULTURAL INTELLIGENCE

Motivational CQ can, in a sense can be compared to one's own heart (MacNab, 2012). Someone with a strong heart can take criticism, and still reach the goals that they set for themselves. Skills referring to this trait are persistence in what one wants to achieve, and also not cracking easily under pressure when participating in mixed cultural activities. Motivational CQ can be seen as a bridge to Meta-cognitive -, Cognitive and Behavioural CQ.

Despite being a crucial part of CQ, it cannot function alone as a domain of CQ. The reason for this is not complicated. If someone has no prior knowledge on a certain culture and has no thought processes when engaging a new culture, he/she will most probably be set up for failure, especially if the wrong type of behaviour is also portrayed to them. In other words, motivational intelligence refers to one's ability to believe that one will succeed, as well as having a valid reason why one wants to succeed (Ang et al., 2007a). This ability to believe in oneself will help one focus one's time and thoughts on the knowledge the other culture will provide one with once one engages with them, therefore achieving the aim one set out for oneself (Ang et al., 2007a). Individuals with a clear objective in mind will use this curiosity and self-assurance of theirs to become accustomed to the new culture (Ang et al., 2007a).

Accordingly, someone will have the skills needed to adjust to another culture and gather information to help them gain CQ (Ward et al., 2008).

3.7.2.4 BEHAVIOURAL CULTURAL INTELLIGENCE

Behavioural CQ can be seen as the outcome of the other three intelligences. It is the domain that leads to the execution of one's goals (MacNab, 2012). In other words, it is the practical implication of one's ideas, and comes as a result of all the previous domains completed beforehand. According to Thomas et al. (2008), there are certain traits or skills that can be correlated to a person gaining CQ. The first and most important one is broad-mindedness, accepting the fact that one's journey will not be trouble-free in a sense. Secondly one will have to be understanding towards their ideas and not critical by comparing their culture to one's own culture. Lastly, and also importantly, one will have to act in a manner that is perceived as good mannered to their culture, in order to create openness and participation.

Moreover, Ang et al. (2007a) reiterate this idea by adding that one needs to use suitable spoken and non-spoken actions when interacting with new cultures. Getting accustomed to the new culture should form new behavioural traits which will become part of oneself, instead of acting it out in a sense (Ward et al., 2008). When behavioural traits become part of oneself, a high regard toward the other culture will be projected, which will lead to positive interactions. These behavioural traits are generally well-known as a set of qualities a person possesses. For example, someone who is frightened to talk in front of people will find it difficult to become a teacher, or at least a thriving one. In each situation we encounter, we use basic skill sets that we have acquired throughout the years. More importantly it should be noted that skills can be acquired, although it might not be in a trouble-free way. When exhibiting high Behavioural CQ, good behavioural character will become accustomed to someone portraying it. These may include verbal skills, tone of voice, motions, and facial expressions (Ang et al., 2007a).

Studies have shown that high levels of Behavioural CQ can also direct someone to anticipate job performance beforehand, which in truth can lead to the usage of time in a more productive way (Ward et al., 2008). Accordingly, the four domains of CQ; Meta-cognitive CQ, Cognitive CQ, Motivational CQ, and Behavioural CQ, are varied capabilities that form the total being of CQ. In addition to that, CQ will only apply when someone portrays all four domains

of CQ (MacNab, 2012). Moreover, it is something that can be taught to any willing individual in the world.

In spite of the many factors and domains that influence CQ, it will always be linked to identity, as the one cannot function without the other (Botha, 2014). Identity will act as a foundation for CQ, as it is a set of characteristics of one's being, what one believes in and what one is comfortable or not comfortable with. Moreover one's identity is the key element controlling oneself in making decisions (Botha, 2014). It therefore also refers to what someone thinks of themselves when describing feelings of culture, beliefs and values (Matthews, 2015). Anyone with a strong knowledge of their own identity, knowing exactly what they believe in and the reasons for that, will feel more relaxed and engage with much more ease with another person with different behaviour than theirs.

On the contrary, someone with a weak knowledge of their own identity, who does not know why they believe in something, will not be able to handle a situation in an appropriate manner if someone differs from their viewpoints (Botha, 2014). Therefore, a stronger knowledge of one's own identity leads to a higher CQ, which will enable one to deal with cross-cultural relations. The situation is not hopeless for someone with a weak knowledge of his/her own identity, it should rather be seen as challenge to first formulate his/her own identity, before engaging with new cultures and gaining CQ. Seemingly, it is important to note that the gaining of this new intelligence can act for the benefit of the one who has gained it and the ones they share it with.

The acquisition of CQ is not limited to certain individuals; anyone that spends time with cultures other than their own will develop some level of CQ. According to Earley and Mosakowski (2004), CQ can be acquired if a gap in another culture can be identified. This, according to them, would be easier for someone who is confused with their own culture, as they are used to monitoring their peers in their own cultures. Secondly, by simply being kind to another culture will not let them share their thoughts and ideas with oneself, it will merely lead to kindness towards one another. Interaction has to take place, whether it is through a common joke, a hand gesture or greeting, sharing of food, living together, or discussions on certain ideas. Someone with superior levels of CQ will find it easier to connect in this way. In addition to that, someone with superior CQ will feel relaxed in these new environments.

Despite the apparent challenge that one is faced with, enthusiasm and a purposeful drive is key to gaining more CQ. Someone who engages without any objective, might be unsuccessful in operating in a diverse setting and will therefore fail in gaining new knowledge (Earley and Mosakowski, 2004).

3.7.2.5 SUMMARY AND IMPLEMENTATION

For the purpose of this study, CQ was measured with the 20-item, Four Factor Model of CQ Scale developed and validated by (Ang et al., 2007b). The scale includes four items for Meta-cognitive CQ, six for Cognitive CQ, five for Motivational CQ, and five for Behavioural CQ (cf. 4.1). Trial items include, “I am conscious of the cultural knowledge I apply to cross cultural interaction” for Meta-cognitive CQ, “I know the rules for expressing non-verbal behaviours in other cultures” for Cognitive CQ, “I enjoy interacting with people from different cultures” for Motivational CQ, and “I change my verbal behaviour when a cross-cultural interactions requires it” for Behavioural CQ.

On the whole it is evident that there are many factors contributing towards knowledge of culture and the use thereof. What we perceive as a practical way of life, in which some individuals would find it easy to interact, can in fact be perceived as a well-contrasted knowledge that was influenced by many factors. It is evident that one takes history into account whilst dealing with cultural issues, also acknowledging the importance language plays, together with identity. These factors, in turn, forms the basis of a culture and understanding this, together with the way a certain culture works after spending time with them.

In brief, CQ can be seen as a construct consisting out of four domains that can contribute to effective cross-cultural adaption and serve as an effective tool when dealing with any mixed cultural situation. It allows a person to respond well to other people. Therefore, individuals using CQ to their advantage would find it easy to flourish in various cultural settings, therefore adapting their behaviour will become second nature for both their benefit and those they are in contact with.

3.8 OTHER STUDIES ON CULTURAL INTELLIGENCE

Although CQ is less well-known than other intelligences, such as emotional intelligence and cognitive intelligence, a number of studies in different contexts have been conducted. Here I discuss the findings of four of them, in order to provide a better understanding of the concept. What will follow is a short summary of each research study and its broad results based on CQ.

3.8.1 CULTURAL INTELLIGENT WORKERS

The study was conducted to analyse the impact of CQ on task performance in the workplace (Jyoti & Kour, 2015). This was done by collecting data from 225 managers of banks in the Jammu province in India. The study was verified using confirmatory factor analysis (CFA). The results of the study revealed that CQ positively affected task performance of Indian managers. According to the findings, Indian managers needed to deal with diversity through their staff members on a daily basis, and, therefore, in order to manage their staff effectively, they needed to understand those cultural differences and learn ways to act accordingly towards other cultures (Jyoti & Kour, 2015). Furthermore, the study also found that managers with higher levels of CQ were also higher in cultural adjustment (Jyoti & Kour, 2015).

3.8.2 CULTURAL INTELLIGENCE AMONG FOREIGN STUDENTS IN JORDANIA

The predominant aim of this research study was to determine the level of CQ among international students in Jordanian universities and to determine any differences in their levels of CQ, when compared to gender and nationality (Al-Jarrah, 2016). This was conducted using the CQS survey questionnaire on 169 participants; 101 female students and 68 male students. The study analysed the scores of the different means and found that Meta-cognitive CQ scored the highest (M=3.9), followed by Motivational CQ (M=3.89) Cognitive CQ (M=3.77) and, finally, Behavioural CQ (M=3.75). When analysing the different groups, American students scored higher scores, compared to other nationalities, followed by European students, and then Korean students (Al-Jarrah, 2016). The researcher was of the opinion that the experiences of the students used in the sample was efficient for drawing the conclusion that it might occur in all Universities in Jordania.

3.8.3 CULTURAL INTELLIGENCE AND STUDENT ADJUSTMENT

For the purpose of this study, 355 students attending a University in the United States of America completed three types of survey questionnaires that each measured different aspects connected to CQ. This was done to examine relationships that might exist between the different constructs. To measure personality, they completed the HEXACO Personality Inventory which measures six domains. To measure CQ, the CQS scale was used measuring the four domains of CQ and, finally, students completed a 14-item scale adapted to measure adjustment (Shu, McAbee, & Ayman, 2017). Findings showed that both personality traits and CQ were linked to cross-cultural adjustment (Shu et al., 2017).

Finally, Shu et al., (2017, p. 24) concluded the following:

“the present research contributes to our understanding of the roles of personality and Cultural intelligence in predicting cross-cultural adjustment. Rather than considering Cultural intelligence and personality as in conflict, researchers and practitioners should examine these characteristics in conjunction to more accurately predict cross-cultural adjustment.”

The findings several other studies contribute to an understanding that personality and CQ are closely connected and show the influence that personality and identity have on CQ.

3.8.4 IDENTITY, PERSONALITY AND CULTURAL INTELLIGENCE

The purpose of this research study was to find a relationship between CQ, identity and personality (Botha, 2014). This research was conducted on 252 students on the North West University campus in Potchefstroom. The measuring instruments included the Erickson Psychosocial Stage Inventory (EPSI), the South African Personality Inventory (SAPI) questionnaire, and, finally, the Four Factor Model of CQS questionnaire. The study mainly found that religious identity and ethnic identity had a relationship with Cognitive CQ. Soft heartedness and conscientiousness were closely linked to Behavioural CQ, and, finally, extroversion was closely connected to Motivational CQ (Botha, 2014).

3.9 SYNOPSIS OF THE FINDINGS

Table 1 reflects the main findings of the literature review in determining the importance of CQ in the South African context.

Table 1: Synopsis of the findings of the literature review on the domains of CQ

Domains of CQ	Literature suggests that:	Reference
Meta-cognitive	Teachers should be mindful of the fact that not all cultures prefer to learn in the same way.	3.5
	A realisation is needed that one's culture is not more important than another culture.	3.5
	An understanding of the differences between cultures and learning from them forms the foundation of Meta-cognitive CQ.	3.7.2.1
	Meta-cognitive CQ is the mental ability to control thought processes in one's mind.	3.7.2.1
	Meta-cognitive CQ is a psychological process where cultural information is understood.	3.7.2.1
	Meta-cognitive thoughts are premeditated and involves the analysis of a situation before acting.	3.7.2.1
	Meta-cognitive CQ is the ability to be aware of one's own feelings towards other cultures.	3.7.2.1
	Someone with high levels of Meta-cognitive CQ will formulate a realisation in working with other cultures before a physical encounter occurs.	3.7.2.1
	Someone with a strong identity will be able to anticipate an appropriate time to encounter another cultural group.	3.7.2.1
	CQ is an unordinary talent to understand people's behaviour.	3.7.2.1
	Someone with a firm understanding of his/her identity and high levels of CQ will have high prediction abilities in cultural adjustment.	3.8.3
Cognitive	Education is always about identity formation.	3.2
	Classrooms are also influenced by the outside world.	3.2
	A hidden curriculum is unmistakably used in teaching for ulterior motives of those in governance.	3.2.1
	Teachers can act as change agents in classrooms.	3.2.3

	Language as a means of learning creates separation between cultural groups.	3.3
	Education should be a system of personality creation.	3.3
	Identity is influenced by personal, communal and theoretical factors.	3.4
	Identity affects one's actions.	3.4
	Who one comes in contact with influences one's identity.	3.4
	Communal identity is a fictional community.	3.4
	All types of identity have an influence on professional identity.	3.4
Motivational CQ	A lack of knowledge of someone's culture can bring about barriers against his/her culture.	3.5
	Learning is influenced by the people one spend time with.	3.6
	Cognitive CQ is forming knowledge and gaining information.	3.7.2.3
	Cognitive CQ conveys one's understanding of other cultures.	3.7.2.3
	Cognitive CQ involves the acknowledgement of different cultures and studying the differences.	3.7.2.3
Behavioural CQ	Simply being kind to another culture will not lead to any gaining of knowledge about that culture.	3.7.2.4
	Religious and ethnical identity is closely linked to Cognitive CQ	3.8.4
	CQ is needed to behave in an appropriate way towards another culture.	3.6.1
	Behavioural CQ provides an advantage to someone interacting with another culture.	3.6.1
	Behavioural CQ is the execution of one's goals in a sense.	3.7.2.4
	Behavioural CQ is a result of the other domains of CQ.	3.7.2.4
	One needs to use suitable spoken and non-spoken actions when interacting with new cultures.	3.7.2.4
	Behavioural traits become part of oneself.	3.7.2.4
	Behavioural CQ projects a high regard towards other cultures.	3.7.2.4

	Behavioural CQ leads to a more productive usage of time.	3.7.2.4
	Identity is a key element in controlling actions.	3.7.2.4
	Behavioural CQ leads to successful adaptation of behaviour in various settings. This is to the benefit of both those one comes in contact with, and oneself.	3.7.2.4
	Higher CQ leads to higher productivity and higher levels of cultural adjustment.	3.8.1
	Kindness and conscientiousness can be linked to Behavioural CQ.	3.8.4

3.10 CONCLUSION

In this chapter a review of relevant literature was done by directing the literature towards the historical context of South African education. This contributed to an understanding of the influence education had and still has on different cultural groups in South Africa. Following this, the important role language played in all of this was explored. Finally, a thorough study was done on culture and CQ as a construct.

CHAPTER 4: PRE- AND POST-TEST SURVEY RESULTS

4.1 INTRODUCTION

Thus far in the study I explained, in light of our history, how important it is for people from different backgrounds and cultures to be able to socialise with ease. I also emphasised the factors that influenced segregation amongst cultures. I explained what CQ entails and specifically focused on the different factors it consists of.

Any learning unit, such as a module at university, has to have a set out strategy to achieve certain outcomes for the relevant students. Similarly, Education modules for Education students are planned to achieve a desired outcome in the students taking part in the module (Young et al., 2015). Still, a hidden curriculum exists with embedded principles, activities and actions that can either hinder or benefit the positive development of a child (Alsubaie, 2015). Despite the fact that the hidden curriculum might influence students negatively, it plays an important role in the development of attitudes, knowledge and behaviour in students, whether positively or negatively (Çengel & Türkoğlu, 2016). There could furthermore be unintended outcomes, without the module writers being aware of them.

In this chapter, I report on the survey results measuring the possible change in CQ of students at the beginning and the end of the first semester, after one group has been exposed to a module on diversity and the other not.

The self-reported Four Factor Model of CQ scale (CQS) was used to generate quantitative data through a survey questionnaire (cf. 3.7.2.5). Importantly, this was conducted on two separate groups to investigate any probable differences in CQ between them. Respondents were asked to use a five-point Likert-type scale range from “strongly disagree” (1) to “strongly agree” (5) to indicate the extent to which each item described their capabilities. The self-assessment scale offers understanding into an individual’s current CQ. Questions 1 to 6 share insight into an individuals’ awareness of other cultures. Questions 7 to 12 share insight into their understanding of other cultures, and questions 13 to 18 dealt with their conduct and skills when interacting with other cultures.

This allowed me to make use of both descriptive and differential statistics after capturing the data into MS Excel. I found no mistakes after doing quality checks. The data were then processed using the STATA-IC-11 statistical package of the University of the Free State for analysis.

This chapter aims to gain insight into the CQ of each group by analysing each domain of CQ. This supports a discussion that aimed to answer the predominant research question, *To what extent a single Education module focusing on issues of diversity can influence the Cultural intelligence of the students?*

4.2 SAMPLE DETAILS

Table 2: Demographic details of the sample

	Education group		Control group	
Gender	Before	After	Before	After
Male	4	7	2	3
Female	27	23	2	25
Not indicated	0	0	24	0
Total	31	30	28	28
Race	Before	After	Before	After
African	22	25	22	22
Coloured	7	5	4	5
White	2	0	0	1
Not indicated	0	0	2	0
Total	31	30	28	28
Age	Before	After	Before	After
18-19	10	7	13	11
20-21	10	11	12	16
22-23	5	5	0	0
24-25	6	7	1	1
26 and older	0	0	0	0
Not indicated	0	0	2	0
Total	31	30	28	28

The sample is shared in order to familiarize the reader with the demographics of the participants that participated in the research study. I must point out that I did not track the students to see who took part during the pre-test, and who took part during the post-test. While it is possible that a few of the students only took part in one of the two, the vast majority took part both times.

4.3 RESULTS

The first section of this chapter compares CQ levels of the relevant groups at the start of the semester. The second and third section analyse the CQ of the specific groups at the end of the semester. Fourthly, a comparison in CQ levels at the end of the semester between the two groups is conducted, followed by a comparison of the trends. Lastly I provide information on each individual item, per domain of CQ.

4.3.1 INITIAL CULTURAL INTELLIGENCE LEVELS FOR BOTH GROUPS

The overall CQ of the two groups, measured at the start of the semester is displayed in the figure below.

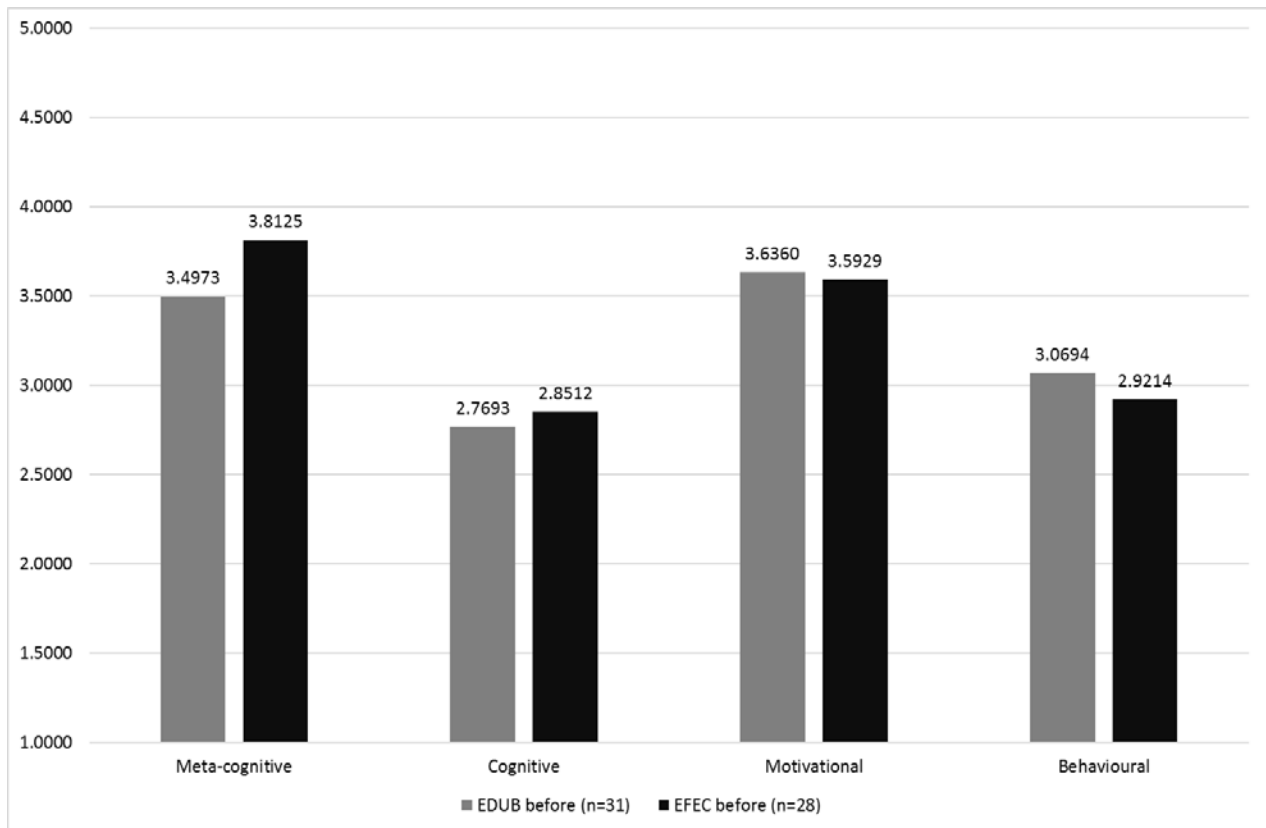


Figure 3: Cultural intelligence levels of the two groups of students at the start of the first semester

At a glance, the Meta-cognitive CQ and Cognitive CQ levels of the Education students at the start of the year were lower than that of the control group, while the motivational and Behavioural CQ levels were higher. The Motivational CQ of the Education students was the highest of the four, and the Meta-cognitive CQ of the control group was the highest of the four.

The statistical significances of these differences between the two groups were analysed using the *student's t-test*, and the results are displayed in the table below.

Table 3: CQ levels of the two groups at the start of the semester

Cultural intelligence domain	EDUB1613 (n= 31)		EFEC2614 (n=28)		Difference in means	t-value	p-value
	Mean <i>M</i>	Standard deviation <i>s</i>	Mean <i>M</i>	Standard deviation <i>s</i>			
Meta-cognitive	3.4973	0.5949	3.8125	0.6072	-0.3152	2.0103	0.0490*
Cognitive	2.7693	0.7406	2.8512	0.5617	-0.0818	0.4809	0.6325
Motivational	3.6360	0.7055	3.5929	0.5999	0.0432	0.2539	0.8005
Behavioural	3.0694	0.7864	2.9214	0.5533	0.1479	0.8417	0.4035

* Indicates a p value that is statistically significant on a 95% confidence level

From the analysis it can be seen that the Meta-cognitive CQ level of the Education students was statistically significantly lower than that of the other group at the start of the semester, prior to them taking the EDUB1613 module.

4.3.2 COMPARING THE CULTURAL INTELLIGENCE OF THE EDUCATION STUDENTS BEFORE AND AFTER THE SEMESTER

The possible change in CQ of the Education students is summarised in the figure below.

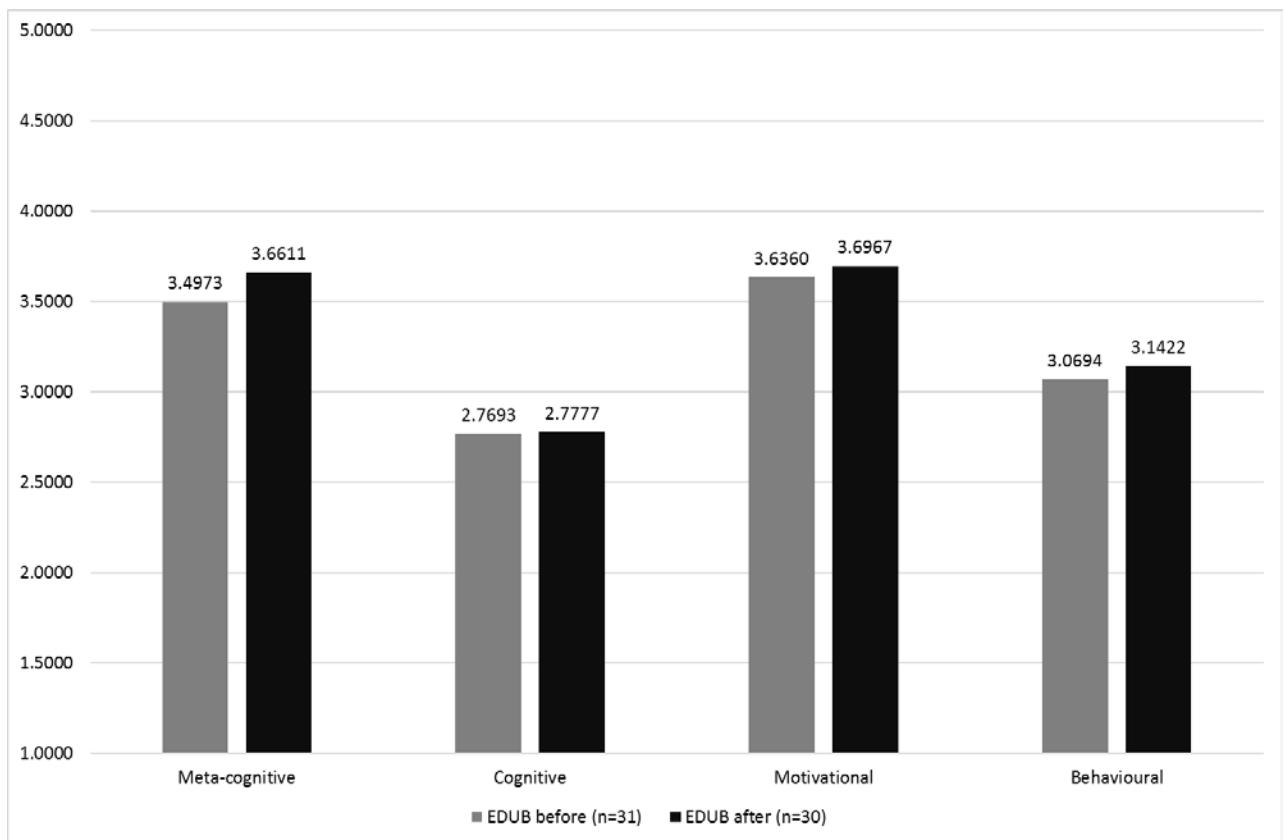


Figure 4: Comparing the Cultural intelligence levels of the Education students before and after taking the module

From the above figure, it appears as if the CQ levels of the Education students improved over all domains of CQ. The Meta-cognitive CQ of Education students improved the most, followed by Behavioural CQ, Motivational CQ, and Cognitive CQ.

The statistical significance of these differences between the two groups were analysed using the Student t-test, and the results are displayed in the table below.

Table 4: Comparative statistics on the pre- and post-test CQ levels for Education students

Cultural intelligence domain	Pre-test (n= 31)		Post-test (n=30)		Difference in means	t-value	p-value
	Mean <i>M</i>	Standard deviation <i>s</i>	Mean <i>M</i>	Standard deviation <i>s</i>			
Meta-cognitive	3.4973	0.1069	3.6611	0.1335	0.1638	0.9580	0.3420
Cognitive	2.7694	0.1330	2.7777	0.1041	0.0084	0.0499	0.9604
Motivational	3.6360	0.1267	3.6967	0.1434	0.0606	0.3169	0.7524
Behavioural	3.0693	0.1412	3.1422	0.1082	0.0729	0.4095	0.6837

* Indicates a p value that is statistically significant on a 95% confidence level

Based on the student responses after one academic semester, the Education students obtained higher levels of CQ in all domains of CQ, compared to their scores prior to taking the EDUB1613 module. The increase was the largest for Meta-cognitive CQ (+0.1638), followed by Behavioural CQ (+0.0729), Motivational CQ (+0.0606) and Cognitive CQ (+0.0084). However, from the results of the *student's t-test*, it seems that none of these differences were statistically significant.

4.3.3 COMPARING THE CULTURAL INTELLIGENCE OF THE CONTROL GROUP BEFORE AND AFTER THE SEMESTER

Exploring the possible change in CQ of the control group yielded results as displayed in the diagram below.

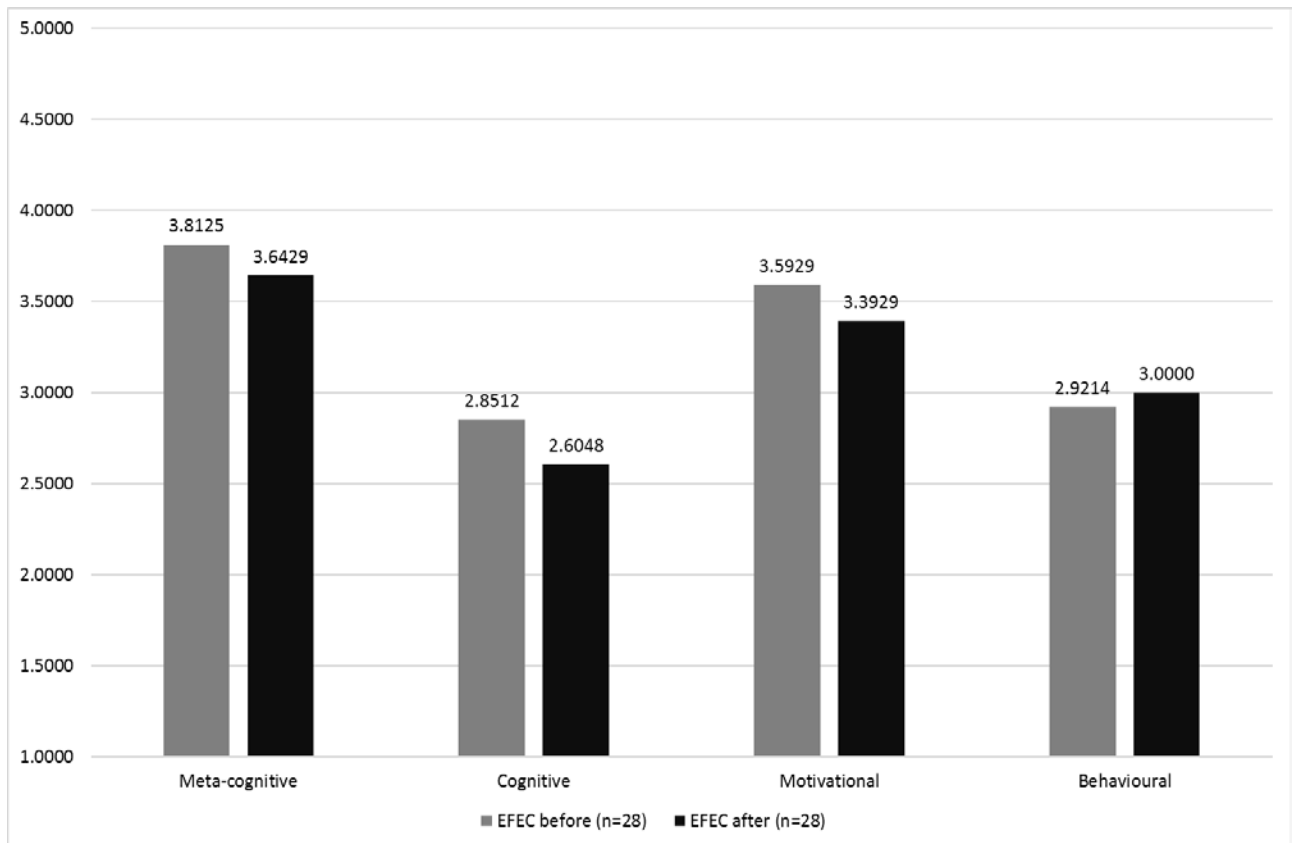


Figure 5: Comparing the Cultural intelligence levels of the control group at the start and the end of the first semester

At a glance, it appears that the CQ levels for the control group lessened over most domains of CQ. The biggest reduction came in Cognitive CQ, followed by Motivational CQ, and Meta-cognitive CQ. In contrast, the Behavioural CQ of the control group somewhat improved.

The statistical significance of these differences between the two groups were analysed using the *student's t-test*, and the results are displayed in the table below.

Table 5: Pre- and post-test CQ levels for the control group of students

Type of Cultural intelligence	Pre-test (n= 31)		Post-test (n=30)		Difference in means	t-value	p-value
	Mean <i>M</i>	Standard deviation <i>s</i>	Mean <i>M</i>	Standard deviation <i>s</i>			
Meta-cognitive	3.8125	0.1147	3.6429	0.1124	0.1696	1.0561	0.2955
Cognitive	2.8512	0.1062	2.6048	0.5617	0.2464	1.3685	0.1771
Motivational	3.5929	0.1134	3.3929	0.1496	0.2000	1.0655	0.2916
Behavioural	2.9214	0.1046	3.0000	0.1256	-0.0786	0.4808	0.6326

* Indicates a p value that is statistically significant on a 95% confidence level

Based on the student responses before and after the first academic semester, the control group of students only had higher levels of CQ in the Behavioural domain of CQ (+0.0786). The students showed a decrease in CQ for Meta-cognitive CQ (-0.1696), Cognitive CQ (-0.2464) and Motivational CQ (-0.2000). However, none of these differences seemed statistically significantly lower.

4.3.4 CULTURAL INTELLIGENCE LEVELS OF BOTH GROUPS AFTER THE FIRST SEMESTER

From the above it became clear that, while, in general, the Education students' CQ levels were slowly moving upwards, the CQ level of the control group showed a general downwards trend. I subsequently, compared the levels of the Education students after the first semester to the levels of the control group, taking into account the findings in 4.3.3 above.

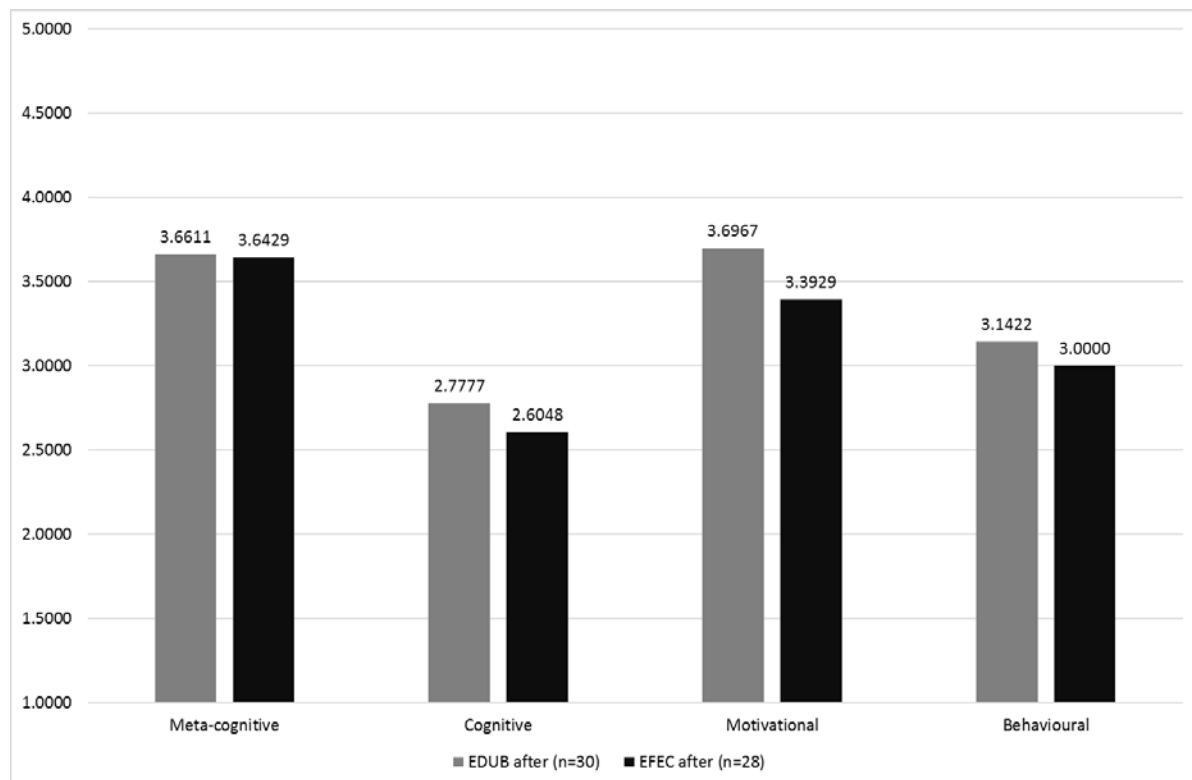


Figure 6: Cultural intelligence levels of the two groups of students at the end of the first semester

When examining Figure 6, it is clear that, after the semester, the Education group showed higher levels of CQ, compared to the control group of students. This was evident for all domains of CQ, with the biggest difference in Motivational CQ, followed by Cognitive CQ, Behavioural CQ and Meta-cognitive CQ. The Motivational CQ of Education students were the

highest of all four, while the Meta-cognitive CQ for the control group was the highest of the four.

The statistical significance of the above was measure and the results displayed in the table below

Table 6: CQ levels of the two groups at the end of the semester

Cultural intelligence domain	EDUB1613 (n= 31)		EFEC2614 (n=28)		Difference in means	t-value	p-value
	Mean <i>M</i>	Standard deviation <i>s</i>	Mean <i>M</i>	Standard deviation <i>s</i>			
Meta-cognitive	3.6611	0.7311	3.6429	0.5948	0.0183	0.1046	0.9171
Cognitive	2.7777	0.5700	2.6048	0.7697	0.1730	0.9674	0.0338*
Motivational	3.6967	0.7855	3.3929	0.7916	0.3038	1.4660	0.1481
Behavioural	3.1422	0.5926	3.0000	0.6268	0.1422	0.8580	0.3945

* Indicates a p value that is statistically significant on a 95% confidence level

When comparing the two groups of students using the differences in means in Table 6, it is clear that the Education students had higher levels of CQ in all domains of CQ, i.e. Meta-cognitive CQ (+0.0183), Cognitive CQ (+0.1730), Motivational CQ (+0.3038) and Behavioural CQ (+0.1422). The analysis of the results indicate that the Cognitive CQ of Education students was statistically significantly higher, compared to the control group students.

4.3.5 TRENDS

Considering the overall mean score of the four constructs for each group, certain trends could be identified, as seen in the diagram that follows.

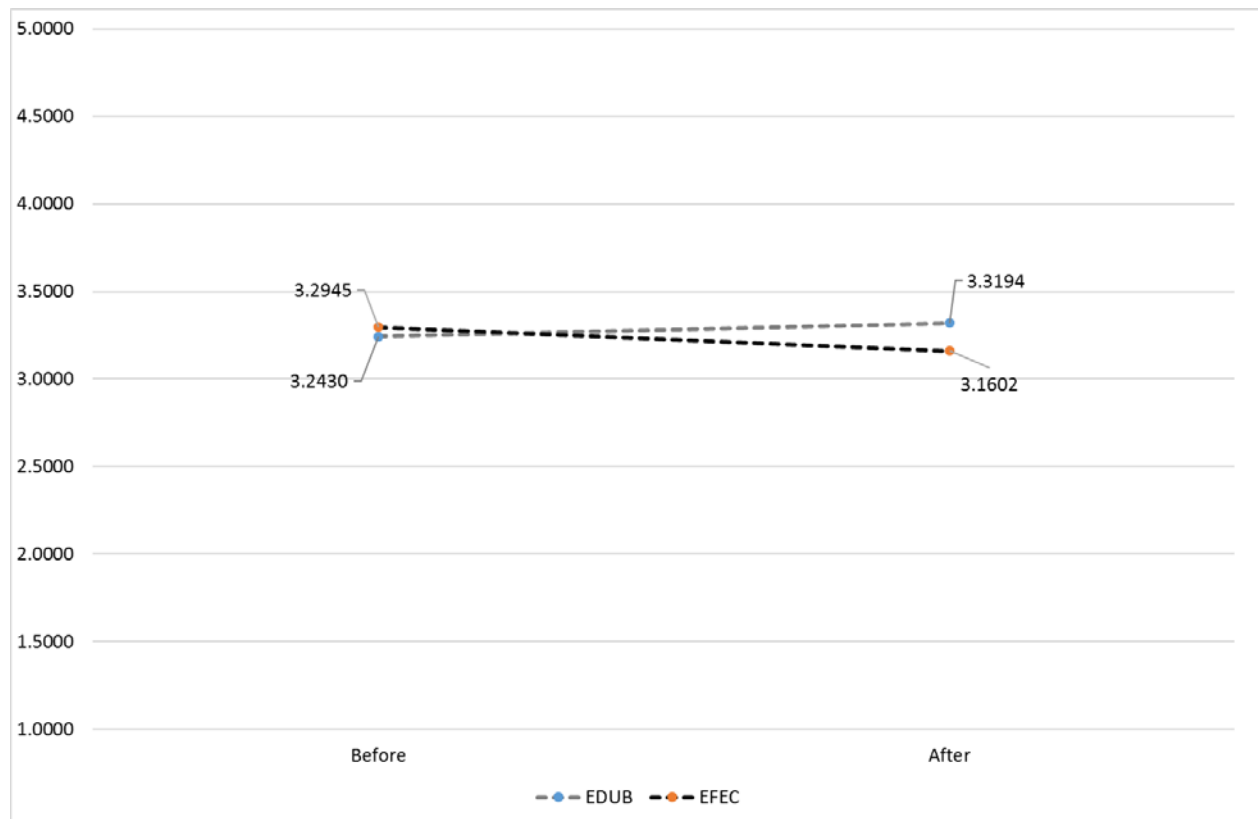


Figure 7: Trends of the two groups

The overall mean score of the Education group at the start of their first semester on campus was 3.2430, compared to the 3.2945 of the control group. The Education group then engaged with the EDUB1613 module content throughout the semester, while the control group was not exposed to any modules that dealt with diversity³. At the end of the semester, the overall mean score of the Education group at the end of the semester was 3.3194, which meant an increase of 0.0764. On the other hand, the mean score of the control group measured lower after the first semester by 0.1344, to 3.1602.

³ On the Bloemfontein and QwaQwa campus, all students are compelled to take UFS101 which also deals with issues of diversity amongst other things. The South campus students only enroll for this module in their second study year.

4.3.6 DETAILS PER CULTURAL INTELLIGENCE DOMAIN

The mean score on each of the items in the questionnaire was calculated. It is discussed per CQ domain. Although I include the scores of the control group, in view of the focus of the study, it is particularly important to note the aspects of CQ where the Education students did not score high, or showed a decrease.

4.3.6.1 META-COGNITIVE CULTURAL INTELLIGENCE

Meta-cognitive CQ was measured using four items on the questionnaire. The Meta-cognitive domain measures someone's capability to reflect on cultural interactions and to be aware of his/her own assumptions, ideas and emotions during interactions with different cultures (MacNab, 2012). The mean scores are displayed in Figure 8 below.

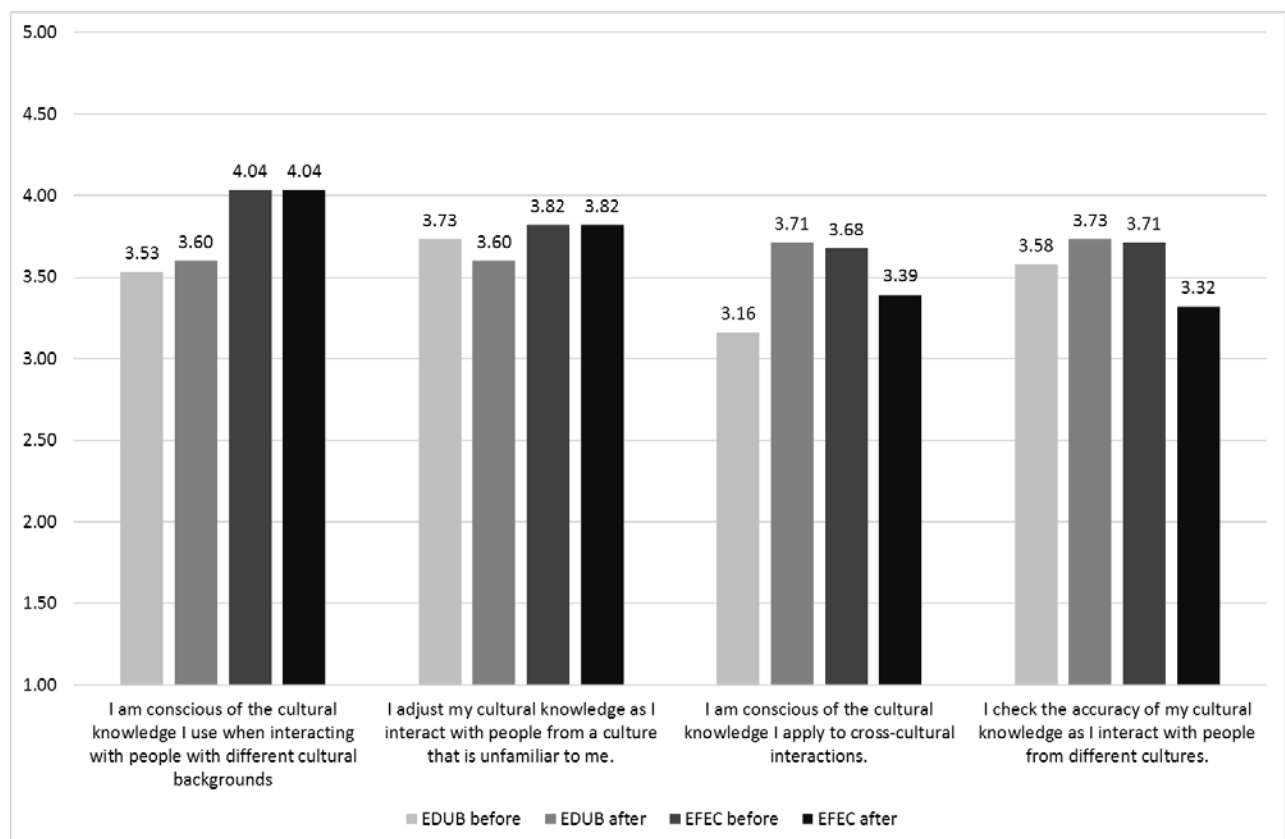


Figure 8: Mean scores, pre- and post-test, on items that relate to Meta-cognitive CQ

The Education students showed an increase on three of the four items relating to the Meta-cognitive CQ, while the control group students' remained either unchanged, or showed a decrease. Education students indicated that they adjusted their cultural knowledge less when interacting with people from a culture that is unfamiliar to them (0.13 lower). This shows that

after the first semester there was a notable change in consciousness with regard to cultural knowledge applied in cross-cultural interactions (0.55 higher). Education students scored the highest on their cultural knowledge as they interact with people from a different culture (M=3.73). Even if the Education students showed an increase in being conscious of the cultural knowledge they used when interacting with people from different cultural backgrounds, they scored markedly lower than their peers in the control group.

4.3.6.2 COGNITIVE CULTURAL INTELLIGENCE

On the CQS, the Cognitive CQ was measured with six items. Cognitive CQ is a measure of someone’s cultural knowledge, primarily regarding his/her own culture, but also on cultures that are different to his/her own (MacNab, 2012). The scores are displayed in Figure 9 below.

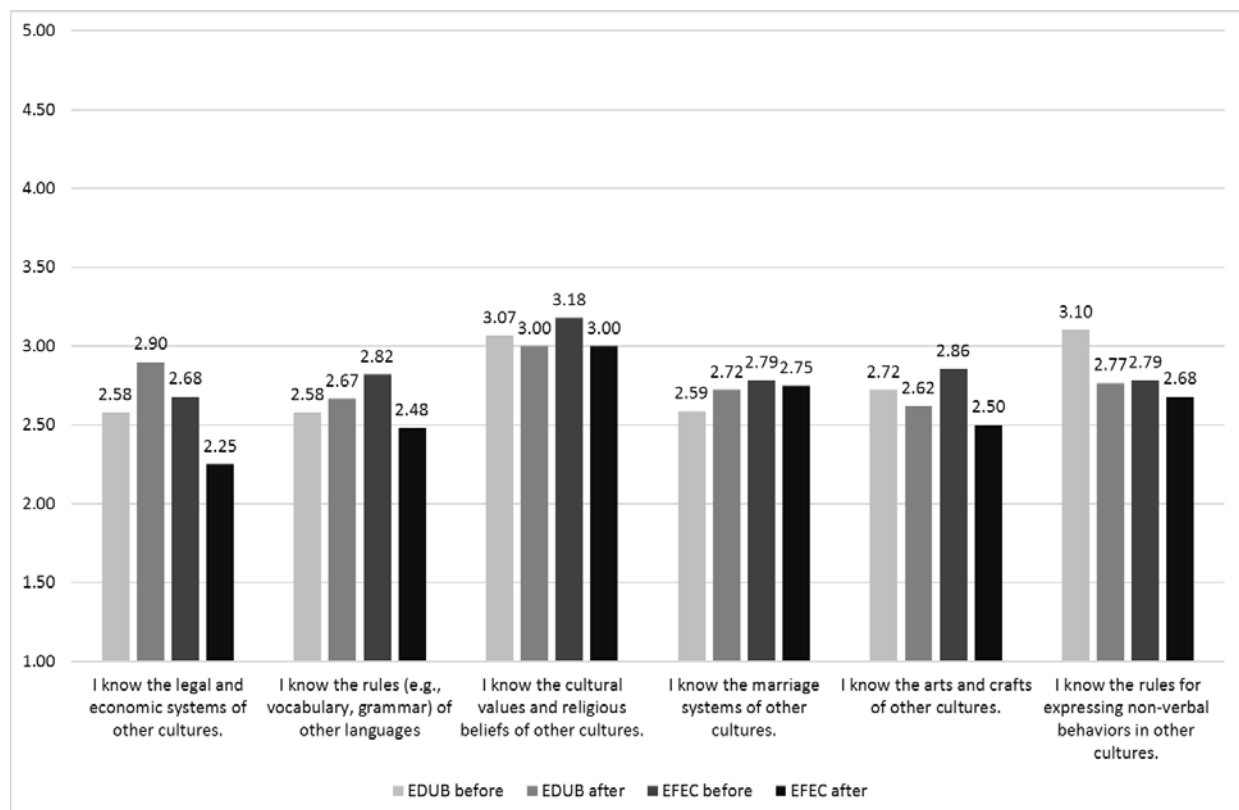


Figure 9: Mean scores, pre- and post-test, on items that relate to Cognitive CQ

Education students showed an increase in three of the items, as can be seen above. The item on which they scored the lowest after completion of the module was on knowledge of arts and crafts of other students (M=2.62). This was the item on which Education students scored the lowest of all the items. The item on which the Education students scored notably higher

at the end of the semester was on knowledge of the legal and economic systems of other cultures (0.32 higher). The item on which the Education students scored notably lower than at the beginning of the year, was on knowledge of the rules for expressing non-verbal behaviours in other cultures (0.38 lower). Students from the control group showed a decrease on each of the items relating to Cognitive CQ.

4.3.6.3 MOTIVATIONAL CULTURAL INTELLIGENCE

Five of the items on the survey questionnaire were related to Motivational CQ. Motivational CQ is either an intrinsic or extrinsic feeling that shows how ready that individual is to interact effectively in a multicultural environment (MacNab, 2012). The scores on each per group are indicated in Figure 10 below.

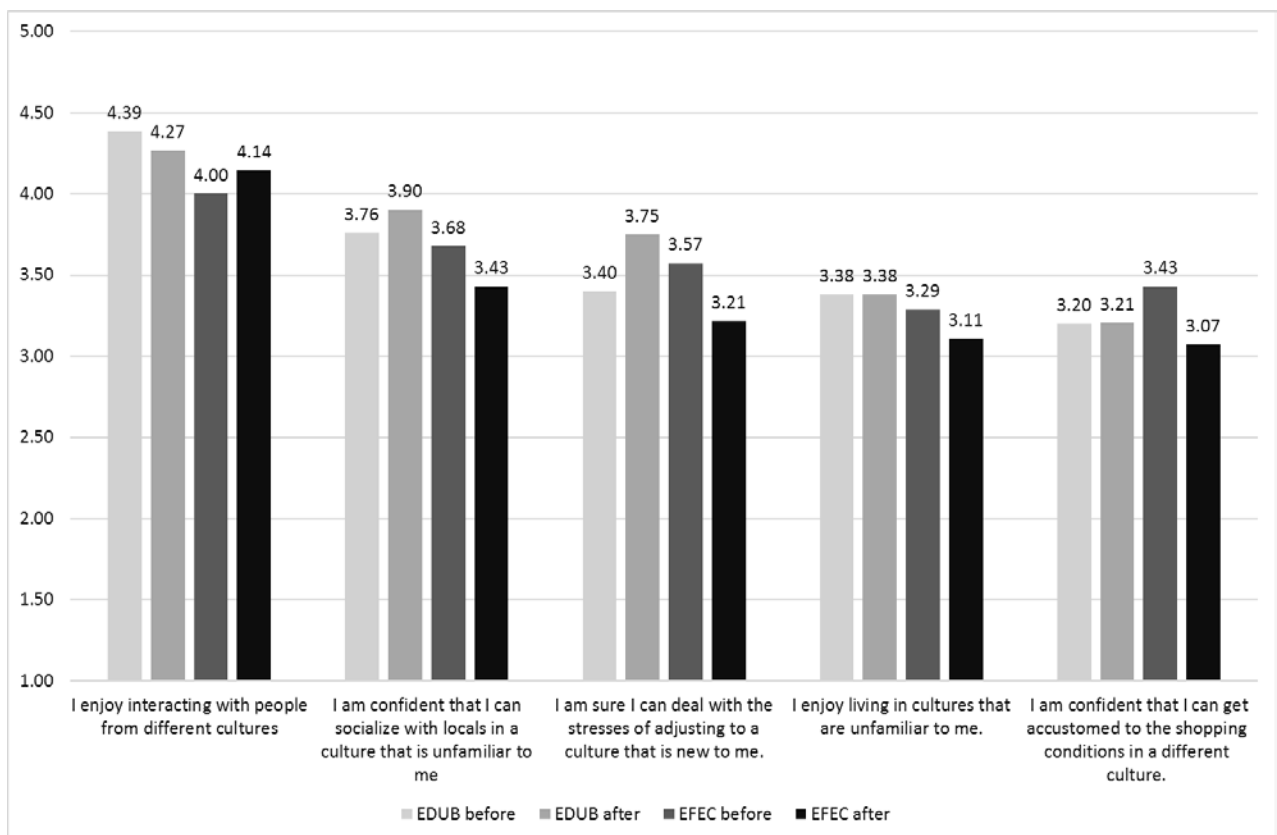


Figure 10: Mean scores, pre- and post-test, on items that relate to Motivational CQ

The Education students showed an increase in three of the items relating to Motivational CQ, one remained the same, while one showed a decrease. In comparison, the control group students showed an increase in one of the items, while their scores on the other four were lower. Education students scored consistently higher than the control group on each of the

items, after completing the EDUB1613 module. Education students seemed to enjoy interacting with people from different cultures less than at the start of the semester (0.12 lower). Nevertheless, the mean score on this item remains higher than on any other item in the questionnaire (M=4.27). The largest increase was on Education students' ability to deal with the stresses of adjusting to a culture that is different to theirs (0.35 higher).

4.3.6.4 BEHAVIOURAL CULTURAL INTELLIGENCE

Behavioural CQ is the outcome of the first three domains and refers to one's body language and features when cross-cultural interaction does take place. Five items on the CQS questionnaire relates to this domain of CQ. The scores of the students per item are indicated in Figure 11 below.

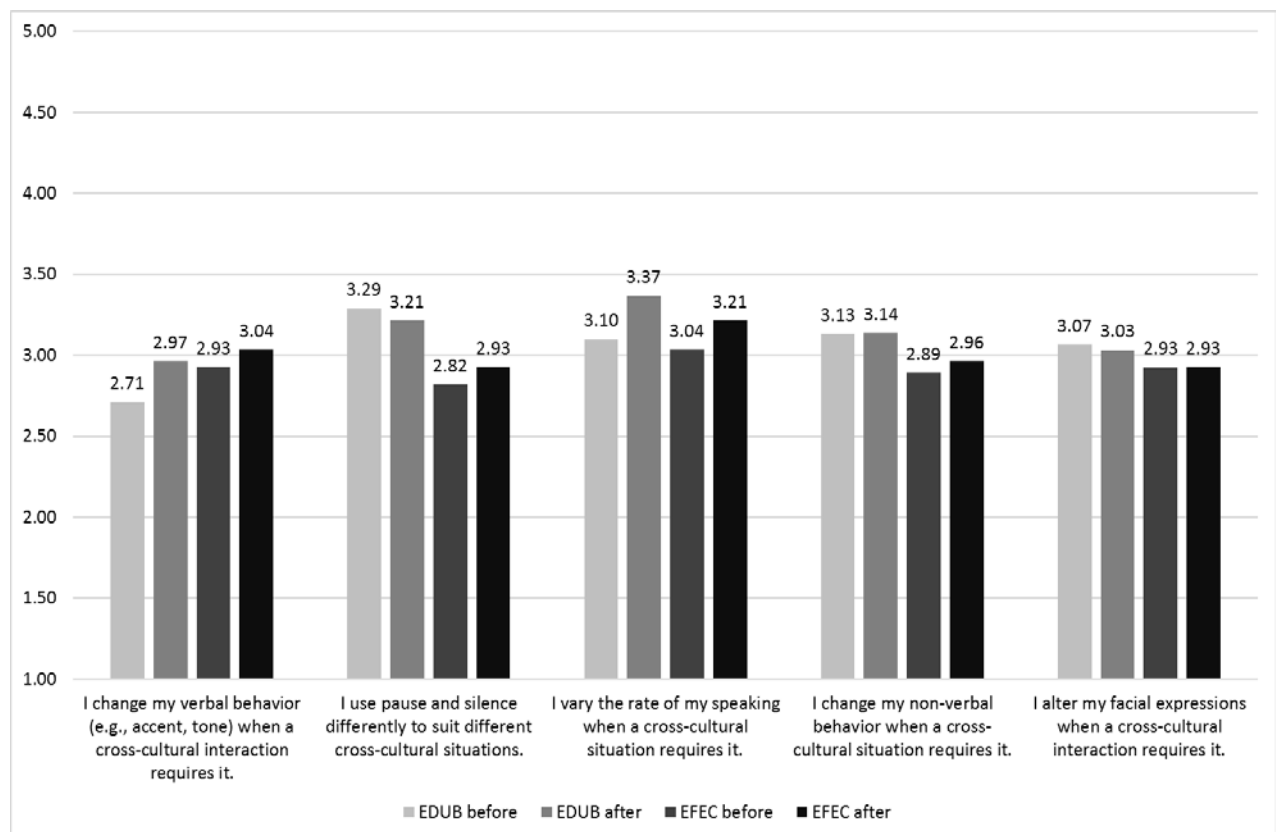


Figure 11: Mean scores, pre- and post-test, on items that relate to Behavioural CQ

Both the Education students and the control group students showed an increase in some of the aspects related to Behavioural CQ, and a decrease in others. The largest increase among Education students was on the rate at which they speak when the cross-cultural situation

requires it (0.27 higher). Education students were less inclined to pause and silence was used differently to suit different cross-cultural situations (0.08 lower).

4.4 DISCUSSION

The purpose of using the CQS survey questionnaire was to examine the extent to which a single Education module focusing on issues of diversity could influence the CQ of the students, and, if it did in fact show a significant influence, to provide feedback to enhance the content and promote the development of CQ for prospective students.

When analysing Figure 3 it is evident that at the start of the semester Education students had higher levels of CQ in Motivational CQ (3.636) and Behavioural CQ (3.0694), while the control group had higher levels in Meta-cognitive CQ (3.8125) and Cognitive CQ (2.8512). Differences were, however, small, apart from the Meta-cognitive CQ, in which the control group scored significantly higher.

Students were then exposed to their relevant modules and similar campus circumstances, but the Education group was exposed to the EDUB1613 module, that focused on issues of diversity, during the semester. At the end of the semester a post-test was done to determine the levels of CQ and to analyse any possible differences in CQ between the two groups.

Figure 4 compares the CQ of Education students at the start and end of the semester. It clearly indicates an improvement in CQ levels over all domains of CQ, namely Meta-cognitive CQ (+0.1638), Cognitive CQ (+0.0084), Motivational CQ (+0.0606) and Behavioural CQ (+0.0729). Although the differences are not statistically significant, the students do seem better prepared to deal with cultures different to their own, even after only one semester.

Figure 5 compares the CQ of the control group of students over the course of a semester. Whilst exploring this figure, a decline in CQ levels was evident for most domains of CQ, namely Meta Cognitive CQ (-0.1696), Cognitive CQ (-0.2464), Motivational CQ (-0.2000). The only slight improvement in CQ levels was in Behavioural CQ (+0.0786). Importantly, three out of four domains in CQ showed a decline in CQ and in general these students were therefore less prepared for cross cultural interaction than they were at the start of the semester. This might be due to many circumstances and I do not want to speculate about it.

Figure 6 compares the CQ levels of the two groups of students at the end of the first semester. The figure is more meaningful when comparing it to Figure 3 (results at the start of the semester). In Figure 3 Education students had higher levels in Motivational CQ and Behavioural CQ, whilst the control group had higher levels in Cognitive CQ and Meta-cognitive CQ. In Figure 6, Education students now possessed higher levels of CQ in each domain of CQ, compared to the control group of students. This means that Education students improved in all domains of CQ, when compared to the control group that could only muster a slight improvement in Behavioural CQ.

Comparing the results of the two groups, Education students mastered higher levels of CQ in Meta-cognitive CQ (+0.0183), Cognitive CQ (+0.1730), Motivational CQ (+0.3038), and Behavioural CQ (+0.1422). More importantly, Education students started with lower levels of Meta-cognitive CQ and Cognitive CQ, compared to the control group of students. A statistical difference was also noteworthy in the difference in Cognitive CQ levels of the two groups of students at the end of the semester. This might also indicate that learning might have contributed to Education students forming higher levels in cultural knowledge after a semester, compared to the control group of students.

This is also evident when studying the trends in Figure 7. The overall mean score of the Education group at the start of their first semester on campus was 3.2430, compared to the 3.2945 of the control group. At the end of the semester, the overall mean score of the Education group increased by 0.0764 to 3.3194, while the overall mean score of the control group declined by 0.1344 to 3.1602.

It must be noted that the sample sizes were quite small, due to the particular nature of the South Campus classes. Similar studies on the other two campuses might have given more conclusive evidence. However, data on the other two campuses would have been tarnished, as those students are compelled to take a generic module, UFS101, which, amongst other things, also focus on issues of diversity.

4.5 SYNOPSIS OF THE FINDINGS

Table 7 provides a review of the main results of the survey questionnaire that was conducted using a pre-test and post-test questionnaire.

Table 7: Synopsis of the results of the survey

Domains of CQ	Results according to the pre- and post- CQS test conducted on the education and control groups	Reference
Meta-cognitive	At the start of the semester, the control group of students had higher levels of Meta-cognitive CQ, compared to the Education group of students. There was also a statistically significant difference between the two groups (p-value: 0.0490).	4.3.1
	The Education group of students improved their Meta-cognitive CQ over the course of a semester.	4.3.2
	The control group of students showed a decline in their Meta-cognitive CQ over the course of a semester.	4.3.3
	At the end of the semester, the Education group showed higher levels of Meta-cognitive CQ, compared to the control group of students.	4.3.4
	At the end of the semester, the Education group showed higher levels of Meta-cognitive CQ, compared to the control group of students.	4.3.4
Cognitive	At the start of the semester, the control group of students had higher levels of Cognitive CQ, compared to the Education group of students. This was also statistically significant, compared to the Education group of students.	4.3.1
	The Education group of students improved their Cognitive CQ over a course of a semester.	4.3.2
	The control group of students had a decline in their Cognitive CQ over the course of a semester.	4.3.3
	At the end of the semester, the Education group posted higher levels of Cognitive CQ, compared to the control group of students. This was also a statistically significant difference between the two groups of students (p-value: 0.0338).	4.3.4
Motivational CQ	At the start of the semester, the Education group of students had higher levels of	4.3.1

	Motivational CQ, compared to the control group of students.	
	The Education group of students improved their Motivational CQ over a course of a semester	4.3.2
	The control group of students had a decline in their Motivational CQ over the course of a semester.	4.3.3
	At the end of the semester, the Education group posted higher levels of Motivational CQ, compared to the control group of students.	4.3.4
Behavioural CQ	At the start of the semester, the Education group of students had higher levels of Behavioural CQ, compared to the control group of students.	4.3.1
	The Education group of students improved their Behavioural CQ over a course of a semester	4.3.2
	The control group of students improved their Behavioural CQ over the course of a semester.	4.3.3
	At the end of the semester, the Education group posted higher levels of Behavioural CQ, compared to the control group of students.	4.3.4

4.6 CONCLUSION

In this chapter I examined the possible impact of a module, focusing on diversity, on the CQ levels of students. Although the outcome of the tests did not show statistically significant differences, trends pointed towards a positive impact. It is therefore clear that changes in CQ occurred in both groups of students over the course of the semester. Education students improved their levels of CQ, while the control group saw a decline in their levels of CQ. It must, however be noted, that during the course of the semester, when the data were collected, an incident occurred at an inter-university rugby match at Shimla Park, which resulted in a standoff between two different groups (one predominantly Black and the other White). This escalated into violence across campuses. In my view, this could have affected negatively on the outcome of the study. Nevertheless, I believe that the data shows that when comparing two similar group of students on the same campus under the same circumstances, the EDUB1613 did make a positive contribution to the CQ levels of Education students.

In the chapter that follows I analyse the study material of the module, and its alignment with issues relating to CQ.

CHAPTER 5: ANALYSIS OF THE STUDY MATERIAL

5.1 INTRODUCTION

In the previous chapter I analysed the CQ of two groups of students at the start and end of their first semester at university. The Education group was exposed to the EDUB1613 module that focusses on issues of diversity, and the control group was not.

In this chapter, the four units of the Education module: *EDUB1613 (Individual in the learning context)* are reviewed to contribute to answering the predominant question (*To what extent can a single Education module focusing on issues of diversity influence the Cultural intelligence of the students?*) by responding to the third sub-research question (*what aspects of Cultural intelligence are present and what could still be included in the EDUB1613 module, towards improving the Cultural intelligence of Education students?*).

This will be done using a critical examination of all the relevant materials (module guide, reading materials and presentation material). Based on the guidelines provided by Plowright (2011) on artefact analysis, I examined of the informational, presentational, representational and interpretational characteristics of the study materials.

5.2 APPROACH

As explained in (2.5), artefact analysis is essential in analysing the materials used in this Education module. Not only would this contribute to a better understanding of the module, but it could also contribute to identifying elements of CQ that is already evident in the content of the module. Therefore, also contributing to the module. An analysis was conducted using FraIM (Plowright 2011) as a method to deconstruct the properties of the artefacts (which in this case was the study material). Thereafter, this was compared to the domains of CQ to determine the similar components used in the module and in the domains of CQ.

5.3 GENERAL INFORMATION

The purpose of the EDUB1613 module was mainly to move Education students to socially reflect on their own identities in the diverse context their living in. Furthermore, the module sought to move students to become change agents for their future learners in their classrooms. The module further aimed to contribute towards student development by helping students refine their true identities, reflect on different social oppressive factors and understanding inclusive education in a South African context. Finally as an outcome of the education programme, to contribute towards students that would manage diversity effectively in their classrooms.

5.4 LEARNING UNIT 1- WHO AM I?

This unit aimed to guide students in discovering their own identities through meaningful activities and classroom discussions. This was done to optimistically develop teachers that would demonstrates respect and understanding for diversity in their future classrooms.

5.4.1 INFORMATIONAL ANALYSIS

The informational artefacts for Unit 1 include all information used in the module guide, additional readings and PowerPoint slides. These documents contain valuable information regarding the following: individual and group identity, comfort zones and learning edges, spheres of influence and the cycle of socialisation. All relevant information used in the EDUB1613 module that relates to culture and diversity is associated with Cognitive CQ. Cognitive CQ refers to all knowledge relating to other cultures and knowledge of what influences other cultures (Edwards, 2016). Accordingly, the information provided and the readings regarding identity as a construct and comfort zones in particular could be classified as a mean to contribute to Cognitive CQ as a domain of CQ.

5.4.2 PRESENTATIONAL ANALYSIS

The presentational facet of the analysis refers to the way the information is presented to students. Whilst examining the content used I could identify the following presentational materials in the content of Unit 1 in the module:

Visual materials used included photograph records of the Penny Sparrow tweets, Rodes must fall movement and the Fees must fall movement. These were all used in conjunction to the relevant topics discussed in the informational facet of the unit. Various videos were uploaded on Blackboard to further explain these topics, these include a Nandos advertisement as a comical take on xenophobia, a video to explain stereotypes, and finally, a Herbex and Omo advertisement. These materials were all presented to students as a mean to inspire students in coming to a realisation that they also have assumptions, ideas or emotions connected to these issues raised in the module. Therefore, I can conclude that this is associated with both the Meta-cognitive domain of CQ and the motivational domain of CQ. Edwards (2016) argues that Meta-Cognitive CQ is a cognitive process where one feels aware of one's own assumptions. Also, Motivational CQ that emotional process where someone gets motivated to change (MacNab, 2012). As a result, Motivational CQ might have occurred using the materials presented in the classroom.

5.4.3 REPRESENTATIONAL ANALYSIS

The representational analysis refers directly to what the content and activities represent. Moreover, it contains the deeper meaning of the materials used in the unit for a certain cause. After analysing the content, I can conclude the following for Unit 1:

The opening statement of the module grasps the attention of the reader: *"Visualise yourself in a situation where you have to characterise yourself in a few sentences."* Students are then asked to complete a short individual activity, to examine themselves in their current situation and describing themselves in a few sentences. This is an attempt to help them realise who they are. The content used to come to the realisation is associated with Cognitive CQ, helping students gain knowledge about their own identity.

The module points out how identity is constructed in society and more precisely how it impacts individuals and the way they act and perceive the world we live in. After reviewing the prescribed reading material by Beverly Daniel Tatum, individuals will list certain qualities about themselves, with some more important to them than others. Their response will be influenced by many factors, but especially by the way in which other people perceive them (Tatum, 2000). In other words, the author compares the people one comes in contact with, with a reflection of oneself. After reading through the prescribed material, students were

supposed to come to the realisation that how people see and treat one another each day affects who they think they are. This is further illustrated in a video about stereotypes and how they manifest in society. The video is used to help students realise their own biased thoughts towards other cultures and people unlike them. This realisation and awareness is clearly associated with the Meta-cognitive domain of CQ.

After being aware of their identities, the module introduces three concepts that are discussed in class: comfort zones, learning edges and triggers.

Comfort zones as a concept demonstrates the familiar environment to the student. It illustrates how being in this comfort zone will not contribute to any type of learning. Students are made aware of being in comfort zones towards certain topics or interactions with other people, therefore helping them slowly change their opinions about themselves. This might have also contributed to both Meta-cognitive CQ and Motivational CQ of students.

Learning edges is where learning takes place. This refers to their feelings about something and how they would react when their feelings are challenged. Introducing this concept represents advice on how to change one's behaviour and how to exit one's comfort zone. Triggers are something someone does or states that create an emotional response in oneself. Students are challenged to write down examples of each in their own lives, thus challenging them to reflect on these situations that shaped their own identities. Edwards (2016) opinions that Behavioural CQ is a change in one's actions and the willingness to act in an appropriate manner. The learning edge materials and the activity connected to it might have contributed towards the Behavioural CQ of students in this regard.

Furthermore, the concept of multiple identity was introduced to demonstrate the different spheres of influence society has on an individual, helping students to realise these influences in their own lives. Similarly connected to the Meta-cognitive domain of CQ. Throughout the unit, various online tests and individual and group activities commenced to test student's knowledge on the concepts introduced in classrooms.

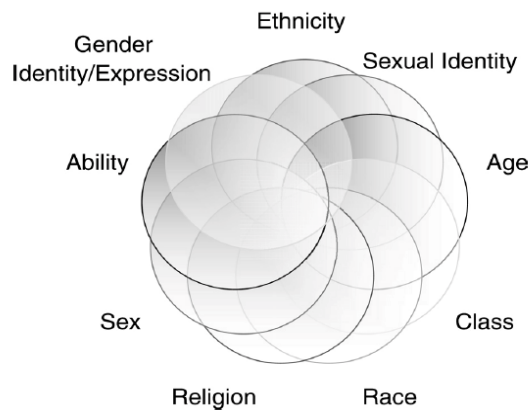
5.4.4 INTERPRETATIONAL ANALYSIS

After analysing the content in Unit 1, I can conclude that the following factors can be identified as interpretational material and how students could perceive the materials in the module.

Students had to complete a reflective journal after each contact session presented to them. This would act as a way through which the lecturer could monitor their understanding of the content presented in the classroom. Reflection on one's actions refers to Meta-cognitive CQ as a construct (Shu et al., 2017). Furthermore, individual and group activities were used inside and outside of the classroom to help students connect with the content prepared for them. This was then discussed in the classroom, either in their groups or as a class. These activities were all used to help students associate the content with their own feelings, therefore, as mentioned before, Meta-cognitive CQ was relevant here.

The identity activity helped students understand the complexities around identity, both individual and communal. Nevertheless, this opening question was designed mainly for students to realise the fact that they possess a certain identity that was formed by certain things in their lives. The main purpose of the orientation unit was for students to discover their true self in the world they live in, and discovering their individual and group identity that makes them who they are. Importantly, identity is shaped by the people they come in contact with and the concept was mainly introduced to help them come to this realisation.

The comfort zone and learning edge activities were introduced to build on the identity activity. Once an understanding was developed of themselves, this was introduced to assist students to reach a broader interpretation of their own beliefs and stereotypes. Lastly, multiple identity was used as to make students aware of all the factors contributing to their identity as a whole. During a presentation, the diagram below was used to demonstrate social identity as a construct.



Source: Developed by Camille O'Bryant

Figure 12: Diagram on social identity in the study material

Correspondingly, each characteristic used in the diagram has many samples connected to it. The module aimed to make students aware of dominant and subordinate groups that manifest because of these characteristics in society. Dominant groups in society decide what type of identity is perceived as normal (Tatum, 2000). Labelling and oppression manifests where subordinates stray from this description. The prescribed reading material from Beverly Daniel Tatum provides many examples. For instance, Black people have been historically branded as less intelligent than White people and women as emotionally unstable, compared to men. This, with many more examples, was used as an eye-opener for students, hopefully influencing them to question the way society works and to understand their own beliefs. Students were referred to readings on the cycle of socialisation by Bobbie Harro to reflect on how identities manifest in society. This was done to illustrate how our identities are enforced in society and upheld by our own fear of and anxiety during change (Harro, 2010).

The conceptual framework of this unit expressed the importance of future teachers to develop an informed understanding of the nature and purpose of education, more specifically to engage in an on-going process of reflection and dialogue that is at the heart of professional practice.

5.5 LEARNING UNIT 2- OPPRESSIVE PRACTICES AND INEQUITABLE SOCIAL RELATIONS

This unit built on the principle of Unit 1, where students now examined social identity and how it contributes towards oppressive practices in society.

5.5.1 INFORMATIONAL ANALYSIS

The informational artefacts for Unit 2 included all information used in the module guide, additional readings, and all information used in the PowerPoint slides. These documents contained valuable information regarding social justice, all factors of oppression, social identities, and their influence on oppression and stereotypes. Various images and videos were used as illustrations of how oppression manifests in society and how we tend to accept it as the norm. Crowne (2008) associates Cognitive CQ with exposure to cultural differences either through materials or practical examples. For the purpose of this unit, students were exposed to these issues relating to all types of oppression. The oppressive practices that manifest around culture can be regarded as a contributor to Cognitive CQ.

5.5.2 PRESENTATIONAL ANALYSIS

The presentational facet of the analysis refers to the way the information is presented to students. Whilst examining the content used I could identify presentational materials in the content of Unit 2 in the module, as described hereafter.

In the first contact session of the module, students were exposed to a video illustration acting as an experiment for discrimination. What followed was a class discussion on this to help students understand the basic concepts of oppression in society. Thereafter, various images were shared to showcase oppression in society. These included images showcasing exploitation, marginalisation, violence and cultural imperialism.

5.5.3 REPRESENTATIONAL ANALYSIS

The representational analysis refers directly to what the content and activities represent. Moreover, it contains the deeper meaning of the materials used in the unit for a certain cause. After analysing the content, I can conclude what follows in terms of Unit 2.

Where the first unit functioned as an influential introduction to oneself and one's beliefs, this unit focussed on oppression that manifests itself in society as a result of social and individual beliefs. As noted before, social identity consists of different concepts which influenced oneself. However, the module noted that each one of these identities forms the basis of the oppression it stands for, i.e. Race - Racism, sex - sexism, religion - religious oppression, class - classism, age - ageism and ability - ableism. In each one of these oppressions, there is a group seen as the prevailing and opposed to the resilient one. This prevailing group will influence views and values of the subordinates (Tatum, 2000). This presented an informational component to students that was motivated through different types of media. The informational facet, as referred to in 5.5.1 served mainly as a cognitive domain of CQ through cultural imperialism. The media used as a motivational side of the module should have contributed towards Motivational CQ of students involved in the module.

The unit's focus moved to a discussion on the five faces of oppression by Iris Marion Young (*Prescribed reading material*). This prevailing group is connected by certain traits, with established rules of acceptable behaviour (Young, 2002). Due to these established rules, oppression manifests in different ways. Young (2002, p. 5) defines oppression in two ways:

"In its traditional usage, oppression means the exercise of tyranny by a ruling group. In a shifted meaning of the concept, oppression refers to the suffering by people because of everyday practices of a well-intentioned liberal society. Structural in a sense."

During a class presentation, the five faces of oppression was used to make the influence of oppression evident to students. As an example, the following statement was made to students about exploitation as a way of oppression, to contribute to a debate on the issue:

"Exploitation practises use capitalism to oppress the subordinates with unfair wages. This is especially evident in South Africa, where unemployment rates contribute to the dominant groups' exploitation of the subordinates. A certain way of oppression accepted by the majority of the dominant group. A system where profit forms the basis of power and freedom is purely determined by it. Capitalism is used as a tool to create differences in classes, wealthy and poor."

To further engage students, images were used to describe ways in which this is evident in South Africa:



A miner uses the ablutions at a hostel at Wonderkop, near Lonmin's Marikana Mine in the North West. Picture: SUNDAY TIMES



Drakensberg Home For Farm Workers Near Elliot South Africa

Figure 13: Exploitation examples used in the classroom

In the first image the miner clearly lives in horrible circumstances without his family just to make some sort of living, whilst, in the second image, it is evident that the workers have no electricity or water supply connected to the home. Perhaps the intention was that students should imagine the farmhouse where the farmer stays. The images both served as an example of how unjust society is. These examples of exploitation images might have contributed to the Cognitive CQ and Meta-cognitive CQ of students that examined them in detail. The emphasis here was also on the exploitation of workers, mainly African workers in South Africa as a cheap alternative for labour. Crowne (2008) is of the opinion that any new knowledge gained regarding another culture is what Cognitive CQ comprises. Likewise, the author feels that Meta-cognitive CQ is demarcated as the emotions experienced after gaining this new knowledge.

Furthermore, marginalization as a type of oppression was also introduced to students. This is by far more evil than exploitation, as it limits the social standing of a certain group of people. These can be based on any type of oppression but are normally racially based, categorising people and denying them participation in certain social practises (Young, 2002). What is alarming is that society has this choice at all, where dominant groups can exclude subordinate groups from societal practices. The module listed one of these that has an influence on all other aspects of daily life, namely labour. Expelling a group from labour will influence the

living conditions of that group, depriving them of useful participation in social life and living under the same conditions as other groups.

The following image, with its description, was used in class as an example of marginalization:



A newspaper advertisement targeting “non-affirmative action” female students at student houses in Bloemfontein will see the University of the Free State rector Jonathan Jansen complain to the South African Human Rights Commission today.

Figure 14: Marginalization example with its description that was used in the classroom

After seeing this image and processing it as a student, I do feel that this should have created awareness around how marginalisation is used to segregate races/cultures in society (again associated with Meta-cognitive CQ). The discussion that followed in class might have also contributed to a change in assumptions of some of the students and contributed to some sort of emotional change (Motivational CQ), to contribute to students changing their attitude towards people of different cultures (Meta-cognitive CQ).

In a society where powerlessness as oppression is conducted, some people will have power, whilst others will not have any. The classroom presentation seamlessly used the theme of a slave to make students aware of the similarities that powerlessness shares with slavery. The statements made in class reflected on the issues associated with powerlessness. These included obstructing abilities, disrespectful treatment and not giving oneself a voice in society.

The following image of Harriet Tubman was used in a PowerPoint to demonstrate powerlessness:



**I would have free
thousands more,
if they had
known they were
slaves – Harriet
Tubman**



Figure 15: Illustration of powerlessness

In this statement, Tubman shows how society brainwashed slaves into believing that they were not treated unjustly.

Students were posed a question after being shown an image of Oscar Pistorius and Reva Steenkamp, namely how did race, class, gender, ability etc. influence the events that led to this court case and its outcomes? This was used to provoke critical thinking from students and for them to reconsider some of their opinions on the matter, thereby optimistically trying to influence students to question this aspect of oppression in society (Meta-cognitive CQ).

Furthermore, oppression may also manifest through violence as the most obvious and visible form of oppression. It is unmissable, and mainly meant to harm, degrade or destroy a person. Some groups in society get used to this type of oppression in their daily lives. Walking to school, walking into a store, being randomly searched at an airport, having a certain sexual orientation, or just going to a hospital, some people might be subjected to violence. The presentation material made the viewers aware of the different classes we have in society, i.e. differences in where we go to school, where we live, what type of transport we use, what access we have to healthcare, and how we spend our holidays. All of this was done to evoke feelings from the students so that they would hopefully come to the realisation that society is not fair.

Finally, at the end of this unit, students were referred to the cycle of socialisation by Harro (2010) to understand how the society is influenced by individual, cultural and institutional interactions to accept oppressive norms and practices.

As a summary, Harro (2010) states that “Oppression manifests in the way we classify others, other than ourselves. Importantly, everyone not part of the liberation, forms some part of the cycle of socialisation.”

We are each born into a specific set of collective identities forming us day by day into what we are now. Our parents affirm our differences by showing out our differences to “*others*” in regards to ethnicity, gender, values and beliefs (Harro, 2010). Thereafter, we start seeing the world in the way our parents believed it to be. While growing up, we confirm these labels from early communications, myths and half-truths from our schools, churches, movies, friends and family. This cycle of socialisation is therefore recurrent from one generation to the next. Naturally, some of our beliefs would form the basis of oppressive practices; deeply embedded and well reinforced by the community one grew up in. The cycle of socialisation can only be broken when someone steps out of their comfort zone to do so. This would mean that significant changes would occur in such a person’s life. The aim of this module was mainly to develop teachers that would contribute to these changes in society, and exposure to the cycle of socialisation represented this aim of the module and the change connected to it. The aim therefore was a behavioural outcome and it would therefore contribute to Behavioural CQ if implemented through activities in the classroom that connect different cultures.

Throughout the unit, various online tests and individual and group activities were done to test student’s knowledge on the concepts introduced in classrooms.

5.5.4 INTERPRETATIONAL ANALYSIS

After analysing the content in Unit 2, I can conclude that the following factors can be identified as interpretational material contributing to the aim of the module itself.

Firstly, the broader aim of this module was to provide students with a better understanding of oppression in society and how these practices become acceptable in society. This interpretation is expected from students after working through the content presented to

them. Secondly, being engaged with different types of oppression and being shown examples thereof, should be interpreted as ways to help students question oppressive practises in society. This would be debated in classroom to also contribute to students' sharing of experiences. Sharing of experiences might have led to newfound knowledge about another culture and their views, therefore, Cognitive CQ might have been gained by students through this experience.

Thirdly, marginalization was introduced to also open discussions on racism and how it contributes to oppression. Discussions on racism with different racial groups in the classroom might have contributed to understanding between the different groups in the classroom, which could also have meant a possible gain in both Cognitive CQ and Meta-cognitive CQ. Finally, introducing powerlessness as a type of oppression combined all the previous forms of oppression, whereby the culture of the dominant group is regarded as the norm and those groups straining from it are marked by stereotypes and made to feel invisible. This concept, combined with cultural imperialism, formed the foundation of any gain in CQ throughout this unit. Students needed to interpret this in such a way that they would come to the realisation that oppression also specifically targets certain cultural groups.

Finally, the realisation that an unwillingness to stand out and stand up to oppression can be seen as the single most contributing agent to oppression itself. That, in short, is what the unit aimed to do; to make student teachers aware of this. The identity of the teacher and the way he/she engages in these moments, influences internal searching in students to inspire them to learn and develop their own views, and challenges their existing identities in a way that could possibly contribute to more agents of change. This change in oneself, and acting in an appropriate manner is seen as being Behavioural CQ (Crowne, 2008). Student teachers were made aware of their important role in shaping learners and breaking this cycle that is embedded in their learners. Consequently, the aim of this unit was to provide students with a better understanding of oppression in society and how these practices become acceptable in society.

At the end of the unit students completed a reflection journal as a means to reflect on all content presented in the classroom and this, as an activity, formed the basis of Meta-cognitive

CQ. This was intended to guide students towards developing a clear understanding of social justice and the elements that obstruct social justice in society.

5.6 LEARNING UNIT 3- INCLUSIVE EDUCATION IN THE SOUTH AFRICAN CONTEXT

Inclusive education in the South African context is not only a term used to describe disability. Students were made aware of the fact that inclusive education refers to the right of all students to quality education and that factors such as diversity and barriers also form part of this broad term.

5.6.1 INFORMATIONAL ANALYSIS

The informational artefacts in Unit 3 included all information used in the module guide, additional readings, and PowerPoint slides. These documents contained valuable information regarding the following a connection between inclusion and social justice that was used in Unit 2, followed by rights and ethics and finally, and challenging identities in a diverse world. All of this information served a valuable role, but challenging one's identity as a concept might have specifically contributed to the cultural knowledge of students in the module, thus contributing to Cognitive CQ. Cognitive CQ is closely connected to identity and the basis of any newfound knowledge is built from one's own beliefs and perceptions (Botha, 2014).

5.6.2 PRESENTATIONAL ANALYSIS

The presentational facet of the analysis refers to the way the information is presented to students. Whilst examining the content used I could identify the following presentational materials in the content of Unit 3 in the module; Firstly, a PowerPoint that was used in a lecture to students and, secondly, a prescribed reading on inclusive education which included homework activities as well.

5.6.3 REPRESENTATIONAL ANALYSIS

The representational analysis refers directly to what the content and activities represent. Moreover, it contains the deeper meaning of the materials used in the unit for a certain cause. After analysing the content, I could come to certain conclusions for Unit 3, as described hence.

The main focus of this module was on challenging the thought processes of students concerning their identities in a diverse context. Unit 3 (Inclusive education in the South African context) engaged with a process of change, therefore challenging students to critically look at their beliefs and assessing it from another's viewpoint, hoping that it would have the desired effect on them, and creating students that can make a difference to others they come in contact with. Naturally, the change in thoughts would only happen if some kind of motivation was connected to it. This motivation is internal and would only contribute to Motivational CQ if students experienced this within. The lecturer played the most important role in this instance, to contribute towards this internal motivation of students. This can be done through providing practical examples or sharing a life story, as was done in this instance.

A class discussion was conducted to help students understand inclusive education in a South African context. This was followed by a reflective journal that students had to complete in order to engage with the content and to list and question their assumptions. The complete activity could have contributed to an increase in Meta-cognitive CQ, Botha (2014) mentions that Meta-cognitive CQ is a mental process where one reflect and question beliefs and then learns from them.

Inclusive education is commonly regarded as a special needs education for disabled people (Department Of Education, 2001). Conversely, the White Paper also makes the reader aware of the special circumstances that South Africa, and especially universities, face regarding barriers to learning. In classes one will find students of all backgrounds sitting in one class. What might appear to be similar students are in fact relatively different students in all aspects of their backgrounds. The introduction thereof was mainly meant to make students aware of the fact that other students in their classroom and people they come in contact with, might indeed have barriers that they were not aware of.

Importantly, the White Paper conveys a clear message to the reader in order to emphasize the barriers that these types of students face on a daily basis. Students that formed part of this study were all students that had to finish the UPP before they could enter Higher Education. For this reason, it could be noted that they all had some form of barrier to learning before entering the programme. The barriers could have been both internal or external that

prevented these students from gaining access to mainstream Higher Education (Department Of Education, 2001).

Throughout the unit, various online tests and individual and group activities were done to test student's knowledge on the concepts introduced in classrooms.

5.6.4 INTERPRETATIONAL ANALYSIS

After analysing the content in Unit 3, I can conclude that the various factors could be identified as interpretational material contributing to the aim of the module itself. These factors are described hence.

The University Preparation Programme (UPP) on the South Campus of the University of the Free State is a programme that helps students with poor Grade 12 results to gain access to Higher Education. According to the White Paper, (Department Of Education, 2001), the communal and systematic effects caused by Apartheid are still affecting the poorest communities. As a result this programme gives these students a second opportunity to gain access to Higher Education and obtaining a degree. Therefore, being students of an access programme undoubtedly contributes to these students being incorporated into an inclusive Education programme. The programme itself could have contributed to their realisation of how inclusive education contributes to meaningful participation for all students. Therefore, gaining this new knowledge might have contributed to Cognitive CQ and their awareness on inclusion.

To overcome these barriers, programmes such as the UPP empower these students in smaller classes. More consideration is provided by giving intensive and specialised support to individuals in classes. Therefore, the focus of the UPP leans towards a learner-based one. Modules such as EDUB1613 aim to empower the individual in the learning context.

This unit encouraged change in students, in order to overcome biased thoughts and beliefs that students might have towards people different from themselves. Unquestionably, the success of implementing the ideals of this unit lay with the lecturer alone. Internal motivation was needed from the lecturer, to challenge students to challenge themselves and for the lecturer to guide them towards these realisations. At the end of the unit students completed

a reflection journal as mean to reflect on all content presented in the classroom and this, as an activity, formed the basis of Meta-cognitive CQ. This was meant to guide students into a shared understanding of inclusive education and the different discourses in inclusion.

5.7 LEARNING UNIT 4- MANAGING DIVERSITY IN THE LEARNING CONTEXT

This unit was an outcome of the first three units used in the module, where students were engaged in a process of dealing with diversity in their future classrooms. This unit would most probably have contribute to discussions and reflections from students regarding diversity in learning.

5.7.1 INFORMATIONAL ANALYSIS

The informational artefacts for Unit 4 included all information used in the module guide, additional readings, and PowerPoint slides. These documents contained valuable information regarding the following, the role of educators in working for equity and social justice, developing an understanding of the cycle of socialisation, and developing change agents in society.

5.7.2 PRESENTATIONAL ANALYSIS

The representational analysis refers directly to what the content and activities represent. Moreover, it contains the deeper meaning of the materials used in the unit for a certain cause. After analysing the content, I can conclude the following for Unit 4, namely that students were expected to complete various online activities to engage them in the content. These included a test and an online journal regarding the contents of Unit 4. In the classroom, students were introduced to the concepts of the module and class discussions followed thereafter. Whitaker and Greenleaf (2017) provides a view that explains that a drive to interact with other cultures refers to the Motivational domain of CQ. All the elements presented in this unit presented a motivation towards action. The three units that had been presented before this one contributed to the implementation of this module. Firstly, the role of educators as change agents also link to Behavioural CQ, or one's eagerness to engage and create change (Whitaker and Greenleaf, 2017). Secondly, practical examples were provided to students in dealing with diversity in classrooms, contributing to a shared understanding of other cultures, and dealing

effectively with them, again contributing towards the Cognitive CQ that Whitaker and Greenleaf (2017) define as any new knowledge gained about a culture different to one's own.

5.7.3 REPRESENTATIONAL ANALYSIS

While the first three units informed students of the different types of oppression in society, this unit aimed to formulate plans to stop this oppression in the context of the classroom. The emphasis of the unit was centred on the cycle of socialisation, which represents various values and norms that the writer wants to convey to the readers thereof.

Students were expected to study a prescribed reading on the cycles of socialisation and to complete a reflective journal on it. The point of departure in the article was our newfound knowledge that we gained somewhere. Harro (2010) argues that, once we are acquainted with something new, we cannot forget it anymore. It might not be a waking up moment as mentioned above, but it will influence us at some point. As soon as this process started, students had to question their own principles, outlooks and actions in their daily lives (Harro, 2010). The process of liberation would commence as soon as someone started to question his/her identity with his/her newfound knowledge. This therefore represents that moment when students would hopefully realise their influence on society and start questioning it. As a result, students would use the Cognitive CQ gained through units 1-3 to become aware of their change in outlook towards certain issues.

This newfound awareness would then hopefully motivate students to do something about the unjust society we are living in. The article mentions that building community is the next step in liberating oneself, in other words, interacting with other cultures and ideally leading to students coalescing with others to critically transform oppression in society. This interaction would allow them to gain Behavioural CQ.

Throughout the unit, various online tests and individual and group activities were done to test students' knowledge of the concepts introduced in classrooms.

5.7.4 INTERPRETATIONAL ANALYSIS

Comparatively, this unit was by far the single most important part of the module and could be seen as the result of the other three units. Students were tasked with reading the Cycle of

Liberation by Bobby Harro to achieve the outcomes of this unit, thereby moving students to critically reflect on their role as educators and how they can contribute to society. In order to do this, this unit aimed to help students develop a deeper understanding of all the factors that contribute to oppressive practices (therefore gaining Meta-cognitive and Motivational CQ), and also displaying the ways in which a teacher can positively influence society. This unit should be interpreted as an outcome of all the other units. Without the understanding of identity, oppression and inclusion, students would not be able to understand their role as educators in this way. At the end of the unit students completed a reflection journal as a means to reflect on all content presented in the classroom and this, as an activity, formed the basis of Meta-cognitive CQ. The activity was conducted to help students critically reflect on their roles as educators and to assess their understanding of the concepts used across all the units presented and how it associated with their roles as educators.

5.8 SYNOPSIS OF THE FINDINGS

Table 8 provides a review of the main findings through the guidelines provided by David Plowright after analysing the documents through an informational, presentational, representational and inspirational method.

Table 8: Synopsis of the findings in the document analysis based on the domains of CQ

Domains of CQ	The analysis suggests that:	Reference
Meta-cognitive	The process that leads to questioning one's own stereotypes contribute to a gain in Meta-cognitive CQ.	5.4.2, 5.4.3
	Ongoing reflection through a reflective journal is Meta-cognitive of nature.	5.4.4, 5.5.4, 5.6.4, 5.7.4
Cognitive	Readings on identity and comfort zones might contribute to Cognitive CQ.	5.4.1, 5.6.1
	The basis to Cognitive CQ is understanding one's own identity.	5.4.3
	Awareness about comfort zones in other cultures might contribute to a possible gain in Cognitive CQ.	5.4.3
	Exposure to content regarding cultural oppression can contribute to Cognitive CQ.	5.5.1
	Realisations of being involved in an inclusive programme on the University of the Free State South Campus contribute	5.6.4

	towards an understanding of inclusion and cultural inclusion.	
	Providing practical examples in dealings with diversity in classrooms is a contribution to Cognitive CQ.	5.7.2
Motivational CQ	Motivating students to participate in a learning edge activity outside classroom might contribute to Motivational CQ.	5.4.3
	Images or videos used to showcase cultural oppression in different ways might contribute towards Motivational CQ.	5.5.3
	The lecturer plays an important role in motivating students to become change agents in society.	5.6.3
	Creating an internal drive to interact with other cultures is motivational in nature.	5.7.2
Behavioural CQ	Interaction with other cultures through an activity in class might contribute to Behavioural CQ.	5.4.3, 5.5.3
	Students that participate in a learning edge activity outside classroom will gain Behavioural CQ.	5.4.3
	Sharing knowledge with other cultures might contribute to a mutual gaining in Behavioural CQ.	5.5.4, 5.7.2

5.9 CONCLUSION

In this chapter a critical examination of the module guide and prescribed learning materials was done. The aim of this review was twofold; Firstly, to determine the informational, presentational, representational and interpretational characteristics of the units, and, secondly, to compare the domains of CQ to the previously outlined characteristics, mainly in order to identify similar components used in the module and in the domains of CQ.

An examination of the materials used in the module abetted me to determine which intersecting materials used in the curriculum contributed to an unintended increases in CQ, and which not. What was evident throughout the findings was that the materials on identity contributed towards Cognitive CQ and Meta-cognitive CQ. More precisely, the identity activities should have had a definite impact on those two domains. Interaction is also key in changing values and assumptions amongst different cultures and these interactions used in different group activities would have had an intersecting role amongst all domains of CQ. Finally, the motivational component of this unit should have had either an intrinsic or extrinsic

outcome on the students who participated in the Education module, therefore acting as a bridge component to students developing Behavioural CQ abilities.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

South Africa is still a rather broken society, more than 20 years after the dawn of democracy. The effects of Apartheid are still evident in schools, where many learners in disadvantaged communities even now attend schools under difficult circumstances. Former president Nelson Mandela once said that “Education is the most powerful weapon which you can use to change the world.” However, the education environment and the teachers who teach in that environment, should not pose a barrier to change. In this study, I worked from the assumption that in order for diverse children to relate to teachers and for teachers to understand the diverse learners’ corps, CQ is required.

In the first semester of the University preparation programme, Education students enrol for a module that focuses on issues of diversity. While CQ was not considered in the design of the module, it was possible that one of the unintended outcomes of the module could be that the CQ of students did increase. I was also convinced that aspects related to CQ should purposefully be included in the module to strengthen the CQ of Education students, if such aspects were lacking. The general objective of this study was therefore to determine if a possible increase in CQ was evident amongst the students that participated in the related Education module as one of its unintended outcomes (1.4). Three specific objectives were set out; firstly, to conceptualise CQ through literature in the South African context, and, secondly, to compare the changes between two student groups on one campus after one group completed the Education module whilst the other group did not. For the purpose of this study, the control group of students consisted of students from an Economic and Management Science module, not focusing on any of the issues outlined in the Education module. The third objective was to analyse the content of the Education module through the guidelines provided by David Plowright and analysing the documents through an informational, presentational, representational and inspirational method (2.5).

6.2 FINDINGS AND RECOMMENDATIONS

Each one of the research methods that were used as mentioned above contributed to respond to the main research question, namely: *To what extent can a single Education module, focusing on issues of diversity, positively influence the Cultural intelligence of the students?* These results were summarised in sections 3.9, 4.5 and 5.8. In this section I integrated the results of each of these research methods to gain a deeper understanding towards answering the main research question.

6.2.1 CULTURAL INTELLIGENCE IN THE CONTEXT OF TEACHER EDUCATION

The distinct ability to effectively interact with cultures different from one's own is acknowledged as CQ (3.7.1). This is a desirable ability that each teacher teaching in diverse classrooms should acquire in order to effectively interact with learners in their classrooms (3.7.2.5). The need for teachers to be able to relate to learners of cultures and backgrounds different to their own is indeed highlighted in policy document that guide teacher education qualifications (1.2).

CQ consists of different domains, which formulate the total being of CQ (3.7.2). These are Cognitive CQ, Meta-cognitive CQ, Motivational CQ, and Behavioural CQ. Cognitive CQ entails the level of cultural knowledge a person might have, and Meta-cognitive CQ refers to a person's reflective ability regarding culture, especially his/her own beliefs regarding cultures. The Motivational domain of CQ can contribute towards a teacher's eagerness to teach in a diverse environment, and Behavioural CQ is the result of the other three domains of CQ, i.e. staying true to his/her own beliefs and also respecting other cultures at the same time (1.6).

The four domains of CQ (3.7.2) forms the basis of this study, and was thus the framework that guided each part of the study.

6.2.2 META-COGNITIVE CULTURAL INTELLIGENCE

The first domain of CQ refers to the mental ability of individuals to control cognitive processes in the mind (1.6.1) and thus to understanding the cultural information that one gained (3.7.2.1). Therefore, it refers to a mental process where someone would analyse cultural

information constantly in order to learn from it (3.7.2.1). Literature suggests that higher levels of Meta-cognitive CQ contribute towards higher reflective abilities (3.7.2.1).

At the start of the semester, the control group of students conveyed higher levels of Meta-cognitive CQ, compared to the Education students (4.3.1). Cognitive CQ forms the basis of any other levels of CQ (3.7.2.2). Therefore, these higher levels in Meta-cognitive CQ are in agreement with the higher levels in Cognitive CQ that were also obtained by the control group of students at the start of the semester (4.3.1).

The Education module made use of weekly graded reflective journals to help students with the process of reflecting on the newfound knowledge (5.4.2), thereby contributing to a process of questioning stereotypes they might have had about other cultures (5.4.3). Meanwhile, it also built on Cognitive CQ through different dialogues and classroom activities to contribute to the basis of CQ throughout the module. These reflective processes, combined with a strong basis of CQ, possibly contributed to a gain in Meta-cognitive CQ by the Education group of students (4.3.2). In contrast, the control group of students experienced a decline in their levels of Meta-cognitive CQ (4.3.3).

When comparing the data of the two groups at the end of the semester, a slight difference in scores were evident, but the Education students scored higher levels of Meta-cognitive CQ compared to the control group of students after one academic semester on campus (4.3.4).

As a recommendation to improve Meta-cognitive CQ in the Education module, content or activities can be designed to help students reflect on interactions with other cultures (4.3.6.1).

6.2.3 COGNITIVE CULTURAL INTELLIGENCE

The second domain of CQ conveys one's cultural knowledge, which also includes knowledge regarding one's own culture and identity (1.6.1; 3.7.2.2). This theme of identity is strongly connected through the literature and the content used in the Education module. Literature suggests that education is always about forming identities (3.2) through a system where it is influenced by personal and communal factors (3.4). At the start of the semester, the control group of students conveyed higher levels of Cognitive CQ than the Education group (4.3.1). For me, this was unexpected, due to my assumptions that Education students should possess

these qualities when choosing a career where they will deal with diverse classrooms. The learning process in the Education module could however be connected to a gain in Cognitive CQ (5.4.1) as Cognitive CQ forms the basis of any gain of CQ that someone might experience (3.7.2.2).

The contents used in the Education module, combined with the conduct of the relevant lecturer, could therefore have contributed to a gain in Cognitive CQ of Education students over the course of the semester (4.3.2). In contrast, the students in the control group conveyed a decline in their Cognitive CQ levels (4.3.3), a decline which left them with lower scores of Cognitive CQ, compared to the Education group of students after one semester on campus (4.3.4). The focus on a gain in Cognitive CQ should therefore be on the contents used in the curriculum and should therefore indicate the value of the contents used in this module.

The gain in Cognitive CQ contributes to a better understanding of cultures different from one's own (3.3), and helps students to develop predictive abilities to act accordingly in diverse environments (3.6). This contributes to future change agents, as set out as one of the outcomes of the Education module (5.3). Therefore, the knowledge that these students are equipped with through the contents used in classroom is the greatest contributing factor towards cultural knowledge which formulates Cognitive CQ.

As a recommendation, the contents used in the Education module could include information or activities on, firstly, religious and cultural values, secondly, arts and crafts of different cultures, and, finally, rules for expressing non-verbal behaviour towards other cultures (4.3.6.2).

6.2.4 MOTIVATIONAL CULTURAL INTELLIGENCE

The third domain of CQ acts as a bridge to Behavioural CQ, the outcome of all domains of CQ (3.7.2.3). Literature suggests that Motivational CQ only acts as the drive that someone might experience to act as a change agent (3.7.2.3), and, therefore, suggests an emotional feeling someone might experience in order to reach a certain goal (3.6).

At the start of the semester Education students conveyed higher levels of Motivational CQ than the control group of students. The Education module included a learning edge activity in

which students had to engage with different cultures (5.4.3). This, combined with a large number of videos and images shown to students to depict the way oppression manifests in different ways (5.5.3), and the important role the lecturer played in motivating students (5.6.3), all contributed towards the Motivational CQ of Education students.

At the end of the semester, Education students conveyed an increase in Motivational CQ (4.3.2), as expected, whilst the control group of students experienced a decline in Motivational CQ (4.3.3). When comparing the levels of Motivational CQ at the end of the semester, the Education group still showed higher levels, compared to the control group of students (4.3.4).

This increase in Motivational CQ that Education students experienced will most certainly contribute to an internal belief that they can succeed when dealing with diverse classrooms (5.4.3). This belief is built upon cultural knowledge gained through Cognitive CQ and reflective abilities built through Meta-cognitive CQ, which will assist them in future interactions when dealing with diversity.

As a recommendation to improve the enjoyment of students in interacting with different cultures (4.3.6.3), activities can be designed specifically to address this in their contact sessions as a group in classroom.

6.2.5 BEHAVIOURAL CULTURAL INTELLIGENCE

The final domain of CQ is the result of the other domains of CQ (3.6) and is required for appropriate behaviour towards other cultures (3.6). Literature suggests that appropriate behaviour towards other cultures involves more than being sociable with them (3.7.2.4). Appropriate behaviour can be judged according to spoken and non-spoken actions and someone without the relevant knowledge would find it difficult to act accordingly (3.7.2.4). Moreover, these traits would become a part of one's own identity and one's regard for the other culture would therefore be revealed when dealing with them (3.7.2.4).

At the start of the semester, the Education students conveyed higher levels of Behavioural CQ, compared to the control group of students (4.3.1). Classroom conduct in the Education module contributed to students interacting with other cultures by dividing them into diverse

groups in order to learn from one another (5.4.3). This formed the basis of all group discussions, where learning should take place in an informal setting as well. Students were also exposed to content and dialogues about diversity and oppression that contributed to their foundation of CQ, reflective abilities and motivational activities to contribute towards the behavioural element of their CQ (5.4.4).

After one semester, the education and control group of students both illustrated a gain in Behavioural CQ (4.3.2, 4.3.3). However, Education students still showed more notable levels in Behavioural CQ, when compared to the control group of students (4.3.4).

CQ, as a construct, contains four domains that build upon one another (3.7.2). Therefore, all domains of CQ contribute towards successful interactions and not just the behavioural component (3.7.2.4). Moreover, someone with higher levels of Behavioural CQ will be more relaxed during interactions with other cultures, both in a formal or informal setting (3.7.2.4).

As a recommendation to improve cross cultural respect, different cultures in the class can be specifically examined as a unit, which might contribute towards an understanding of different norms in cultures (4.3.6.4).

6.3 REFLECTIONS

In this part I reflect on my study, the limitations of the research study, as well as suggestions for further research on the topic, and will end with closing arguments.

To unintentionally shape a module around the concepts of CQ shows the value of work the authors of this relevant module did in building this curriculum. It was therefore a privilege to conduct a research study on this module. I therefore feel that the module could be used with a small number of changes across all faculties at the University of the Free State. This is mainly due to the fact that most students will one day enter the working environment in diverse workplaces where cross cultural interactions will occur on a daily basis.

6.3.1 LIMITATIONS OF THE RESEARCH STUDY

This study had specific limitations. Firstly, the study was centred on the Education group of students on the South Campus, which was limited to only 31 students. This contributed to a

random sample of students that was selected out of the control group of students, so that the study will have two equal groups according to their numbers.

Secondly, 2016 was a year that included protesting on campus and campus shut downs that influenced time spent in class by students. The protests in the first semester was a result of the Shimla Park incident, where protesters interrupted a Varsity Cup rugby match, which led to severe clashes between groups and the concomitant disruption of classes. It is uncertain to say whether the classes missed could have contributed to Education students gaining even higher levels of CQ, or whether the incident led to lower levels of CQ in the control group. To affirm this, a new assessment of CQ should have been conducted on students.

Finally, the module is a semester module and assessing CQ over a period of six months is a relatively short time. It would have been ideal to see the change in CQ levels over the course of a whole academic year.

6.3.2 SUGGESTIONS FOR FUTURE RESEARCH

This module is also be presented on the Bloemfontein-, QwaQwa- and Oudtshoorn campuses. I suggest that a follow-up study be undertaken, using the survey tool to compare the possible change in CQ levels across campuses, with different contexts and class sizes. Still, it has to be kept in mind that on the QwaQwa and Bloemfontein campuses, students also enrol for UFS101 which deals with issues of diversity and change. The module is also presented by Sol Plaatje University in Kimberley, and it would be interesting to do a comparable study between universities.

I do believe, however, that in depth discussions with students on their experiences in the module, in various settings, in view of CQ should be undertaken to provide an in-depth understanding of what the students gained in the module. Furthermore, it would be interesting to measure the change in CQ over the four year period of being enrolled for the B Ed programme, to see if these concepts are infused in the rest of the programme, as intended.

6.4 CONCLUDING REMARKS

In view of the findings in the study, I can respond that indeed it seems as if the EDUB1613 module has contributed to an increase in Cultural intelligence of Education students, in the

context of the South Campus. This is a positive indication in view of the demands in the *MRTEQ* that accentuates the importance of teachers' ability to relate to learners of diverse backgrounds. Education students need to have an understanding of the various challenges in the South African society, such as diversity and social challenges that form part of this, and this relates to CQ. It does appear from this study that by offering EDUB1613 to all Education students, the UFS is attempting to address issues of culture and diversity (cf. 1.2).

The influence a teacher has on learners is endless. This influence can either be a positive or a negative one, shaping learners by his/her actions. This is more evident among those learners, who do not share the same culture as the teacher. Having more culturally intelligent teachers would contribute to more diverse interactions and building on a sense of understanding with each interaction. It is therefore necessary to include these concepts in modules for students from all faculties, which would contribute towards more positive interactions in our diverse society.

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STUDY MATERIAL REVIEWED

Le-Roux, A., & Mdunge, P.M. (2013a). EDUB1613 module guide: Individual in the learning context. University of the Free State. Xerox.

Le-Roux, A., & Mdunge, P.M. (2013b). EDUB1613 PowerPoint slides: Unit 1-4. University of the Free State.

ADDENDA

ADDENDUM A: PERMISSION LETTERS

Informed consent: lecture form

Ingeligte toestemming / Informed Consent

Toesighouer/ Supervisor: L. Jacobs- 051 401 3421

Titel van Navorsingsprojek/ Title of research project: Improving Cultural intelligence of Education students through an Education module

Datum/ Date: _____

My naam is CC Nel en ek is tans werksaam by die Sentrum vir Onderrig en Leer by die Universiteit van die Vrystaat. U word hiermee uitgenooi om te deel te neem aan die navorsings studie wat fokus op Kulturele Intelligensie van studente wat deelneem aan 'n Opvoedkunde module in vergelyking met diegene wat nie daaraan deelneem nie. Die studie sal na verwagting 60 deelnemers in totaal hê, 30 in elke groep. Dit behels dat deelnemers die 20 Item CQS vraelys sal voltooi wat daarna sal aandui op watter vlak van Kulturele Intelligensie hulle tans is. Ang et al., (2007, bl. 1) definieer Kulturele Intelligensie as volg: "Die skynbare natuurlike vermoë van 'n buitestaander om 'n vreemdeling se onbekende gebare te interpreteer op dieselfde manier waarop hy/sy, sy eie kultuur genote sou interpreteer." Dit sal gedoen word met behulp van 'n voor toets en na toets in die begin en einde van die semester. Ons hoop is dat die studie aan ons sal aandui tot watter mate die EDUB 1613 modules suksesvol was in die verband. Die studie is eties hersien en deur die UV se Etiek komitee goedgekeur. Geen van hierdie vraelyste sal openbaar bekend gemaak word nie, dit sal slegs gebruik word om bevindings vir die navorsing te bepaal. Al die inligting verskaf deur die verskillende deelnemers sal saamgevoeg word voordat dit geanaliseer word. Geen individuele deelnemer se data sal beskikbaar wees op enige stadium nie. Daarna sal dit in 'n veilige plek bewaar word wat slegs deur die navorser self geopen kan word.

My name is CC Nel and I'm currently employed at the Centre for Teaching and Learning for the University of the Free State. You are hereby invited to consider participating in a study that involves research on Cultural intelligence of students participating in an Education module, compared to those who is not. The study is expected to enrol 60 participants in total, 30 in each group. It involves participants to complete the 20 Item CQS questionnaire which will afterwards indicate a level of Cultural intelligence that you possess. Ang et al., (2007, p. 1) defines Cultural intelligence as: "an outsider's seemingly natural ability to interpret someone's unfamiliar and ambiguous gestures the way the person's compatriots would." This will be conducted using a pre-test and post-test in the beginning and end of the semester. We hope that the study will provide us with insights into the success of the EDUB 1613 module in this regard. The study has been ethically reviewed and approved by the UFS research and Ethics Committee. None of these questionnaires will be shared publicly, as it will only be used to

determine a finding for the research. All the information on that will be provided by the participants will be grouped together before the analysing thereof will start. No individual participant's data will be made available at any stage. Afterwards it will be kept in a safe which only the researcher himself has access to.

Voltooi asseblief die volgende:/ Please complete the following information:

Naam en van/ Name and Surname _____

1. Hiermee gee ek toestemming dat 15 minute van my module gebruik ma word vir navorsingsdoeleindes/ *I hereby provide my consent that 15 minutes of my module can be used for research purposes.*

Die psigometriese toets wat geadministreer gaan word tydens die sessie is/*The psychometric assessment that will be conducted during this session are:*

- Die 20 item CQS skaal. / The 20 item CQS scale.

DOSENT/ LECTURER

DATUM/DATE

TOETSADMNISTREERDER/ TEST ADMINISTRATOR

Informed consent: student form

Ingeligte toestemming / Informed Consent

Titel van Navorsingsprojek/ Title of research project: *Improving Cultural intelligence of Education students through an Education module*

Datum/ Date: _____

My naam is CC Nel en ek is tans werksaam by die Sentrum vir Onderrig en Leer by die Universiteit van die Vrystaat. U word hiermee uitgenooi om te deel te neem aan die navorsings studie wat fokus op Kulturele Intelligensie van studente wat deelneem aan 'n Opvoedkunde module in vergelyking met diegene wat nie daaraan deelneem nie. Die studie sal na verwagting 60 deelnemers in totaal hê, 30 in elke groep. Dit behels dat deelnemers die 20 Item CQS vraelys sal voltooi wat daarna sal aandui op watter vlak van Kulturele Intelligensie hulle tans is. Ang et al. (2007) definieer Kulturele Intelligensie as volg: "Die skynbare natuurlike vermoë van 'n buitestaander om 'n vreemdeling se onbekende gebare te interpreteer op dieselfde manier waarop hy/sy, sy eie kultuur genote sou interpreteer." Dit sal gedoen word met behulp van 'n voor toets en na toets in die begin en einde van die semester. Ons hoop is dat die studie aan ons sal aandui tot watter mate die EDUB 1613 modules suksesvol was in die verband. Die studie is eties hersien en deur die UV se Etiek komitee goedgekeur. Deelname aan hierdie navorsing is vrywillig en jy kan jou deelname onttrek op enige gegewe tyd. Geen van hierdie vraelyste sal openbaar bekend gemaak word nie, dit sal slegs gebruik word om bevindings vir die navorsing te bepaal. Al die inligting verskaf deur die verskillende deelnemers sal saamgevoeg word voordat dit geanaliseer word. Geen individuele deelnemer se data sal beskikbaar wees op enige stadium nie. Daarna sal dit in 'n veilige plek bewaar word wat slegs deur die navorser self geopen kan word. Jou privaatheid word ten volle beskerm en sal nie gedeel word met enige iemand anders as die navorsingspan nie. Indien U enige probleme ondervind of vrae aan die navorser het, kan U hom skakel by 051 505 1248 /

My name is CC Nel and I'm currently employed at the Centre for Teaching and Learning for the University of the Free State. You are hereby invited to consider participating in a study that involves research on Cultural intelligence of students participating in an Education module, compared to those who is not. The study is expected to enrol 60 participants in total, 30 in each group. It involves participants to complete the 20 Item CQS questionnaire which will afterwards indicate a level of Cultural intelligence that you possess. Ang et al. (2007) defines Cultural intelligence as: "an outsider's seemingly natural ability to interpret someone's unfamiliar and ambiguous gestures the way the person's compatriots would." This will be conducted using a pre-test and post-test in the beginning and end of the semester. We hope that the study will provide us with insights into the success of the EDUB 1613 module in this regard. The study has been ethically reviewed and approved by the UFS research and Ethics Committee. Participation in this research is voluntary and you can withdraw your participation at any

given time. None of these questionnaires will be shared publicly, as it will only be used to determine a finding for the research. All the information on that will be provided by the participants will be grouped together before the analysing thereof will start. No individual participant's data will be made available at any stage. Afterwards it will be kept in a safe which only the researcher himself has access to. Your confidentiality is protected in full and will not be shared with anyone other than the research team. In event of any problems or concerns/questions you may contact the researcher at 051 505 1248.

Voltooi asseblief die volgende: / Please complete the following information:

Naam en van/ Name and Surname _____

2. Hiermee gee ek toestemming dat my toetsresultate gebruik mag word navorsingsdoeleindes / *I hereby provide my consent that my assessment results may be utilised for research purposes.*
3. Ek erken dat my deelname aan die proses vrywillig is en dat ek enige tyd mag onttrek sonder dat dit enige nagevolge op my studies sal hê. / *I acknowledge that being a participant is voluntarily that I may withdraw at any stage without it having any consequences on my studies.*
4. Ek verstaan dat die resultate konfidensieel en privaat hanteer sal word, en sal slegs gerapporteer word in 'n gesamentlike formaat (gekombineerde resultate). Alle verslae sal verberg word. / *I understand that the results will be dealt with confidentially and privately, and will only be reported in an aggregate format (combined results). All reports will be concealed*
5. Die psigometriese toets wat geadministreer gaan word tydens die sessie is: / *The psychometric assessment that will be conducted during this session is:*
 - Die 20 item CQS skaal. / *The 20 item CQS scale.*

TOETSAFNEMER/ TEST TAKER

DATUM/DATE

TOETSADMNISTREERDER/ *TEST ADMINISTRATOR*

ADDENDUM B: QUESTIONNAIRE

Demographic questions

Please indicate the following information for research purposes. / Voltooi asseblief die volgende inligting vir navorsingsdoeleindes.

Geslag

Gender _____

Ras

Race _____

Ouderdom

Age _____

English questionnaire

The Cultural Intelligence Scale (CQS)

Instructions

Read each statement and select the response that best describes your capabilities. Select the answer that **BEST** describes you **AS YOU REALLY ARE** (1=strongly disagree; 5=strongly agree)

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.					
2. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.					
3. I am conscious of the cultural knowledge I apply to cross-cultural interactions.					
4. I check the accuracy of my cultural knowledge as I interact with people from different cultures.					
5. I know the legal and economic systems of other cultures.					
6. I know the rules (e.g., vocabulary, grammar) of other languages.					
7. I know the cultural values and religious beliefs of other cultures.					
8. I know the marriage systems of other cultures.					
9. I know the arts and crafts of other cultures.					
10. I know the rules for expressing non-verbal behaviors in other cultures.					
11. I enjoy interacting with people from different cultures.					
12. I am confident that I can socialize with locals in a culture that is unfamiliar to me. MOT3					
13. I am sure I can deal with the stresses of adjusting to a culture that is new to me.					
14. I enjoy living in cultures that are unfamiliar to me.					
15. I am confident that I can get accustomed to the shopping conditions in a different culture.					
16. I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it. BEH2					
17. I use pause and silence differently to suit different cross-cultural situations.					
18. I vary the rate of my speaking when a cross-cultural situation requires it.					
19. I change my non-verbal behavior when a cross-cultural situation requires it.					
20. I alter my facial expressions when a cross-cultural interaction requires it.					

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Note. Use of this scale granted to academic researchers for research purposes only.

For information on using the scale for purposes other than academic research (e.g., consultants and non-academic organizations), please send an email to cquery@culturalq.com

Afrikaans questionnaire

The Cultural Intelligence Scale (CQS)

Instruksies

Lees elke stelling en kies die reaksie wat jou vermoëns die beste beskryfs. Kies die een wat jou die beste beskryf soos jy regtig is. (1=stem glad nie saam nie; 5=stem sterk saam)

Stelling	Stem glad nie saam nie	Stem nie saam nie	Neutraal	Stem saam	Stem sterk saam
1.Ek is bewus van kulturele kennis wat ek gebruik wanneer ek in kontak kom met mense van ander kulture.					
2.Ek maak aanpassings in my kulturele kennis sodra ek met iemand van 'n ander kultuur in kontak kom.					
3.Ek is bewus van die kulturele kennis wat ek toepas sodra ek met ander kulture meng.					
4.Ek kyk of my kennis oor ander kulture ooreenstem met die werklikheid deur dit te toets in werklike interaksie.					
5.Ek verstaan die wetlike en ekonomiese stelsels van ander kulture.					
6.Ek verstaan die reëls (bv woordeskat, grammatika) van ander tale. .					
7.Ek ken die kulturele waardes en godsdienstige oortuigings van ander kulture.					
8.Ek verstaan die huwelik stelsels van ander kulture.					
9.Ek verstaan die kuns en kunsvlyt van ander kulture.					
10.Ek verstaan dat daar reëls bestaan vir die uitdrukking van nie-verbale gedrag in ander kulture..					
11.Ek geniet dit om te meng met mense van ander kulture as my eie.					
12.Ek is seker dat ek met ander plaaslike kulture kan sosialiseer wat nie soos ek is nie.					
13.Ek is seker dat ek kan aanpas by die spanning wat gepaard gaan met aanpassing van 'n ander kultuur.					
14. Ek geniet dit saam met mense van ander kulture te woon.					
15.Ek is vol selfvertroue dat ek kan aanpas by die maniere hoe 'n ander kultuur hul inkopies elke maand doen.					
16.Ek sal my verbale gedrag (bv aksent, toon) verander wanneer 'n kruis-kulturele interaksie dit vereis.					
17.Ek gebruik 'n breuk en tye van stilte (indien nodig) in my gesprekke waarby mense van ander kulture betrokke is..					
18. Ek wissel die tempo van my stem in 'n kruis-kulturele situasie as dit vereis word.					
19.Ek sal my nie-verbale gedrag verander wanneer 'n kruiskulturele situasie dit vereis .					
20.Ek verander my gesigsuitdrukkings wanneer 'n kruis-kulturele interaksie dit vereis .					

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ADDENDUM C: ETHICAL CLEARANCE LETTER



Faculty of Education

24-May-2016

Dear Mr Christoffel Nel

Ethics Clearance: Improving cultural intelligence of education students through an education module

Principal Investigator: Mr Christoffel Nel

Department: School of Education (Bloemfontein Campus)

APPLICATION APPROVED

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence is: **UFS-HSD2016/0046**

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours faithfully

Dr. Juliet Ramohai
Chairperson: Ethics Committee

Education Ethics Committee
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