

**THE EFFECTIVENESS OF USING TRANSLANGUAGING IN COLLABORATIVE
LEARNING TO ENHANCE READING COMPREHENSION IN FIRST YEAR
UNIVERSITY STUDENTS**

BY

VIMBAI HUNGWE



Thesis

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Supervisor: Dr R.V MCcabe

Co-supervisor: Dr K. Makhudu

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Declaration

I declare that, **The effectiveness of using translanguaging in collaborative learning to enhance reading comprehension in first-year university students**.is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

Full names:

Signature:

Date:

Dedication

To my late, father Beau Komboni Mbirimi. I wish he were here to see his little girl's achievement. However, my father left me in the care of a great and profound woman, my mother Leocardia Mbirimi. I would like to thank her for her unwavering support and steadfastness during the most difficult times. She has been a shield and a source of strength to me. Thank you Vachivi for making me the woman I am today even in the absence of baba.

Even though my father left me, I am still his little girl. This little girl has a supportive husband and beautiful kids to whom she wants to express gratitude. Thank you Taurai for the emotional support you gave me when I felt like giving up. You have been my source of hope and determination. To our beautiful angels, Tendai and Mukundi, here is why mom would lock herself up in her room when you wanted her attention. Thank you for understanding that mom really needed this.

To my sister Rutendo Mbirimi-Marumazvitsva, you are one in a million, my sister. Thank you for being there when I needed a shoulder to cry on during this journey.

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Abstract

This study reports on a study conducted among first-year health science students at Sefako Makgatho University of Health Sciences (SMU). The purpose of the study was to ascertain the effectiveness of using translanguaging during collaborative learning to enhance reading comprehension. The research used a mixed convergent parallel design. Data was collected using both qualitative and quantitative strands. These sets of data were collected in parallel using written summaries, closed-ended questionnaire, audio recordings as well as focus group discussions. Data that was collected using written summaries and the closed-ended questionnaire was analysed qualitatively. On the other hand, audio recordings and focus group discussions data were analysed qualitatively. Despite having collected data separately, results from the two data strands were merged and interpreted. Results from the two sets of data corroborate to the fact that indeed translanguaging during group discussion enhances reading comprehension among students. Based on the results of this study, I would like to urge lecturers to adopt a translanguaging approach to teaching, especially during collaborative learning in order to leverage students' academic achievements. The current linguistic landscape of the 21st century dictates the recognition, acknowledgement and utilisation of multilingualism in education. In this regard, it is time for linguistic boundaries to be dismantled and usher in translanguaging in multilingual classrooms. Results of this research have prompted me to urge and call lecturers in a multilingual environment to abandon the insistence on the monolingual use of English for teaching and learning and allow students to use their full linguistic repertoires for meaning-making and understanding of concepts.

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CHAPTER 1

Background and motivation

1.1 Introduction

The massification of tertiary education worldwide has resulted in an increase in access for students from different backgrounds. South Africa has not been spared from this global shift. For the past 15-20 years, South African universities have been accepting students from diverse linguistic, cultural and linguistic backgrounds. However, many of these students have proven to be academically ill-prepared to cope with the academic demands at university. Worth noting is the students' multilingual nature with English being predominantly a second language (Ngcobo 2014). Many students find it difficult to read and comprehend texts in English. Various measures have been put in place in many South African tertiary institutions in order to bridge the linguistic gap caused by the monolingual use of English as the language of teaching and learning (LOTL). Academic literacy programmes have been put in place in several universities to help first-year students cope with the academic reading and writing demands (Parkinson, Jackson, Kirkwood and Padayachee, 2008).

Sefako Makgatho University of Health Sciences (SMU) has also been admitting students who face academic reading and writing challenges. The Department of Language Proficiency has been mandated by the university to assist students to improve their academic reading and writing skills. All first-year students registered in health science disciplines are required to take a course called English for Health

Sciences (MEHS010). Through a year's duration, the course exposes students to reading and writing for different academic genres. However, due to low proficiency in the English language, many students struggle to cope with the reading demands of their academic disciplines. Having taught on this course and having taught similar courses at various institutions, it has become an increasing concern that many students are struggling to cope with the academic reading required in their courses. I have always been trying to find ways to help such students. Because of my interest to find ways of helping students who are not first language speakers of English, who struggle to comprehend text written in English and find it difficult to cope with the reading demands of their courses, I decided to embark on a literature enquiry.

The literature points out the benefits of using translanguaging as a pedagogical strategy in multilingual pedagogy, (Garcia, 2009b; Lewis, Jones and Baker, 2012; Madiba, 2014; Paxton, 2009; Thamaga-Chitja and Mbatha, 2012; Canagarajah, 2011). Available literature also points out that students use translanguaging (whether mandated or not by lecturers) as a strategy to negotiate to understand, co-construct meaning and to include others (van der Walt & Dornbrack, 2011; van der Walt, Mabule and De Beer, 2001; Mashiyi, 2013; Canagarajah, 2011; Hibbert and van der Walt, 2014 and Garcia, 2009b). This view is supported by an earlier study that I conducted with a colleague at the University of Pretoria. The study concluded lecturers generally regarded that translanguaging as a useful pedagogic tool. Many lecturers in the study admitted that they are aware that students do use translanguaging (Boakye and Mbirimi- Hungwe, 2015).

Many studies conducted locally (South Africa) in the field of translanguaging generally agree that translanguaging is indeed a useful pedagogic strategy (Ngcobo, 2014; Makalela, 2014; Madiba, 2014; Paxton, 2009; Boakye and Mbirimi-Hungwe, 2015). The effectiveness of using translanguaging has further been confirmed by a survey that I conducted at the University of Pretoria. The survey sought to enquire students' perceptions about the use of translanguaging. Participants of this survey generally expressed happiness and sense of comfort when they were allowed to use translanguaging during group discussions. They also agreed that discussing concepts in collaborative groups using the translanguaging approach helped them understand academic texts. In addition, they mentioned that translanguaging helped them with the metacognition process because the fact that they could read the text in English and discuss with group members in their L1 assured them of having understood the text.

Although research in South Africa and internationally show the benefits of using translanguaging as an effective strategy to enhance learning, there is no evidence to show translanguaging as a collaborative activity to enhance understanding of texts.

1.2 Research problem

1.2.1 Reading literacy level

Governments worldwide have shifted higher education from being elite to a mass education system (Crabtree and Silver, 2004). South Africa has not been spared from this global shift. Attempts to increase access and student enrolment in higher

education have been ongoing in South Africa for the past 15 to 20 years. The massification of HE has created opportunities for students from different backgrounds to enter into university. Of significance, is the increased access into university for students from previously disadvantaged groups who usually lack the necessary academic literacy skills in academic reading proficiency.

According to research in South Africa, many students attended schools where very little stress was placed on reading and writing (Taylor and Vinjevold, 1999; Probyn, 2006). Compounding this is a scenario where most students (pupils) in primary school have inadequate access to books in either their mother tongue or in English from an early age (Pretorius and Matchet, 2004). Such background hinders the development of reading culture among students. Pretorius (2000) also attributes reading challenges at the university level to a lack of emphasis on the importance of reading at the school level. Poor teaching methods at school level have also been identified as a factor that hinders effective reading development (Currin and Pretorius, 2010; van Staden and Howie, 2010).

Consequently, low academic reading proficiency is the result. This is evidenced by the difficulties faced by many students in reading and comprehending in English. Yeld (2009) confirms in a report on the National Benchmark Test project (NBTP) that many students who enrol in university have low academic literacy levels. The main purpose of the NBTP is to determine students' level of preparedness for academic tasks such as reading and writing at tertiary level. The NBTP classifies students into three main levels namely: proficient or academically prepared level, the intermediate

or academically disadvantaged level and the basic or academically high-risk levels. According to Yeld (2009), many students who enter into university in South Africa are placed at the basic or intermediate levels. Palpably, the preponderance of entry cohorts in South Africa's institutions of higher learning face academic challenges, especially in academic reading.

Despite the low academic literacy levels exhibited by many students in South Africa, the use of English as the language of teaching and learning contributes to the academic challenges faced by students. The next section elaborates the language situation in South Africa and how the language situation affects students' academic achievements.

1.2.2 Language(s) in South African Education

In spite of the low academic literacy level exhibited by many students who enter into university, a majority of the students face academic challenges because English is the language that is predominantly used for teaching and learning in many universities. The use of indigenous languages for teaching has become untenable in South Africa because access to higher education, which is emblematic for employment prospects and progressive social mobility, depends on English language proficiency (Klapwik and Van der Walt, 2016: 67). In addition, Bantu education policies that were enacted during the apartheid era engraved beliefs and attitudes in many South African parents that the use of indigenous languages for teaching and learning is tantamount to substandard education (Kotze, 2014). Bourdieu (1977) adopts an economic perspective of language where language is

viewed as an instrument of power and users become endowed with linguistic capital. In the same manner, Klapwik and Van der Walt (2016), explain that in South Africa many students who enter into university are aware of the fact that English is the 'linguistic currency' for obtaining success. This presents an incongruence in the education system because the majority of students in South Africa are multilingual and are not first language speakers of English therefore, attaining proficiency in the language is a torrid task for many of them. Thus, these students are taught in languages that they are not competent enough to understand concepts. Consequently, due to the high status that the English language has been accorded especially in the education system, many students who are not proficient in the language are relegated to be in need of remedial action (Ndhlovu, 2017). Many students are banished to being academically incapable just because they cannot perform according to the expectations of the English language. Needless to mention that the South African education system still clings to the nation-state ideology where languages are separated and due to corpus planning some languages are superior to others (Ndhlovu, 2017; Makalela, 2017; May, 2017; Garcia and Li, 2014; Makoni and Pennycook, 2007). Due to the separation of languages, many education practitioners in preference to the monolingual use of the English language have shunned multilingualism in education. The major reason asserted by many language researchers being that multilingualism in education causes mental confusion in students (Baker, 2000, 2007). A monolingual bias in education has been perpetuated by lower levels of the education system up to the tertiary level.

The undoubted fact is that South Africa is a multilingual country and its constitution prescribes all 11 languages as official languages. Thus, the promotion of multilingual

education in South Africa is highly justified given the diversity of its population (Boakye and Mbirimi-Hungwe, 2015). In addition, several language policies have been published since independence in 1994. These policies cater for tertiary institutions, specifically, they seek to guard against the use of language to perpetuate inequalities and to promote multilingualism (Maseko, 2014). In particular, these policies aim to promote linguistic and cultural diversity in universities as well as to prepare students to participate fully in the South African multilingual society. It is also important to note that the legislative policies make a provision for preventing the dominance of English and Afrikaans from being used as a barrier to the access and retention and success of speakers of other languages.

In fact, one of the policies is the Language Policy for Higher Education (LPHE) Department of Education (2002). This policy stipulates that the promotion of South African languages for use in higher education should be done by developing multilingual dictionaries and other teaching and learning support materials.

The policy also states that consideration should be accorded to the development of other South African languages for use in instruction to promote multilingualism (Department of Education, 2002).

In 2011, the Department of Higher Education and training initiated the Charter for the Humanities and Social Sciences (CHSS). This initiative is a national multidisciplinary project focusing on how indigenous languages in South Africa can buttress the process of concept formation in Humanities and Social Sciences and furthermore

how knowing these languages could enrich social scientific thinking and pedagogy (Department of Higher Education and Training, 2011).

In addition to the CHSS, a Green paper on Post-Secondary School Education and Training (2012) was published. This policy recognises and acknowledges the inferior status accorded to African languages in South Africa and accedes that this is a threat to the linguistic diversity. In order to revive the African languages, the Green Paper on Post-Secondary School Education and Training (2012) provides for African languages to be taught across disciplines at universities.

In spite of the policies in place to promote multilingualism, multilingual education and recognition and utilisation of other languages in HEIs has been in the horizon but they have not been fully embraced in order to be put in practice. The English language has continued to be the dominant language of teaching and learning in most South African universities (Maseko, 2014). The fact that multilingualism is not being acknowledged in practice in universities has seen a great impact on the multilingual students who enrol in universities. One of the effects has been the high failure rate among university students.

According to Makalela and McCabe (2013), one of the universities that is still using English as the sole medium of instruction is the University of Limpopo. Languages that are predominantly spoken by students at the university are Sepedi, XiTsonga and TshiVenda but the university does not cater for these students' linguistic requirements and continues to use English monolingually for teaching and learning.

Worth noting, the University of Limpopo caters and admits students coming from rural backgrounds and admittedly, many of these students have low English language proficiency (Mbirimi-Hungwe, 2016). Many of these students could have experienced poor teaching methods from primary school to high school level resulting in poor literacy levels especially in the English language (Pretorius and Currin, 2010). The monolingual use of English at the University of Limpopo as the medium of instruction has been inherited by SMU. SMU was part of the University of Limpopo until the demerger in 2015. Now there is no clear language policy regarding the use of other languages besides English at the university. Thus, landing SMU into the list of universities that are still using English only as the medium of teaching and learning.

Similarly, Maseko (2014) points out that Rhodes predominantly admits IsiXhosa speaking students but the use of IsiXhosa as the medium of instruction is still far from being implemented. Ngcobo (2014) provides the results of a study conducted at the Mangosuthu University of Technology where students express their willingness to have IsiZulu used for teaching and learning. However, the status quo at the university still maintains the use of English for teaching and learning. The undeniable fact is students struggle with the linguistic demands of using English as the sole medium of instruction.

As mentioned earlier on, in section 1.1.1 of this chapter, many students who enrol at universities are not prepared to cope with the academic literacy challenges (Yeld, 2009; Pretorius and Currin, 2010; Boakye and Mai, 2016). Their academic woes are

exacerbated by the fact that these students are expected to use English, as the medium of instruction, which in fact is not their first language neither, is it a second language. In most cases, English is a third or fourth language (Ngcobo, 2014) to many students. Consequently, English is not yet adequately developed to be used as the language of learning for these students. Thus, the failure rate that is experienced by many students is not educational or academic failure but 'linguistic failure' (Stubbs, 2002: 65).

In this sense, a possible educational approach that is being explored in the 21st century should be considered. This approach is called translanguaging. Translanguaging for pedagogical purposes allows multilingual students to bring in their various language practices into understanding the academic material (Lewis *et al*, 2012). Translanguaging has been evinced to be a useful pedagogical strategy to help multilingual students to utilise their language practices to make meaning and attain deep understanding of learned material (Madiba, 2014; Makalela, 2014; Mbirimi-Hungwe, 2016; Garcia, 2009a; Garcia, 2009b; Lewis *et al*, 2012; Garcia and Li, 2014; Garcia, Flores and Woodley, 2012). Translanguaging has been reported to be a useful pedagogic strategy to affirm the academic capabilities possessed by multilingual students.

There has been no study conducted that seeks to combine the use of translanguaging with the sociocultural theory. According to the theory (Vygotsky, 1978) knowledge is acquired interpersonally, in relationship with others before it becomes internalised. Using the sociocultural theory as the basis, this study will use

group collaboration, group discussion in particular to enhance the acquisition of knowledge. In the same vein, translanguaging will be used to help participants to gain an understanding of reading material during the group discussions. In essence, the study aims to combine translanguaging and group collaboration to ascertain the effectiveness of the two strategies to enhance reading comprehension in first-year students.

1.3 Nature of study

This study uses a mixed methods approach whereby both qualitative and quantitative data is collected and analysed. By utilising a mixed methods approach, the study can further be categorised as a convergent parallel mixed methods approach. This method allows the researcher to collect and analyse data separately using both qualitative and quantitative methods (Cresswell, 2014). In the same way, this study seeks to resolve the enquiry using qualitative and quantitative methods. The data will be collected separately, analysed separately and will be integrated during the interpretation stage.

It is also important to note that the study utilised students as participants selected using non-random selection criteria that is, participants in this study were allocated to the researcher by virtue of the researcher being their lecturer.

The research conformed to all ethical requirements, thus the study is an ethically compliant research where all protocols were followed including getting written

consent from the participants. Where participants, as well as authorities, did not consent, the researcher used alternative means, which did not impede ethical issues.

An outline of the study is outlined below that is the purpose of the study as well as research questions and an introduction to the research methods. These aspects will be elaborated in later chapters.

1.4 Purpose of study and research questions

1.4.1 The aim of the study

The aim of this study is to investigate the effectiveness of using translanguaging during collaborative learning to enhance learning.

1.5 Objectives of the study

The objectives of this study are to:

1.5.1 Investigate the effectiveness of using translanguaging during collaborative learning to enhance reading comprehension.

1.5.2 Explore students' views on the use of translanguaging in collaborative reading activities.

1.6 Research questions

The following are the research questions for this study:

- 1.6.1** Is the use of translanguaging during collaborative learning an effective pedagogic strategy to enhance reading comprehension?
- 1.6.2** How can lecturers use collaborative learning through translanguaging effectively to help students read and understand the academic content?
- 1.6.3** What are students' views on the use of translanguaging during collaborative learning?

1.7 Research methodology

1.7.1 Research design

The research used the convergent parallel mixed methods approach (Cresswell and Plano Clark, 2011; Creswell, 2014). This is a research design in which qualitative and quantitative data are collected parallel, analysed separately and then merged (Creswell, 2014). Mixed methods is broadly defined by Tashakori and Creswell (2007 : 3) as research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches. Johnson, Onwegbuzie and Turner (2007), also define mixed methods as an intellectual and practical synthesis based on qualitative and quantitative research. The mixed methods studies as the name suggests involves the integration of qualitative and quantitative findings at different stages of the research process.

Kroll and Neri (2009), outline the various stages of research processes where integration of research findings can occur. According to Kroll & Nell (2009), the integration of quantitative and qualitative findings can be done during data collection, data analysis or at the interpretative stages of the research. In this regard, this research will integrate and draw inferences from the qualitative and quantitative data strands at the interpretative stage of the research. Hence, the research is a convergent parallel mixed methods design.

1.7.2 Sampling

Participants of this research were students allocated to the groups taking MEHS010. A non-random convenience sampling was used. This technique of sampling entails that subjects are chosen simply because they are easy to recruit (www.ubos.org). That is, students who were taught by the researcher participated in the research. There was one control group and one intervention group who participated in the collection of one set of quantitative data. Intervention (translanguaging during group collaboration) was done to the treatment group only and the control group did not receive treatment. Forty-eight students studying towards a Bachelor of Medicine, Bachelor of Surgery (MBChB) participated as the intervention group whereas 37 students aspiring to become Occupational therapists (BOT) participated in the control group. The researcher wanted to note any improvement in learning especially reading comprehension because of the treatment. Hence, the control group will be used for comparison in terms of the effectiveness of the intervention.

One hundred and ten participants from Bachelor of Medicine, Bachelor of Surgery (MBChB), Bachelor of Occupational Therapy (BOT) and Bachelor of Radiography

(BRAD) participated in responding to a closed-ended questionnaire. These students were also using the non-random convenience sampling. That is the researcher was teaching these students. Twenty of these 110 participants partook in the audio recordings and seven students participated in the focus group discussions. It is important to note that the number of participants differed for each strand of data that was collected. This was due to some participants willing to participate and others not willing to participate in the research. However, in a mixed method approach, the number of participants can differ for each strand of data collected because each data sample is collected independent of the other (Creswell, 2009).

1.7.3 Data collection

Data was collected using four instruments namely: close-ended questionnaire, audio recordings, focus group discussions and written summaries.

A closed-ended questionnaire was administered to the participants with the purpose of finding out students' perceptions on the use of the translanguaging strategy to improve comprehension of academic texts.

The participants were audio recorded during group discussion after reading a text. The use of audio recordings allowed the researcher to capture all group discussion activities and to analyse the data collected at a later stage. Audio recordings can be played back when the need arises during data analysis.

In order to get perceptions of the participants on the use of translanguaging during group discussions interviews were conducted using focus group discussions (FGD). Focus group discussions were conducted with a few selected groups and an interview guide was used to direct the discussions.

Data based on students' performance on the summaries written after reading an academic text was collected from both the control group and the intervention groups. Participants were required to write summaries based on the text they would have read and discussed (using translanguaging) during group discussions.

1.7.4 Data analysis

Data was collected using summaries written by the students. A comparison between the performance of the intervention group and the control group will be done. The analysis was done statistically using the t-test. Responses from a questionnaire consisting of closed-ended questions were analysed quantitatively using descriptive statistics. Audio recordings data were transcribed and analysed qualitatively using recurrent themes. The interviews from the focus group discussions were analysed qualitatively based on recurrent themes.

1.7.5 Quality Criteria

The research utilised the mixed method approach. Therefore, the quality criteria were as follows:

Reliability: The questionnaire was used in a pilot study to obtain preliminary results. Using the questionnaire for pilot purposes points out any irregularities, which can be

redressed for the actual data collection during the research thus ensuring the reliability of the instrument. The summaries were assessed using a rubric specifically designed to assess summaries. The researcher also allowed independent markers to mark in order to avoid bias towards the intervention group.

Validity: In order to measure the effectiveness of the intervention (translanguaging) a t-test was used to test and compare participants' performance after reading test both control and intervention groups. This is a standard test used to measure the significant difference between two or more means.

Credibility: To ensure the credibility of results from qualitative data was presented and described thoroughly according to the recurrent themes. Examples were quoted directly from the data to explain the findings.

Transferability: Data was presented linking to the theoretical frameworks, which were identified in the literature review section. In addition, intensive descriptions were provided in order to afford other researchers in the same settings who might be interested in using the same criteria to conduct their own research.

Dependability: Caution was taken to ensure that the results and data address the research questions. The researcher ensured that the research questions are congruent with the data presented by ensuring and indicating that all research questions are responded to by the results.

Confirmability: The research methods explicitly shows that the research is a mixed method approach where a questionnaire, audio recordings, interviews and summaries will be used to collect data. The data will also be made available for re-analysis by other scholars/ researchers in the field.

1.8 The significance of the study

A number of studies have been conducted locally and internationally to prove the effectiveness of using a collaborative approach to teaching at the tertiary level. Translanguaging as a pedagogic practice has also been researched and research is continuing to prove the effectiveness of using the strategy especially in the multilingual classrooms we find in South Africa. However, there has not been research conducted on the use of translanguaging in group collaborative activities to enhance reading comprehension, especially in South African higher education contexts. In fact, according to Mazak and Connell (2016), there is very little literature that exists on translanguaging in higher education. This research intends to respond to the reading problems encountered by students at tertiary level using the translanguaging during group collaboration approach. Therefore, it is significant because it will help L2 students to cope with the challenges that they face in comprehending texts written in English. It is also significant because it will provide suggestions and recommendations to researchers and academics on how to use translanguaging during group collaboration to assist students who are facing reading comprehension and understanding of concepts in English, which is not their first language.

1.9 Ethical considerations

The researcher upheld the necessary ethical considerations that protect both the researcher and the research participants. According to Mackey and Gass (2013: 25), the researcher has to ensure that research participants are assured of the confidentiality and anonymity of the information they will supply. With regards this

study, an informed consent was sought from the participants. Mackey and Gass (2013) emphasize the importance of informed consent based on adequate information to the participants so that their participation will be voluntary without coercion. In this regard, participants in this study were accorded the right to choose to participate in the study. They chose to participate based on clear explanations by the researcher about the research and what was required of them as participants of the research. Thus, some participants agreed to participate and others declined to participate. Nothing was held against those who were not willing to participate, instead, the researcher worked with those who were willing to participate in the study without disadvantaging those who were not willing to participate.

This chapter has provided a background to the research. It has also stated the problem and the justification of the need for such a research to be conducted. In addition, the chapter has provided an overview of the research methodology, quality criteria and the significance of the study.

The next chapter will provide the theoretical and conceptual framework of the theories foregrounding this research i.e. the translanguaging theory (Garcia, 2009 a & b) Slavin's (2010) reconciled model of collaborative perspectives and the L2 reading model (Grabe and Stoller, 2011).

CHAPTER 2

Theoretical Framework and Literature Review

2.1 Introduction

The previous chapter (Chapter 1) provided the background to this study and outlined the problem statement, research questions, objectives as well as the significance of this study. The purpose of this chapter (Chapter 2) is to provide an in-depth elaboration of the literature surrounding translanguaging, second language reading comprehension and collaborative learning.

Literature review is an important aspect of research because it allows the researcher to be informed about what has been done in relation to the research being conducted. In the same manner, literature review provides the researcher with an opportunity to identify any gaps that may exist in the body of literature and to provide a rationale for how the proposed study may contribute to the existing body of knowledge (Gay, Mills and Airasian, 2006). Likewise, the purpose of this chapter is to present literature that is in existence in the fields of translanguaging, collaborative learning and reading comprehension in L2. The literature presented will be used to explain the results of the study. It will also help to situate the study in relation to what has been done and what has not been done thereby filling the research gaps.

This study is based on a three-pronged theoretical study, examining translanguaging, collaborative learning as well as reading comprehension in L2 students. Thus, the literature from these three aspects will be presented separately

and will only be converged during the interpretation of results stage. This is because there is very little literature available so far, that presents translanguaging during group collaborative activity with the aim of enhancing understanding of the reading material.

2.1.1 Theoretical framework(s)

This study is informed by conceptual work in three major areas: translanguaging to make meaning (Garcia, 2009 a & b; Lewis, Jones and Baker, 2012; Garcia and Li, 2014). Second language reading comprehension (Grabe and Stoller, 2002, 2008 and 2011) and Collaborative learning (Slavin, 2010). These theories are concerned with the process of meaning-making, especially for pedagogic purposes. These theories will be presented in this chapter based on the body of literature available. The first theory to be examined is translanguaging.

2.1.2 Translanguaging to make meaning

The translanguaging theory is important in this research for three major reasons. Firstly, this theory helps to articulate the importance of allowing bilingual students to use all their linguistic resources for meaning-making in the classroom (Garcia and Kleigfen, 2010). Secondly, it leverages students' home languages for academic achievement in the target language, in this case, the English language (Pacheco and Miller, 2015). Lastly, the theory posits that languages form one linguistic system that an individual uses depending on the contexts (Makalela, 2015; Wei 2016; Garcia, Woodley and Flores, 2012). In a 'nutshell', the translanguaging theory positions

languages as having fuzzy boundaries which allow movement in order to negotiate meaning especially for academic purposes where a deep understanding of concepts is required. Thus, when used for pedagogical purposes bilingual students benefit from using all the linguistic resources at their disposal in order to gain a deeper understanding of the learned material. However, before delving deep into aspects of the translanguaging theory it is important to provide an analogy of the origins of translanguaging. The following section burrows into the origins of translanguaging.

2.2 Literature Review: Translanguaging: origins and theory

2.2.1 Background

Translanguaging is a concept that was first coined by Cen Williams in the 1980s to describe the planned and systematic use of two languages for teaching and learning inside the same classroom (Lewis, Jones and Baker, 2012). It was created as a Welsh word '*trawsieithu*'. Cen Williams coined the term in order to name a pedagogical practice, which deliberately switches the language mode of input and output in bilingual classrooms (Lewis *et al*, 2012).

Translanguaging differs from code-switching because code-switching is the alternate use of two or more languages, varieties of a language or even speech styles (Hymes, 1977). According to Li (2016), code-switching is a process of going between languages where one language (code) is switched off to pave way for the use of another language (code). Code-switching has been used in L2 classrooms to relieve the burden of using the target language, which is normally a second language to students. Teachers mainly use this to emphasise, repeat or clarify information for

students (Bock and Mheta, 2014). According to Garcia and Li (2014), code-switching is used to benefit teachers to lessen the burden of explaining concepts to students. Translanguaging on the other hand, allows the speakers in this case students to use their linguistic resources to understand concepts. Understanding of concepts from a translanguaging point of view is dependent on the speaker and not from the teacher's point of view (Garcia and Li, 2014).

Thus, code-switching separates languages into distinct codes or systems which are switched on and off for communicative purposes (Velasco and Garcia, 2014). Whereas, translanguaging insists that all languages in a multilingual's mind are active and can be used all at once as and when the speaker requires them for meaning-making (Garcia, Flores and Woodley, 2012). Unlike codeswitching, translanguaging is a strategy that allows multilinguals to use languages flexibly in a fluid manner. According to Garcia and Lin (2017), code-switching was never endorsed in the multilingual classroom due to the fear that other languages, which were deemed not important for pedagogical purposes, would contaminate state or national languages. Thus, in order to allow the subtle use of code-switching, Jacobson (1990) decided to call it a concurrent approach where he advised teachers to code switch strategically and perform it inter-sententially. In this regard, Garcia and Lin (2017) concur and acknowledge the importance of code-switching but they point out that it focusses on teaching an additional language and does not promote bilingualism. In other words, teachers used codeswitching to help L2 students to become proficient in the target language thereby making them monolinguals.

In contrast, translanguaging refers to none distinction between language codes but rather fluid language practices (Williams, 2011). Furthermore, translanguaging

challenges the conventional understanding of language boundaries between culturally and politically labelled languages e.g English, isiZulu, Sepedi, Chinese etc (Li, 2016). Instead, translanguaging posits that bilinguals have one linguistic repertoire from which they select linguistic features strategically to communicate effectively (Garcia and Li, 2014; Garcia, Flores and Woodley, 2012). In this sense, when translanguaging is used in the classroom, bilingual students receive information through the medium of one language e.g. in English and use it for themselves through the medium of the other language e.g. in isiZulu, IsiXhosa, Tshivenda, Afrikaans, Xitsonga, Sepedi, Setswana, IsiNdebele, Sesotho etc. for meaning making and deeper understanding of academic concepts. Therefore, unlike code-switching, translanguaging is student centred; its emphasis is on meaning-making by the student using their repertoires and not according to the teachers' understanding. Baker (2011) explain that translanguaging can be both be pupil directed and teacher centred, however, the main focus is for students to make meaning of learning material by using the linguistic resources at their disposal. Based on this research adopts a student centred approach to the use of translanguaging.

The translanguaging pedagogic theory is underpinned by a cognitive process involving a two or more-language interchange, meaning that students can receive information in the language of teaching and learning and they can make meaning in their own language(s) through discussion while writing in the language of teaching and learning (Baker, 2011: 289). According to Williams (1996), translanguaging uses various cognitive processing skills in listening and reading, the assimilation and accommodation of information. Garcia and Li (2014) emphasise that translanguaging

builds flexibly within strict language education policies to enable students to make meaning by engaging their entire linguistic repertoire. Thus, translanguaging promotes meaning making and a deeper understanding of the academic material using all languages at the students' disposal.

As mentioned earlier in this chapter (section 2.1), translanguaging is a term that is still developing but was first used as a Welsh word in schools in Wales in the 1980s. The plan was to use the word to describe the planned and systematic use of two languages for teaching and learning in the same lesson (Lewis *et al*, 2012). Thus, as a provisional and developing idea, the term translanguaging was then translated into English by Baker (2011) who defines it as the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages (Baker, 2011: 288).

As previously alluded to, translanguaging (*trawsieithu*) was first used in the Welsh education context in the 1980s as a reaction against the separation of English and Welsh, of which the aim was to give English a superior status to Welsh (Lewis *et al*, 2012). This inequality in the status of these two languages resulted in conflict between the English and the Welsh. English was the dominant language and Welsh was becoming an endangered language. The conflict progressed until the final decades of the 20th century when the revitalisation of the Welsh language began to become successful. The revitalization of the Welsh language in itself opened up the possibility of having both English and Welsh (bilingualism) to be seen as mutually advantageous in a bilingual person (Lewis *et al*. 2012).

The positive view towards bilingualism and bilingual education led to the disregard of beliefs from the 1920s that bilingualism causes mental confusion and prompted researchers to investigate further. For a long time, bilingual individuals were perceived to be having thinking, personality and identity problems (Baker, 2000). In addition, bilingualism was said to cause schizophrenia (Baker, 2000). Such beliefs about the disadvantages of being bilingual have not been proven through research; instead research available has actually shown that bilingualism has positive cognitive benefits. Baker (2000), cites one of the advantages by mentioning that bilingual always have two or more words for each object, e.g Kitchen in English and cuisine in French. Thus, they are able to understand concepts using their linguistic repertoire.

Since the 1950s there has been progress from research conducted by Jones (1959) showing that bilingualism has, in fact, no disadvantage to intelligence. Pearl and Lambert (1962), and Lambert (1974), published research that showed the cognitive advantages of being bilingual. Such research findings have led to the growing popularity of translanguaging and this has resulted in many scholars e.g (Blackledge and Creese, 2010; Garcia, 2009a; Garcia, Flores and Woodley, 2012; Garcia and Li, 2014, Lewis, Jones and Baker, 2012 and Canagarajah, 2011), embracing and extending the definition of the term.

2.2.2 Definition(s) of Translanguaging

According to Mazak and Carroll (2016), translanguaging has different meanings for different researchers in different contexts. Creese and Blackledge (2010), view translanguaging as a pedagogical approach that serves to enhance teaching and indexes speakers' shifting multilingual and multicultural identities. Canagarajah (2011) purports that in multilingual environments translanguaging is a practice where students use their entire linguistic repertoire strategically to learn. Baker (2011) refers to translanguaging as the use of two languages to make meaning, gain understanding and gain knowledge. In the same manner, Lewis, Jones and Baker (2012) claim that translanguaging is when both languages are used in a dynamic and functionally integrated manner. These two definitions by Baker (2011) and Lewis *et al.* (2012) refer to the use of two languages, but according to Garcia and Li (2014), translanguaging does not refer to two separate language practices or to a hybrid mixture of languages. Rather, translanguaging refers to a new language practice which emerges from exchanges among people with different histories that created by the compartmentalisation of languages due to nation-building. Thus, translanguaging can be understood from a view of languages being fluid and versatile. Languages, when viewed through a translanguaging lens, are interrelated and can be successfully used by multilinguals to make sense of their world (Garcia and Li, 2014). With this in mind, translanguaging does not prescribe to the separation of languages especially for learning rather, translanguaging views languages as a single linguistic repertoire that allows multilinguals to select features to use as and when they are required for deep understanding of concepts (Garcia, Flores and Woodley, 2012; Garcia and Li, 2014).

Against this backdrop, it is important to trace the development of translanguaging by tracing bilingual models back to the 19th and 20th century. The purpose is to find out how translanguaging has become the suitable pedagogical strategy suitable to cater for the 21st-century era. As a starting point, definitions of commonly used terms will be provided; this will provide a clear distinction between terms that will be used in this study henceforth.

2.2.3 Definition(s) of terms to be used

Bilingualism, multilingualism are terms that have been used in the field of translanguaging. It is important for purposes of this study to provide a synopsis of the terminology commonly used and their meaning. As early as 1956 Haugen (as cited by Garcia and Li, 2014), define bilingualism as a term that covers people with a number of different language skills. Weinreich (1974) defines bilingualism as the practice of alternately using two languages. From these definitions, bilingualism has been used to refer to knowing and using two autonomous languages. On the other hand, the term multilingual is often used to mean knowing and using two or more languages (Garcia and Li, 2014). In the same vein, the Council of Europe (2000) has proposed the term plurilingual, which is the individual's ability to use several languages to varying degrees for distinct purposes. In this regard, this research will use the terms multilingualism and bilingualism. Garcia and Li (2014) explain that all terms bilingualism, multilingualism and plurilingualism refer to a plurality of languages. Taking into consideration the South African context where this study is

situated there is a plurality of languages hence the multilingual nature of the country. Thus, the term multilingualism will be used in this research. However, some literature available refers to bilingualism due to the use of two languages the term bilingualism will be used based on the plurality of languages. Therefore, for purposes of this research, bilingualism and multilingualism will be used interchangeably with the backdrop of the plurality of languages.

2.2.4 Development of bilingual models in education

The growing popularity of translanguaging has seen its acceptance internationally. Most scholarly work on bilingualism was developed in North America, especially in Canada (Garcia, 2009b). The Canadian bilingualism model was established in the 1960s in response to the use of French and English. During the 1970s, tensions arose when French was declared as the language of work, business and education (Ricento and Burnaby, 1998 cited by Garcia, 2009a). In response to this Lambert (1975), proposed the first two models of bilingualism, that is subtractive bilingualism and additive bilingualism, in education programmes. In subtractive bilingualism, the first language (L1) is taken away whilst the second language (L2) is added; this ultimately results in monolingualism in a second language. This model upholds monolingualism and pertains to the reduction of a speakers' repertoire.

Boakye and Mbirimi-Hungwe (2015) illustrate this by providing an example of a student who goes to school speaking a first language; then a second language (the target language, in most cases the language of teaching and learning, which is

commonly English) is introduced while the first language is minimised. The result is that the second language remains the language used in school. The student becomes a ‘forced’ monolingual of a second or third language. The ‘forced’ monolingualism does not benefit the multilingual student because according to the translanguaging theory there are no separate languages in a multilingual as the Cummins Interdependence theory posits. According to the Cummins (2000), Interdependence theory, when bilinguals are taught in their home language and are allowed to attain proficiency in their home language(s), that proficiency will be valuable for the development of a second language. Garcia and Li (2014) criticise the traditional bilingualism posited by Cummins by arguing that it puts languages into two separate entities in a bilingual whereby, one language is ‘silent’ in the background in order to allow the other to be used for academic purposes. The model represents two autonomous linguistic systems. This model is illustrated in figure 2.1 below:



Figure 2.1: Adapted from Garcia and Li (2014)

In contrast, translanguaging posits that both/ all languages are active in the bilingual’s repertoire and they should be used for the benefit of the student in meaning making and deeper understanding. Thus, when any of the languages is minimised at school or for academic purposes the student becomes a ‘forced’ monolingual whereas the student has funds of resources to be used for learning

purposes by virtue of them being multilingual. Rather, translanguaging advocates for the use of all languages at the disposal of the student for meaning making after all the languages are active in the bilingual's mind. That is to say, multilingual students should be allowed to understand the learnt material through all the languages at their disposal to ensure a deeper understanding of concepts.

According to Garcia (2009a), the subtractive model silences children's first language and leads to the death of the first language of the children and the death of minority languages. Garcia (2009a), illustrates it as $(L1+L2-L1=L2)$. On the other hand, additive bilingualism denotes the addition of the second language (L2) without the loss of L1. That is to say, when a second language is added to a first language it results in the two languages existing as solitary entities resulting in the student becoming a double monolingual. Thus, it can be illustrated as $L1+L2=L1+L2$.

Lambert (1975) purports that additive bilingualism socially and cognitively benefits the students, whereas subtractive bilingualism results not only in monolingualism but also inferior academic achievements. Garcia (2009a) reiterates the weakness of the subtractive bilingualism model by lamenting that the model upholds monolingualism, and pertains to reduction of a speakers' language repertoire. Garcia (2009b) further argues that the additive bilingualism model insists on developing a second language that can be accessed on its own, which results in a double monolingual learner. As a result, Garcia (2009a) proposes that bilingualism is dynamic and not just additive as had been conceptualized by Lambert (1975). Garcia (2009a) declares that both the additive and subtractive models have proven to be inadequate for the linguistic complexities of the 21st century culminated with globalisation and the movement of

people. In addition, these models cannot be depended upon if the dismantling of language boundaries is to be seriously considered.

In order to illustrate the inadequacies of the subtractive and additive bilingualism models, Garcia (2009b), likens the models to cycles where monolingualism resulting from the subtractive bilingualism model is like a unicycle. The additive bilingualism model resulting in two monolinguals is like having two wheels of a bicycle, which are wheeled independently of each other most probably at the same speed. Garcia (2009a) insists that two balanced wheels are not adequate to cater for the rough communicative multilingual terrain in the 21st century. Thus, she suggests the need to develop discursive practices that are suitable to cater for the uneven communicative terrain caused by complex ways of languaging for individuals. In this regard, Garcia (2009b) suggests the need for an all-terrain vehicle that has wheels that turn, extend and contract which are able to turn in all directions. According to Garcia (2009b), dynamic bilingualism is the all-terrain vehicle required to cater for the communicative complexity of the 21st century stimulated by the movement of people, globalisation and richer technology. Figure 2.2 illustrates the different bilingual models as Garcia (2009a), describes them.



Figure 2.2: Adapted from Garcia and Kleifgen (2010)

It is important to note that these two models (additive and subtractive) were developed in the West by the end of the 20th century proved to be insufficient to cater for the complex multilingualism in Africa and Asia (Garcia 2009a; Garcia, Pujol-Ferran and Reddy 2013). Consequently, these programmes have also caused academic failure in L2 students because many of these students are taught in languages in which they may not have developed adequate proficiency for academic purposes (Garcia, 2009b; van der Walt and Kidd, 2013; Ngcobo, 2014).

Practical evidence of the inadequacy of these two models in catering for linguistic complexities found in the 21st century is, among others, observed in the South African education system. The South African education system also uses the transitional (subtractive) model for black children since the 1980s. The first years of school are taught in the children's home languages (Murray, 2002). English for these children is generally introduced as an additional language in the third year of school and by the fifth year of schooling, English would have become the only language of

teaching and learning (Department of Education Language in Education Policy, 1997). According to Murray (2002), the use of home languages as the languages of teaching and learning only benefits the English and Afrikaans-speaking children because they are generally taught in their home languages.

On the other hand, black children are disadvantaged because they are made to make an early transition to learning in another language that is unfamiliar to them. Research that was conducted in the 1980s showed that black students and their teachers struggled to cope with the transition to English as the language of teaching and learning in the fifth grade (Macdonald, 1990). Consequently, these children struggled both linguistically and in terms of their cultural identity (Young, 1995). The transition does not only affect the learners, also many teachers struggle to teach English as the only medium of instruction because English is their second language.

According to the National Education and Evaluation and Development Unit (NEEDU) report (2013), many South African teachers performed dismally when they were asked to complete comprehension tests that required higher cognitive functions. The report alludes to the poor performance of teachers to their poor comprehension skills in English, which is predominantly a second language to many of them. From the NEEDU report, it can be suggested that some teachers who also went through the transitional model of education are not linguistically competent in the English language. Consequently, their teaching methods focus on surface learning as opposed to the required high cognitive levels of learning. This results in students leaving school with poor reading comprehension skills.

The inadequacy of the subtractive and additive bilingual models to cater for the linguistic competencies of the 21st century has resulted in the need for attention to be focussed on other possible models. Garcia (2009a) proposes the need to consider two other models namely the recursive model and the dynamic bilingual model in order to cater for contemporary realities. The recursive bilingualism model refers to situations where individuals are not perceived as beginning to learn a second language, but rather that they obtain bits and pieces from their ancestral language and then add them to the present dispensation of their linguistic practices. Such individuals might have undergone a language shift and may be in the process of revitalising their language. The Maoris in New Zealand are an example of such a group that is going through language revitalization. Garcia (2009a) contends that this model does not stem from a monoglossic vision but has its origins in heteroglossic language practices. However, according to Garcia (2009a), although this model caters for heteroglossic language practices and is a better reflection of bilingualism than additive and subtractive bilingualism, it does not fully cater for the current linguistic complexities of the century.

The study of bilingualism as posited by Cummins (1979), maintains that the linguistic proficiency of a bilingual can be likened to a dual iceberg. Cummins calls this the Interdependence hypothesis. According to Cummins (1979), the interdependence or dual iceberg hypothesis reveals the relationship of the first language to the learning of another language. What appears to be two very different phenomena on or above the surface is actually interdependent psychologically. Where on the surface, the two

languages might look different but in fact, there is a Common Underlying Proficiency (CUP) that allows for the transfer of linguistic practices. According to this hypothesis, if one grasps a concept in one language they do not need to re-learn it in another language. For example, if you can tell the time in your first language, you do not need to learn to tell the time again to be able to do it in another language; you just need to learn the language to describe it. The hypothesis is illustrated in figure 2.3.

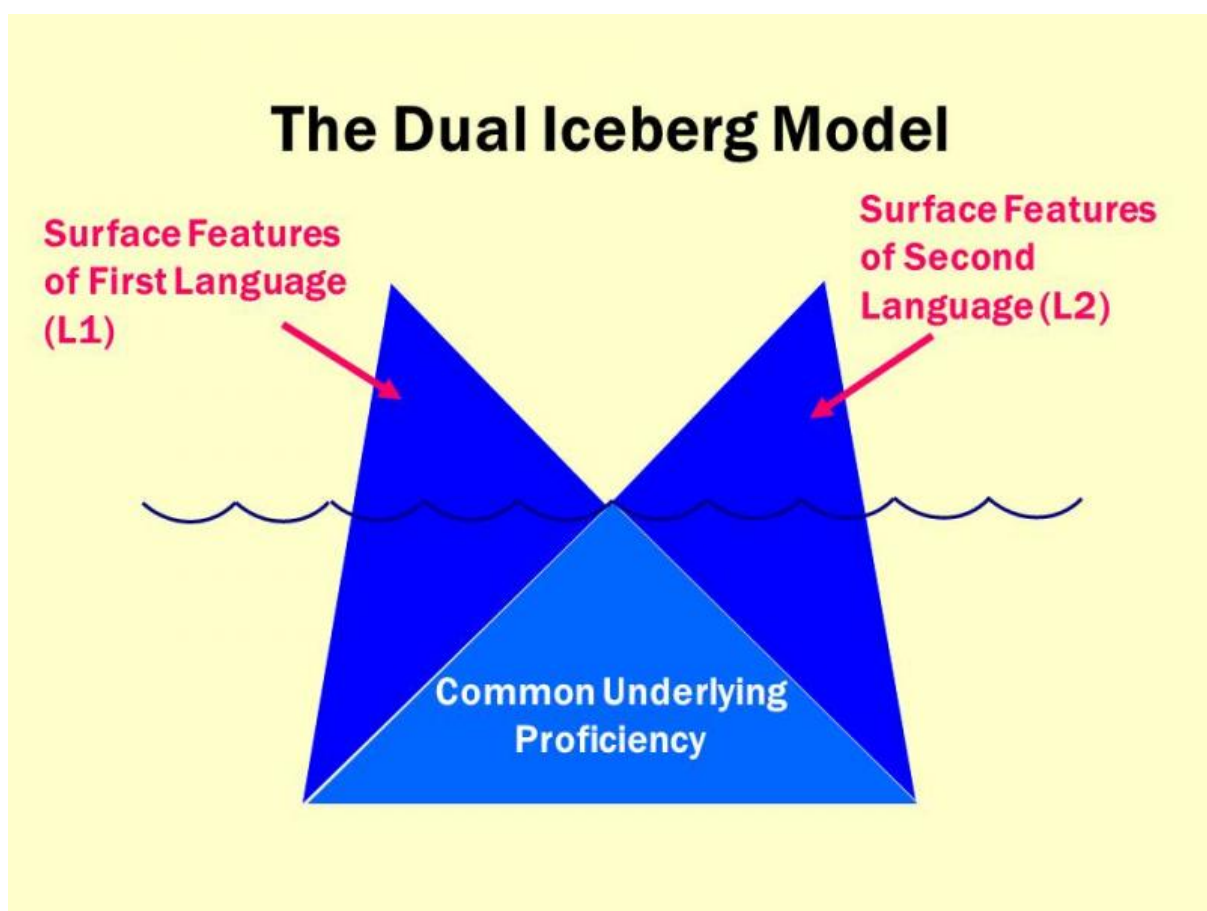


Figure 2.3: Adapted from www.eal.britishcouncil.org

Garcia and Li (2014), argue that Cummins' interdependence theory, although it brings closer two linguistic systems by proposing that there is transfer between the two languages emanating from the Common Underlying Proficiency, it still delineates

and separates languages. However, Cummins (2017) has indicated that the interdependence hypothesis recognises that languages of multilinguals interact in a complex way that can enhance language and literacy development. In addition, Cummins (2017) emphasises that the need for teachers to free themselves from monolingual approaches and allow a variety of opportunities for students to develop proficiencies in all the languages at their disposal.

On the other hand, Garcia and Li (2014) illustrate their understanding of Cummins' interdependence theory in figure 4 below. In the illustration, the two rectangles represent two languages with different linguistic systems that is L1 and L2 as well as different linguistic features represented by F1 and F2. According to Garcia and Wei (2014), Cummins' view of bilingualism depicts separate linguistic features and systems. This feature is represented by figure 2.4 below:

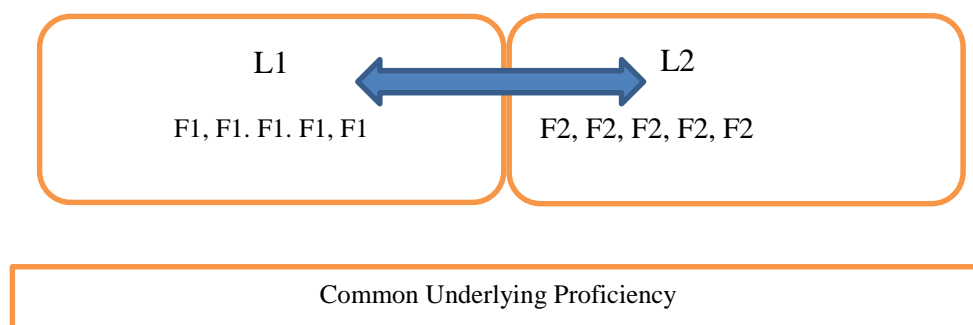


Figure 2.4: Adapted from Garcia and Li (2014)

Garcia (2009b) however, maintains that for a model that adequately reflects the various competencies of bilinguals/multilinguals the dynamic bilingualism model is the most suitable. This model is a further development of the recursive model discussed earlier. Garcia (2009a) argues that dynamic bilingualism concept goes

beyond the notion of two autonomous languages (L1 and L2) and of additive or subtractive bilingualism. She (2009b) further contends that the dynamic bilingual model goes beyond the idea that there are two languages that are interdependent as proposed by Cummins (1979). Instead, dynamic bilingualism views the language practices of all bilinguals as complex and interrelated and do not emerge in a linear way since there is only one linguistic system, (Garcia, Flores and Woodley, 2012; Garcia and Li, 2014). Therefore, dynamic bilingualism connotes a single linguistic system that has features that are practised according to societally constructed languages and practices. Garcia and Li (2014) therefore present dynamic bilingualism as follows:

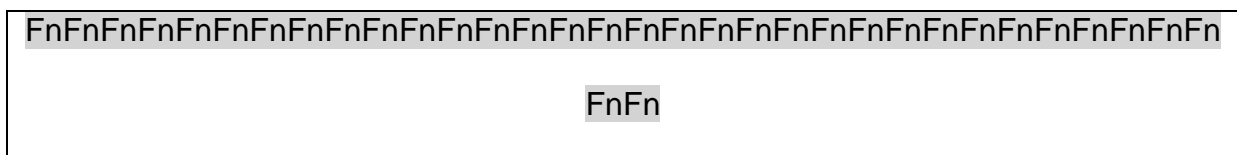


Figure 2.5: Dynamic Bilingualism: Translinguaging. (Garcia & Li, 2014: 14)

The use of one rectangle posits the existence of one linguistic system. The 'Fn' represents integrated systems of individuals' linguistic repertoires that represent a single array of disaggregated features. From the dynamic bilingualism model, Garcia differs with Grosjean (2004), who proposes that bilinguals' languages become activated when the social and contextual situation demands. Rather, according to Garcia and Li (2014: 15), there are no two languages that are cognitively activated or deactivated depending on the demand of the situation. In fact, Garcia (2009a) likens dynamic bilingualism to an all-terrain vehicle (figure 2) with individuals using it to adapt to ridges and craters of communication. Garcia further refers to dynamic

bilingualism as a 'catalyst' that breaks the cycle of power that has upheld monolingual practice as dominant thus promoting the fluidity and interrelatedness of languages. Ultimately, the dynamic bilingualism model promotes and acknowledges the importance of multilingualism. It is in this model that translanguaging is situated. Putting into consideration that translanguaging entails the use of all languages at the speaker's disposal for purposes of meaning-making. In the same vein, Bock and Mheta (2014), illustrate multilingualism as a large cooking pot where multilinguals store their language knowledge, repertoires of language and language resources, when the need arises they dip into the pot and take out what they need. Thus, Bock and Mheta (2014), concur that languages form an integrated system not a set of parallel and separated systems. This assertion relates to the translanguaging theory.

In this regard, the integration of languages as a system negates the common belief that allowing students to use all languages at their disposal for learning purposes causes mental confusion (Baker, 2007; Makalela, 2015, 2016). In fact, historically orthodox psychologists such as Adler (1977), allege bilingualism to cause schizophrenia, mental confusion and emotional problems have said bilingualism. According to Adler, (1977), bilingual children have split minds that interfere with each other during the learning process hence resulting in mental confusion. In addition, bilingual children have been alleged to have personality problems relating to schizophrenic traits (Adler, 1977:40). However, Ekstrand (1989) explains that the assertion of bilingualism to be associated with personality problems among children has not been confirmed. In fact, tests conducted have shown no difference between monolinguals and bilinguals in relation to personality traits (Ekstrand, 1989). Ekstrand (1989)'s research confirms that bilinguals have advantages in thinking

because they have 2 or more words for each object e.g a child who speaks French and English child uses the word 'kitchen' in English and 'cuisine' in French. Baker (2007) explains that languages in a bilinguals' mind separate during speaking or reading and writing. That is, the separation of languages is manifested outside the mind but on the inside, the languages are joined beneath the surface area of the brain. Thus, instead of the second language interfering with the first language bilinguals benefit from cognitive, social and cultural advantages of using more than one language (Baker, 2007). In addition, languages are integrated and they complement each other for meaning making and deeper understanding of concepts (Garcia, 2009a). In this regard, Garcia (2009a) illustrates the integration of languages in a dynamic bilingual model as follows in figure 2.6.

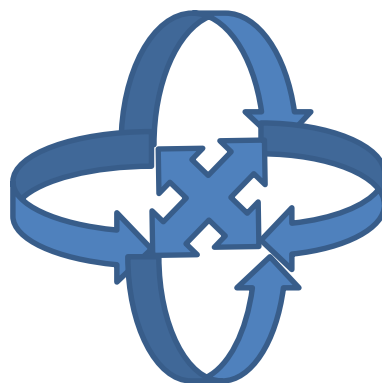


Figure 2.6: Adapted from Garcia (2009a)

In instances where bilinguals have to conform to societal forces such as schools where monoglossic practices might be demanded, these bilinguals do not possess two language systems. To illustrate: when a bilingual student attends a school where they are expected to recognize themselves as subjects that speak two separate languages, they do so because the institution hails them to become so. In fact, they do not possess separate language systems; rather, they just conform to

the domination of the institution. Garcia and Li (2014), warn that in some instances such students may resist the monolingual practices by engaging in fluid language practices. In fact, research has shown that when a bilingual uses one language the other language (s) is (are) active (Marian and Shook, 2012). That is to say, both (all) languages are used at the same time.

A research conducted at the University of Pretoria in the Unit for Academic Literacy shows that although lecturers enforce the monolingual use of English for pedagogical purposes students fluidly move across languages whenever the need arises (Boakye and Mbirimi- Hungwe, 2015). In this regard, it is evident that even though authority demands the use of English students embark on ‘uncommissioned’ translanguaging for them to understand concepts. Thus, translanguaging posits the use of all languages at the students’ disposal and it challenges the insistence of monolingualism in multilingual students.

The fact that students use translanguaging in spaces where the monolingual use of English is prescribed is referred to as ‘Translanguaging Instinct’. Li (2016) developed this concept. According to Li (2016), translanguaging instinct is based on human being’s innate capacity to draw on many different cognitive and semiotic resources available to them for meaning-making. Thus, this innate capacity drives humans to transcend the defined the linguistic boundaries for meaning making and effective communication. In this regard, imposing the monolingual use of English on students becomes futile because as humans they have the capacity to go beyond the use of one language to use all languages at their disposal for meaning-making.

In fact, studies have shown that students do engage in translanguaging surreptitiously behind the backs of the teachers/lecturers (Canagarajah, 2011:9). The use of translanguaging as a way of solving problems in the language of teaching and learning has always been a resource used by students although in most cases it is done 'off the record' which means the teacher should not get to know or hear the discussions (van der Walt, Mabule and de Beer, 2001). It is vital to note that students develop different translanguaging strategies to construct the meaning of the academic discourse through all languages and resources at their disposal (van der Walt and Dornbrack, 2011). Canagarajah (2011:17) notes that students appropriate language on their own terms, according to their needs, values and aspirations. Therefore, it is advisable to allow students to use translanguaging 'legitimately' in multilingual classrooms for meaning making and a deeper understanding of the learned material. Thus, it is important to shift the mindset of the students and let them know that they can use any language at their disposal for meaning making and for a deeper understanding of concepts.

Garcia and Li (2014), refer to translanguaging as related to the dynamic bilingual model which is rooted in the principle that bilinguals 'soft assemble' their various language practices in ways that fit their communicative situations. Although Lewis et al, (2012), define translanguaging as an educational theory, Lasagabaster and Garcia (2014); argue for its use as a pedagogical strategy to help implement a dynamic model of bilingualism. Thus, it is important for translanguaging as a pedagogical practice to be based on the recognition and respect of

bilinguals'/multilingual's social practices (Garcia, 2009b). Learning in multilingual classrooms should allow students to utilise their language practices in order to develop new understandings and new language practices including academic language practices (Garcia, 2009b, Garcia, Flores and Woodley, 2012:21; Garcia and Li, 2014:73). After all, students' linguistic repertoires are present as an 'undercurrent' in all multilingual classrooms. This is what Garcia and Kleyn (2016) refer to as 'translanguaging *corriente*'. Thus, according to Garcia and Kleyn (2016), if teachers do not recognise, acknowledge and allow students to utilise the languages at their disposal it results in the stifling of students' academic potential. On the other hand, by using a translanguaging lens for pedagogical purposes students' academic potential is propelled resulting in meaning making and deep understanding of concepts.

Based on the dynamic bilingualism model it is important to investigate the effectiveness of using translanguaging in multilingual/bilingual classrooms to enhance learning.

2.2.5 From Bilingual Education to Translanguaging.

According to Garcia (2009a), bilingual education is when two or more languages are used for instruction and learning. In the same vein, bilingual education programs have been implemented in different ways for different purposes across the world (Garcia and Woodley, 2012). Garcia and Woodley (2015) provide different scenarios and situations where bilingual education has been employed to achieve various goals. Bilingual education programs have been used to offer all students the

possibility of becoming bilingual. Such programs have also been utilised to cater for students whose languages are a minority and for those who are language majority. The ways in which bilingual education programs have been practised have made it different from traditional language education.

According to Garcia and Flores (2015), traditional language education uses 'foreign' or 'second' language as a taught subject, whereas bilingual education program aims to teach and educate students holistically with language and literacy development in all languages at the student's disposal. A dichotomy in the way educators view languages also brings differences between the traditional language education program and bilingual education program. Garcia and Woodley (2015), point out traditional language educators see language as a system of standardised structures, through which students learn, speak, read and write. In contrast, bilingual educators focus on the development of languages. In other words, bilingual educators are concerned with the language practices that students bring for them to make meaning of what they learn.

Another difference between bilingual education and traditional language education is that the two differ in the way they approach the relationship between language and cultural practices. In bilingual education students are encouraged to use different cultural practices whereas in traditional education students get to know additional cultural contexts but will not necessarily use the contexts competently (Garcia and Woodley, 2015). To sum it all up, the difference between the two educational programs is that a traditional educational program tends to teach language explicitly

without considering the language practices that learners bring to the classroom while bilingual education focuses on integrating language, content and context.

Research in bilingual education has continuously affirmed its effectiveness in educating language minority and language majority children. However, according to Garcia and Woodley (2015), the 21st-century bilingual education must go beyond emphasising dominant language(s) and consider the use of translanguaging in the education system. Thus, translanguaging is an approach to bilingualism that is centred on the language practices of bilinguals and not on their languages (Garcia and, Li 2014). Furthermore, translanguaging seeks to promote pedagogical practices that consider bilingualism as a resource rather than a problem (Lasagabaster and Garcia, 2014). Canagarajah (2011) also advocates for multilingualism to be viewed as a possibility rather than a deficit in education. Thus, it is important to view languages as cohabitants in the bilinguals mind and not rivals. In this regard, the education system must embrace a flexible view that fosters the languages in use rather than penalise students when they use the languages simultaneously for meaning-making (Lasagabaster and Garcia, 2014).

Translanguaging allows teachers and students to utilise their linguistic repertoire in making meaning. According to Garcia, Flores and Woodley (2012), translanguaging can be used in a lesson delivered in one official language but students must be allowed to discuss research and produce work using all their language practices. Most importantly, teachers who use translanguaging may not be bilingual themselves neither do they need to be speakers of all languages spoken by their

students, rather they should allow students to use their language practices in meaning making (Garcia & Flores, 2015; Garcia and Li, 2014). According to Garcia, (2009a) translanguaging when used for pedagogical purposes is concerned with making meaning, shaping experience, gaining understanding and knowledge using multiple languages. Thus, the most important focus in translanguaging is a deep understanding of the learnt material. Translanguaging considers all languages at the student's disposal in a dynamic and functionally integrated manner to augment and mediate mental processes in understanding, speaking, reading, writing and most importantly learning (Li, 2016).

As mentioned earlier, translanguaging is not simply a process that goes between languages as in the case of code-switching. In fact, translanguaging emphasises meaning making and construction of knowledge using languages at the students' disposal. Translanguaging challenges the conventional understanding of language boundaries (Li, 2016). Makalela (2015) calls for the dismantling of linguistic boxes by adopting a translanguaging approach to teaching. This according to Li (2016), results in the use of students' linguistic repertoire for meaning-making without regard for socially and politically language boundaries, thereby acknowledging the 'fluidity' and 'fuzziness' of languages which is crucial for meaning making and knowledge construction. In this regard, Garcia and Leiva, (2014), call on teachers to value translanguaging and allow students to build on their flexible language practices in the classrooms.

2.2.6 Advantages of using translanguaging in the classroom

The use of translanguaging in the classroom has been conceptualised as a useful pedagogical practice, which uses various cognitive processing skills in listening, speaking and reading and writing (Lewis *et al*, 2012). Translanguaging transcends the notion of translating from one language to the other; rather it involves deeper understanding and relaying meaning. Besides being a useful pedagogical practice, translanguaging is perceived to have potential educational advantages for the students (Lewis *et al*, 2012: 645). These are:

1. It may promote a deeper and fuller understanding of the subject matter.
2. It may help the development of the weaker language
3. It may help the integration of fluent speakers with early learners.

The potential to promote deeper and fuller and deeper understanding of subject matter is the focus of this research. As explained by Baker (2011:290) teachers can allow students to use both languages in a planned, developmental and strategic manner in order to maximise students' cognitive abilities. Allowing students to read texts in one language (target language) and discuss in another language (home language) allows them to engage in a deeper understanding of the contents. Research by neurolinguists focussing on the benefits of translanguaging has shown that semantic relatedness is greater for objects learned in translanguaging sequences where speaker encodes definitions in one language and retrieves related object names in another language than for monolingual sequences (Lewis, Jones and Baker, 2012b).

The second potential advantage of translanguaging is that it may help students to develop competence in oral communication and literacy in their weaker language (Lewis *et al*, 2012a). Since translanguaging is based on the use of both (all) languages simultaneously (Dynamic Bilingualism theory) it also assists the students to develop academic language skills in both languages leading to a fuller bilingualism which ultimately will be useful in learning (Baker, 2011). Lasagabaster and Garcia (2014), report on a study conducted using Spanish students learning English. As usual, English is the target language used for assessment. According to the study, students were able to improve their English whilst Spanish continued to play a major role in the acquisition of content. This process developed to the point where students were able to write papers for different subjects using the relevant specific academic vocabulary in English. According to Lasagabaster and Garcia (2014), the high proficiency in Spanish was used to scaffold the learning process and it resulted in the strengthening of the English language. It should also be noted that both languages mutually reinforced each other without competition neither was there any mental confusion reported among the students.

Thirdly, translanguaging can facilitate classroom integration of L1 speakers and L2 speakers (Lewis *et al*, 2012). Through translanguaging, speakers of different languages can explain subject content to each other according to their understanding, thereby assisting each other's learning process. In addition, students also may acquire each other's languages (Makalela, 2014).

Hopewell (2011), conducted a study in which students were invited to use their language practices during group discussions. Results showed that students' learning opportunities were expanded when bilingual environments were fostered. In this regard, Hopewell (2011), argues that the separation of languages stifles learning as opposed to increasing academic performance using translanguaging. In addition, Hopewell (2011), cautions against the restriction of the use of one language for teaching and learning because it denies students access to their augmented resources, which are necessary for their learning. Garcia (2009a) concurs by pointing out that academic failure is the result of insisting on using monolingual academic standards. Garcia (2009b), suggests the use of collaborative learning activities as a way in which students can flexibly support their knowledge and understanding.

Anderson, Kagwesage and Rusanganwa (2012), also stress the importance of allowing students to negotiate for meaning during collaborative activities. Anderson *et al*, (2012), express their optimism that if students are allowed to use all the languages at their disposal during group work there will be an increase in retention capacity of the learned material. However, Garcia (2009a) emphasises the need for teachers to carefully plan when and how languages are to be used. That is, translanguaging requires lecturers to take an active role in planning activities that will benefit students. If left to happen in an unstructured manner, students will not benefit from this useful pedagogic practice.

Madiba (2014), describes the use of multilingual glossaries at the University of Cape Town (South Africa) using the translanguaging approach to support concept literacy. This project aimed firstly at developing multilingual glossaries for Economics and Law students. Secondly, using glossaries to promote concept literacy. Madiba (2014), structured tutor-led discussions about meanings of concepts in Economics. Students were allowed to use the languages at their disposal to negotiate meanings of abstract and difficult concepts in the field of Economics. Madiba (2014) concludes the study by noting that students managed to grasp the deeper meaning of concepts through translanguaging. Hence, he suggests concept literacy as a useful way to help students to understand difficult concepts in their field of study.

Paxton (2009) started the importance of encouraging concept literacy. Paxton (2009) explains how a group of Economics students at UCT found it difficult to translate Economics English terms into isiZulu, isiXhosa, Sepedi, Sesotho, Setswana and Afrikaans. However, using concept literacy students who could not find the direct meaning of Economics terms in their home languages managed to grasp the meaning by understanding the concepts in their languages. Paxton's findings show that simply providing the African word for the English term may not give the students an understanding of the concept. Rather, it results in rote learning and conceals understanding of concepts (Madiba, 2014; Paxton, 2009). In both cases, students were supported through tutorials to get meanings of terms. Allowing students to translanguage enabled them to access concepts in their primary language, which positively allowed them to deepen their understanding of Economics concepts (Madiba, 2014). Madiba and Paxton's case studies of employing multilingual

glossaries and concept literacy through translanguaging are strategies that develop conceptual understanding of terms in multilingual classrooms in H.E.

Results of a study that was conducted by Makalela (2015) in Limpopo Province (South Africa) show that by using a translanguaging approach in reading instruction, learners improved significantly in word recognition (spelling abilities) and comprehension of texts. Therefore, Makalela recommends the use of learners' languages by juxtaposing languages at their disposal in order to ensure comprehension of texts. In addition, Garcia and Kano (2014) report on a study involving Japanese students who were exposed to reading an English text, which had a parallel translation in Japanese. Students were allowed to move back and forth between the two texts, they were allowed to utilise their linguistic repertoire during group discussion. That is, the discussion allowed them to use Japanese and English as they prepared for a written assignment based on the text. Results show that students were able to produce better-written essays. Garcia and Kano (2014) conclude that the students' English repertoire was enriched through the inclusion and attention paid to their Japanese language and cultural practices.

Translanguaging does not only allow students to shuttle between acts of language that are socially and educationally constructed as being separated into L1 and L2 but rather integrates bilingual acts in ways that present the student as a unified whole being (Garcia and Li, 2014). In other words, translanguaging removes Cummins' (2000) transfer theory and adopts a conceptualisation of integration of language practices in the student. Instead of students having to acquire and learn a second

language through translanguaging they are engaged in appropriating new languaging that makes up their own unique repertoire of meaning-making resources (Garcia and Li, 2014). According to Swain (2006: 98), languaging is “the process of making meaning and shaping knowledge and experience through language”.

In particular, languaging about language is an integral part of the language learning process itself: Languaging about language is one of the ways we learn language. This means that the language (the dialogue or private speech) about language that learners engage in takes on new significance. In it, we can observe learners operating on linguistic data and coming to an understanding of the previously less well-understood material. In languaging, we see learning taking place. (Swain, 2006: 98.)

Translanguaging enables bilingual students to enter into texts that use language practices that they are not familiar with but they are allowed to show what they know by bringing in what they know they can language and make meaning. If students can make meaning using translanguaging, then it is a useful pedagogical practice ensures understanding in students.

Mbirimi-Hungwe (2016) reports on a study conducted at the University of Limpopo where students were allowed to use translanguaging during group discussions to enhance their comprehension of text. By allowing students to translanguage as they identified main ideas in a text results showed enhanced comprehension of texts as

evidenced by the good quality of summaries that students produced. This was possible because the lecturer paid attention to the translanguaging *corriente* (under current) in the students. By allowing students to utilise their linguistic repertoire, they showed that they understood the text better.

Studies in the field of neurolinguistics have shown that semantic relatedness is greater for objects learned in translanguaging sequences where the speaker encodes definitions in one language and retrieves related object names in the other language rather than in monolingual sequence (Lewis *et al*, 2012). The suggestion from such studies is that translanguaging may be more effective for learning because it allows cross-language semantic reorganisation, which is useful for understanding concepts.

2.2.7 Translanguaging and the Poststructural shift

Recent scholarship in the field of applied linguistics has adopted a shift in response to the dynamic nature of discourses employed by people in the 21st century (García and Li, 2014; Makalela, 2015; May, 2014) A 'multilingual turn' is the current advocacy in the field of applied linguistics. The multilingual turn has seen post structural scholars questioning the validity of language boundaries and recognizing the simultaneous use of languages for meaning making and for making sense both of the world and of who one is (Makalela, 2016). The shift in favour of multilingualism has been necessitated by globalisation and what Vertovec (2007), refers to as super-diversity. The movement of people especially in the 21st century has resulted in

languages becoming intertwined and fused into each other to the extent that the level of fluidity renders it almost impossible to distinguish the boundaries (Makoni and Pennycook, 2007: 447). Thus, multilingualism rather than monolingualism has become the norm in the field of applied linguistics today (May, 2014).

Due to the advocacy and calls for a multilingual turn, many scholars have responded to the need for a multilingual turn (Garcia, 2009 a & b, García and Li, 2014; Canagarajah, 2011; Makalela, 2014, 2015, 2016; May, 2014).

In fact, Garcia (2009a) has attached translanguaging to recent shifts in the fields of socio- and applied linguistics. Many scholars situate translanguaging particularly within the critical poststructural turn that interrogates the notion of languages as discrete, separate entities. Makoni and Pennycook (2007), articulate this notion by asserting that colonialists invented the term 'language'. In addition, Heller (2007), states that languages are social constructs that reflect nation-state ideologies. Monolingual ideologies have been a creation of people for selfish reasons. As such, Critical Post Structural Sociolinguists (Garcia, Flores and Spotti, 2017; May, 2014; Makoni and Pennycook, 2007; Makoni, 2007; Makalela, 2016) trace the origins of monolingual ideology and they attest that monolingualism was designed by those in power who wanted to create nation-state ideology. According to Garcia (2014), monolingualism dictated by nation-state ideology was first evinced in 1469 in Spain. The account shows that through the marriage of Ferdinand and Isabella from the royal families of Aragon and Castile, the two kingdoms were unified resulting in Spanish being imposed as the only language in both Europe and the Americas. The Crown viewed the diversity in languages as a threat to political stability. Thus, the

contention by Ferdinand and Isabella was that bringing all of the different groups together under one language, Castilian (Spanish) it would create a stable nation.

May (2017), adds on by unveiling events during the French revolution that upheld the monolingual ideology. In 1789, France pursued the banishment of all minority languages and cultures to pave way for the monolingual use of French. May (2017), cites the basis of the nation-state ideology to be based on what those in power perceived the unity of the Republic of France to be based in the unity of speech. However, May remarks this as an imagined construct of one nation, one language and one culture.

The coming of missionaries in America, Africa and Asia extended the idea of nation-state ideology by categorising the fluid language practices of indigenous communities into named bound languages (Lane and Mikiyara, 2017)

In the same vein, the post-structural translanguaging paradigm questions the homogeneity, boundedness and stability of languages in favour of mobility, mixing and historical embedding in the study of language (Blommaert and Rampton, 2011). As a result, Garcia and Li (2014), view translanguaging as a new language practice which emerges from exchanges among people with different histories that were created by the compartmentalisation of languages due to nation-building. Canagarajah (2014) claims that translingual practice transcends individual languages rather it involves diverse semiotic resources, supports this notion. In fact,

according to Li (2016), translanguaging is a process that transcends the notion of movement between languages, rather Li views translanguaging as a way of challenging the conventional understanding of language boundaries created by culture and politics.

According to Makalela (2015), political leaders designated languages to enclosed boxes as a way of promoting nation sovereignty. He, therefore, calls for people to 'move out of linguistic boxes' because languages were separated due to the colonial agenda of nation-building. In addition, Makalela (2016) calls for a multilingual re - turn by articulating the interconnectedness of African languages before civilization. He provides an analogy of the Mapungubwe settlement between the 10th and 13th century AD where Africans from different parts of Southern Africa could understand each other in their day-to-day interactions using different linguistic repertoires. Makalela (2016) emphasises that what guided these people were guided by a worldview of belonging together (Ubuntu) despite linguistic differences. It is in this view that a call for a multilingual re -turn is necessary.

According to Makalela (2016, 2017), African languages are and have always been intellectually mutual hence the interrelatedness of the languages. The languages only became separated when the Dutch missionaries arrived in South Africa and began to reconstruct the languages using different orthographies. In Makalela's view, multilingualism with undefined boundaries has always been in South Africa hence his call to re -turn to this state of affairs.

Translanguaging within the post-structural shift advocates for recognition and acknowledgement of multilinguals as having one linguistic repertoire with features that have been socially assigned to constructions that are considered languages (Makoni and Pennycook, 2007). In relation to this, translanguaging allows bilinguals to deploy their full linguistic repertoire disregarding adherence to the socially and politically defined boundaries of named languages (Otheguy, Garcia and Reid, 2015). That is why Garcia and Leiva (2014: 204), insist that translanguaging resists the historical and cultural 'positionings' of monolingualism and advocates for fluid and fuzzy boundaries between languages in order to promote social justice.

According to Garcia and Li (2014), translanguaging entails the use of all language practices that were historically separated but now are being used in speaker's interactions as one new whole. To illustrate their definition, Garcia and Li (2014) liken the use of translanguaging to the relationship between musical lines that sound different, move independently and have different motifs but they sound harmonious when played simultaneously and against each other. In this manner, translanguaging is purported, according to Garcia (2009a), to be the vehicle towards a 'mesh' (Boakye & Mbirimi- Hungwe, 2015) of languages suitable to be used in the 21st-century pedagogy.

The poststructural paradigm has also questioned orthodox (Makalela, 2016) educational practices that insist on treating languages as separate entities claiming

that when more than one language is used for teaching and learning it results in cross-contamination of languages. Hence, the need for teachers to guard jealously against the contamination of target languages by ensuring that no other language is used for teaching and learning except the target language. It is my argument in this research that, the fact that languages have no boundaries, languages are not compartmentalised, should prompt lecturers to adopt a translanguaging model of teaching reading comprehension by allowing students to utilise all the linguistic resources at their disposal. Janks (2009), calls on South African English teachers to instil in students that multilingualism is a resource for creativity and cognition. Therefore, all languages should be valued for teaching and learning. Thus, there is no need to fear the contamination of one language by the other. It is also, an acknowledged and undoubted fact that students enter into classrooms with rich linguistic repertoires (Carroll and Morales, 2016) that require recognition and utilisation for meaning-making and understanding of the reading material.

The need to recognise, value and utilise students' linguistic repertoires is emphasised by Garcia and Kleyn (2016)'s call for educators to start looking at language from the point of view of the multilingual students that they find in their classrooms. As such, lecturers are encouraged to leverage students' full repertoires to teach and ensure that students understand the learning material. An undoubted fact is that students bring and utilise their entire language repertoires to the classrooms, and draw on their previous learning, to construct new knowledge (Meir and Conteh, 2014). Thus, the question that remains to be answered is whether it is useful to separate languages in teaching and learning.

In response to this question, Garcia, Johnson and Seltzer (2016), call for the creation of translanguaging classrooms. A translanguaging classroom is any classroom in which students are allowed to deploy their full linguistic repertoires and not just particular language(s) that are used for instructional purpose (Garcia, Johnson and Seltzer, 2016). A translanguaging classroom is undoubtedly a space built collaboratively by the teacher and multilingual students as they use their different language practices to teach and learn. In addition, Conteh, Begum and Riasat (2014) advise that instead of focusing on the problems of language diversity, teachers need to explore the ways in which the potential for learning is enriched by the repertoires of linguistic and cultural resources that both teachers and learners bring to the context. Without any doubt, a translanguaging classroom allows students to utilise their full linguistic repertoires in order to enhance their learning potential.

This research intends to show the effectiveness of allowing students' linguistic repertoires to manifest during classroom collaborative activities for meaning making and a deeper understanding of the content. The fundamental basis being the assertion by Moll (2005: 276), that language and cultural experiences of students are 'their most important tools for thinking'. Thus, by allowing students to use their full linguistic repertoires they are accorded the opportunity to leverage their thinking abilities and will result in a better understanding of concepts.

This section has traced the origins of translanguaging. It has also provided detail on bilingual models and how these have been used in the education sector. Details and examples of how translanguaging has been successful as a pedagogical practice in multilingual classrooms have also been availed. A multilingual re- turn approach to education has been availed showing how translanguaging fits into the current paradigm shift. The following section will provide literature regarding collaborative learning.

2.3 Collaborative learning

2.3.1 Theory and background

Collaborative learning is an umbrella term that refers to educational approaches involving a joint intellectual effort by students or students and teachers together (Smith and MacGregor, 1992). Collaborative learning is a pedagogical strategy where students work together in small groups to help each other understand the academic content (Slavin, 2010). This strategy emphasises the social and intellectual engagement of students in order to enhance active learning, thinking skills and mastery of content (Leigh and Mcgregor, 1992). According to Smith and MacGregor (1992), in collaborative activities, students are allowed to work in groups of two or more, mutually searching for understanding, solutions or meanings. In this regard, teachers accord themselves positions of expert designers of intellectual experiences for students and not knowledge transmitters. According to Delli-Carpini (2009), collaborative learning is accepted as having many positive effects that include providing a safe environment for student communication, promoting learner confidence, enhancing problem-solving and developing learner autonomy. Smith and MacGregor (1992), emphasise that collaborative learning immerses students in

challenging tasks to help them to develop higher-order reasoning and problem-solving skills. When collaborative groups discuss the text, students are able to construct social meaning and ultimately comprehension and learning is enhanced (Evans, 1995; Finlay and Faulkner, 2005).

Collaborative learning has been regarded as an important pedagogy in higher education (H.E.) since the late 1980s. Collaborative learning paved way for students to interact among themselves in small groups (Cabrera, Nora, Crissman, Terenzini, Bernal and Pasarella, 2002). According to Gokhale (1995:1), the term collaborative learning refers to an instruction method in which students at various performance levels work together in small groups toward a common goal. Goodsell, Maher and Tinto, (1992), refer to collaborative learning as situations where students are working in groups of two or more mutually searching for understanding, solutions, and meanings or creating a product. More recently, Slavin (2010), has defined collaborative learning as a set of instructional strategies in which students work together in small groups to help each other learn academic content.

As mentioned in the problem statement section (see Chapter 1, section 1.2), high student dropout is a major concern in higher education, especially in South Africa. Research indicates positive effects of collaborative learning on student achievement (Slavin 1995, 2010; Johnson and Johnson, 1998; Rohrbeck, Ginsburg-Block, Fantuzzo and Miller, 2003). It is important to note that for students' academic achievement to be attained; collaborative classrooms do not have to abandon the traditional processes of teaching and learning, that is lecturing, listening and note-

taking. Rather, collaborative learning lives alongside other processes that are based on students' discussions and active work with the course material (Goodsell, *et al*, 1992). Brufee (1984), (cited in Ravenscroft, Buckless and Hassall, 2010) provides a rationale for collaborative learning. They emphasise the importance of collaborative learning because it focuses on the social process of learning.

2.3.2 Collaborative learning perspectives

2.3.2.1 Vygotskian perspective

The concept of collaborative learning is rooted in the Vygotsky's (1978) sociocultural theory. According to Vygotsky, learning is a social process, which is activated through the Zone of Proximal Development (ZPD). The ZPD is the interactional space within which a learner is enabled to perform a task beyond his or her own current level of competence through assistance from a more capable expert. According to Ohta, (2001), a learner's ZPD is a negotiated discovery that is realised through dialogue between the expert and the learner in an attempt to discover what the learner can achieve without help and what the learner can achieve without assistance. In this regard, Vygotsky assumed that an adult, a teacher or a parent could only provide assistance. Thus, according to Vygotsky (1986), an individual cannot develop intellectually without influence from external forces such as people around as well as the environment. In this regard, mental functions such as thinking, reasoning and problem solving can be performed by individuals as well as in collaboration with peers (Wertsch and Rogoff, 1984). Lin (2015) emphasises that collaborative learning creates opportunities to develop students' cognition by actively communicating with peers that are more proficient. This results in an enhanced understanding of concepts.

Thus, when students are able to interpret, perform and submit a collaborative academic assignments learning is supposed to be enhanced, as students build upon their personal experiences while working with other students (Cabrera *et al*, 2002). It is within this construct that this research is grounded. Students should be allowed to engage in their social and intellectual practices and translanguage in order to enhance their reading comprehension.

2.3.2.2 The Second Language Acquisition (SLA) Perspective

According to Lin (2015), collaborative learning can be viewed as a contributory factor towards SLA. This stemmed from Krashen's (1985), Input and Swain's (1985, 1995); Output hypothesis, which posits that SLA competence, is driven by input and output factors. That is, the development of a second language depends on the amount of comprehensible input that the learner receives. According to Krashen's hypothesis, people acquire language when they understand what they have read or heard. If the input is above the current level of the L2 proficiency and makes it difficult for the learner to understand then the input would not contribute to the L2 learning. On the other hand, the output hypothesis claims that while comprehensible input is required for L2 learning, it is important for learners to also get the opportunity to speak and produce in order to structure their interlanguage grammar (Swain, 2000). Thus, when students are asked to explain concepts they get the opportunity to reprocess and modify their utterances, which in turn results in the development of the L2.

Based on the input and output hypothesis collaborative learning has been viewed as an enabler for meaning-making (Lin, 2015). Through collaboration, students have the opportunity to receive input as well as produce output. According to Pica (1994), cited by Lin (2015), research has shown that through interaction in collaborative activities learners can understand input. This is because learners are able to seek clarification when they do not understand the input. In so doing they get to comprehend. This aspect of collaborative learning is also considered to encourage learner autonomy where the learner does not always have to rely on the teacher; rather learners are able to extend learning on their own (Lin, 2015).

Collaborative learning has a long history of research focusing on academic achievement (Li and Lam, 2005; Slavin, 2010). For example, research that was conducted by Slavin (1990) found greater academic achievement in the collaborative groups than in control groups. It is within such research that a theory of collaborative learning is based. According to Slavin (2010), there are four major theoretical perspectives on the achievement effects of collaborative learning, namely: the motivationalist perspective, social cohesion perspective, developmental perspectives and cognitive elaboration perspectives.

2.3.2.3 The motivationalist perspective

This perspective of collaborative learning suggests that the motivation to perform a task is the most impactful part of the collaborative learning process (Slavin, 2010). Motivational theorists of collaborative learning emphasise the importance of

incorporating rewards into their collaborative learning methods (Slavin, 1995; Johnson and Johnson, 1998). The proponents of the perspective go as far as claiming that students focus more on the rewards or the goal structure for performing a task. Thus, if a group has a task to perform, group members must help each other to do whatever enables the group to succeed and most importantly to encourage group mates to exert maximum efforts in the task. Several methods have been developed to build group rewards in collaborative learning. Slavin (1995) refers to a method that was developed at John Hopkins University where students can earn certificates or other recognition when their team exceeds a pre-established criterion in the group assignment. In addition, Johnson, Johnson and Holubec (1998) from the University of Minnesota developed a method where students would be given grades based on group performance over a semester period. The rationale for these group rewards is that if students value the success of the group they will encourage and help one another to achieve academically (Slavin, 2010:162).

2.3.2.4 Social cohesion perspective

The perspective of social cohesion holds that the success of collaborative learning depends on the cohesiveness of the group. This perspective asserts that the quality of group interaction is determined by group cohesion (Battisch, Solomon, Delucci, 1993; Cohen, 1994). In essence, students will engage in the task and help one another to succeed primarily because they identify with the group and care about the group. This perspective highlights the need for team building activities to be incorporated into the collaborative learning methods so that students can encourage and help each other to learn. The social cohesion theorists underline that the effects

of collaborative learning on students depend on the quality of group interaction (Battisch, *et al*, 1993). Cohen (1994) uses a method where students take on an individual role within the group through the jigsaw method. In this method, students study material on one, four, or five topics distributed among the group members. They meet in 'expert' groups to share information on their topics with members of their teams who also studied the same topics. They take turns presenting their topics to the team sharing ideas. They then return to their original groups each contributing as an expert on their particular topic. Then they present to the rest of the class. According to Slavin (2010), the main purpose of this task specialisation used in the jigsaw is to create interdependence among group members. The idea is that, if students value their group mates as a result of team building activities and are dependent on each other for success they are likely to encourage one another to succeed.

This perspective of collaborative learning has been criticised because there are no positive effects on student achievement through this method. One problem that has been cited by Slavin (2010) is that students have limited exposure to material other than that which they studied and became 'experts' in. However, studies have shown that the jigsaw method can significantly increase student achievement when rewards are incorporated (Slavin, 1995, Mattingly and Van Sickle, 1991; Johnson *et al*, 1998). As mentioned earlier, the purpose of this research is to find the cognitive benefits of collaborative learning in order to improve students' achievement.

2.3.2.5 Cognitive perspectives (Developmental)

This perspective assumes that interaction among children/students around appropriate tasks increases their mastery of critical concepts (Slavin, 2010). The cognitive 'developmentalists' perspective of collaborative learning is underpinned by scholars such as Piaget and Vygotsky. Vygotsky (1978: 86), defines the zone of proximal development as: "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined by independent problem solving under adult guidance or in collaboration with more capable peers". Vygotsky (1978) stresses the benefits of collaboration with more capable peers, the reason being that what a student carries out jointly with another could be incorporated into his or her individual repertoire. Similarly, Piaget (1926) emphasises the benefits of cognitive conflicts among students that expose misconceptions lead to higher quality understandings. In this regard, opportunities for students to discuss, argue and to present and hear each other's viewpoints constitute the critical elements of collaborative learning with respect to student achievement.

2.3.2.6 Elaboration Perspective

This cognitive perspective on collaborative learning is based on research in psychology which holds that for information to be retained in memory the learner must engage in cognitive restructuring or elaboration of material (Slavin, 2010). One of the most effective means of elaboration is explaining the material to someone else, collaborative learning is seen to facilitate the process effectively (Li and Lam,

2005). Slavin (2010), suggests that students can use this initiative by assuming the roles of recaller and listener (peer tutoring).

Slavin (1995, 2010) presents a reconciled model of all the four perspectives of collaborative learning.

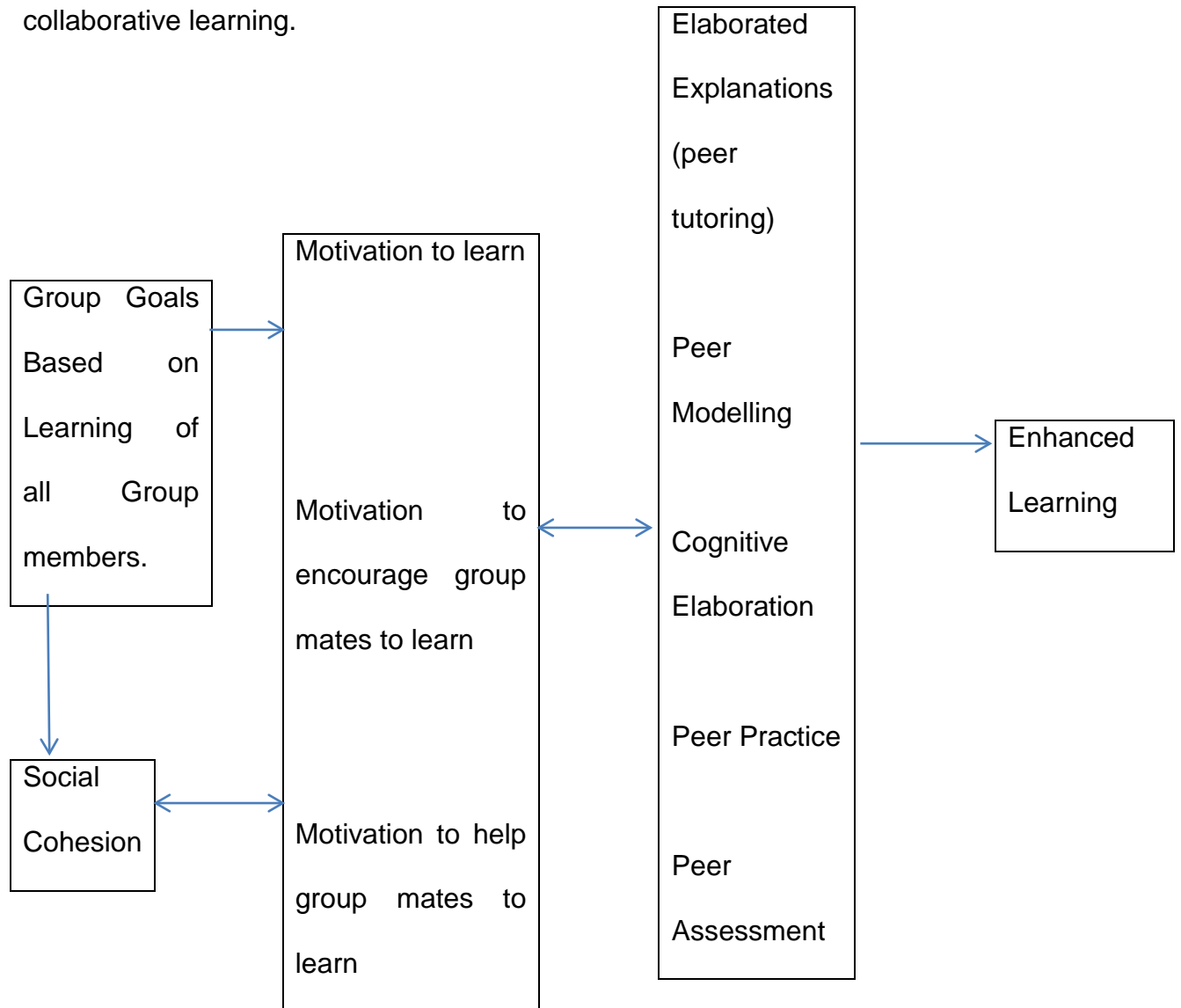


Figure 2.7: Slavin's reconciled, model. Adapted from Slavin (2010)

Slavin (2010) illustrates the relationship between group learning goals, motivation and enhanced learning. Li and Lam (2005) state that group learning goals produce within team members the motivation to learn and motivate members to help each

other learn. Within each member, deeper learning occurs as a result of peer tutoring, practice and correction. This model assumes that motivation to learn and to encourage and help others activates cooperative behaviours that will result in enhanced learning (Li and Lam, 2005).

2.3.2.7 Assumptions about learning

Although collaborative learning is practised by different disciplinary backgrounds and teaching traditions, the field is tied together by a number of assumptions about learners and the learning process (Goodsell *et al*, 1992).

Learning is an active and constructive process: In order for students to learn new information ideas and skills, it is essential for them to integrate it with what they already know so that they can reorganise what they thought they knew (Goodsell *et al*, 1992). This involves students bringing in their language practices in order to enhance learning (Garcia, 2009). Vygotsky (1978) refers to language as a cultural tool that serves as an instrument of thinking and acting. According to Vygotsky (1978:88), “human learning presupposes a specific social nature...” In this regard, learning involves constructing meaning from societal norms and values and is integrated into ideas for purposes of meaning-making.

Learners are diverse: Twenty-first-century classrooms consist of students who come from diverse linguistic backgrounds, learning styles, experiences and aspirations (Goodsell *et al*, 1992, Crabtree and Silver, 2004). This scenario makes it impossible for lecturers to use a holistic teaching approach. It is important for lecturers to take into consideration students’ linguistic backgrounds and experiences they bring into their learning. According to Li and Lam (2005), it is only through collaborative activities that students are able to clarify concepts to each other from a

cross-cultural perspective. Thus, students can build positive perspectives about each other despite the diversity amongst them.

Learning is inherently social: Collaborative learning has its main feature a structure that allows students to talk. It is in talking that much of the learning takes place (Goodsell *et al*, 1991). Li and Lam (2005) concur with this by pointing out that working collaboratively is an ideal way to facilitate the acquisition of language amongst students and to practice the custom of debate and discussion, which occur in any particular field of study. This observation ties in with Garcia's concept of acquiring an all-terrain bilingual vehicle that moves along different language practices, societies and contexts (Garcia, 2009:54a). It is within this construct that this research is based on. The need for students to learn through talking makes group collaborative activities an integral part of learning.

2.3.2.8 Collaborative learning through dialogue

Collaborative dialogue has been regarded by many scholars as a means and source of cognitive benefits in L2 students (Swain, Brooks & Tocalli-Beller, 2002; Swain & Lapkin, 2002; Ohta, 2000; Hopewell, 2012). Collaborative dialogue is premised on a sociocultural theory, which claims that cognition and knowledge are constructed through dialogue. Vygotsky (1978) who argues that all cognitive functions are based on social interaction originated the sociocultural theory of learning. Swain *et al.* (2002) elaborate by explaining that all activities which are external to the learner but, when he or she participates, are transformed to become internalised Stetsenko and Arievitch (1997), cited by Swain *et al.* (2002), emphasise individuals' internalisation processes that are done in cooperation with other people to an extent that those

processes become the individual's possession. When students are allowed to interact collaboratively through dialogue deeper understanding and grasp of concepts is the ultimate result. Swain (1997) refers to this process as a collaborative dialogue.

In collaborative dialogue, learners work together to solve a problem and or to co-construct knowledge and language mediates as a cognitive tool to process and manage meaning-making (Swain *et al*, 2002). In a study conducted by Swain *et al*. (2002), the benefits of collaborative dialogue focussed on the learner's benefits in writing, speaking, listening and reading activities. For purposes of this research, the focus will be on the benefits of collaborative dialogue in reading.

In a study that was conducted by Klingner and Vaughn (2000), Spanish- English bilingual students collaborated to build their own reading comprehension. Participants were assigned to read a text in English but were allowed to discuss it in both English and Spanish. Results showed that through interaction using the collaborative strategic reading technique, students were able to assist one another in vocabulary comprehension, finding the main idea, asking, and answering questions about their text. Students were able to teach concepts to each other and others provided scaffolding to each other. Swain and Lapkin (1998) also show how dyadic collaboration during a story reconstruction task increased deeper understanding of concepts in French in a French immersion class.

Recently, second language learning researchers have applied Vygotsky's idea of ZPD to a peer-to-peer interaction where there is no clear 'expert' (Ohta, 2001). Swain *et al*, (2002), argue that peer-peer collaborative dialogue can take place when peers are experts and novices concurrently. Furthermore, peers working within the ZPD of each other can help each other to learn by questioning, solving problems repeating and managing each other's' behaviours. It can then be suggested that through collaborative learning students can help each other to learn and make meaning of concepts in the absence of a teacher, tutor or 'expert'.

It is this construct that this research is based on; namely, that student should be able to work together to find the deeper meaning of concepts through translanguaging in collaborative learning.

This section has provided definition(s) of collaborative learning. It has also highlighted theories of collaborative learning as well as the research showing the success of using collaborative learning in multilingual classrooms where students have to perform tasks in languages that they are not familiar with (L2). The following section will focus on reading.

2.4 Reading

2.4.1 Background

According to Carrell, Devine & Eskey (1988), "Reading is by far the most important of the four skills in a second language, particularly in English as a second or foreign language" As Nunan (1999), points out, "Unlike speaking, reading [in a foreign language] is not something that every individual learns to do." In fact, one of the ways to tell that a person is familiar with a foreign language is to converse with them, but very rarely are people asked to read text in a foreign language in order to prove their proficiency, other than in an academic or professional setting. More class time is spent teaching reading than any other skill in elementary and secondary schools (Nunan, 1999), yet many students who progress through their twelve years of education are still illiterate once they graduate. For years, being literate has been the sign of an educated person, but there are many students who fall through the 'cracks' of the school system and enter into university inadequately prepared to read and comprehend texts.

Reading is a concept defined as the ability to draw meaning from the printed page and interpret the information correctly (Grabe and Stoller, 2011: 3). The concept of reading is also perceived as a complex act of communication in which a number of textual, contextual and reader-based variables interact to produce comprehension (Shaaban, 2006:377). Consequently, Karabuga and Kaya (2013: 621), also define reading as a process of problem-solving in which the readers make an effort to

comprehend meaning not only from words but also from ideas, information, claims and arguments in a text.

As noted from all the definitions of reading given by various scholars, comprehension is the basic and most important purpose for reading. Though comprehension forms an integral part of reading, it is not an easy task especially in a second language context (Grabe and Stoller, 2011). The complexity of the process of reading also makes it difficult to explain (Birch, 2014).

Despite the complex nature of reading, its importance for academic purposes cannot be overemphasised. Reading underlies academic success for all students (Cliff, Ramaboa and Pearce, 2007). In as much as reading forms, the 'core' of academic success in students reading comprehension supersedes the ability to read. For Cliff *et al.* (2007), in order for students to succeed in their academic endeavours, they need to be able to track, identify, evaluate and extrapolate academic arguments from texts. As such, students are required to read deeply for meaning. Pretorius (2007) situates academic reading as the ability to locate details and use different textual features to construct deep meaning.

Sadly, research in South African research has continued to show that the reading ability for many of the students at university is a cause for concern (Cliff, 2014; Pretorius, 2007; Boakye, 2012; Boakye and Mai, 2016). Reading challenges faced by many tertiary students is attributed to the lack of emphasis on reading at school

level (Pretorius, 2000). As mentioned in the preceding chapter 1 section 1.1, poor teaching methods at school level also militate against reading development in many South African students.

According to the 2012 National Education Evaluation and Development Unit (NEEDU), many teachers who teach at foundation phase showed that their teaching methods did not encompass higher cognitive comprehension levels. Teachers who participated in the survey showed that they did not put comprehension at the heart of reading instruction. Therefore, learners were only taught to recall stories and not infer meaning and connect ideas. Such poor methods of teaching reading instruction result in the reading challenges that students face at the tertiary level.

At tertiary level students are expected to summarise, extract main ideas and supporting ideas from the text, paraphrase and ultimately make meaning from the text (Boakye, 2012; Cliff *et al*, 2007; Bharuthrum, 2012). Many lecturers expect students to read and comprehend large quantities of printed materials within limited timeframes. These expected activities have proven to be very difficult for many students (Boakye and Mai, 2016). Many students are not L1 speakers despite having a poor educational background. For many South African students, English is their second, third or even fourth language (Boakye and Mai, 2016; Ngcobo, 2014). This poses a great challenge for them to perform all the tasks as per expectation, given that English is the main language of teaching and learning.

Due to the reading challenges faced by many students in South African universities research has been conducted to ascertain ways to address the problem. As mentioned earlier academic literacy, courses have been established in many universities at the first year level. Notably, research interest has been growing in this field. However, many of the studies conducted expose the problems and not many solutions have been suggested. Pretorius and Bohlmann (2003), conducted research into the reading comprehension of Mathematics and Psychology students. Their findings show that students used text-based clues to understand patterns of meaning in the texts they read. However, many of the students failed to utilise semantic clues in the texts to make inferences.

Pretorius (2004) acknowledges the importance of linguistic knowledge in reading but also adds that reading requires specific cognitive linguistic skills. Nation and Anthony (2013) emphasise the importance of readers to know more than 90% of the words in a text in order to comprehend the text. For vocabulary to improve Nation (2006) recommends extensive reading in order for second language learners to increase the size of their vocabulary. The strategies mentioned are all of a cognitive nature.

According to Boakye (2012); Boakye and Mai (2016), besides addressing the linguistic and cognitive skills there is a need for researchers to address the affective aspects of reading. In this regard, Guthrie and Wigfield (2000), emphasise the importance of reading instruction that addresses both the cognitive and affective aspects. In a study conducted by Boakye and Mai (2016), cognitive, affective and linguistic issues were identified as the main challenges faced by readers. However, the research found translanguaging to be one of the solutions to all the three issues

identified. Thus, in multilingual students, it is important to use translanguaging in reading instruction to help students to overcome their comprehension challenges.

2.4.2 Reading Models

Reading is a field that has been widely researched with the focus on the nature of reading. As a result, various reading models based on a variety of theoretical perspectives have been proposed to explain the process of reading (Barnett, 1989, Rudell, Rudell and Singer, 1994, Seng & Hashim, 2006). Based on the research available, the reading process has been placed on a continuum of two opposing approaches to understanding reading (Seng and Hashim, 2006). These two models are the bottom up and top-down models.

2.4.2.1 The bottom-up model

According to the bottom-up model, the reading process is a text-driven decoding process whereby the reader reconstructs meaning in the smallest units of text i.e the word. According to Martinez-Lang (1995), the reader has to approach the text by focussing on the linear combination of letters and words. Shrum and Glisan (2000), assert that the bottom-up model of reading emphasises that meaning is understood through the analysis of individual parts of the language and the reader processes language by combining sounds to form words, words to form phrases, clauses and sentences of texts. According to Nunan (1991), reading in this view is a matter of decoding a series of written symbols into their aural equivalents in the quest for making sense of the text. McCarthy (1999) has called this view '**outside-in**'

processing; referring to the idea that meaning exists on the printed page and is interpreted by the reader then taken in. According to Gough (1972), the bottom-up reading model functions in sequences as follows: First, the graphemic information enters through the visual representation to a phonemic representation. Secondly, the phonemic representation is converted into a word. Thirdly, the words become meaning and the meaning is assimilated into the knowledge system. When teachers used the bottom up model to teach reading they emphasised decoding skills and spent almost no time helping emerging readers recognize what they, as readers, brought to the information on the page. The bottom-up model is illustrated in figure 2.8 below:

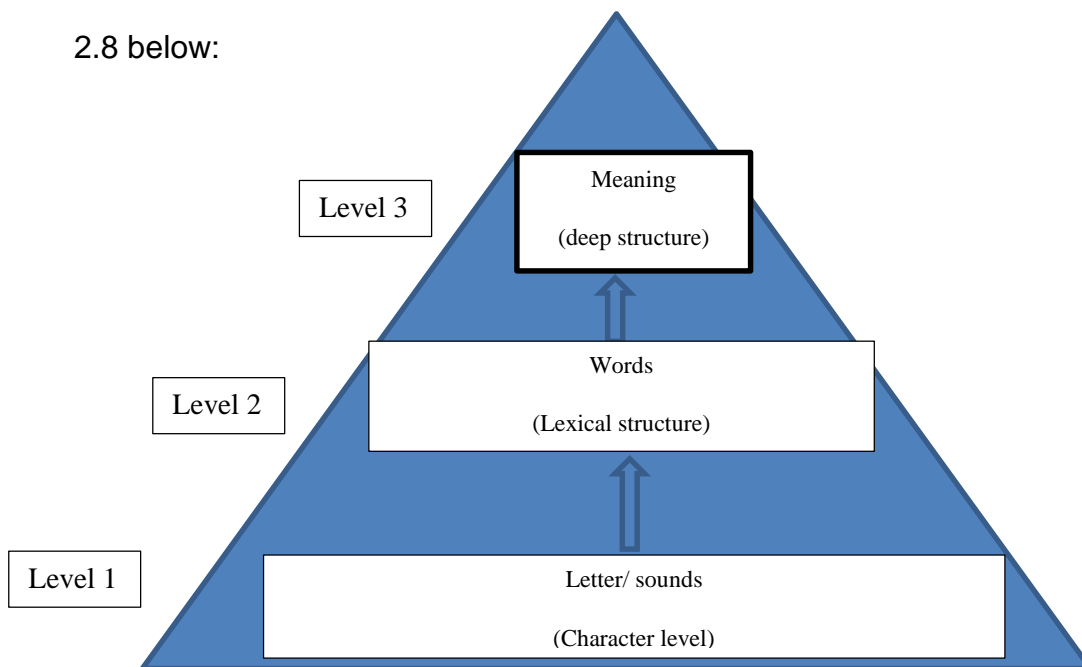


Figure 2.8: Bottom-up Model adapted from Liu (2010).

This model of reading has usually been under attack as being insufficient and defective for the main reason that it relies on the formal features of the language, mainly words and structure. According to Rumelhart (1977), cited by Liu (2010) the bottom-up model views the process of reading as proceeding in one direction such

that the reader does not contribute to the process. Rather the print dictates to the reader on how the process goes. Thus, the top-down model has been suggested.

2.4.2.2 The top-down model

Top-down model opposes the bottom up models by emphasising the need to consider the reader and his/her interests, world knowledge and reading skills to be the driving force for comprehension (Graeser, Singer and Trabasso, 1994; Barnett 1998; Goodman, 1968; cited by Gascoine, 2005). Proponents of the top-down models argue that the text has no meaning in and of itself. Instead, it gives the readers direction on how to retrieve and construct meaning from their previously acquired knowledge (Carrell and Eisterhold, 1988). Goodman (1967), cited in Paran (1996), presents reading as a psycholinguistic guessing game, a process in which readers sample the text, make hypotheses, confirm or reject them, make new hypotheses, and so forth. According to the top-down model theorists (Goodman, 1967; Smith, 1971), readers have a prior sense of what could be meaningful in the text based on their previous experiences and their knowledge of the language.

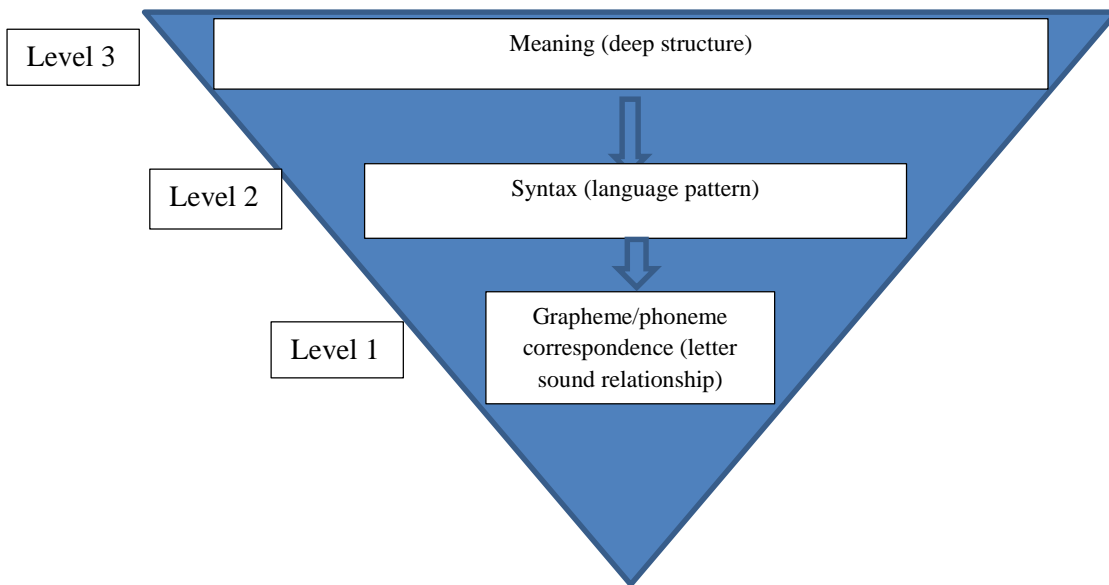


Figure 2.9: Top-down model adapted from Liu (2010)

According to Liu (2010), readers bring to the text their prior knowledge of the topic as well as their knowledge of the language, which assists them in predicting what the upcoming words will be in the text. In addition, readers assign a tentative hypothesis about the identity of the upcoming word and they use meaning to confirm their prediction (Liu, 2010). Thus, the reader rather than the text is at the heart of the reading process. The role played by existing / background knowledge in the reading process is also of great importance according to this model. Previously acquired knowledge and information are at the heart of the top-down models of the reading process. The model is illustrated in figure 2.9 above.

2.4.2.3 The Interactive model

More recently, a new reading model came up and this is called the interactive model. In this model, comprehension is considered to be the result of both the bottom up and top-down models where the reader interacts with the text and the text interacts

with the reader (Grabe, 2011; Liantas 2002; Block 1992). This model incorporates an assumption that a deficit in one-component subskills of reading may cause a compensatory reliance on another skill that is present (Hudson, 1998). An illustration of this model is that when a reader lacks the skill to recognise words they rely on contextual factors to understand the text. On the other hand, if there is a lack of background knowledge, a reader may resort to the bottom-up processing of a word or phrase to construct meaning. According to Stanovich (1980), the interactive model assumes that a pattern is synthesized based on information provided simultaneously from several knowledge sources. The model is illustrated in figure 2.10 below:

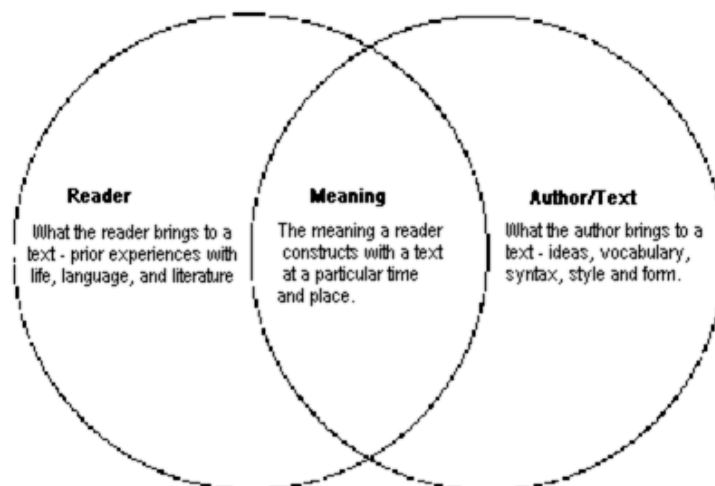


Figure 2.10: The interactive model adapted from Nada n.d

Thus, this model views reading as a problem-solving activity where the reader uses strategies as he/she interacts with the text (Seng and Hashim, 2006). This assertion by the interactive model proponents forms the basis of this research. This research focusses on finding ways of helping bilingual students to go through the complex process of reading for meaning-making.

2.4.3 Reading Comprehension

The process of reading does not begin and end with the ability to decode letters and sounds, it requires readers' ability to understand words and texts and this is reading comprehension. However, reading comprehension is a skill that is required for students to become effective readers (Grabe and Stoller 2002). Thus reading comprehension as a holistic process of constructing meaning from written text through the interaction of (1) the knowledge the reader brings to the text (2) the reader's interpretation of the language that the writer used in constructing the text and (3) the situation in which the text is read (Maria, 1990). Woodley (2011) reiterates by emphasising that reading comprehension (gaining meaning, understanding and interpreting the text) depends on a variety of reader related, text related and situational factors.

It is important to note that although reading comprehension is a holistic process that requires an integration of the reader and contents. Reading at the university level is much more sophisticated than high school. University students are in most cases are required to read and understand the subject material to ensure their academic success (Woodley, 2011). Many students lack the skills required for them understand academic texts that they are required to read. This is has a huge effect on second language readers. However, among the skills required for comprehension of texts metacognition is one of them. According to Nist and Mealey (1991), metacognition involves three main elements in the reading tasks. These are: (1) the ability to recognise errors or contradiction in the text, (2) the understanding of different strategies to use with different kinds of text and (3) the ability to distinguish

main ideas from supporting ideas. While research suggests that many university students lack metacognitive skills (Baker 1985), reading intervention studies show that students can try to learn and understand their level of comprehension by using different strategies. Among the strategies used by L2 university students is the use of their L1 to try to make meaning of difficult texts.

According to a research conducted by Seng and Hashim (2006) to find out the reading strategies used by bilingual university students, reading in a second language is not monolingual. That is, when a bilingual is required to read in a second language they incorporate skills and features from their L1 for meaning-making. The research allowed students to discuss using both L1 and L2 and think aloud as they negotiated the meaning of the texts they were reading. This research showed that there was a fluid movement between L1 and L2 as the students endeavoured to find meaning from the assigned text.

Thus, the results strengthen Garcia's (2000) argument that bilingual readers' use of languages at their disposal should not be viewed as compensatory strategies but rather be viewed as resources that reflect their bilingual identities. From Seng and Hashim's (2006), analysis students resorted to using L1 whenever the need arose for them to use it to enhance their understanding of the text. L1 was also used to tackle vocabulary difficulties in order to confirm, to reason through or to guess an unfamiliar L2 word. Also, in checking understanding related to ideas and comprehension of the text the L1 was also used. Although the research by Seng and Hashim (2006) refers to codeswitching as the shift to another language when

speaking, this research will instead refer to translanguaging because two languages were used simultaneously for pedagogic and meaning-making purposes in bilingual students.

In a similar research conducted by Maarofa and Yaacob (2011) in Malaysia to investigate how L2 students make meaning from texts, a number of strategies came up. Among them was collaborating with peers to understand the text and use of the first language to seek clarification of difficult concepts.

Using this background, it is evident that bilingualism is an asset that can be used in multilingual pedagogy. Use of L1 during discussion and group collaboration has been proven a useful strategy to assist students to comprehend texts. This research will also adopt the interactive model of reading where reading involves bi-directional interaction between the reader and the text; where the reader uses all the linguistic resources and forms through collaborative activities at his/her disposal in order to make meaning of the text.

2.4.4 The Nature of L2 Reading

As outlined earlier in this section, the complex nature of reading in the second language poses immense difficulties in most bilingual students. Harfenick and Wiant (2012), outline reading challenges from a second language student's perspective and these are difficult material, heavy reading load, their slow reading speed and limited time. Compounding this is the fact that students are often confronted by a large number of texts and textbooks that they have to read independently

(Bharuthram, 2012). Worth noting is the fact that comprehension is at the top of priorities when reading at the tertiary level is concerned. This works against the second language reader from all directions. Reading and comprehension of texts for second language students pose a great challenge, which also affects negatively their rate of success at university. The inability of students at university to read is a common phenomenon across the world (Bharuthram, 2012). According to Falk-Ross (2002), 50% of students who enrol in American universities do not possess adequate literacy skills to function at a proficient level. The South African scenario is no exception. As mentioned in the Chapter 1 section 1.1, many students in South Africa come from poor reading backgrounds compounded by the fact that they are expected to read in a language that is not their first language. This poses a great challenge for the students to read and comprehend texts.

Grabe and Stoller (2011) outline various contexts that make it difficult for second language readers to comprehend texts. Firstly, L2 readers need to broaden their linguistic knowledge of the target language for them to comprehend the texts. However, this suggestion is stifled by the fact that L2 students in most cases begin to read simple sentences and passages almost at the same time that they learn the language orally. According to Grabe and Stoller (2011), this situation differs when compared to L1 students who by the time they start to learn to read they would have already acquired the basic grammatical structures of the language as tacit knowledge. Lack of tacit grammatical knowledge in L2 readers suggests that these students lack structural knowledge and text organisation in the target language for them to comprehend texts effectively. The importance of text genre and structure is emphasised as an important factor in reading comprehension (Goldman and

Rakestraw 2000; McCardle, Chhabra & Kapinus 2008) lack of which leads to students struggling with comprehension of texts consequently leading to academic failure. Grabe and Stoller (2011) provide a practical example of the effects of lack of structural knowledge and text organisation by citing that in most cases students may know the vocabulary, and may even understand the main ideas but they may not follow the developments of the text and the arguments being made resulting in non-comprehension of texts.

In addition to lack of knowledge in the structure of the target language, L2 readers have insufficient exposure to L2 reading for them to recognise and build vocabulary required for comprehension in L2 (Grabe and Stoller, 2011:50). The lack of exposure to reading in L2 hinders the students from attaining the required language threshold for them to read and comprehend text. According to the language threshold hypothesis, L2 readers need to have enough vocabulary and structure in order for them to comprehend text. Unfortunately, most L2 readers do not possess the required L2 knowledge, which results in them devoting most of their cognitive resources to figuring out the language of the L2 instead of for the comprehension process to take place (Grabe and Stoller, 2011).

The knowledge of structure and grammar in the target language is the fundamental base for reading comprehension in the target language. However, in some instances, students' progress to university level without the basic reading comprehension skills required. According to Grabe and Stoller (2011), it is not necessary for academic literacy courses to include extensive grammar review; though grammatical errors should not be ignored as a resource for more advanced

comprehension abilities. Rather, it is suggested that the main idea of the text should be at the heart of L2 reading instruction. Grabe and Stoller, (2011) suggest that the main idea conversation can be developed through class conversations that encourage identifying and exploring main ideas, building connections between the text and student background knowledge. In the same sense, L2 students can be assisted to build text structure awareness to enhance their reading comprehension. Ultimately, students should be encouraged to elaborate main ideas to each other in group collaboration activities.

The ability to extrapolate main ideas from the text constitutes the meaning-making process, which is the comprehension process that is required when reading (King, 2007). However, there are different levels of comprehension. Deep comprehension is achieved when a reader is able to progress beyond literal comprehension to using the text combined with prior knowledge to construct understanding. Unfortunately, as King (2007), points out most students rarely gain a deep understanding of the materials they read in their course. Instead, they settle for shallow knowledge such as listing facts, definitions and other memorized material. In fact, students need to organise shallow knowledge and go beyond it by pursuing deep explanations, causes and implications.

King (2007) emphasises the importance of inferencing during and after reading in order to enhance understanding. King's argument comes from the fact that in most cases writers leave some information implicit in their text; the assumption being that the reader will infer from the text. Unfortunately, many readers are not able to infer meaning from texts. This is one reason why most readers cannot move from the

shallow understanding of texts to deeper understanding. As a result, King (2007) suggests a strategy that can be used in classrooms to ensure a deep understanding of text: The Guided peer questioning technique. This technique uses learner-generated questioning to elicit self-explanation, inferencing, making connections between texts and prior knowledge. Students use the strategy in a class where they ask each other thought-provoking questions, which in turn results in cognitive activities that promote deep comprehension (King, 2007: 273). Thus, this strategy promotes discussion of text through questions from peers during collaboration using their L1. The focus of this research is therefore particularly focussed on L2 students' reading to understand text written in L2.

Research in L2 reading has established the coexistence of both L1 and L2 collaboratively in the learner. Therefore, the L2 learner should be viewed as a multi-competent language user rather than a deficient L2 user (Scott & de la Fuente, 2008:100). This suggestion came because of research conducted by Scott and de la Fuente (2008) where French and Spanish speaking students were asked to collaborate in groups to identify main ideas in an English text. Students were allowed to use their L1 to discuss the main ideas. Results showed that allowing students to use both the L1 and L2 led to much more fluid and natural discussion which contributed to a better comprehension of the text as the students were not burdened with the task to explain their ideas in L2 but rather allowed to explain their understanding in their L1.

One way of determining students' comprehension of texts is by assigning written summaries based on a read text. In this regard, it is important to pay some attention to the literature available regarding summary writing as a measure of comprehension.

2.4.5 Summary writing

A summary is a significantly shorter version of a longer original source text that requires the use of various devices in order to achieve the reduction of length. One of the devices that students can use is the use of main ideas of the read text (Hirvela and Du 2013). Spack (1988: 42) points out that summarising is one of the most important skills a student can engage in as a major part of their academic experience. According to Ferris and Hedgecock, (2005) summarising is both a reading and writing skill, which involves identification of main ideas in a text and an ability to distinguish among main points and supporting details. Ultimately, when writing, summarising requires the writer to express the main points of a text and succinctly use their own words (Ferris and Hedgecock, 2005). According to Guthrie (2003), summarising teaches students how to discern the most important ideas in a text, how to ignore irrelevant information, and how to integrate the central ideas in a meaningful way. Thus, teaching students to summarize improves their memory for what is read. In this study, students' ability to produce a shorter version of the read text that contained the main ideas was used as a measure of comprehension.

Multifarious reports have been presented in the scope of summary writing. Many scholars have researched on summary writing in university students. For instance, Johns and Mayes (1990) conducted a research study comparing high and low proficient students. They discovered that both groups struggled to condense content from longer texts. Similarly, a research study was conducted by Currie (1998) conducted using a Chinese student in Canada. The aim was to look at textual borrowing practices of the students during summary activities. From a series of reading and writing tasks, the participant relied on copying directly from the assigned source text. More recently, Macbeth (2006)'s research using undergraduate students' completion of a summary writing task asserts that students struggle to grasp the main ideas of assigned texts. Research in the area of summarising has shown that summarising, as a way of exhibiting comprehension is problematic especially for L2 students.

It is common for numerous lecturers to acknowledge that many L2 undergraduate students struggle to read and comprehend assigned texts (Underwood and Pearson, 2004; Smagorinsky, 2001; Pretorious and Matchet, 2004; Boakye and Mai, 2016). However, recent research has shown that there is a need to employ different strategies to assist students (Grabe and Stoller, 2011). According to Grabe and Stoller (2011), when teaching reading, main idea, comprehension should be at the heart of L2 reading instruction. Grabe and Stoller (2011) suggest that main idea conversation can be developed through class conversations that encourage identifying and exploring main ideas, building connections between the text and student background knowledge. In the same sense, L2 students can be assisted to build text structure awareness to enhance their reading comprehension. Ultimately,

students should be encouraged to elaborate main ideas to each other in-group collaboration activities using all the linguistic resources at their disposal.

According to the Centre for Writing Studies (2013), the use of summaries serves the purpose of testing comprehension of the general main points of the text. Summaries also benefit the reader because they offer a concise, general version of the original information. In a study that was conducted by Yu (2008) where it examined the differential effects of the use of the two languages on summarization as a measure of reading comprehension. It was found that the use of the different languages had significant effects on both summarization processes and products. Students wrote significantly longer Chinese summaries but these were rated consistently of poorer quality than English summaries. However, Chinese summarisation was found to be a better measure of students' English reading comprehension. In addition to using two languages to measure reading comprehension, summaries also show the lecturer that the student has understood the general point of a text, and in this way, lecturers can test students' knowledge. Finally, summaries allow students to introduce knowledge within a research context: they can summarise someone's argument in order to analyse or review it.

Based on the existing body of literature exposing the benefits of using summaries to measure reading comprehension, the results from written summaries from this study will be presented in chapter 4.

2.4.6 Translanguaging, group collaboration and reading comprehension

Boakye and Mai (2016) concur that in order to cater for students' academic challenges concerning reading comprehension; translanguaging is one of the strategies that need to be employed. In this regard, it is the purpose of this research to establish the effectiveness of using translanguaging during group collaboration activities to enhance reading comprehension.

In relation to the purpose of this study which is to find out the effectiveness of using translanguaging to improve reading comprehension using collaborative activities, Garcia and Li (2015) confirm the important role that translanguaging plays in ensuring a deep understanding of the reading material. According to Garcia and Li (2015), translanguaging promotes metacognition when students collaborate with peers through discussion in order for them to understand what they would have read. In this regard, translanguaging confirms Vygotsky's (1978) sociocultural theory, which posits that knowledge is acquired interpersonally before it, is internalised. Swain and Lapkin (2000) have also confirmed that during collaborative activities translanguaging has been found to be helpful in understanding vocabulary and grammar from assigned reading materials. Using translanguaging teachers have noticed students being able to engage with rigorous content, access difficult texts and produce new knowledge.

2.5 Conclusion

This chapter has provided a review of the literature based on translanguaging, collaborative learning and reading comprehension. Various studies under each of the aspects have been discussed to show their importance for pedagogical purposes.

The translanguaging section has shown the origins and development of translanguaging as a pedagogical practice. The section has also explained the bilingual model that is recommended for bilingual teaching. It has also shown the link between translanguaging and bilingual education through the Dynamic Bilingual Model for pedagogical purposes. In the same vein, the literature presented has unveiled how translanguaging is situated within the dynamic bilingual model. The section has rebutted the fact that translanguaging is the only available and suitable pedagogical practice qualified to tackle the linguistic terrain of the 21st century. It has also shown empirical evidence based on various research from South Africa and internationally of how translanguaging has been used effectively for pedagogic purposes. The section has also unveiled the critical poststructuralists' paradigm and how translanguaging is situated in the paradigm.

The collaborative learning section has provided the development of collaborative learning and its underpinning of social learning. Different collaborative learning perspectives have been outlined too. This section also provided the importance and benefits of collaborative learning.

The reading section has shown the importance of teaching main idea identification in L2 classrooms. The importance of the use of prior knowledge has been emphasised as an important aspect of reading comprehension. Evidence from research has been provided to show the importance of translanguaging in reading comprehension.

It is, however, important to note that the literature available as presented in this chapter shows translanguaging as a recommended pedagogical strategy for meaning-making. In the same manner, collaborative learning is also presented as a useful pedagogical strategy that can be used in the classrooms. Second language reading comprehension has been recommended by many scholars to be beneficial when the first language is incorporated during collaboration activities. Thus, the literature confirms the effective use of translanguaging during group collaborative activities to enhance reading comprehension. In as much as there is such confirmation of the effectiveness of using translanguaging during group collaboration to enhance reading comprehension, there is a dearth of research confirming this phenomenon in South African HEIs. It appears the research available conducted abroad to report on primary and secondary level pupils.

It is therefore vital for this enquiry to be embarked on; the main aim is to ascertain the effectiveness of using translanguaging during group collaborative learning to enhance reading comprehension in first-year university students. In order to confirm the assertion, a research of this nature needs to be instituted using a recognised and feasible research method. Therefore, the following chapter; that is Chapter 3, outlines the research methodology that was used in this study.

CHAPTER 3

Research Methodology

3.1 Introduction

The previous chapter unveiled the body of literature in relation to translanguaging, collaborative learning and reading comprehension. The purpose of this chapter is to outline the research methodology that was used in this research. An overview of the research is presented as well as the research methodology and design. It further describes the systematic sampling and data collection procedure and analysis.

Kothari (2004) defines research methodology is a way to systematically solve the research problem. Thus, research methodology may be understood as a science of studying how research is done scientifically. In research methodology, the aim is to outline the various steps that are generally adopted by a researcher in studying the research problem along with the logic. When a researcher chooses a research methodology, it should be suitable for the problem they wish to resolve (Kothari, 2004). In this sense, research methodology is designed in relation to the inquiry to be embarked on. The fundamental principle is that research problems differ from one problem to the other. Since research methodology is not prescribed, it is important for the researcher to specify very clearly and precisely what decisions were made and why they were made so that other researchers can evaluate them. In this regard, this chapter will provide a systematic explanation of the research decisions and justification for such decisions.

In order to explain the research methodology that was used in this enquiry, it is crucial to review the research problem and show how the research methodology is situated in the enquiry.

3.1.1 Research overview

This research is based on a worldwide-acknowledged problem and that is the problem of reading comprehension in first-year university students. Universities worldwide are faced with students who enrol for degrees and yet they do not have the required academic literacy skills required for this level of education. South Africa is also experiencing this problem. Reading comprehension forms the core aspect of learning at tertiary level (Boakye, 2012; Bharuthrum 2012, Pretorius and Matchet, 2008, Boakye and Mai, 2016). Despite the emphasis that has been placed on the importance of reading many students, still, struggle with reading and understanding texts at university level.

Research in the field of reading in multilingual pedagogy has identified challenges that many students face and at the top of the list is lack of adequate proficiency in the English language, which in turn is the result of different factors. Because of inadequate proficiency in the English language, many students find reading to be a difficult and burdensome task. Thus, many students fail to perform well in their academic activities due to poor reading comprehension strategies. As mentioned in Chapter 1 section 1.1 many students eventually drop out of university and a considerable number struggles to finish their degree programmes in the stipulated number of years. In addition, reading at university is expected to be performed in

English, which in most cases is not the first language to many students (Ngcobo, 2014; Boakye and Mai, 2016). This challenge is exacerbated by the fact that many students who enrol in university were poorly educated especially at primary school level (Pretorius and Matchet, 2008). This problem requires ways that will help students to overcome the reading challenges that they face at university.

The purpose of this study is to ascertain the effectiveness of using one of such ways, namely translanguaging, through collaborative learning activities to enhance reading comprehension in first-year students. The use of translanguaging for pedagogic purposes has become a common phenomenon in the 21st century (Garcia, 2009). Translanguaging has been used successfully (locally and internationally) to help second language learners of English to grasp concepts and attain deeper meaning of learned material (Madiba, 2014; Hopewell, 2011; Garcia, 2009a; Makalela, 2014).

However, the existing body of literature available shows that translanguaging in collaborative activities has not been used extensively to deal with the reading challenges faced by first-year students at university. The few available studies show the benefits of using translanguaging at the primary and secondary school level. There is still a dearth of research for university students about the use of translanguaging during collaborative activities. As such, this study looks at the effective use of translanguaging as a pedagogical strategy to assist students in collaborative activities to gain deeper understanding especially when they read academic materials. In this regard, this probe requires a research design that will provide explanations that adequately address the probe. In order to do this, a mixed

method research design has been elected to provide answers to the research problem.

3.1.2 Research Design: Mixed Methods

The research utilised a mixed methods design (Cresswell and Plano Clark, 2011; Creswell, 2014). Mixed methods are broadly defined as a type of research in which the investigator collects and analyses data integrates the findings and draws inferences using both qualitative and quantitative approaches (Tashakori and Creswell, 2007: 3). Johnson, Onwegbuzie and Turner (2007) also define mixed methods as an intellectual and practical synthesis based on qualitative and quantitative research. The mixed methods design, as the name suggests involves the integration of qualitative and quantitative findings at different stages of the research process. Recently, Cresswell and Plano Clark (2017) have defined mixed methods as a thinking in multiple ways of seeing and hearing. According to Cresswell and Plano Clark (2017), multiple ways of thinking are visible in everyday life and mixed method provides multiple ways of addressing research problems.

As a way of using multiple ways of thinking, mixed methods provide a way to harness strengths that offset the weaknesses of both quantitative and qualitative research. Many researchers have argued that quantitative research is weak in understanding the setting or context in which people live. Quantitative research has also been accused of silencing participants' voices. In addition, quantitative researchers are also in the background their own bias and interpretations are seldom

discussed (Cresswell and Plano Clark, 2017). On the other hand, qualitative research makes up for these weaknesses because in qualitative research there is a vibrant presentation of participants' views as well as the researchers' views during the discussion of results. However, qualitative research is equally deficient because it allows for personal interpretation of the researcher thereby ensuing bias. In addition, in qualitative research, there is a generalisation of findings to a large group because of the limited number of participants studied. While quantitative research does not have these weaknesses, it makes it sensible to note that by using the strength of one approach it makes up for the weaknesses of the other (DeCuir-Gunby and Schutz, 2016). In fact, mixed methods provide more evidence for studying a research problem than using either qualitative or quantitative method alone. In addition, Bernadi, Kleim and von der Lippe (2007), argue that mixed methods help to highlight the similarities and differences between particular aspects of a phenomenon.

Thus, a mixed approach to research has notable advantages that need to be considered by researchers. Cresswell and Plano Clark (2017), argue that by using a mixed method researchers are able to use all tools of data collection available rather than being restricted to those typically associated with quantitative or qualitative research. This makes mixed methods to be a practical method because researchers are at liberty to use all possible tools methods available to address a research problem.

In the same sense, mixed methods enable scholars to produce multiple written publications from a single study. That is, a scholar may publish an article that includes quantitative data resonating from the quantitative strand of the study. They can still publish another article from qualitative data derived from the qualitative strand of the same study (Cresswell and Plano Clark, 2017)

It is important, however, to trace the origins of mixed methods research in order to situate this research.

3.1.3 The History of Mixed Method Research

According to Cresswell (2011), a philosophical development mixed methods research started to take form in 1959 when Campbell and Fiske began a discussion on how to incorporate multiple sources of quantitative data to validate psychological traits. Years later, in 1978 Denzin; Campbell and Cronbrack continued to advocate for the inclusion of qualitative data in quantitative experimental studies. In fact, Jick (1979) first introduced mixed methods as a means of seeking convergence across qualitative and quantitative methods within social science research. In 1980, Patton also suggested methodological mixes for experimental designs. These developments according to Cresswell (2011) signalled the initial stages of what forged mixed methods into a complete research design and a distinct approach to research.

Following the advocacy by various researchers for the incorporation of quantitative and qualitative methods in experiments, several publications have come together to

define the mixed methods research. According to Cresswell and Plano Clark (2017), the 1980s saw a number of writers (Brewer and Hunter 1989 from Sociology, Bryman 1988 from Management; Fielding and Fielding, 1986; Morse, 1991 from medicine and Cresswell, 1994 from education) writing books, book chapters and articles. The publications focussed on an approach that moved beyond simply using qualitative or quantitative methods as distinct separate strands in a study. These writers were paying attention to finding ways that could link or combine the quantitative and qualitative methods of research.

The writers justified the need to combine the two methods of research by arguing that some research problems are complex in nature such that answers cannot be obtained by simple numbers in a quantitative sense or in words in a qualitative sense. The realisation in the shift in research has seen qualitative and quantitative research evolving to a point where researchers now the important role that quantitative and qualitative data can play in an experiment (Cresswell and Plano Clark, 2017). This realisation has prompted some researchers such as Kelle (2015), to note that the alienation that has existed between qualitative and quantitative data that has existed since the 1920s has attributed to the rise of mixed methods in order to overcome in the speechlessness between both traditions. Thus, the shift has brought in the realisation that qualitative and quantitative data can indeed complement each other in an enquiry.

It has taken over 30 years for the label 'mixed methods' to become acclaimed amongst researchers. Cresswell and Plano Clark (2017), points out the reason has been that different researchers have labelled mixed methods differently. Fielding and Fielding (1986), have called it quantitative and qualitative methods; Morse (1991), has labelled it methodological triangulation; Robin, Nagel and White (2004), have

used the term hybrid research; Creswell (2004), refers to combined research and Onwuegbuzie and Leech (2012) introduced the label mixed research. The term mixed methods has become the commonly agreed label since its inception by Creswell in 2011. In this sense, this research will use mixed methods as both the label and the research design.

3.1.3 The Evolution of Mixed Methods

3.1.4 Formative period

Despite having different labels from different researchers the mixed methods research design has gone through various stages of evolution that need to be acknowledged and understood (Tashakori and Teddlie, 2003). The first stage is referred to as the formative period (Cresswell and Plano Clark, 2017). This period began in the 1950s until the 1980s. As mentioned earlier, this was the stage when there was an initial interest in using more than one method in a study. This initiative gained momentum in the field of Psychology in a study by Campbell and Fiske (1959). During this period, it appears none of the researchers raised concerns about the mixing of quantitative and qualitative methods until the period between the 1970s and 1980s.

3.1.5 Paradigm debate period

The period between the 1970s and 1980s saw qualitative researchers insisting that there are different assumptions for qualitative and quantitative research. This debate landed the history of mixed methods research into the paradigm debate period (Cresswell and Plano Clark, 2017). The debate involved arguments among scholars on whether or not qualitative data could be combined because they emanated from

different philosophical assumptions. Since then there have been debates about the feasibility and accuracy of using mixed methods in research. The purists, on one hand, argue that qualitative and quantitative approaches cannot be merged as this poses a threat to the advancement of science (Onwuegbuzie and Leech, 2005). Thus, according to the purists due to the different philosophical assumptions between qualitative and quantitative data mixed methods was deemed incommensurable.

On the other hand, proponents of mixed methods approaches emphasise that by combining qualitative and quantitative an overall account of findings can be forged which is not possible when using a singular approach (Bryman, 2007).

Further probe into the philosophical assumptions that were proclaimed to guide qualitative and quantitative research found that the philosophical assumptions are not as tightly drawn as was envisioned by the purists between 1970 and 1980 (Cresswell and Plano Clark, 2017).

In the 1990s, situationalists ameliorated the debate by forging a view towards research methods to be depended on the research situation. In addition, the pragmatist further diffused the debate by bringing in the assertion that multiple research paradigms can be used successfully to address research problems. It is until then that pragmatism forms the basis of mixed methods. Many researchers in the field of mixed methods research called for pragmatism to be the philosophical

foundation of mixed methods. In fact, recent developments in research have seen researchers such as Kelle (2015), advocating for the recognition of different types of research methods including mixed methods to be associated with different types of worldviews.

3.1.6 Procedural development period.

After the recognition of pragmatism as the philosophical foundation of mixed methods, the late 1980s into the 1990s writes in mixed methods began to focus on methods of data collection, analysis and research design for conducting mixed methods study. In the early 2000s, mixed methods transitioned into the expanded procedural period. This stage has seen the formalisation of the mixed method field through major publications such as books have been published to provide a comprehensive guide to conducting mixed methods research (Cresswell, 2009, 2014; Cresswell and Plano Clark, 2007, 2011; Morgan, 2014).

In addition, in 2005, the debut conference on mixed methods was held in the United Kingdom since then the Mixed Methods International Research Association was established in 2013 to organise international conferences on mixed methods. Finally, this period has seen the extension of the use of mixed methods into diverse disciplines such as media and communication, nursing and health sciences, social work, psychology and education. Many countries now have researchers who are using mixed methods extensively these include German, Sri Lanka, Japan, Laos and the United Kingdom. Slowly, it is spreading into Africa and South Africa in particular; hence, this research is adopting a mixed methods approach.

3.1.7 Reflective and refinement period

Since 2003, until now, the mixed methods research has entered into a period of reflection and refinement. This period is characterised by reflective controversies and issues of concern. There have been refinements especially in methods and perspectives in mixed methods.

It is important to acknowledge and mention that, the mixed methods research paradigm is still in its 'infancy' stage and is relatively unknown to many researchers (Leech and Onwuegbuzie, 2007). Nevertheless, what is important to note is that the landscape of research is and has been continually evolving enabling researchers to study increasingly complex phenomena (Cresswell and Garret, 2008). Thus, researchers in the field of education have developed novel methods to provide increased sound and complete evidence and mixed methods have emerged as the appropriate tool.

3.2 Situating the study

As mentioned earlier in Chapter 3 section 3.2, since its inception, the mixed methods approach has become popular in many disciplines. Thus, many published mixed methods studies have been utilised to answer research questions that could not be answered by one paradigm alone (Onwuegbuzie and Leech, 2005). It is on this basis that this research rests on the mixed methods approach. This research intends to

probe the effectiveness of using translanguaging during collaborative learning to enhance reading comprehension. In this regard, there is a need for the probe to utilise research subjects in order to prove the enhancement of reading comprehension due to the use of translanguaging through collaborative learning. The research participants need to attest to the benefits by experiencing the use of translanguaging during group collaboration by venting their perceptions. Besides relying on participants' perceptions, the benefits need to be tested to see if there was a cognitive benefit because of using translanguaging during collaborative learning. This enquiry requires collecting both qualitative and quantitative data to explain and ascertain the effectiveness of the using translanguaging during group collaboration.

The complex nature of this enquiry requires a mixed methods approach where findings require the utilisation of both quantitative and qualitative approaches for the sake of triangulation and ultimately for the credibility of the study. Given that this research focusses on establishing the effectiveness of using translanguaging through collaborative learning to enhance reading comprehension, it is important to utilise both the quantitative and qualitative methods to explain the findings. A single paradigm will not be able to explain fully the research findings.

Due to the fact that the mixed methods approach is, still in its initial stages of development finding appropriate research designs when using the mixed methods approach is still a challenge. According to Leech and Onwuegbuzie (2007), there is a plethora of mixed methods designs in existence. This leaves researchers in the field of mixed methods with the challenge of selecting optimal mixed methods research

designs. Although there are typologies that have been developed by several researchers in order to simplify researchers' design choices, these typologies are complicated, they do not represent a consistent system or are too simple to be used in mixed methods (Tashakori and Teddlie, 2003).

In order for researchers to be guided in terms of which design to use Ostlund, Kidd, Wengstrom and Rowa-Dewar (2011), suggest a framework for designing mixed methods research. The framework emphasises the importance of integrating qualitative and quantitative data at some stage of the research process. Kroll and Neri (2009), outline the various stages of the research processes where integration of research findings can occur.

According to Kroll and Nell (2009), the integration of quantitative and qualitative findings can be done during data collection, data analysis or at the interpretative stages of the research. According to Ostlund *et al* (2011), three approaches may be used and these are a.) concurrent data analysis approach. This approach prescribes that each data set that is qualitative and quantitative is integrated during the analytic stage. b) convergent parallel data analysis this is where both data sets (qualitative and quantitative) are collected and analysed separately until the interpretation stage. c.) sequential data analysis where data is analysed in a particular sequence with the purpose of informing rather than being integrated with findings from the other method.

In this regard, this research integrates and draws inferences from the qualitative and quantitative data at the interpretative stage of the research. Hence, the research used a convergent parallel mixed methods design. In a convergent parallel design, both qualitative and quantitative data is collected and analysed separately (Creswell, 2009). Figure 3.1 illustrates the convergent parallel mixed method.

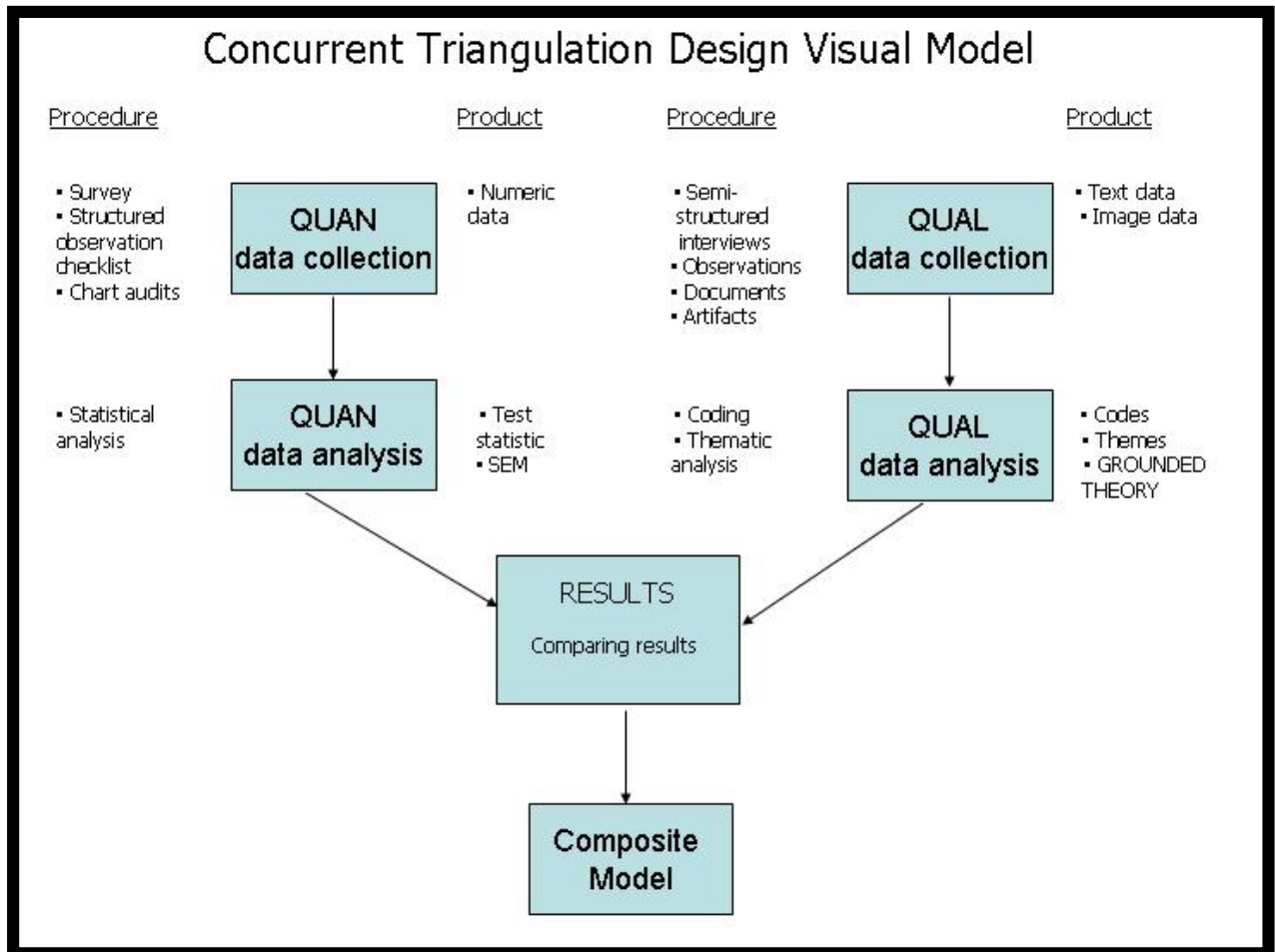


Figure 3.1: Creswell and Plano Clark, 2007

In this study, qualitative data was collected from summaries and responses from a closed-ended questionnaire; qualitative data was collected from audio recordings as well as from a focus group discussion. This was done separately. The results will be presented and analysed separately i.e the written summary results will be analysed using the t-test statistical analysis, the questionnaire will be analysed using

descriptive statistics analysis, audio recordings, as well as the focus group discussions, will be analysed qualitatively using themes. The results will be converged in chapter 6 where differences, similarities, convergence and divergence will be interpreted.

It is important to mention that in a convergent parallel research design, the number of participants does not need to be the same for the strands of data (Cresswell, 2009). Thus, in this study different numbers of participants were used for each strand of data. The study used the same participants who formed part of the intervention group especially for the summary writing and the group discussions. The seven participants who responded to the focus group discussion had also participated in the summary writing, responded to the closed-ended questionnaire and they participated in the group discussions that were audio recorded. It should be stated that the number of participants fluctuated because some participants though they wrote summaries and responded to the questionnaire they were not willing to be audio recorded. In mixed methods, this is referred to as parallel relationship sampling (Onwuegbuzie and Collins, 2007). In this sampling method, samples for the qualitative and quantitative strands are different in size but they are drawn from the same population of interest. For this study, different sample sizes were used to collect data however, the sample was drawn from first-year students who are the population interest in this case. A more detailed explanation of the processes taken in this study is provided in section 3.5 of this chapter.

3.3 Purpose of the Study and the Research Questions

3.3.1 The aim of the study

The aim of this study is to investigate the effectiveness of using translanguaging during collaborative learning to enhance learning.

3.3.2 Research questions

In relation to the deliberated issues above, the following research questions were formulated as follows:

3.3.2.1 Is the use of translanguaging during collaborative learning an effective pedagogic strategy to enhance reading comprehension?

3.3.2.2 How can lecturers use collaborative learning through translanguaging effectively to help students read and understand the academic content?

3.3.2.3 What are students' views on the use of translanguaging during collaborative learning?

3.3.3 Objectives of the study

The objectives of the study are to:

3.4.3.1 Investigate the effectiveness of using translanguaging during collaborative learning to enhance reading comprehension.

3.4.3.2 Explore students' views on the use of translanguaging in collaborative reading activities.

3.4 Sampling

Sampling is an important step in the research process because it helps to inform the quality of inferences made by the researcher (Onwuegbuzie and Collins, 2007). In this regard, it is the prerogative of the researcher to select the sample size and how to select the sample (Creswell, 2009). In the same vein, this study utilised a parallel relationship sampling method. This sampling method allows the researcher to use different sample population for each strand of data collected. In fact, with the inception of mixed methods research design, sample sizes have negated the dichotomy between qualitative and quantitative data samples. Initially, big samples were believed to be associated with the quantitative research paradigm and small sample sizes being for qualitative research. According to Onwuegbuzie and Leech (2005), this approach to sampling is too simplistic and misleading to researchers. In this regard, Onwuegbuzie and Collins (2007), argue that instead of relegating sample sizes to research paradigms the size of the sample should be informed by the research objective, research questions and subsequently research design.

In this particular study, participants were students allocated to the groups that I teach who are doing Occupational Therapy, Bachelor of Radiography and Medicine i.e BOT, BRAD and MBChB respectively (non-random convenience sampling). 110 participants formed the sample size for this research. These participants were students who were doing an English for Health Sciences (MEHS010) course. The administrators of the course allocated the students to be in the researcher's groups. Thus, the researcher had no influence on the selection of the participants. According to Teddlie and Yu (2007), convenience sampling involves drawing samples that are both easily accessible and willing to participate in a study. Because students who were allocated to be taught by me were easily accessible to participate in the

research, they were used with their consent as participants. The selection of participants was purposive too, that is the participants were selected based on a specific purpose rather than on a random basis (Tashakori and Teddlie, 2003). The study focused on first-year students, the purpose was to use these participants to find out how effective it is to use translanguaging during collaborative activities in order to enhance participants' comprehension of texts.

The first strand of data to be collected was the written summaries results. In this data, there was one control group and one treatment group. A total of 85 students participated in this set of data. The BOT students (37) were used as the control group and the MBChB group (48) was used as the intervention group. In an experiment, a control group is used as a baseline measure. That is, the group is identical to other subjects under examination with the exception that it does not receive the experimental manipulation that the treatment group receives (labwrite.ncsu.edu). On the other hand, the treatment group is the subject that is manipulated through an intervention or treatment.

In this study, Intervention i.e translanguaging through collaborative activities was done to the treatment groups only and the control group did not receive the intervention. The researcher's intentions were to note any improvement in learning, especially comprehension of academic texts, because of the treatment. Hence, the control group was used for comparison in terms of the effectiveness of the intervention.

The second strand of qualitative data was collected using a closed-ended question. The questionnaire was administered to 110 participants who were also being taught by the researcher. The qualitative strands of data were collected using audio recordings as well as focus group discussions. Twenty students participated in the audio recordings and the focus group discussions only seven students participated. According to Cresswell (2009), Onwuegbuzie and Collins (2007), samples of participants in a mixed method research do not necessarily need to be the same number for both strands of data. The researcher is at liberty to use a sample that can provide the required data for each strand of data. However, in the case of this study the researcher wished to have 42 participants based on seven groups of six members to participate in the group discussions. Due to participants' scepticism and unwillingness to be audio recorded, I resorted to using the 20 who were willing to be audio recorded for this study.

3.5 Data Collection

Data collection is a technique that is used to collect empirical research data (Johnson and Turner, 2003). In simple terms, data collection is the means by which the researcher gets their research 'information'. The commonly used techniques to obtain research information are: questionnaires, interviews, focus group discussions, observations and secondary data. Concerning this study, data was collected using four instruments namely: closed-ended questionnaire, audio recordings, focus group discussions and written summaries. It important to mention that the data collection process considered the fundamental principle of mixed methods research.

According to Tashakori and Teddlie (2003), the fundamental principle entails that the mixed research methods should be mixed in such a way that has complementary

strengths and non-overlapping weaknesses. The major reasons for mixing methods are to obtain corroboration of findings and to elucidate divergence aspects of a phenomenon. In this regard, the data collection methods used for this study took cognisance of this fundamental principle of mixed methods research and ensured that the strengths of each method were complemented by another method. Thus, a t-test was used to ascertain any difference in performance of control and intervention group in the written summaries results. This provided a statistical component, which was complemented, by a qualitative component where participants had to be observed during group discussions as well as during focus group discussions. This formed the basis of the interpretation stage of the research where corroboration of data will be done.

3.5.1 Written summaries data collection.

Eighty-five participants from both the control group (37) and the intervention group (48) had to complete a summary writing task. Participants were required to read an article entitled 'The doctor who vanquishes pain'. The article describes the evolution of the use of anaesthesia. It describes how anaesthetic drugs have developed as well as the responsibilities of an anaesthetist during a medical procedure that requires a patient to be put under anaesthetic. The syntactical complexity of the text was measured by the Flesch-Kincaid Grade level and it was at level 12. According to Chall and Dale (1995), the Flesch Kincaid grade level 12 assumes that the text is easily read and understood by university students. Thus, the text was suitable for the cohort of participants in terms of readability and it was related to their fields of study. Participants were required to read the article individually outside class time. When they came to class, they were allowed to discuss in their discussion groups, the main

points of the article with a focus on the role that an anaesthetist plays before during and after surgery. Students were grouped in groups of six and the groups were linguistically diverse. Thus, the BOT group had six discussion groups and the MBChB group had eight discussion groups. Students were randomly allocated to the discussion groups using the jigsaw puzzle selection technique. This was done to ensure that there was diversity in the discussion groups and to avoid students speaking the same home language being in the same group.

The task was clearly specified so that the participants' responses would not be subjective. Clearly defined task requirements guide the students on the parameters of what is expected (Alderson, 2000). Participants were allocated 60 minutes of discussion and clarification of concepts. Likewise, the intervention group was explicitly instructed to use their languages to explain concepts to each other as well as to identify the main ideas during their discussion. The control group, on the other hand, was asked to discuss in English the main ideas of the article as well as any other concepts that they needed to discuss in order to grasp the meaning of the text (The control group was not asked to use their home languages during their discussions). Thereafter, participants would write summaries individually ensuring that they exposed the main ideas of the article. A written summary of 200-250 words was to be produced by each participant.

In order to determine the main ideas of this article that was to be used for the summary, the researcher sat down with two colleagues from the Department of Language Proficiency and wrote summaries within 40 minutes, which was the time to be allocated to the students. The most occurring main ideas from the three lecturers

were regarded to be the prespecified main ideas that were to be used for assessment. In total, there were eight ideas that were identified to be the prespecified ideas.

During a 40-minute lecture period, participants were given time to write their summaries and submitted at the end of the lecture. The control group wrote the summaries first because they saw the lecturer every Tuesday afternoon. The intervention group wrote on Wednesday of the same week that the control group wrote and the completed written summaries were collected after the 40 minutes lecture time.

The researcher assessed the summaries and scored, and gave to two other colleagues to assess and score to ensure consistency but most importantly for the researcher to eliminate bias from the results of the summaries.

3.5.2 Audio recordings

Data from the audio recordings were collected during group discussions where participants were required to discuss three articles based on viruses. Thus, participants were assigned to groups of six and were required to read one article in pairs but read all three articles individually. These articles were the sources for an expository essay that they were required to write and submit for assessment. The expository essay would form part of their continuous assessment and it weighed 10% of the year mark. The articles that they read in pairs were the ones that they would become 'experts' in and they were required to explain and recall what they had read and understood from the article. The experts were called 'recallers' and the

rest would be 'listeners'. The roles changed those who recalled would become listeners too. Thus, each participant had the opportunity to be both a 'recaller' and a 'listener'. It is important to mention that participants in this strand of data were linguistically heterogeneous. They were not grouped according to the home languages they speak. The discussion groups comprised of a mixture of various languages spoken by the participants.

During a double lecture period of 80 minutes, participants were to discuss the articles and clarify concepts to each other using the languages spoken by their group members. The discussions were audio recorded.

Data from the audio recordings were captured from participants who were willing to be audio recorded. Although all students were allowed to, use translanguaging during group discussion only three groups from the MBChB group gave their consent to be audio recorded. Thus, three groups with a total of 20 participants were used for this study.

Participants from the MBChB group who consented were audio recorded during the group discussion, which followed the reading of the three academic texts. The use of recordings allowed the researcher to have all group collaborative activities recorded and to analyse the data collected at a later stage. Audio recordings can be played back when the need arises during data analysis. The researcher had help from student assistants who helped to capture each group as they collaborated. The use of student assistants assisted the researcher to capture every moment of the activities as they unfolded during the group discussions through observation.

The recorded data was transcribed and translated. Because the researcher does not speak all the languages that were spoken by participants during the discussions, services of transcribers who can speak the languages were sought. Thus, the transcribed data had both the African language version as well as the English language version. This assisted the researcher to understand the follow the discussions.

3.5.3 Closed-ended questionnaire data collection

A closed-ended questionnaire was administered to 110 participants. These included the 48 who had participated in the intervention group of the summary writing task. The other 62 came from the discussion sessions of the three articles on viruses. There were 37 from the BOT group who had been part of the control group and 25 students who are doing Bachelor of Radiography (BRAD). The rationale for allowing the BRAD group to participate in this study was that I had used the translanguaging during group discussion as part of my teaching method to prepare the students for the expository essay. I wanted to have many students responding to the questionnaire in order to get as many responses as possible. Therefore, their feedback and perceptions would be valued in this regard. Thus, for this strand of data, there was no distinction between control and intervention group.

In addition, the closed-ended questionnaire comprised of 13 statements that related to students' perceptions and experience with using translanguaging during group discussions. The statements required participants to either agree or disagree. A five-point Likert scale was used with options to strongly agree, agree, strongly disagree,

disagree and uncertain. Participants were required to respond to each variable by ticking the applicable choice to them.

Questions 14 and 15 required participants' profiles in terms of the number of languages they speak as well as the type of schools they attended. Similarly, participants had to tick the applicable space. *See Appendix A for the full questionnaire.*

3.5.4 Focus Group Discussion data collection

In order to get verbal perceptions from the participants on the use of translanguaging during group discussions, interviews were conducted using focus group discussions (FGD). Focus group discussions were conducted with seven selected individuals and an interview guide was used to direct the discussions. Because the interviews were to be audio recorded, many students were not willing to participate. Therefore, I used participants who had been audio recorded during the group discussion to ensure continuity. Data was collected lunchtime where the seven participants were free to come to my office and discuss the questions. Thus, we had 1 day per week that participants had to forfeit their lunch break for the discussion. It took seven weeks to complete the focus group discussion sessions. The researcher transcribed the recorded data.

3.6 Data analysis procedures

Data was collected using summaries written by the students, closed-ended questionnaire, audio recordings, focus group discussion as well as observations. Given that the research used a convergent parallel mixed method, the data collected was analysed separately using either qualitative or quantitative analysis. Thus, each strand of data was analysed separately and will be kept separate until the interpretation stage. Thus, the analysis was conducted as follows.

3.7.1 Written summaries analysis

The university entry requirements for these students at SMU require them to have strong Mathematics and Science matric results. With regards to the English language, they need a substantial pass. However, when these students were admitted it was noticed that they struggled to read and comprehend academic texts based on reports and complaints from their departments. In response, a reading and writing programme was introduced in order to assist them with their reading challenges. The programme is an online package that the university purchased for all first-year students. The reading programme identifies students' weaknesses and gaps in their reading skills and it then generates activities for each student to complete individually for them to improve their reading. Before the programme commences all students are required to write a placement /benchmark test. Results show that about 75% of the students enrolled at SMU read at an entry level. Thus, based on these results this research was conducted on the premise that all participants were at the same academic level when it comes to reading. Thus, before the summary task was given all participants were assumed to be at the same

academic level and particularly regarding their English reading proficiency. It was supposed that they would perform similarly under the same condition.

Written summaries were assessed according to a rubric. The rubric was designed in accordance with content related criteria specified by Yu (2007). This criterion focusses on the coverage rate of 'prespecified main ideas'. The researcher and two other colleagues identified the pre-specified ideas for the summaries. There were eight pre-specified main ideas that we identified. During the assessment, each main idea adequately restated was awarded 2 points. The maximum score for main ideas was 16. The other four marks (1/2 a mark per idea) were allocated for students' ability to paraphrase and integrate each main idea into the paragraph. The summary carried a possible score of 20 marks. It should be noted that the assessment criteria for the summaries was more concerned with students' ability to show their understanding of the original text. Therefore, grammar and spelling were not considered at this point.

The researcher assessed the summaries that were written by both the control and the intervention groups and the two colleagues who had assisted in identifying the main ideas also assessed the summaries in order to eliminate any bias. In the few discrepancies emanating from the assessments that came up, the three colleagues including the researcher moderated them and agreements were reached. Scores from the control and the intervention groups were compared using a t-test.

In statistics, the t-test is used to test whether or not two independent populations have different mean values on some measure (Siegle, 2011). Thus, the test was used to test find out if there was a difference in the performance of the control and

intervention group in the written summaries. If there were no difference in the significance, value then it would mean the intervention made no difference to the performance of the two groups, therefore, the null hypothesis will be rejected. A null hypothesis says that there is no statistical difference between two variables in the test (Siegle, 2011). If the t- stat is less than the t-significant ($t\text{-stat} < t\text{-critical}$) then there is a significant difference between the two variables. In this case, if the results from the t-test show a significant difference it implies that the intervention made a difference in the performances of the groups.

3.7.2 Closed-ended questionnaire

Responses from a questionnaire consisting of closed-ended questions were analysed using descriptive statistics. According to Trochim, Donnelly and Arora (2014), descriptive statistics describe the basic features of the data in a study. They provide summaries of the samples and the measures using simple graphic analysis. Descriptive statistics recounts what the data shows. Using the closed-ended questionnaire data regarding participants' responses were depicted using graphs and charts. The responses were enumerated and presented according to the counts of participants agreeing or disagreeing with the statements. Also, results were presented to show how many languages the participants generally spoke. Description of results was done according to the cluster of questions. Questions 1-5 specifically required participants experience with using translanguaging during class discussions. Questions 6-10 required students' perceptions of using translanguaging with a specific focus on the way it was used for this study. Likewise, questions, 11-13 specifically asked for participants' experience with being 'recallers' and 'listeners' as

well as their views on the success of their group using translanguaging to understand concepts.

3.6.3 Data analysis for audio recordings

Audio recordings were collected from three discussion groups. Data was transcribed and analysed qualitatively using common themes. An inductive analysis approach was used to analyse the data. According to Bhattacharya (2017), inductive analysis is the process where a researcher categorises chunks of data and identifies patterns, which are called themes. Bhattacharya (2017) further asserts that the categorisation can be based on meaning, critical incidents, theoretical constructs or patterns from existing literature review. The purpose of this study was to establish participants' ability to extrapolate main ideas from the texts they had read and present to their group members in a collaborative manner. The focus was also to find out if they were able to relate what they had read (critical incidents) to the essay question that they were required to write after the group discussions. In this case, the researcher was looking for patterns from the data that indicated critical incidents that showed participants' progress towards understanding the texts during their group discussions.

According to Ryan and Bernard (2003), the use of themes to analyse any qualitative data can emanate from the researcher's prior understanding of the phenomenon (a priori approach). An a priori approach to thematic analysis of qualitative data is based on a wide range of factors and that includes characteristics of the phenomenon being studied; from literature reviews; from local, common sense constructs; and from researchers' values, theoretical orientations, and personal experiences (Ryan and Bernard, 2003:88). In this regard, the qualitative data obtained from audio recordings was analysed using themes and these themes come

from literature already available about the use of translanguaging to enhance reading comprehension. There is available literature in the field of L2 reading comprehension that attest to the fact that when students discuss concepts collaboratively using their full linguistic repertoires (Grabe & Stoller 2011; Scott & de la Fuente, 2008:100; Boakye & Mai 2015) deep understanding of concepts is enhanced. The collaborative model of teaching also has literature bringing out the advantages of collaborative learning among students (Goodsell 1998). It is within the available literature that themes were used to analyse the qualitative data from the audio recordings. The researcher's experience and observations were also used to come up with themes (*the researcher's observations are discussed in detail in Chapter 5*).

Essentially, the research was more concerned with participants showing headway in the comprehension of the texts they had read, use of their various linguistic repertoires (translanguaging) in order to enhance their understanding of the texts as well as the effects of group collaboration. It is important; however, to mention that analysis of the data was not focussed on how students used language per se rather, it was more focussed on the display of improvement in the comprehension of what they had read. This was measured by evidence from their ability to recall and explain using their linguistic repertoires and practices. In this regard, analysis of the data from the group discussion encompasses themes emanating from how participants exhibit progress towards the comprehension of the texts using their various repertoires and how well they worked in their discussion groups despite the differences in linguistic repertoires. Braun and Clarke (2006) argue that thematic analysis is a qualitative research method that can be widely used across a range of

epistemologies and research questions. In addition, thematic analysis does not require the detailed theoretical and technological knowledge of other qualitative approaches, because it offers a more accessible form of analysis, particularly for those early in their research career (Braun &Clarke 2006). Thus, this research used thematic analysis of the audio recorded data.

3.6.4 Data analysis for focus group discussions

The interviews from the focus group discussions were transcribed and analysed qualitatively based on participants' responses to each question discussed.

Since the study used a convergent parallel mixed method design, where data were collected separately and analysed separately results will be merged to find any similarities and differences.

3.7 The role of the researcher

Walliman (2011) stipulates the duties of a researcher as a practical job that involves identifying a subject to research, finding and collecting information as well as analysing it. This job as outlined by Walliman presents the researcher with a range of practical problems that require the researcher to solve. In this regard, I believe that as the researcher I have performed all the functions of a researcher as outlined by Walliman (2011). I believe that I was not biased during the collection of data as well as in interpreting the results. For example, when participants wrote summaries I asked two colleagues to assess the summaries to avoid bias towards the intervention group. In addition, during the focus group discussion, I facilitated a

relaxed environment for the participants to bring out their views about the use of translanguaging.

An undoubted fact is that of solving unexpected problems during the research as stated by Walliman (2011). One major obstacle was the fact that the research ethics committee at the institution that I collected data from did not allow me to use video recordings as I had anticipated. I had to use audio recordings and I had to observe the behaviour of the participants during the collaborative activities. In addition, in respect of some students not willing to be audio recorded during group discussions, I had to work with those who consented to be audio recorded to collect the data. When all data was collected, I analysed the data using a convergent parallel design as I had envisaged. I also explain in detail my research findings in chapter 4.

3.8 Ethical considerations

The researcher upheld the necessary ethical considerations that protect both the researcher and the research participants. According to Mackey and Gass (2013: 25), it is the responsibility of the researcher to assure participants of the confidentiality and anonymity of their information. In this regard, informed consent was sought from the participants. Mackey and Gass (2013) emphasize the importance of informed consent based on adequate information to the participants so that their participation will be voluntary without coercion. Thus, participants were provided with the necessary information about the study. They were all informed of the need for them to participate voluntarily and that they would not be prejudiced in any way should they decide not to participate in the research. *See Appendix C.*

3.10 Conclusion

This chapter has outlined in detail the research design. The use of both qualitative and quantitative approaches has been outlined in this mixed method research. Instruments that were used to collect data either qualitatively or quantitatively have been outlined in detail as well. An outline of the research design has been brought to the fore. The next chapter will unveil the results obtained from data that was gathered from the summaries, and closed-ended questionnaire. This is the quantitative data.

CHAPTER 4

4.1 Presentation of Results

The previous chapter (Chapter 3) described the research methodology, sampling and the data collection instruments and the procedure followed. This chapter presents the results emanating from data that were collected from written summaries produced by first-year participants. This will be followed by a presentation of results from the closed-ended questionnaire.

Results from written summaries

Students were assigned to write summaries based on an article. The main reason was to establish if there was a statistically significant difference in the performance of the two groups, that is the control and treatment group. The difference was to be determined based on the display of levels of comprehension of the texts by the control and intervention group. Two groups were used, that is the Occupational Therapy (BOT) and the Medicine (MBChB) groups, to establish the effectiveness of using translanguaging during collaborative activities. The BOT was used as the control group and the MBChB was used as the treatment group. 85 participants were used for the activity that is 48 from the MBChB group and 37 from the BOT group.

An article entitled '*The Doctor Who Vanquishes Pain*' was assigned to both groups for reading. The purpose of the article is to inform the reader about the role that is played by an anesthesiologist before, during and after surgery. The article provides an overview of the development of the anaesthetic drugs since the 18th century. In

addition, the article provides the steps taken by the anesthesiologist in administering different anaesthetic drugs in patients during surgery.

Both groups (i.e. control and treatment) were expected to read, discuss and summarise the article isolating the main ideas of the article from the supporting ideas. Both groups were explicitly taught on how to identify the main ideas and distinguish them from the supporting detail, which might not be necessarily important. A 40 minutes lecture was conducted with examples and activities in order to clearly demonstrate how to identify main ideas in a text. The lecture also provided guidelines on the expected structure of the summary, as well as, and especially, on how to acknowledge the source and the author(s) of the article. Both the BOT (control group) and the MBChB (treatment group) were asked to read the assigned article individually outside class in preparation for the group discussions that were to be conducted in class. The BOT (control group) were divided into six groups of six and were asked to discuss the main points of the article in groups. Likewise, the MBChB (treatment group) was required to read the assigned text (the same text was used as was used for the control group) and discuss it in eight groups of six. The treatment group was explicitly instructed to use all the languages at their disposal to discuss the main ideas of the text. A survey of the first languages spoken among the MBChB group (treatment group) revealed 8 languages, namely, Sepedi, Setswana, Tshivenda, Afrikaans, Chishona, SiSwati, isiZulu and Xitsonga. In the same manner, the BOT (control group) equally comprised of nine languages spoken by participants i.e. Sepedi, Afrikaans, Chichewa, SiSwati, isiZulu, Xitsonga, Tshivenda, IsiXhosa and English. It is important to note that participants were not grouped according to the languages they speak as their first languages; instead, the groups were

linguistically heterogeneous. The reason for this was to ascertain the interrelatedness and fuzzy boundaries of languages based on the assertion by critical poststructuralists (Garcia and Li, 2014; May, 2014; Makalela, 2015; Makoni and Pennycook, 2007; Li, 2016) that languages should not be treated as separate entities but rather as interrelated entities that form a single linguistic repertoire.

I can safely confirm that both groups were provided with the same conditions before writing the summaries except that the MBChB group, that is, the treatment group, was allowed to use all the languages (translanguaging) at their disposal during their group discussions. The treatment/ intervention group was told that they could discuss the main ideas of the articles in the languages at their disposal. They could also clarify identified difficult to understand concepts in the languages that they could understand better. On the other hand, the control group was asked to discuss the main ideas of the text in English and no other language was allowed to be used for discussion.

After the group discussions (where the BOT group was instructed to use English for discussion and MBCHB was instructed to use all the linguistic resources they have), students were supposed to write summaries based on the article. They were given time to write summaries individually during class time. Students from both the control and treatment groups had 40 minutes each to write the summaries. The summaries were collected for assessment after class. A rubric was used to assess students' summaries. After the researcher had assessed the summaries, two colleagues from the Department of Language Proficiency also marked the summaries in order to

avoid biased results. Results from the two assessors were no different in 97 % of the summaries. The 3% that showed discrepancies were moderated and final marks were attained

In order to establish if there was a significant difference in the performance of the students because of the treatment, a statistical analysis of the results of the summaries was performed. A t-test was used to establish the variance.

The t-test assesses whether the means of two groups are *statistically* different from each other. This analysis is appropriate to compare the means of two groups. The table below shows the results obtained.

Table 4.1: Summary results

t-Test: Two-Sample Assuming Unequal Variances		
	<i>BOT</i>	<i>MBCHB</i>
Mean	37,5	57,43243
Variance	267,0213	117,53
Observations	48	37
Hypothesized Mean Difference	0	
df	81	
t Stat	-6,74247	
P(T<=t) one-tail	1,05E-09	
t Critical one-tail	1,663884	
P(T<=t) two-tail	2,11E-09	
t Critical two-tail	1,989686	

The results show a significant difference in the mean of the control group (M=37.5) and treatment group (M=57, 43243). The results show a t-stat that is less than the t critical (-6, 64247 < 1, 663884). The t-stat show that the p-value is less than the significance level of 0.5. Due to the p-value being -6, 64247 it is less than the significance level of 0.5 hence the significant difference. In this regard, results from the t-test require that I reject the null hypothesis and conclude that there is a statistically significant difference between the control group and the intervention

group. The difference may be attributed to the treatment (translanguaging) that was administered to the intervention group.

This section has presented quantitative results based on a t-test statistical analysis to establish whether there is a significant difference between the control and treatment groups. Results from data collected using a closed-ended questionnaire will be presented in the following section.

4.2 Results from the Questionnaire

This section will present results obtained from a closed-ended questionnaire that was administered to participants. It is important to reiterate that this research conforms to a convergent parallel mixed method research design where data from both the qualitative and the quantitative strands are collected and analysed separately and independent of each other until the interpretation stage. Thus, when the closed-ended questionnaire was administered to participants I decided to use all the students who were willing to respond to the questionnaire. Thus, the questionnaire was administered to all students who were willing to participate from the three groups i.e the MBChB, BOT and BRAD. This was done to get as many responses as possible from the questionnaire. 110 students were willing to respond to the questionnaire. According to the mixed method, design samples of the population can be different in numbers for each strand of data (Cresswell, 2009). The fact that there were 85 who participated in the first strand of data and 110 in the second strand of data does not have an impact in the study.

The questionnaire was based on articles that were different from the article that was used for the summary writing. In essence, data from the questionnaire was not related to the summary writing data. For the questionnaire, participants were to read and discuss three articles based on viruses and how viruses attack and affect the human body.

Due to the parallel collection of data allowed by the convergent parallel research design, I could add more participants to participate in the collection of this strand of data. This means that I could include the BOT students who initially were used as the control group in the summary writing data. The questionnaire did not require a control group and an intervention group because the aim was to find out participants' experience with using translanguaging during group discussion. The fact that the students from BOT had participated in a group discussion of the three articles using translanguaging made them eligible to respond to the questionnaire with their experience of using translanguaging during group collaboration.

In addition to allowing the BOT group to respond to the closed-ended questionnaire, I also allowed the Bachelor of Radiography (BRAD) students to participate. This group of students is not always on the university campus to attend lectures because they are deployed to hospitals in order to perform their clinical assignments. When this group returned from the clinical assignment, they were supposed to write an essay based on the three articles on viruses like all the other groups. I then decided to allow them to participate in the study by using translanguaging during group discussion as part of their preparation for writing the essay. Their willingness to participate in this study also helped me to get more responses to the questionnaire. Thus, the 110 students who were willing to respond to the closed-ended questionnaire: 48 students from MBChB, 37 from BOT and 25 from the BRAD group.

As part of their continuous assessment, students from the three groups that I teach were supposed to read three different articles on viruses and from those three articles, they were required to write an expository essay explaining how viruses work in the human body and ways of preventing viruses from adverse manifestation in the human body. Before they embarked on the individual task of writing the expository essay, I randomly assigned students from all three groups during class time into groups of six. In these groups, they were supposed to divide themselves into 3 pairs. Thus, each pair would read one of the three articles and become 'experts' such that they would play the role of the 'recaller' and explain in detail to the rest of the group aspects of the article. As the 'experts' recalled what they had understood from their article, the rest would be 'listeners'. In addition, each pair would also be asked questions by their group members based on the article they would have been 'experts'. In essence, each group member had the opportunity of being a 'recaller' as well as a 'listener'. These discussions were conducted in any of the languages that the groups felt comfortable to use (translanguaging).

4.3 Description of results from the questionnaire

The main purpose of asking participants to respond to a questionnaire was to find out participants' views on the experience of using translanguaging during collaborative activities. This is why participants were allowed to use translanguaging during group discussion, the intention was to prepare them for an essay assignment that was to be written individually. The questionnaire comprised of 13 closed-ended questions with a 5 point Likert scale from one strongly agree to five strongly disagree. In addition, the questionnaire was divided into three sections whereby the first section solicited for students' views on translanguaging, the second section

sought to find out their views on collaborative learning and lastly to find out how students felt about the 'recaller' and listener roles they played during group discussions. The last section of the questionnaire requested for participants profile, that is the languages they speak, the school they attended as well as their age gender.

There were 65 male participants and 45 female participants. Participants had a mean age of 19. Ten languages were spoken among the participants, namely, Sepedi, Setswana, Tshivenda, SiSwati, Afrikaans, Chishona, Xitsonga, English, isiXhosa, and IsiZulu. Since the questionnaire required respondents to tick the languages, they could speak. Results from the language profiles of the participants show that on average all participants speak at least two languages or more. Results show that 55 (50%) of the participants speak English and 2 more languages, 22 (20%) can speak four languages, English included, 15 (13.6%) can speak two languages that is English and another language, seven (6.3%) can speak five languages including English, 5 (4%) can speak more than six languages with English included, and six (5.4 %) can speak English only. The data is represented in the doughnut chart:

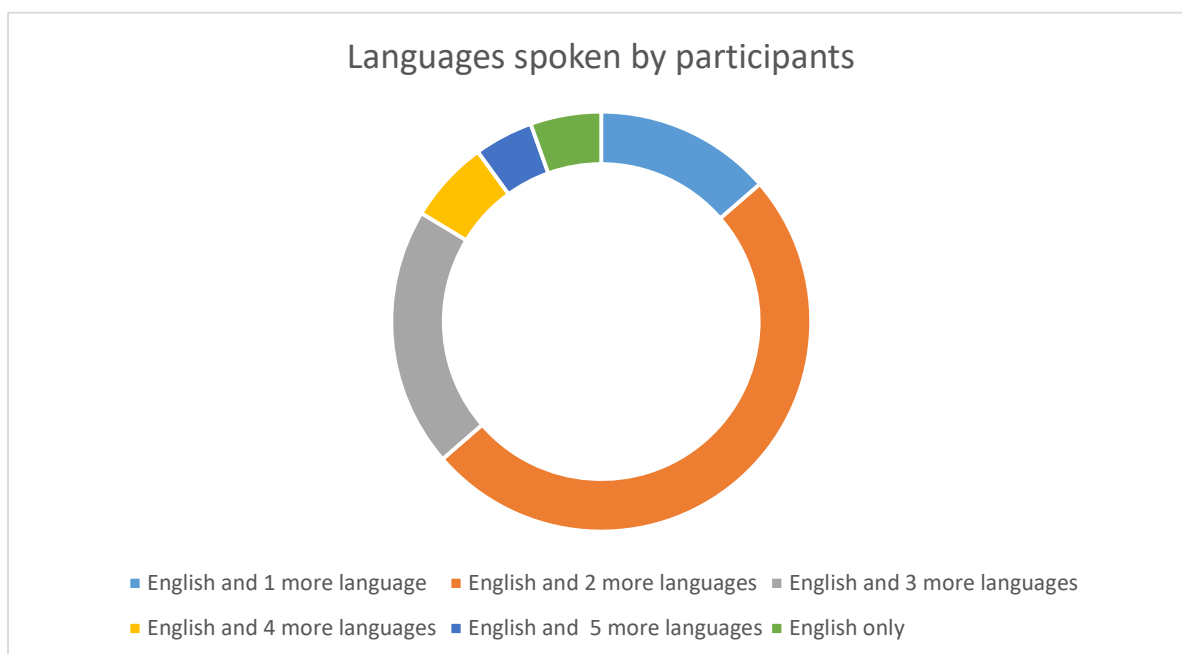


Table 4.2 Languages spoken by participants

Generally, results from this cohort of students show that they are predominantly multilingual with some being able to speak more than six languages. However, it is important to mention that among the participants in this research, there are some who are monolingual speakers of English and they constituted about 5% of the participants.

The questionnaire required respondents to indicate what type of a school they attended. The questionnaire had four options to select from i.e urban school, township school, rural school and private school. According to the responses, 47 (42.7%) participants went to urban schools, 35 (31.8%) attended rural schools, 21 (19%) attended township schools and seven (6.3%) attended private schools. This information shows that the cohort of students who participated in this strand of data came from different school backgrounds. However, the underlying fact is that many

of these students despite their school background they struggle to comprehend academic texts hence the need to find a remedy for the problem.

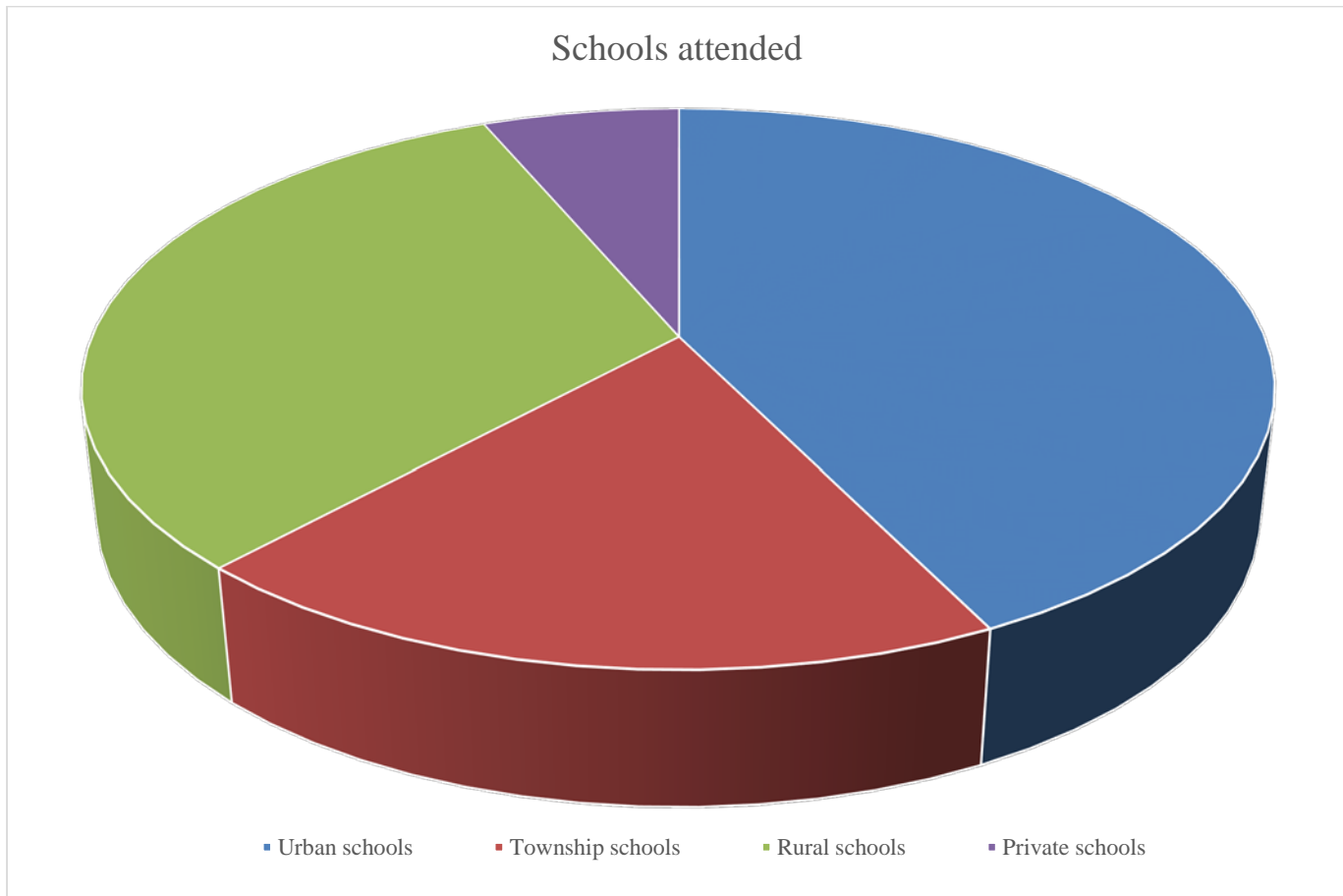


Table 4.3: Schools attended

The distribution shows that many of the students who participated in this survey attended urban schools, followed by those who attended township schools, rural schools, and the least number having attended private schools.

As mentioned earlier the questionnaire was divided into 3 different sections. Therefore, results will be presented according to these sections. The first section of the questionnaire sought to find out students' experience with translanguaging.

Question 1: *After reading an academic text I discuss with my friends in other languages to test my understanding of what I would have read*

This question sought to confirm whether participants discuss what they would have read with their friends in languages that they understand better. Results indicate that 51 (46.3%) strongly agreed, 41(37.2%) agreed, 12 (10.9%) were uncertain, two disagreed (1.8%) and 4 (3.6 %) strongly disagreed.

Question 2: *I understand texts better when I discuss concepts with my friends in other languages besides English*

The second question aimed to elicit responses on whether participants understand texts better when they discuss concepts with friends in other languages besides English. Responses to this question show that 47 (42.7%) strongly agreed, 46 (41.85) agreed, 9 (8.1) were uncertain, 4 (3.6%) disagreed and 4 (3.6) strongly disagreed.

Question 3: *When I do not understand concepts in English, I ask my friends to explain to me in other languages besides English*

The third question was designed to ascertain whether participants seek for clarification from friends of difficult concepts in other languages that they understand besides English. Forty-nine participants (44.5%) strongly agreed, 41 (37.2%) agreed, 16(14.5%) were not certain, 2 (1.8%) disagreed and 2 (1.8%) disagreed.

Question 4: *When assigned to do some group work i/ we use other languages besides English to make sure that we understand the assignment*

The fourth question required respondents to ascertain whether they discuss assigned group work tasks in other languages. Responses show that 32 (29%) strongly agreed, 51 (46.3%) agreed, 16 (14.5%), 11 (10%) disagreed and 0 strongly disagreed.

Question 5: *I wish all lecturers could allow us to use other languages to discuss difficult concepts in other languages besides English to ensure that I understand.*

The last statement under this section was question 5, which intended to find out if students wish they could be allowed, during class and group discussions, to express themselves in any language that is comfortable to them. Responses show that 42 (38.1%) strongly agreed, 38 (34.5%), 14 (12.7%) was uncertain, 7 (6.3%) disagreed and 9 (8.1%) strongly disagreed.

When the results are collapsed to represent responses where strongly agree and agree are combined to become agreed and strongly disagree as well as disagreed are represented as disagreed the following would be the results.

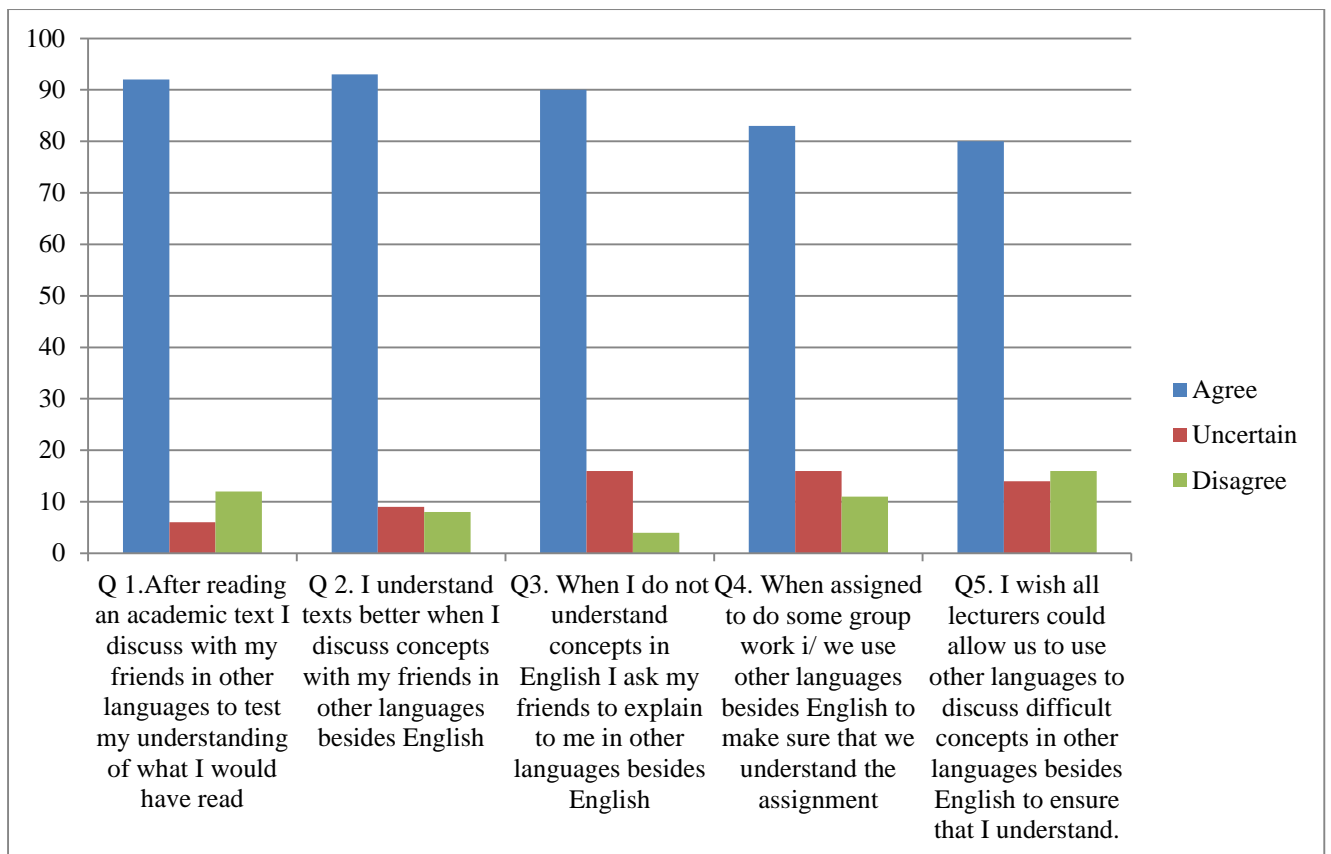


Table 4.4: Questions 1-5

The results from the first section where the student views about translinguaging were solicited show that responses by many of the students generally were positive towards the use of translinguaging.

The next section of the questionnaire sought to determine student views on group activities through translinguaging. The intention under this section was to establish how students viewed the group activity that they had been assigned in a class where they had to use translinguaging as well as group activity as pedagogy.

Question 6: *When I discussed the articles with my group members in other languages besides English, I understood concepts better*

Thus, question 6 sought to find out if the group discussions where translanguaging was allowed helped them to understand concepts on viruses better. Seventy-two participants (65.4%) strongly agreed, 30 agreed, 5 (4.5%) were uncertain, 1 (0.9%) strongly disagreed and 2 (1.8%) disagreed.

Question 7: *The group discussions gave me the opportunity to express my understanding of the text in languages that make me understand the articles better.*

In the same vein, question 7 intended to solicit information on whether translanguaging through group discussions gave students the opportunity to express their understanding of the assigned texts. 59 participants (53.6%) strongly agreed, 42 (38.1%) agreed, 5 (4.5%) were uncertain whereas 4 (3.6%) disagreed and 0 strongly disagreed.

Question 8: *My group members worked well by assisting each other to understand the articles using other languages besides English*

This question required respondents' views on whether their collaborative groups worked well to assist the participants to understand the articles. In addition, it required them to ascertain if their groups assisted each other to understand texts using a translanguaging approach. 50 (45.4%) strongly agreed as well as 47(42.7%) who agreed, 8 (7.2%) were uncertain, 3 (2.7 %) disagreed and 2 (1.8%) strongly disagreed.

Question 9: *I enjoyed reading the articles on my own because I had discussed with my group members using other languages besides English*

The 9th question in this section intended to find out if students reading articles for this assignment became more interesting because they were allowed to discuss and translanguage with their group members. Results from question 9 showed that 48

(43.6%) strongly agreed, 42 (34.5%) agreed, 15 (13.6%) were uncertain, 5 (4.5%) disagreed and 0 strongly disagreed.

The last question in this section, question 10, required an affirmation that translanguaging was used during group discussions that were conducted in preparation for the written essay assignment. Thus results are as follows: Strongly agreed 59 (53.6%), agreed 35(31.8%), uncertain 6 (5.4%), disagree 6 (5.4%) and strongly disagree 4 (3.6%).

Question 10: *My group used all the languages spoken by each group member to discuss the articles*

When results from this section were collapsed into agree, disagree and uncertain they are represented as follows.

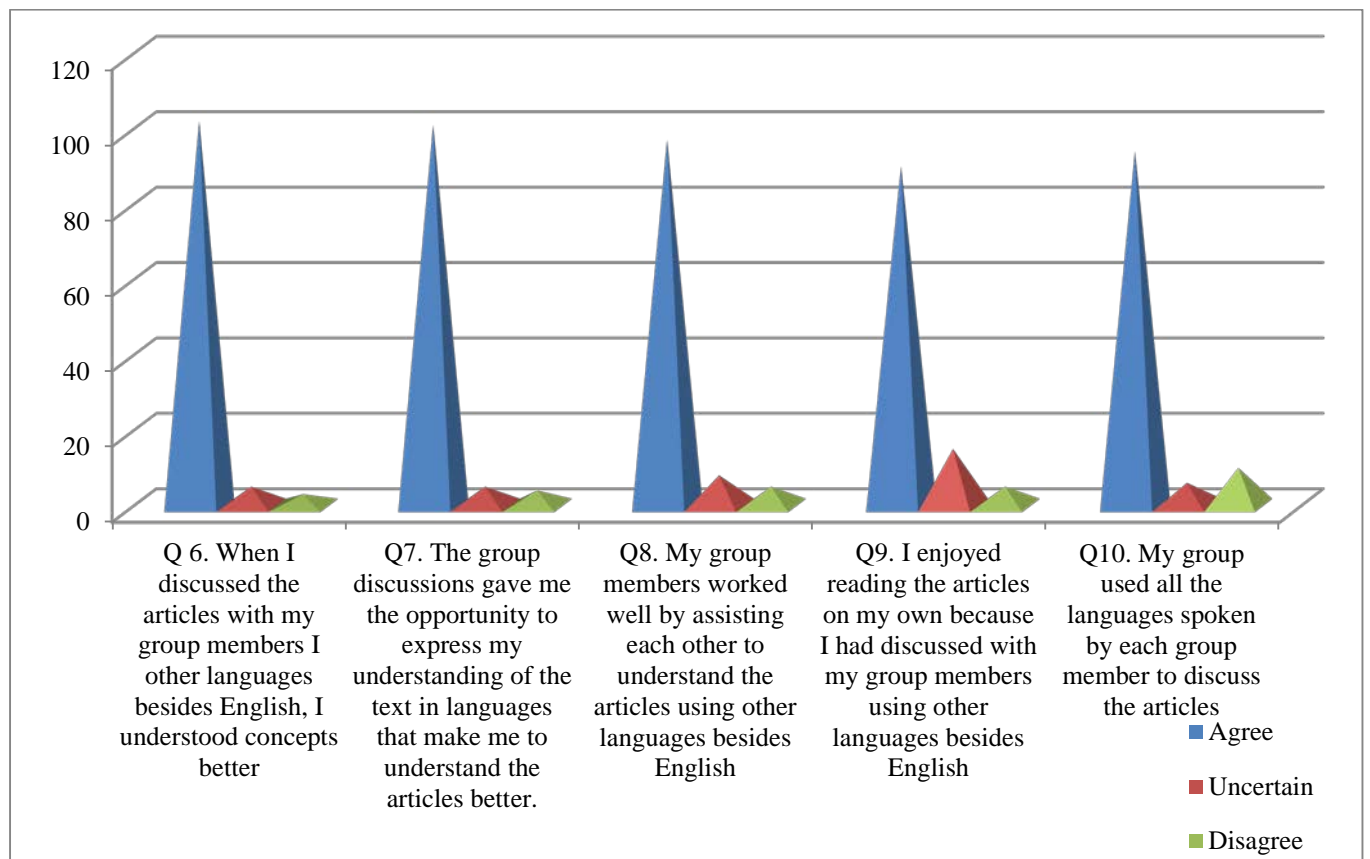


Table 4.5: Question 6-10

The results for questions 6 to 10 show that many students confirmed the benefits of using translanguaging during the group discussions that were conducted for this study. One of the benefits is confirmed by the responses to question six where many respondents agreed that group discussions conducted using translanguaging helped them to understand what they had read. The responses from question 8 show that many students found their groups worked well together in order to assist each other to understand the articles. It is also important to mention that from the responses to question 10 many confirmed that all languages that were spoken by the group members were mostly used during group discussions. However, although many responses to question nine showed that they enjoyed reading the assigned article on their own because they had been allowed to discuss it translingually with their group members, a few respondents (5) who indicated that they did not enjoy reading the articles and 15 were uncertain about the matter.

Having said this, the last section of the questionnaire requested for responses pertaining to students' roles during the group discussions. As mentioned earlier on, all participants were supposed to play the roles of being a 'recaller' and a 'listener'. The 'recaller' role required the students to recall the main points of the article they had read in relation to the requirements of the assignment question. Similarly, the 'listener' role required the students to listen to the 'recallers' and ask for clarifications of anything they might not have understood from the article. All in all, the discussion from both the 'recallers' and the 'listeners' were conducted in any of the languages that the participants felt comfortable with (translanguaging).

Question 11: *I played the recaller role during group discussion*

This question sought to find out if the participant played the recaller role during group discussion. Twenty participants (18.1%) strongly agreed, 54 (49%) agreed, 19

(17.2%) were not certain whilst 14 (12.7%) disagreed and three (2.7%) strongly disagreed.

Question 12: *I played the listener role*

Likewise, question 12 intended to find out if the respondents played the listener role. Twenty-eight participants (25.4%) strongly agreed, 57 (51.8%) agreed, 12 (9%) were uncertain, four (3.6%) disagreed whereas nine (8.1%) strongly disagreed.

Question 13: *Recalling, explaining and listening to group members using my languages helped me to understand the assigned texts better.*

Lastly, question 13 meant to find out from respondents whether recalling, explaining and listening to group members using their own languages helped them to understand the assigned texts better. Results show that: 78 (70.9%) strongly agreed, 31 (28.1%) agreed, 0 uncertain, 0 disagreed and 1 (0.9%) strongly disagreed. If the results are combined into agree, disagree and uncertain the results will be presented as follows.

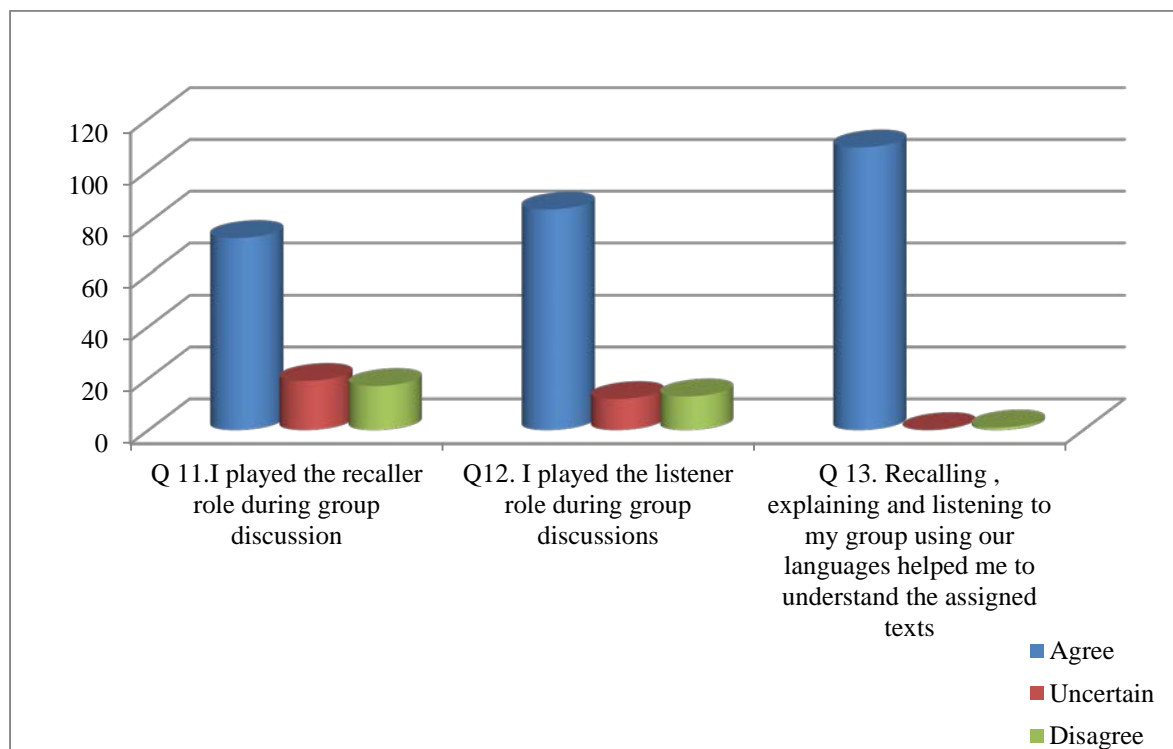


Table 4.6: Questions11-13

Generally, results show that respondents agreed to the roles they played during the group discussions. Remarkably, almost all respondents agreed that they benefitted from the discussions they had in their groups using translanguaging. In fact, they agreed that translanguaging during group discussions helped them to understand the assigned articles better.

4.4 Discussion and Analysis

This section of chapter 4 intends to analyse and discuss results from the written summaries as well as the closed-ended questionnaire. An analysis of the data will be done by using the theoretical frameworks outlined in Chapter 2. It is important to reiterate that this research used a mixed method approach where data was collected both qualitatively and quantitatively. This research used a convergent parallel mixed method design where data is collected presented and analysed separately from each other and will only combine at the interpretation stage.

4.4.1 Summary Results

Data from the summaries were collected from a control group and an intervention group where the intervention group, besides reading the same article as the control group, collaborated through group discussions where they were allowed to use translanguaging in order to ensure their understanding of the article they had read. Using collaboration to discuss the main ideas of an article is a highly recommended method for L2 students in order to enhance their understanding (Grabe and Stoller,

2011). Scott and de la Fuente (2008) support this notion when they allude that when multilingual students are allowed to use all the linguistic resources at their disposal during group discussions, it results in a deeper understanding of main ideas.

According to the statistical results from the summaries that were written by the participants from both the control and intervention groups, there was a significant difference between the performance of the control group and the intervention group. The results of the performance of the two groups show a t-stat that is less than the t-critical ($-6,64247 < 1,663884$). The significant difference in the performance of the two groups can be attributed to the intervention of allowing translanguaging in the collaborative group discussions. Results show that even though the control group was allowed to discuss the article in English and find the main ideas before they could write the summaries, they did not perform as well as the intervention group that was accorded the opportunity to use translanguaging in their discussions. The results from the summaries confirm Scott and de la Fuente (2008)'s findings that allowing students to use both the L1 and L2 results in a much more fluid and natural discussion which contributes to a better comprehension of the assigned text. As students from the intervention group negotiated meaning, they were able to understand the article and they could identify the main ideas and as a result, they produced better summaries than their counterparts from the control group did.

The fact that the intervention group read the article in English, discussed and translanguaged in their discussion and were able to produce good summaries that captured all the main ideas, summaries that were better than those of their control group counterparts were shows the effectiveness of using translanguaging during

collaborative activities. This finding confirms Lewis, Jones and Baker (2012)'s assertion (see Chapter 2 : 45), one of the advantages of translanguaging is that the weaker language which is English, in this case, can be supported when other languages in the students' repertoire are allowed to be utilised for meaning making and deeper understanding of material. This can be said to have been the advantage that the intervention group had over the control group. The intervention group were told that they should use their own languages to understand the main points (input language); and looking at their summaries, they must have done so and used their subsequent understanding to write the main ideas in English (output language).

In this regard, it can be said translanguaging validates the interrelatedness of languages as they dwell in the multilingual's repertoire (Garcia and Wei, 2014, Baker, 2007) as opposed to the initial claim by some scholars such as Adler (1977) and psychologist who believed that bilingual children have split minds due to languages being separate entities in their minds. (*See Chapter 2: 37*). Thus, when students utilise one language to perform a task, for example, reading an academic article the other language (s) remains active and can easily be accessed in order to enhance the deeper understanding of concepts. As mentioned in Chapter 1, section 1.2.1: 3, many students do struggle with comprehending academic texts written in English. This is mainly due to their limited proficiency in the language but this does not mean these students have limited intelligence. The reason why students may appear not to be performing well academically is that of the insistence by lecturers as well as university language policies that insist on the use of monolingual use of English, for purposes of teaching and learning. However, a translingual approach to

teaching using collaborative learning leverages students' students' reading comprehension abilities.

As explained by Lewis, *et al* (2012) (see *Chapter 2: 45*) translanguaging has the potential to help students to gain deeper and fuller understanding of learned material because it allows them to stretch their pre-existing knowledge. Through group collaboration using a translingual approach, the intervention group managed to perform better than their control group counterparts because they could discuss in their own languages hence activating their pre-existing knowledge, which they used to understand the article. Unlike the control group that focussed on using English only for discussion, this could have stifled their pre-existing knowledge that they might have acquired in their own languages. Therefore, it can be suggested that the intervention group capitalised and benefitted from using pre-existing knowledge about the subject during their group discussion.

It is important for lecturers to pay heed to Baker (2011) when he emphasises the importance of teachers allowing students to use translanguaging in a planned and strategic manner in order to maximise students' linguistic and cognitive capabilities. One of the strategic manners is using collaborative activities. The intervention group most likely performed better than the control group because they had a well-planned strategy (i.e the group discussion) that was set for them to understand the article.

As mentioned earlier, see *chapter 4 section 4.1* the intervention group was given specific instructions on how to conduct their group discussions. They were required to use translanguaging during their group discussions to clarify concepts to each other, identify the main ideas of the texts they had read and finally write a summary using the main ideas. The control group was instructed to discuss the main ideas in English and write summaries. The strategy of explicitly instructing students to use all their linguistic resources to make meaning of what they had read is what could have leveraged the intervention group's performance in their summary writing. The strategic planning of using translanguaging during group discussion benefits the students because it shows the students that their linguistic and cultural peculiarities are being respected (Canagarajah, 2006) and this encourages them. This also affirms students that being multilingual is not a deficit (Canagarajah, 2006) neither does it pose any disadvantage to the students but rather it is a possibility or an 'enabler' to a better understanding of the academic reading material.

In addition, results from the summaries have confirmed the fact that multilinguals have one linguistic repertoire (Garcia and Li, 2014) see Chapter 2:44 and they use all linguistic resources within it as and when it becomes necessary. During group discussions, students from the intervention group selected the required linguistic resources that were available to help them to understand the text they had read (Bock and Mheta, 2014). It is also important to note that these students did not only use their home languages to discuss, they also used English where it was necessary for them to make meaning of the article. Therefore, as the students negotiated meaning from the article, they used all the linguistic resources within their repertoires as and when these resources were required. This is also confirmed by the fact that

when they wrote their summaries they selected the linguistic resource from their repertoire, which was required at that particular time. It should be argued, however, that all the languages within their repertoires had been used during the discussion as they prepared to write the summaries. Therefore, from a translanguaging view, languages within a multilingual's mind are not arranged in a 'bureaucratic' manner; rather languages are arranged in a single linear manner (Garcia and Li, 2014) and it is up to the speaker to select which language to use at a given time as and when required.

It is important to acknowledge that the intervention group did not indicate that there was confusion in their minds after reading in English, discussing the content in any of their home languages, and then writing summaries in English. This is contrary to the belief among many orthodox teachers (Makalela, 2016) that using home languages to understand English materials causes mental confusion. The group was able to utilise their linguistic resources in order to understand the article fully and they performed better than the control group that was instructed to use English only for discussions. This confirms the notion perpetuated by the critical post-structuralist school as outlined in Chapter 2: 47. This school advocates for the use of translanguaging as a way of disrupting boundaries that were created for political reasons (Garcia, Flores and Spotti, 2017; Makoni and Pennycook, 2007; Makalela, 2016; Wei, 2016; May, 2017) and to allow students to utilise the full linguistic resources for meaning-making and deep understanding of reading material. In fact, the translingual collaboration through discussion allowed students to engage in much more fluid and natural discussions. This contributed to a better comprehension of the text. Mainly because students were not burdened with the task to explain, their ideas

in English only but rather also explain their understanding in their home languages. This consequently resulted in them writing good summaries in English.

4.4.2 Discussion and analysis of the results from the questionnaire

110 participants completed the questionnaire. As the first port of call, participants' linguistic profiles were asked for by the questionnaire. The linguistic profiles of participants were meant to find out how many languages existed in their repertoires. Results show that multilingualism is a common phenomenon amongst the participants. Fifty per cent of the participants speak at least three languages including English. This data shows that there are many multilingual students. This also indicates that emphasizing the monolingual use of English in the classroom is actually going against the multilingual tide. In fact, given the multilingual and linguistically diverse nature of students found in classrooms, monolingual use of English is no longer the 'norm'. This turn of events has prompted the 'Multilingual Turn' (May 2016; Garcia and Li, 2014; Li, 2016) advocacy among the Critical Post Structural proponents of the 21st century. These proponents argue that multilingualism has become a common phenomenon in the 21st century and therefore teaching practices have to take a turn towards acknowledging and legitimising multilingualism. Although there is a call for a multilingual turn in the 21st century as cited in Chapter 2: 51, Garcia (2009), asserts that the linguistic terrain of the 21st century requires a balanced view of languages and seeing all languages as important contributors to a multilingual's repertoire.

For South Africa, multilingualism is not a new phenomenon that can be attributed to the 21st century. According to Makalela (2016), as cited in Chapter 2:53

multilingualism has been there since the 10th-century civilization of the Mapungubwe settlement. Therefore, given this African history, Makalela (2015, 2016) advocates for a 'Multilingual Re-turn'. The fact that many South African languages are mutually intelligible makes it easy for 50 % of people to speak at least three languages as seen in the cohort of participants in this research. This makes imperative the need for classrooms to create an environment that allows for multilingual manifestations. Because multilingualism is a reality in South African classrooms, ignoring this reality only creates an artificial environment (Klapwijk and Van der Walt, 2016). All that is required is to make strides towards creating 'translanguaging classrooms' (Garcia, Johnson and Seltzer, 2016) where translanguaging is used as a way of recognizing the already existing multilingualism.

It is important to mention that the questionnaire also solicited for information about the high schools that the participants attended. Among the choices, there was urban schools, township schools, rural schools and private schools. According to the responses 47 (42.7%) participants went to urban schools, 35 (31.8%) attended rural schools, 21 (19%) attended township schools and 7 (6.3%) attended private schools. Students who attended urban schools (42.7%) dominate this cohort of students. Even though many of these students attended urban schools, they are still multilingual. It should be noted that multilingualism is even common in many urban schools in South Africa. One would envisage that because of being exposed to urban life, civilisation and education many students might have become monolingual speakers of English. Results have shown that multilingualism is still prevalent in students who attended school in the urban areas. Therefore, it is important to heed Canagarajah's (2006: 208) call to do away with viewing multilingualism as a deficit

but rather see it as an advantage that requires teachers to recognise it. Canagarajah (2011) also argues that multilingual students bring funds of knowledge to the classroom, which requires recognition and acknowledgement from teachers and lecturers.

As stated in Chapter 4, although the questionnaire was closed-ended it was divided into 3 sections, namely: Students' experience with translanguaging, student views on group activities through translanguaging and students' roles during the group discussions.

4.4.3 Students' experience with translanguaging

This section of the questionnaire sought for students' experiences after using translanguaging during group discussions. Question 1 wanted to find out if students were already using translanguaging even without being commissioned by lecturers. Therefore, Question 1 of the questionnaire sought to confirm whether participants discuss what they would have read with their friends in languages that they understand better. Results indicate that 51 (46.3%) strongly agreed, 41(37.2%) agreed. This result shows that the majority of students in this research do utilise translanguaging outside the classroom even if lecturers have not specifically asked them to do so. In the same vein, Question 3 was designed to ascertain whether participants seek clarification from friends of difficult concepts in other languages that they understand besides English. 49 (44.5%) strongly agreed, 41 (37.2%) agreed. Question 4 required respondents to ascertain whether they discuss assigned group work tasks in other languages. Responses show that 32 (29%) strongly agreed, 51 (46.3%) agreed. In fact, the three questions sought to find out if translanguaging is taking place outside the classroom. Responses confirm that translanguaging is

indeed taking place outside the classroom setting and students confirm that they benefit from using translanguaging when they discuss with their peers.

The results from these first 3 questions of the questionnaire confirm what has been argued by Van der Walt, Mabule and de Beer (2001); Canagarajah, (2011); Van der Walt and Dornbrack, (2011); Madiba (2014) and more recently Klapwijk and Van der Walt, (2016) that students do engage in using translanguaging even when not asked to do so by their lecturers. When students discuss with friends what they would have read according to Canagarajah (2006), helps them to negotiate meaning and to grasp concepts during learning especially when they face difficult material to understand. Responses from these students confirm that in multilingual classrooms, there exists translanguaging *corriente* (Garcia and Kleyn, 2016), that is, there is always a translanguaging current that exists in multilingual classrooms. Therefore, it is important for lecturers to acknowledge this and allow students to manifest the *corriente* for meaning-making. If multilingual students have a natural inclination to use all their linguistic resources for meaning-making why should lecturers stand in their way by insisting on them using English only for learning?

Question 2 aimed to find out responses on whether participants understand texts better when they discuss concepts with friends in other languages besides English. Responses from this question show that 47 (42.7%) strongly agreed, 46 (41.85%) agreed. Responses show that participants acknowledge the benefits of using translanguaging during group discussion. It enhances deep comprehension of reading material. This finding corroborates King (2007), as cited in Chapter 2: 84 who acknowledges the importance of deep comprehension especially for academic

purposes and emphasises the importance of peer-guided tutoring where students discuss and ask each other questions to ensure they understand the texts. Although group collaboration is an integral component to ensure students that they ascertain their understanding of texts, translanguaging has also been seen to be an equally important strategy that can be employed by students individually to enhance their understanding of texts (Boakye and Mai, 2016; Scott and de la Fuente, 2008). That is, students can translanguage within self to find meaning when they read texts. According to Garcia (2009a), Garcia, and Li (2014), translanguaging focusses on the speaker's (student in this case) ability to use all the language practices that they have in order to make meaning of the academic world. Students in this research show that by moving between their home languages and English they are able to get understand what they read. Garcia and Kano (2014), also confirm (see *Chapter 2: 85*) that when students are allowed to use their home languages to understand texts they do not only employ their languages, but also cultural practices which have a role to play in order to ensure comprehension. When students are banned from using their home languages to understand concepts they will be stifled from utilising their language practices including cultural aspects of their lives, which are important for them to understand texts. When translanguaging is allowed to take place during group discussion activities, it results in students being able to understand texts. At the same time, they feel safe knowing that their own language is accepted during the learning process.

Question 5 intended to find out if students wish they could be allowed during class and group discussions to express themselves in any language that is comfortable for them. Responses show that 42 (38.1%) strongly agreed, 38(34.5%) agreed, 14 (12.7%) were uncertain, 7 (6.3%) disagreed and 9 (8.1%) strongly disagreed.

Results show that the majority of students indeed feel that they need to be allowed to use their full linguistic repertoires in order to help them to understand concepts. When students are allowed to use a translingual approach to learning, the result will be enhanced cognitive abilities; this also allows them to move away from rote learning (Paxton, 2009). It is important to reiterate that translanguaging considers all languages at the student's disposal to be used in a dynamic and functionally integrated manner to augment and mediate mental processes in understanding, speaking, reading, writing and most importantly learning (Li, 2016). Thus, if students are allowed to use translanguaging they will be able to make meaning, gain understanding and knowledge using multiple languages (Lasagabaster and Garcia, 2014). When multilingual students are denied the opportunity to use translanguaging, they are ultimately being denied the latitude to gain understanding and knowledge. In simple terms, when lecturers deny multilingual students to use their languages they are denying them the opportunity to understand concepts and ultimately denying them academic success. It is, therefore, important for lecturers to pay attention to the needs of multilingual students by allowing them to use a translanguaging approach during group discussions so that they benefit fully from the linguistic funds of knowledge that they possess. It is also important to note that there have been studies that have shown the success of using translanguaging during group discussions in multilingual classrooms i.e Lasagabaster and Garcia (2014); Andersson *et al.* (2012); Makalela (2015); Hopewell (2011); Madiba, (2014); Garcia and Kano, (2014); Carroll and Morales (2016). See Chapter 2: 48

This section of the questionnaire intended to find out from students whether they had experienced translanguaging and to find out their views about the benefits of using

translanguaging, especially during group discussions. In addition, many students confirmed that even though some of their lecturers do not instruct them to use translanguaging they still engage in it during outside group discussions. The results show that a great number of students do agree that they benefit from group discussions where they use their languages to understand concepts. The majority of students also showed that they wish lecturers could recognise their linguistic resources and allow them to utilise them for a better understanding of concepts. Thus, it can be concluded that translanguaging during group discussions is a common phenomenon used by students especially when the intention is to understand concepts from reading texts. The next section will discuss students' views on group activities through translanguaging. Responses from questions 6 to 10 of the questionnaire will be discussed.

4.4.4 Students' views on group activities through translanguaging

The second section of the questionnaire sought to find out students' views on using translanguaging during group activities. This section was specifically asking for students' views based on the intervention that had been conducted in class after they had read articles on viruses. Question 6 sought to find out if the group discussions where translanguaging was allowed helped them to understand concepts on viruses better. Of the 110 participants, 102 agreed with 72 (65.4%) strongly agreeing and 30 (27.2%) agreeing. A great number's response shows that the assigned articles were well understood. When students read academic texts, the ultimate goal is to understand and grasp the meaning of the text. In the same vein,

there are numerous studies that advocate for the focus to be on cognitive aspects of reading to ensure comprehension (Nation, 2006; Guthrie and Wigfield, 2000; Pretorius, 2004). (See *chapter 2: 76-80*). It is important to acknowledge that multilingual readers in most cases read academic articles in English which is their second language in some cases in a third or fourth language (Boakye and Mai 2016; Ngcobo, 2014). Thus, it is important to adopt an interactive model for reading for multilingual students. In addition to allowing students to get the meaning of texts from their point of view, multilingual students should be allowed to use all their linguistic resources in order to understand texts. It is important to note that when a multilingual is required to read in a second language they incorporate skills and features from their L1 for meaning-making (Seng and Hashim, 2006; Garcia, 2000). That is to say, when a multilingual student approaches a text they do not read monolingually, but instead, they utilise all languages available to them to understand. In addition to using all linguistic resources to understand a text, multilinguals also benefit from discussing ideas and unfamiliar vocabulary in their languages in order to ascertain their understanding of the texts (Maarofa and Yaacob 2011; Garcia and Li, 2015). Responses from this cohort of participants also confirm that when discussion of reading material is done translingually there is a better understanding of texts. This strategy is an effective mechanism for the comprehension of text, especially for multilingual students.

Question 7 of the questionnaire, intended to solicit information on whether translanguaging through group discussions gave students the opportunity to express their understanding of the assigned texts. Responses show that 59 (53.6%) strongly agreed, 42 (38.1%) agreed. Thus, the majority of students concur that using translanguaging in group discussions they are able to express their understanding of

the text. It is important to emphasise that research in L2 reading has established the co-existence of both L1 and L2 collaboratively with the learner (Scott & de la Fuente, 2008:100). It is important again to mention that research in reading confirms the coexistence and interaction of languages in a multilingual's mind and not competition which results in mental confusion as purported by some psychologists and teachers. Thus, by utilising all languages, especially using peer collaboration as suggested by King (2007), students are able to express their understanding of texts and negotiate meaning to help each other. It should be mentioned that King's (2007), suggestion of using the peer-guided discussion forum refers to reading in the L1. In this regard, if L1 students benefit from discussing what they would have read with peers using one language, similarly, based on the results of this study multilinguals equally benefit from discussions conducted in a translanguaging manner. Especially considering the fact that all languages are active in a multilingual's mind as they read and discuss. It is important to emphasise that a translingual lens, especially for pedagogic purposes, is more concerned with the speaker's understanding of concepts (Garcia and Li, 2014). So, if discussing with peers in languages with which they are familiar and comfortable is going to help students to be sufficiently confident to express what they read, it should be allowed.

Question 8 required respondents' views on whether their collaborative groups worked well. Also, it required them to ascertain if their groups assisted each other to understand texts using a translanguaging approach. Responses show that 87% of the students feel that they worked well and they helped each other to understand the texts. It should note that prominent psychologists such as Adler (1977) claim that bilingualism causes personality problems. Using responses from this study the majority reportedly attest to having worked well in their groups during the

discussions. If these multilinguals managed to work and relate well to each other then, Adler's claim has been correctly challenged. Instead of causing personality problems being multilingual enhances personalities because one is able to work well in a multilingually diverse environment. In fact, what holds the multilinguals together is the 'Ubuntu' in them.

Responses from question 8 actually confirm the benefits of learning through social interaction that have long been expounded by Vygotsky (1978), who encourages social interaction for purposes of learning. In addition, the social interaction using group collaboration through discussion helps students to build their own reading comprehension (Klingner and Vaughn, 2000). Research has also shown that when students are allowed to collaborate in-group discussions based on a reading text, they are able to assist one another in vocabulary comprehension, finding the main idea, asking, and answering questions about their text. Students are able to teach each other and provide scaffolding to each other. Lin (2015) emphasises that collaborative learning creates opportunities to develop students' cognition by actively communicating with peers and results in an enhanced understanding of concepts. The majority of students' responses show that collaborative learning discussion indeed helped them to understand the articles. The responses also confirm Brufee's (1984) (cited in Ravenscroft, Buckless and Hassall, 2010) emphasis of the importance of collaborative learning because it focuses on the social process of learning and helps students to understand what they learn.

Question 9 intended to find out if students could say that group discussion and the use of translanguaging have made reading the articles interesting. Eighty per cent of the responses show that students enjoyed reading the articles they were assigned to read because they were looking forward to the group discussions. Although many students who responded to this questionnaire confirmed positively by agreeing, there is a considerable number (20%) that still feels that reading is not an interesting activity for them. This result was not expected considering the intervention strategy of using translanguaging during group discussion that I had employed in this research.

However, this result can be explained by the general concern among lecturers (*cited in Chapter 1:6-8*) that the reading challenges faced by students in university are due to poor reading teaching methods employed at school level (Pretorius, 2000; Currin and Pretorius, 2010). The other reason could be the one cited by Boakye and Mai (2016), participants in their research indicated that they did not enjoy reading. The participants cite the texts that they were expected to read are not written in their languages and that they do not get enough support from lecturers. Lack of explanation of concepts in languages that they understand is the major impediment to the comprehension of texts (Boakye and Mai, 2016). In essence, as observed by Boakye and Mai (2016), the major obstacle to comprehending texts is language. The fact that there is pressure on them to read and understand in languages in which they are not sufficiently proficient could be a major impediment to students' interest in reading. The third reason could be Pretorius (2004)'s assertion that many students come from homes where a reading culture was not encouraged and that they have not been encouraged to read for enjoyment. Such students do not know that reading

can be enjoyed they only see it being enforced for learning of which they might not enjoy.

Although Boakye and Mai (2016) recommend lecturers to assign interesting texts to students in order to incite interest in reading them. However, it should be noted that not all texts are meant to be interesting to the reader, for example, discipline-based texts do not intend to be interesting. Instead, their main purpose is to disseminate information and knowledge. In this case, a needs analysis for discipline-specific reading intervention (Boakye and Mai, 2015, 2016) can be used to cater for the cohort of students who might still be struggling with lack of interest in reading even when translanguaging has been used to help them.

The last section of the questionnaire required confirmation that translanguaging was used during group discussions that were conducted in preparation for the written essay assignment. 84% confirmed that their group members used different languages than those spoken by their group members yet they could understand each other as they explained concepts to each other. This result affirms the translanguaging position that languages are not bound entities, but rather languages have 'fuzzy' boundaries that allow speakers to move back and forth for the sake of meaning-making (Garcia, 2009a; Makoni and Pennycook, 2007; Makalela, 2015). These students were able to transcend the linguistic boundaries created by nation-state ideology (May 2014; Li, 2016; Makoni and Pennycook; Ndhlovu, 2017) for purposes of understanding read material. This thus, confirms the possibility of dismantling linguistic boundaries (Makalela, 2015) as created by colonialists and

politicians and allow the fluid nature of languages to enhance the learning process of multilinguals. It is important, therefore, for translanguaging to be seen as a liberating force which allows multilinguals to utilise all linguistic resources available to them for purposes of learning.

The aim of this section was to establish from students if they benefitted from using a translingual approach during group discussions. Responses from students show that they understood the text better; especially when they explained to each other in languages, they could understand better. The next section focussed on investigating students' perceptions of the 'listener' 'recaller' roles that they played during the discussion.

4.4.5 Students' roles during the group discussions

This section of the questionnaire had three questions that specifically asked students to confirm that they had played the 'listener'- 'recaller' roles. These roles were designed to drive the group discussions and make sure that all members of the groups participated in the group discussions. Questions 11 and 12 asked specifically whether the students had played any of the roles. Results show that students confirmed that they had played both roles. In addition, question 13 specifically asked students if they had benefitted from playing the listener and recaller roles. Ninety-eight per cent agreed that they were able to understand the articles better. This result confirms Lin's (2015) input hypothesis during collaborative activities (see *Chapter 2:65-67*). Based on the input hypothesis, collaborative learning has been viewed as an enabler for meaning-making (Lin, 2015). Through collaboration,

students have the opportunity to receive input in one language, which in most cases is English. Research has shown that through interaction in collaborative activities learners can understand input (Pica, 1994 cited by Lin 2015). This is because students are able to seek clarification among themselves when they do not understand the input. In so doing, they get to comprehend what they would have read. Using the translanguaging lens, the input-output hypothesis is also posed by Lewis *et al* (2012), who argue that when students are allowed to receive learning material (input) in one language and allowed to discuss in another the output will be successful. Taking responses from the students it can be said that they were able to understand concepts from both collaboration and translanguaging.

This section has shown that the majority of students acknowledge that they played the listener- recaller roles. Having played these roles, students confess to having benefitted from the process of explaining to group members as well as listening to group members about what they had read. In addition, students benefitted from using translanguaging through the process.

4.5 Conclusion

This chapter has presented results obtained from using different instruments. Data from results obtained from summaries written by both the control and intervention groups show that there is a significant difference in the performance of the groups. The results show a t- stat that is less than the t- critical, hence the significant difference.

Results have shown that many respondents deem translanguaging during group discussions to be useful in terms of enhancing their understanding of assigned

articles. In order to affirm the position of the respondents concerning the use of translanguaging during group activities, the next chapter presents results based on audio recordings taken during group discussions.

CHAPTER 5

5.1 Introduction

The previous chapter presented, discussed and analysed results from the written summaries as well as the closed-ended questionnaire. This part of the data constitutes the quantitative data. The purpose of this chapter is to present discuss and analyse results from the audio recordings and the focus group discussions. Due to the length of the recorded data during group discussions as well as the focus group discussion only extracts from the data will be presented and integrated with analysis. Full texts of data have been placed as appendices. Appendix D is audio recordings and Appendix E is focus group discussions.

5.2 Results from the audio recordings

This section reports on results from the audio recordings. Data was collected from the MBChB group, which was initially the experiment group for the summary writing. The data was collected during group discussions that were conducted during lecture time. Participants were assigned to read three academic articles on viruses. They were required to discuss the articles in groups of six. In order, to help students to understand the texts better they were required to read an article in pairs and become 'experts' of the article so that they would recall what they had read and understood to their group members. In the process, the 'listeners' would ask questions and seek for clarification on aspects based on the article that had been presented. Instructions were given that the 'recaller' should explain aspects that related to the question.

Based on these three articles, they were required to write an expository essay answering the question:

*Using information from the **three articles that you read in unit 2 (pages 51-67)**, write an expository essay of between **5 - 6 paragraphs explaining how** viruses work in a human body. In your essay, explain in detail **three examples of common viruses and the preventative measures that can be taken against the viruses.***

Specific instructions were given for the group discussions that participants could use any language of their choice among themselves to explain and seek clarification from each other. As mentioned earlier on, students were not grouped according to the languages they could speak; the groups were linguistically heterogeneous. After discussion, students were required to write essays individually using the information they had read and discussed in their groups. The fact that students had to write individual essays meant that they could not rely on reading only one of the articles that they had been allocated to read, but that they had to read all the articles in order to be able to write the essay. The discussions were meant to enhance their understanding of the articles before they wrote the essays. Therefore, when the data was condensed focus was on students' demonstration of understanding of the texts using their linguistic resources as well as collaboration among themselves.

A total of 188 minutes of audio recordings was transcribed. Results will be presented based on the aspects that were required to respond to the question: firstly, how viruses work in a human body, secondly the common viruses that they had read about and lastly preventative measures against the spread of the viruses. The groups have been named A, B AND C for purposes of presenting the data as well as analysing it. As mentioned in the introduction, a full presentation of results from the audio recordings is attached as Appendix D.

5.3 Audio recording discussions

Results from this section will be analysed using reoccurring themes based on the students' group discussions. Each theme will be discussed and analysed in relation to the literature available as presented in Chapter 2.

5.3.1 Participants linguistic repertoires

It is important to describe the linguistic repertoires of the participants of the group discussions. All participants by virtue of the education level they attained they can speak and communicate in English. However, in addition to speaking English, participants possess other languages in their linguistic repertoires which they felt more comfortable to engage in during group discussions. Group A consisted of 2 participants who speak Setswana among other languages, 3 who have Xitsonga in their repertoires. Group B had 2 participants who possess the Zulu language practices, two with Setswana repertoires, one SiSwati and one Xitsonga. Group C had 2 Xitsonga, 1 Zulu, and 1 Shona (from Zimbabwe) language practice participants and 2 possess a Setswana repertoire. From the composition of the groups, it can be seen that there was linguistic heterogeneity where many languages were spoken among the participants.

Group A decided to use Xitsonga but not restricted to it in their discussion. Although Xitsonga is not the first language to many it was used for the sake of discussions in the group and all group members could understand and contribute to the discussion in Xitsonga.

It was the same with group B where IsiZulu was used to accommodate the SiSwati speaking group member. Because the group members wanted the one of their group member who was more fluent in SiSwati to be involved they resolved to use isiZulu, which was understood by the SiSwati speaking group member because IsiZulu was part of her repertoire. Even though IsiZulu was predominantly used for discussion in this, group all languages spoken by the group members i.e. Xitsonga, SiSwati, Setswana and isiZulu were used during the group discussion.

Results from all the three groups have shown that even though they possess different linguistic repertoires they were able to engage in fluid discussions that helped them to explain and clarify what they had read to each other. Differences in languages were not a hindrance to the discussion. Besides all group members being able to speak English, the students also spoke different home languages. A detailed discussion and analysis of results will be presented based on the themes identified.

5.3.2 Understanding of concepts using different linguistic repertoires

Although the discussion groups consisted of participants possessing different linguistic repertoires, participants were able to negotiate the meaning of concepts culminating in the development of an understanding of some scientific concepts that they encountered in the texts. The extract below comes from group B where the recaller was explaining the lytic cycle. Below is the extract:

1. S5: *Bare* [Setswana] (they say) Listic listic *Ha ke khone ho e bitsa*

I don't how to pronounce it

2. S3: *E phatlalatsa* [Setswana] Spell it

3. S1: *Uthi* (It's called) lytic cycle. *Wabona mabaya ngena ngo mafiga azo xala* [Zulu] (You see when they enter the host they multiply.) The replication is what is called the lytic cycle because it's a process they go through.

In this conversation, there were three languages used, namely: English, Setswana and isiZulu. These students used all these languages as they negotiated the meaning of 'lytic cycle'.

It is important to mention that as each group member used any of the languages they found suitable and appropriate none of the group members complained about not understanding what was being said (*See Appendix D for a detailed conversation on this subject.*) It can be said that group members were more concerned with clarifications about the meaning of the 'lytic cycle' that they had read about than the languages being used; it was not a problem among them. For example, when S5 (*paragraph 1*) was presenting in Setswana about the lytic cycle of the virus, the student had difficulties in pronouncing the word 'lytic' and in order for other group members to understand what was being talked about they asked for the spelling of the word lytic. Before the students could spell the word lytic, S1 intervened in isiZulu by providing the correct pronunciation and immediately explains in both IsiZulu and English what the lytic cycle is. In this instance we see students negotiating meaning using their linguistic repertoires. S1 intervenes in IsiZulu to explain the concept of the lytic cycle and ends his explanation in English.

The same can be said when the 'recallers' from group B were explaining the process of how viruses work once they enter the human body. The conversation below

highlights the way 'recallers' explained in different languages as they clarified the concept to the listeners.

1. **S4: The cycle is when they enter into a host they enter the cell and from the cell they use the enzymes of that cell to reproduce.**
2. **S3: So viruses attack other cells.**
3. **S5: Yah that cell-like *diattackana* [Setswana] so.**
4. **S4: So sometimes it does not break the cell they say it 'pitchout' they do not destroy the cell of the host cell from the membrane. The membrane-like *wabona skhanya sesenxane* [Zulu] (you see it has a thin lining)**
5. **S3: Like *ti huma empobovho* [Tsonga], (let us take a pool for example). This is the cell they break it there are viruses are inside the cell neh.**
6. **S4: Ok *tiya ngena wabona* [Tsonga] inside the cell *tienda* [Tsonga] once they are done *angithi* they replicate. (So when they enter the cell they replicate). So *ukuthi* they burst the cell *angithi laphakathi*. [Zulu] (So they burst the cell inside.)**
7. **S1: So when they do that the human immune system responds. So let's say it's the flu virus *neh, wabona loku umuntu agula vele e temperature yakhe yakhula* [Zulu] (when someone has flu you find that the body temperature rises) so that is the response *vele*.**

It can be noted that S4 (*paragraph 1*) used Xitsonga to explain to the group members on how the cells attack each other in the human body, immediately after S5 (*paragraph 3*) confirmed in Setswana that indeed when the virus enters the human it causes the cells to attack each other as the virus replicates. The response follows a question posed by S3 (*paragraph 5*) who seeks clarification on whether it is correct that the virus attacks the cells when it enters the human body. S1 (*paragraph*

7) further clarifies in isiZulu by giving an example of what transpires when the human body responds to a viral attack. Throughout this discussion what is important to both the 'recallers' and 'listeners' is the clarification of concepts and not the languages being used. The focus among the students is the understanding of concepts and not what language is being used to provide the meaning. There is fluid movement from one language to the other among participants as they attempt to grasp the concepts under discussion.

The use of translanguaging to understand concepts among participants can be noticed in the group C too. The conversation below shows:

1. S2: [Setswana] *The article says E kena ka har'a seleng e ntan'o etsa hore sele eo e phatlohe, ha e felile e bolaea sele eo ebe pele e bolaea sele, e etsa hore sele e arohane 'me e lokela ho atisa ho ba le palo e kholo*

It gets inside the cell and then causes that cell to burst when it is done it kills that cell and then before it kills cell, it makes the cell to divide and it must multiply to like a large number right

2. S4: What does it do?

3. S2: It is called mitosis, like replication

4. S5: Oho so like...

5. S3: [Setswana] *Mitosis e etsahala ka cell, e tšoana le e tsamaisa mitosis ho etsahala empa ha e lokolle lisele tse ling empa e ntša likokoana-hloko mme qetellong sele e shoa 'me joale ha e ntse e atisa, e ata ka limilione.*

Mitosis happens in the cell, is like it is manipulating the mitosis to happen but it does not release the other cells but it releases the virus and then ultimately the cell dies and then when they are multiplying, they multiply in millions.

6. S2: [Setswana] *ke tsela eo e ireplicate ka eona, 'me hape e ngata e tla etsahala, virus e etsa hore motho e be ea fokolang ka tsela leha e le efe e ka ba ka hare, ka seleng e le' ngoe ebe seleng eo e tla fetola 'mele oa hao, joalo ka ha e tla kopanela lisele tse ling le ha li khomaretsoe lisele tse ling tse kang ntho e le 'ngoe' me li qala ho itšireletsa mafung ho sitoa ho loana*

That's how it replicates and, again a lot will happen, the virus makes the person become weak because it will be inside, into one cell and then that cell will replicate throughout the body. They will attach to other cells and when they are attached to other cells like the same thing and they start to make immune to be unable to fight.

7. S4:[Zulu] *Uthola kanjani ivirus ngaphandle komzimba?* How do you get the virus out of the body?

8. S3: [Setswana] *Yar, hobane hona joale ba atisa ho thibela ivirus ho hang, empa ho thata ho emisa virus ho hang empa ke tlameha ho re, 'mele o lokolla seo o se bolelang hore o thibela ho thibela ivirus, o tla thibela kokoana-hloko hore e se ke ea replicate, empa ha e khone ho bolaea evirus eo*

Yar, because now they are many and again ner the article says, it is hard to stop virus at all but I have to say, is the body releases what is called

the antiviral it will help to, stop the virus from replicating a lot, but it is unable to kill that virus.

9. S2: [Setswana] *Hape ho thata ho bolaea virus with antivirus drugs, hobane virus ka har'a cell, kahoo e bolelang hore meriana eo ha e khone ho fihla ka hare ho cell, e tla koahela seleng eo feela. Ke kahoo seleng eo e sa khoneng ho ikarabella, ho etsa hore licell tse ling li replicate*

It is also difficult to kill the virus with medicine because the virus is inside the cell, so which means that those antiviruses are not able to reach inside the cell right, they will always cover only that cell. That is why that cell is unable to replicate, to make other cells to replicate.

10. S4: [Zulu] *Mara ivirus lihlala njalo? Will the virus always stay in the body?*

11. S3: [Setswana] *e sebetsa ka hare empa ha e arabela hobane medicine eo e pota-potile cell ka ntle.*

Yes, it stays inside but it does not replicate because that medicine surrounds the cell outside.

When the 'recaller' in this group was recalling what they had read from the articles, they encountered difficulties in explaining what mitosis is. As S2 (*paragraph 1*) explains the process by which the virus attacks the human cell and makes it multiply, S4 (*paragraph 2*) seeks for clarification about the process that the virus takes. S2 admits that the process is called mitosis, however, does not explain further and S3 immediately explains the process of mitosis and (*paragraph 3*) S2 adds on to the explanation by providing an example of how the human responds to the virus attacking the cells and replicating itself. S4 seeks for clarification in isiZulu

(*paragraph 7*) by asking if it is possible to remove the virus from the human body. S2 explains in Setswana (*par. 9*) that it is difficult to eradicate the virus completely from the human body, as it would have replicated into millions. There is also an explanation from S3 (*par.11*) in Setswana which explains how antivirus medications work to suppress the replication of the virus.

Examples from the discussions from the 3 groups show that there was a fluid discussion among group members using their linguistic repertoires as they sought to explain and understand the concepts to each other. This fluid movement during translingual group discussions confirms that languages are not bound entities (Makalela, 2015, 2017) or enumerable entities (Makoni 2017) that should be kept separate from each other. In fact, based on the extracts, languages were used as and when it was necessary for meaning to take place. It should, therefore, be acknowledged that languages are fluid and possess fuzzy boundaries that allow multilinguals to move flexibly between languages as they negotiate meaning (Garcia, Flores and Woodley, 2011; Garcia and Li, 2014; Makalela, 2015). Results from the groups show that students utilised suitable linguistic resources in their possession as they negotiated meaning. When a group member poses a question in Setswana and the question is responded to in Zulu without interruption that shows that languages can be used at any given time for the purposes of meaning-making.

It should also be noted that results from the group discussions show that languages form a single linguistic repertoire that consists of various language practices (Bock and Mheta, 2014) but result in an understanding of the material. This shows that there is no language that can be labelled as the most 'appropriate' language for learning. Rather, as long as students can grasp the meaning, they should be allowed to use translanguaging, especially during group discussions. Although

results from the group discussions conducted in this research show that translanguaging during group collaboration is a tool that enhances reading comprehension among multilingual students, many orthodox teachers still insist on using one language and English only for purposes of teaching and learning. The main reason being given that using more than one language causes mental confusion (Makalela, 2015; Bock and Mheta, 2014, Garcia, Flores and Woodley, 2011).

However, it should be noted that when the discussions took place among the participants in this study, there was no confusion due to using different languages that was exhibited. Instead, there was harmony in the understanding of concepts as students explained critical material to each other. The interrelatedness of languages can be the only explanation. The other reason for teacher's insistence on the use of English is the belief that English is a 'standard' language that all students should be able to use and understand for purposes of learning (Ndhlovu, 2017). The 'standard ideology' (Ndhlovu, 2017), is the reason why students who are not proficient enough to understand concepts in English are relegated to needing remedial teaching whereas if their funds of knowledge are tapped into through the use of their languages those students are able to negotiate meaning and understand concepts.

It is, therefore, important to heed Garcia's (2009b), call to adopt an all-terrain linguistic vehicle, which allows students to adapt to the linguistic terrain created by the 21st century global shift. Garcia (2009b), emphasises languages are not bound entities but rather they possess interrelated and fluid components of speaker's repertoires. Students in this research showed the utilisation of an all-terrain linguistic

vehicle when they did not insist on using one language that was understood by all but rather they were able to adjust to the 'craters' (Garcia, 2009b), of multilingualism and negotiate meaning. Where one language could not help them to negotiate meaning, these students were able to dip into their linguistic repertoire and negotiate meaning.

It is important to note that conversation among participants from group C was conducted mostly between isiZulu and Setswana. These languages emanate from two different languages clusters that is the Nguni (IsiZulu) and the Sotho (Setswana) clusters. These languages have been treated as different languages that are not mutually intelligible let alone being used in classrooms where students speak these languages. The assumption has always been that a student who speaks Setswana cannot understand Zulu and vice versa. Due to the movement of people (Garcia, 2009b) and the mixing of languages and cultures students in South Africa are exposed to many languages such that maintaining the use of one language for purposes of teaching and learning is no longer a suitable strategy in the current linguistic landscape. What is required is a move to transcend all linguistic boundaries as defined by nations, allow the fluid flow of languages in classrooms, and ensure understanding of concepts. In fact, languages have proven to be interrelated such that they can be used interchangeably without any disruption as students negotiate meaning in the classroom. This finding confirms Makalela's (2016) assertion that the coming of Dutch missionaries who created the different orthographies of languages that were once mutually intelligible separated South African languages. This resulted in the languages being relegated to 'linguistic boxes'. Given this background, instead of lecturers insisting on focussing on the languages to be used it is of more

importance for lecturers to rather let students discuss ideas regardless of the languages they use as long as students are able to understand the material.

This section has elaborated on the theme of the interrelatedness of languages based on how participants used languages fluidly without confinement to the defined boundaries. Instead, all languages at the disposal of the participants were used for meaning-making purposes. The next section will unveil the theme of negotiation of meaning through discussion.

5.3.3 Negotiation of meaning through discussion

As the groups discussed what they had read both the 'recallers' and listeners made an effort to negotiate the meaning implied in the texts they had all read and they ensured that everyone in the group had understood the articles. It is important to note that group members used all the linguistic resources they possessed to ensure that they understood the articles. As mentioned earlier, group A used Xitsonga language only for discussion. *Refer to Appendix D.* This was a decision that the group made because all members of the group understood Xitsonga although the language was not a home language for some of them. Thus, the students took care of each other and made certain that everyone was accommodated in the discussion. An extract from the group shows that at some point the 'recaller' was not audible enough for the listeners to understand what was being said. Below is the conversation:

- 1. S3: *Loko virus liya yinghena ndeni ka cell ne, yifika yi destroy the function of the cell, yi take over and then yi instructor that cell to***

replicate and then liya ya... (Not audible) yifika yi combine ti genetic instruction ta yona nata cell liya ivi ti divide.

When the virus enters the cell, it destroys the function of the cell, it takes over and then it instructs that cell to replicate and then the one ... (not audible) then combines its genetic instruction of itself and that of the and they divide.

2. *S1: Se loko ti virus leti nwani loko se tiri lahaya ndei ka cell ti fika ti multiply, se ti huma tinwani tihuma ti human je vitani ti naked virus virus*

So when the other viruses are inside a cell they multiply, then they get out. The other ones get out and they just get out, they are called naked virus.

3. *S4: O vulavulela hasi. (She does not speak loudly)*

4. *S3: A wuswi twangi swa mapela (You seriously didn't hear it?)*

5. *S4: A niswi twangi. (I did not hear it)*

6. *S3: Loko tiri na, let us take kuri na influenza, that is why utwa ku vava laka ... (not audible) I mhaka ku virus liya yi va yi destroy ti cell. Se ani lahaya ka respiratory what what, yi prevent ti foreign particles from ... loko ti cell letiya ti se ti disitroyekini, swi vula ku u tava kuri na runny nose.*

Let us take the influenza virus, for example, that is why you feel pain on the ... it is because the virus has destroyed the cells. So on the respiratory what-what, those cells would have been destroyed it means you will have a runny nose.

7. *S5: (laughing) hile ku switwisiseni. (We understand)*

From the conversation, S1 and S3 (*par. 1 and 2*) are explaining to the group members on how the virus works in a human body. As S1 comes in to further elaborate the point made by S3 the group members indicate that they could not hear what S1 was saying, S3 (*par. 6*) uses a different strategy of explaining by using an example of the influenza virus to explain the concept of how viruses work in a human body. This strategy helped to clarify what the listeners had not grasped when S1 was explaining. In this instance, what could not be understood by some group members was explained further by use of an illustration. The use of the influenza virus to help others to understand how viruses work in the body shows how group members were able to negotiate meaning using their linguistic repertoires as well as life experiences of the influenza virus.

The same happens in group B when S6 (recaller) is explaining how the Rotavirus can be spread in humans.

1. **S6: *Rotavirus hi yona khosaku diarrhoea. Rotavirus yi phasiwa hi yini, hi vari swivitana yini? Hiloko ti small faeces ti helela like nonweni, hi leswiwani ka. Loko ti small faeces ti helelela nonweni. Hi swona yi spreadisa ku xi swona retovirus.*** (Retovirus is the one that causes diarrhoea in children. When small faeces end up in the mouth. That is how retovirus spreads).
2. **S1: *Hi loko ti helela nonweni?*** (When it ends in the mouth)?
3. **S2: *na mina aniswi twisisi*** (I also don't understand).
4. **S4: *loko munhu adya*** (when a person ingests)

When S6 (*par.1*) attempts to explain how the rotavirus spreads there is a misunderstanding among group members as to exactly how the virus spreads. S6

says the Rotavirus is spread when human faeces end up in the mouth. S1 and S2 immediately register that they do not understand S6's expression. S4 (*par.4*) immediately clarifies the issues by saying that the Rotavirus is spread when humans ingest faecal matter.

In the same vein, group B also had to negotiate meaning as they questioned each other and clarified some concepts to each other. The 'recaller' explained the rabies virus and how humans can contract it. A question arose as to how the virus ends up affecting humans when it is said to be found in pets. The conversation went as follows:

1. **S6: Can we ask? You said is it the virus that attacks the pets.**
2. **S1: *Wabona* [Zulu] (You see) it is found in pets.**
3. **S6: Yah what I am asking is *ayi khoni kusuka ete kuwe like directly hayi l suke ete kuwe*. [Siswati]. Does rabbis infect you when you get in contact with an infected pet?**
4. **S1: No no no. Unless it bites you. They say *kuri* [Setswana] (that *vaccine* is available *mara* [Afrikaans] (but) if you don't get the treatment you will die.**
5. **S3: *Noma wena u make contact with noma aya lumanga* [Siswati] (whether you are bitten or if you make contact). There is this documentary I was watching *laphane* [Siswati] (there is) this girl neh she is young kubo like they had a farm kubo she started to behave strangely.**
6. **S2: *So uya hlakana?* [Zulu] (So you don't agree.)**
7. **S3: Yah it was as if she was hallucinating then her mother took her to the hospital and they could not find what was wrong until the girl died.**

After she had died, they discovered *uthi* [SiSwati] it was rabies. So *ba mbuka amabehaviour akhe* [SiSwati] (They investigated her behaviour before she died). She behaved like someone who was on drugs *nje. Wa bona* [SiSwati] (You see) animals did not bite her *mara* [Afrikaans] (but) she had daily contact with animals so she ended up getting rabies maybe when she was feeding the animals. *Phela* [SiSwati] (So) there are many ways one can get rabies besides being beaten by a dog *was bona* (you see).

S6 (*par. 1*) wants to clarify whether the virus attacks pets and if it is found in pets. S1 responds by saying the virus is found in pets. Still, S6 (*par. 3*) feels his question has not been adequately answered and resorts to using SiSwati to find out if the rabies virus can be transmitted to humans by coming in contact with an infected pet. S1 responds by saying one can only be infected when they are bitten by an infected pet. S3 (*par.5*) uses her prior knowledge that she acquired from watching a documentary where she learnt that rabies could be contracted by just being in contact with an infected pet. Using the pre-existing knowledge she has, S3 is able to explain and clarify to S6 and the rest of the group that humans can contract rabies when they are exposed to an infected animal. This negotiation of meaning using pre-existing knowledge by the group members helped to clarify how rabies is transmitted. It is important to note that throughout the conversation in this group there is more use of English. This is because the group has 1 member who has limited proficiency in the language being used by the group. S6 who explains in English about the documentary she watched about rabies is from Swaziland. Though she acknowledges that she understands Zulu she cannot speak it fluently (*see appendix D under group B*). However, it should be noted that she could follow the conversation

in both Zulu and Setswana and was able to explain in English her experience with her group for them to understand.

In the same manner, group C also had to clarify and explain to each other matters that were not clear to them. For example one of the matters was the transmission of viruses from mothers to unborn babies. The conversation went as follows:

1. **S1:** [Setswana] *a re re ha u sa le mocha o ne a entoa ka smallpox 'me joale virus e ne e sa hlakoloe' meleng oa hao, 'me joale u na le ngoana, ho bolela hore ngoana o tla ba le menyetla e mengata ea ho ba le smallpox?*

Let's say when you were young you were vaccinated for smallpox and then the virus was not eradicated from your body, And then you have a baby, it means as if the baby will have as more chance of having smallpox?

2. **S5:** *Ha u e-na le lefuba nakong ea bophelo ba hau joale o ima 'me o na le ngoana ea belehang lesea le nang le lefuba? [Setswana]*

When you have flu in your life time then you get pregnant and have a baby do give birth to a baby with flu?

3. **S1:** No
4. **S4:** It will depend on *gore* the virus is transmitted by which means
5. **S3:** So are you saying some diseases are inheritable?
6. **S4:** Yah we can take it that way but also it will depend on *gore* the virus is transmitted by which means. For example, the HIV, Ebola is transmitted by contact with contaminated fluids. If there is contact with bodily fluids, there will be the transmission.

In this conversation, there is somewhat uncertainty over the extent to which some viruses stay in the human body and what happens to unborn babies when a virus at some point in their life infected the mother and the virus was not completely eradicated from the body. S1 (*par. 1*) poses the question and wants clarification about the smallpox virus. Instead of responding yes or no S5 (*par.2*) poses a question that triggers some reasoning in S1. The question requires S1 to use his knowledge of the flu virus on whether it is transmitted to an unborn baby or not. S1 did not need any further explanation. S3 (*par.5*) also demonstrates his understanding by seeking clarification of his understanding that some viruses can be transmitted and others are not transmitted. S4 provides clarification to S3 by giving examples of diseases that can be transmitted to unborn babies and the reasons.

Through the discussion using translanguaging, participants in this discussion group were able to solve problems and co-construct knowledge among them and language was being used as a mediator to the meaning-making process (Swain, *et al.* 2002). Using isiZulu, Setswana and English, students were able to negotiate meaning and help each other to understand concepts about viruses. It is important to note that when students are allowed to engage in collaborative dialogue (Swain, 1997) using languages that they are comfortable with, they scaffold each other into understanding difficult concepts, (Klingner and Vaughn, 2000). Instead of S4 from the Setswana group to provide a straight answer to S6's question, S4 asked questions that scaffolded S6 understands how viruses can be transmitted in different circumstances. This action leveraged students' critical thinking skills and resulted in the understanding clarification of the issue at hand. It is thus, safe to conclude that students do in fact benefit from the collaborative dialogue that is conducted in a

translingual manner were they challenge each other intellectually resulting in a deep understanding of concepts.

Using the opportunity to discuss and clarify concepts, it can be noticed that some students who were 'recallers' were supposed to be 'experts' in the articles at some point they had to learn from those who were 'listeners'. For example in group B where there was a question of how rabies is transmitted, the 'recaller's' understanding was that rabies can be transmitted when a pet bites a human being. However, there was clarification by S3 who was one of the listeners and she used knowledge from a documentary that she had watched to clarify that rabies can actually be transmitted by just being exposed to an infected animal. This shows the recent shift in the Vygotsky's (1978) Zone of Proximal Development (ZPD) where learning can take place through social interaction between students and a more experienced peer or teacher. In this research, although the strategy was to have an 'expert' of the articles reporting to the group members there are instances where the 'expert' became a novice and the novice became the expert (Ohtal, 2001). This explains that for comprehension of academic articles to take place, students do not only require a teacher or a more qualified peer to teach them. Rather, teaching, learning and understanding of concepts can take place through social interaction between peers where knowledge is exchanged in the process. Group collaboration using translanguaging is undoubtedly an effective strategy of enhancing students' understanding of concepts. As seen in group B, through discussion, pre-existing knowledge was invoked in S3 and this helped her to clarify the concepts of rabies transmission to her group members.

Besides being able to negotiate the meaning implied in the articles they read among themselves, i.e. (listeners and recallers) participants, especially the 'recallers', were

able to recall the main ideas of the articles they had read to the listeners. In all the groups, the 'recallers' were able to identify the main ideas of the articles and this is what they presented to their group members. For example, 'recallers' from all groups were able to elicit the fact that when viruses enter the human body they attack cells and cause them to replicate. This was the main idea of the articles and this idea was the answer to the first part of the essay question, which required students to explain how viruses work inside the human body. It should be noted that all groups were able to extrapolate this main idea, they shared it with their group members, and in this way, they were able to understand the articles.

Ultimately, students should be encouraged to elaborate main ideas to each other in-group collaboration activities in a translingual manner. The ability to extrapolate main ideas from the text constitutes the meaning-making process, which is the comprehension process that is required when reading (King, 2007). In addition to extrapolating main ideas from the texts, participants in this research showed that they had grasped the meaning of the text by sharing the ideas with their group members (Grabe and Stoller, 2011). The group discussion through translanguaging showed that students could build connections between what they had read and their background knowledge (Grabe and Stoller, 2011). Thus, it is important to acknowledge and accept Garcia's (2000) assertion that when multilinguals use their languages to explain concepts it should not be seen as a compensatory strategy but rather be viewed as resources that reflect their identities. The fact that participants were able to connect what they had read and real-life situations and experiences is an indication that they had understood what they had read.

The theme of negotiation of meaning has been availed in this section. The next section discusses the theme of shared goal orientation.

5.4.2 Understanding the requirements of the assigned task based on the reading

As mentioned at the beginning of the chapter, participants had the task of completing an individual essay task based on the articles they had read. Thus, as participants were discussing the articles they constantly reverted to the requirements of the question and as a group, they were helping each other to get to understand the requirements of the question and the content that would answer the essay question.

Group A

S6: Okay viruses. Ka ti questions they say discuss three viruses. I will do (article) 3 then you will continue. Article 3 is all about deadly viruses the first one was ahh Rotavirus.

S6 reminds the group that the question requires three viruses although there are many viruses that are discussed in article 3 which he was going to recall. It was clear to the group members that besides having to discuss more than three viruses the question required them to focus on three viruses only.

Group B

1. **S4: I think when we discuss we should refer to the main essay question.
As I discuss I will be answering the question**
2. **S4: Yah neh viruses. *Nkhathi sibale ama* [Siswati] (we should write about) three viruses from the articles *funi sibale ama* [Siswati] (and the prevention measures.**
3. **S2: *Angithi uzoba ni introduction yakho mhlambe* [Zulu] (isn't you will have your introduction) you introduce the whole topic. You introduce amaviruses angu 3.**
4. **S3. The introduction should discuss generally on how the viruses affect the human system.**
5. **S5: I am thinking kuthi for the whole essay and for the structure the introduction like you said then I will talk about each virus per paragraph. Let's say I am talking about Ebola I will say what is Ebola and what causes it, the causes and the prevention. Then I write the conclusion.**
6. **S4: So what do I need to know about antivirus can I talk about antivirus?**
7. **S3: But don't move away from the topic.**
8. **S1: What about the conclusion?**
9. **S5: *Angitshi* in the conclusion we sum up we just say things we have talked about in the essay.**
10. **S6: Which means its five paragraphs *akere* they say 5-6 paragraphs**

S4 (*par. 1*) made it a point that the discussion was going to be answering the essay question and the rest of the group seem to agree because the conversation thereafter was more focussed on answering the essay question. This group discussed how viruses work in the human body and they dwelt a lot on explaining and clarifying to each other about the virus replicates in the body (*refer to Appendix*

D for a detailed discussion). They went further to discuss the common viruses they had read about from the articles. As they discussed each virus they explained to each other on how each of the viruses enters the human body and how contracting the viruses can be prevented. The group went further to discuss the structure of the essay based on the structure of the question. It can be noted from the discussion that the group provided each other with a skeleton of the essay thus making sure that they all understand what the question requires of them. S4 makes sure that he understands what the task requires by seeking for assurance from the group members by stating that they are required to explain 3 viruses, how they enter the human body and the preventative measures. S2 and S3 go further to unpack what should constitute the introductory paragraph. In addition, S5 even provides the structure of the essay where she suggests having a virus discussed per paragraph. When S4 enquires on whether he should include antivirus in his essay S5 cautions him to be careful about moving away from the requirements of the question.

Group C

Although this group did not explicitly refer to the essay question, they answered the question as they discussed. (*Refer to Appendix D for more details*). They discussed how the virus affects the human body and this was in response to the first part of the question. They went further to discuss the different viruses. Although the question required them to discuss three viruses the group discussed five viruses and for each virus, they stated how the virus enters the human body and preventative measures against each virus. As they discussed the viruses, it was clear to each participant on which of the five viruses they were going to choose and use when answering the essay question.

What can be deduced from these groups is the fact that all group members were aware of the result of their discussion. Participants knew that after discussing the articles, questioning and clarifying concepts to each other they were required to write an essay based on the discussions they had engaged in. Thus, as the participants discussed they were motivated by the same goal, the goal being that they had to produce essays that had the required content from the reading. For example from group B S5 (par. 5) even provides the anticipated structure of the essay as well as the expected content based on what they had discussed. Students knew that for them to produce the required essay they had to work with their group members and make sure they were clear of what the question required as well as possessing a clear understanding of the content that was required in order to answer the question. This is why for example S6's group went to the extent of sharing the anticipated structure of the essay. This must have been to ensure that everyone was in a position to write an essay that had the required content.

However, according to the motivational perspective of collaborative learning (see *chapter 2:62-63*) students can be motivated to work in collaborative groups when they know that there is a reward accompanying the task (Slavin, 1995; Johnson and Johnson, 1998). The proponents of the perspective suggest that students can be motivated to work as a group especially rewards such as certificates are promised. In addition, they propose that students can be promised for group semester marks based on the groups working together well (Johnson, Johnson and Holubec, 1998).

Using this strategy, the motivationalist perspective proponents believe that collaborative group activities would be effective.

Contrary to the motivationalist perspective on collaborative activities, results of this research have shown that participants were motivated to work hard and participate during the group discussion because they knew from the discussion they could understand the content better and the content would help them to write a good essay. Thus, there was no direct reward offered by the lecturer. This can be explained by the fact that all groups reverted to the requirements of the question making sure that their discussion was in line with the requirements of the question. With this in mind, what motivated the participants to work hard was not the reward of getting either marks or certificates. Rather, what motivated the participants was knowing that the group discussion would help them to be able to tackle the assignment individually. In this regard, it can be said that using collaborative discussion activities through translanguaging can help students not only to comprehend texts but rather, they can be able to encourage each other to focus on a common goal and that is becoming independent learners. Using group discussions, students may feel that the discussions provide them with confidence to tackle individual assignments because most of the concepts would have been clarified to them by their peers and in a flexible linguistic environment through translanguaging. It is, therefore, important to allow students to engage in group collaborative activities through translanguaging and help students to understand articles. Students do not have to be exposed to group work and translanguaging only rather, they should be allowed to use what they learnt from the group discussion to come up with individual work that can be assessed individually. This may result in the scaffolding that is

required from the use of their linguistic resources to support the target language (Lewis et al, 2012).

This section has presented how participants in this research worked hand in hand to assist each other to understand concepts. The theme identified in this section is Understanding the requirements of the assigned task based on the reading. The next section will unveil the Group Cohesion theme.

5.3.4 Group Cohesion

One aspect that was observed during the group discussions is that participants worked well in their groups and they all made effort to pull each other and ensure that all group members got involved in the discussions. As a researcher, I anticipated participants to divert their discussion into a general and social conversation, which had nothing to do with the assigned task. The main reason why I anticipated this is that participants were allowed to use their own languages to discuss so I thought it would be easy for them to bring in social conversations during the discussions. I was taken aback to find out that participants utilised the allocated time to make the best out of the group discussion by clarifying and explaining concepts to each other. The discussions were conducted in a comfortable environment but most importantly, the groups displayed cohesion. Below is a conversation among the group A members:

- 1. S6: *So obvious ka ti developed world va ngvi, vange hlupheki hi swona ngopfu just because va developed. Coz swaiswa so vaswi kota ku deal na swona vona, vaswikota ku rehydrate, se swidlanya ngopfu vanhu kati undeveloped countries. Then ya vu two I deng eish is Dengue.***

2. So obvious in the developed countries they won't suffer much about Rotavirus because they know how to deal with this kind of things (diarrhoea) they know how to rehydrate. Therefore, rotavirus kills more people from undeveloped countries. The the second one is deng eish is Dengue.

3. S5: *Ya I Dengue* (Yes Dengue)

4. S6: *Ya I Dengue. Eish, xilungu xa dlaya hey. (Yes, it's Dengu. Eish English kills hey).*

5. S4: *So ka Dengu, Dengue like ava, Dengue yi kumeka kati subtropical or tropical areas. (Dengu is found in subtropical or tropical areas).*

6. S5: *Dengue ok ka dengue. (Dengue yes dengue)*

7. S4: *Vonani loko yoza yi minghena didengi, a yiya va ya yona Inga mihlakata maar haa yo ayi hlakati ngopfu ... loko mika teki treatment kuna twenty percent chances yo minga survive, tsena loko minga teki treatment. Swivulaku loko mikha mi teka treatment kuright, mita hanya, yi spread hiku, yi spreadiwa hi ti mosquito ma vo, so eih loko tolo nikha nikuma ku nileku dyiweni hi mosquitoes yeses. Swa mapela he boti. Yindla kumiva na fever...*

Look if that thing (dengue virus) enters you, it can destroy you but it does not destroy much if you take treatment. If you don't take treatment, there is 20% of survival but with the treatment, you can survive. It is spread by mosquitoes so eish yesterday when I was reading I was beaten by a mosquito. The virus causes fever and...

8. S3: *Fever?*

9. S4: *Yaar maar ya manejeka. (Yes but it is manageable).*

10. S3: *Fever kumbe favour? (Fever or favour)?*

11. S4: *Fever. Mavona ku yi karhata kwini ne, loko yi kofanana le Limpopo le kaya, yaa le yinga mihlata lee. I ndhawu yo hisa ma VO and tindhawu to hisa rhandiwa ngopfu hiti nsuna.*

You see in a place like my home in Limpopo they (mosquitoes) can destroy you. It is a hot place and mosquitoes like hot places.

12. S1: *Is there a vaccination against Dengue?*

13. S4: *Hoo yi hava vaccination vahari na hope vanga humelela maar he*

Okay, it does not have a vaccination; they still have hope to succeed.

The discussion from this extract is based on the recallers S6, S5 and S4. The three group members are helping each other to explain the Dengue virus to the rest of the group. It can be noted that when S6 (*par.4*) introduces the Dengue virus to the group he struggles to pronounce Dengue properly, however, S5 immediately helps S6 with the correct pronunciation. S4 (*par.7*) provides a description of where the Dengue virus is commonly found and indeed explains that the most prone areas are tropical areas. S4 explains that the virus manifests itself in a human body by causing fever. S3 seeks for clarification on whether the virus causes fever or favour. S4 (*par. 11*) clarifies that it is fever and goes on to use Limpopo his home area as an example of areas where mosquitoes are commonly found which is hot areas. S1 asks if there is a vaccine available to prevent the Dengue virus. S4 explains that there is not yet a vaccine available so far.

This conversation among group members demonstrates an uninterrupted discussion where the focus was on understanding the Dengue virus. There was cooperation

among the 'recallers' as they explained to the rest of the group. The listeners also encouraged the progress of the discussion by asking for clarification and explanation from the 'recallers'. It is also important to mention that there was an effort from both sides i.e 'recallers' and listeners to ensure that the group benefitted from the discussion. Although S4 at some point talks about being beaten by a mosquito recently but that does not divert the discussion into a social conversation. Rather, S4's mention of having been beaten by a mosquito could be a way of showing that he is worried about contracting the virus. Thus, the discussion maintains its focus on explaining the Dengue virus. It should be noted that the discussion from this extract shows smooth turn-taking strategy from the group members where participants give each other time to speak and explain to the group members. Ultimately, there is order maintained during the group discussion.

Group C too demonstrated group cohesion as they explained concepts to each other and they demonstrated the will to carry each other along as they constructed knowledge.

1. **S3: Mmmm. The next one is....**
2. **S5: Err *bare* [Setswana] (it says) Rotavirus. It causes severe illness, especially in young children.**
3. **S4: It causes what?**
4. **S6: *Letshogolo akere* [Setswana] (Isn't it diarrhoea?)**
5. **S5: *Yah letshogolo* [Setswana] (Yes diarrhoea) and then *legore* [Setswana] (also) it can spread rapidly through ingestion of small particles of faeces.**
6. **S3: *Eba erekwini, sweba swili kwini* [Xitsonga] (So what causes the diarrhoea?)**

7. **S5: It's the virus and Rotavirus affects mostly developing countries, *vele* [Zulu] where there is poverty. The best preventative measure is to ensure hygiene environment.**
8. **S4: Yah neh viruses. *Nkhathi sibale ama* [Siswati] (we should write about) three viruses from the articles *funi sibale ama* [Siswati] (and the) prevention measures.**

This conversation is based on the explanation of the Rotavirus. When S5 introduces Rotavirus, she immediately explains that it affects children mostly. S4 is interested to find out the disease that is caused by the Rotavirus thus, she asks 'It causes what?' S6 tells the group that the virus causes Diarrhoea. In addition, S5 further explains that the diarrhoea is caused by ingestion of faecal matter. S3 is anxious to know what causes the diarrhoea and S5 explains that the Rotavirus causes the diarrhoea.

It should be noted that this group had a group member who speaks Siswati and the group resolved to use isiZulu in order to accommodate the Siswati speaking group member during the discussion. However, the group had some members who used Setswana and Xitsonga during the discussion. Even when other languages besides IsiZulu were used the Siswati speaking group member did not complain. From the extract, S4 (*par. 3*) is the Siswati speaking participant and although she cannot speak Setswana she participated in the discussion, in particular, she poses a question for clarification. The participant does not complain when other languages besides IsiZulu are used in the discussion, instead, she keeps herself abreast with the discussion by actively participating in the discussion. This shows a great level of cohesion in the group discussion activity despite different languages being used.

As mentioned in chapter 4, the discussion groups were linguistically heterogeneous. The participants were not grouped according to the home languages they spoke. The same can be said about group C. This group had one foreign student who comes from Zimbabwe and this student speaks Chishona as her home language. However, having been grouped together with group members who possess fluent Setswana, Xitsonga and isiZulu languages in their repertoire this student worked with her discussion group in a cohesive and progressive manner. Below is an extract from their discussion.

1. **S3: And then HIV virus, HIV virus we all know?**

2. **S6: Ok HIV virus they say is still issue here on earth, but now there are anti-retroviral drugs that slow down the replication process of replication.**

3. **S2: The ARV they just slow down replication neh?**

4. **S6: As was explained the ARVs can't get in to remove the virus, so it just can cover them, like a cell from outside so that the cell cannot replicate.**

5. **S5: So we get to what we call a Hunter virus. Is actually Hunter Preunire Syndrome (HPS). It started, in the US in 1993. Actually, this virus is from rats. The faeces of a rat.**

6. **S4: So like this one cannot be transmitted from one person to another, but with the faeces of a rat? So this means *gore* rats are dangerous / joo (Eish).**

7. S5: But if you touch them. The virus causes respiratory complications and if not treated you can die.

8. S6: *Bese-ke laba ababili ngizobachazela njengomunye they are the same. Ebola futhi yini? Igciwane leMarburg. Yah yibo abangela i-Himboheadache, angikwazi ispeelling i-Himboheadache. Ayena lokhu kubangela umuntu ukuba abe ne high fever futhi aphephe umzimba. Njengama-openings. [Zulu]*

Then the two I am going to explain them as one since they are one thing. Ebola and what is it? Marburg virus. Yah this one they cause a fever called Himboheadache, hey I cannot spell it Himboheadache is the one. Yah this one it causes a person to have a high fever and bleeding through the body. Like at the openings.

9. S5: Yah all the openings eyes, nose, and mouth. It leads to shock and then the failure of internal organs and then death. It enters like they say it enters through body fluids like you touch blood, sweat, whatever like tissue of that person then you become infected. Then this one is from the monkeys. They say in Congo they actually eat monkeys that's how Ebola is contracted.

10. S2: [Setswana] *Empa liphoofole tsena li kotsi ho uena.* But these animals are dangerous you know.

11. S3: [Setswana] *China ba JA likatse le ntja. Ba ja ntho e 'ngoe le e' ngoe ka hare ho naha, le linoha empa ba phela nako e telele.*

In China, they eat cats and dog. They eat everything and snakes but they live long

**12.S5: You know they do not eat *diphahlo*, they eat healthy those people.
(Laughter)**

13.S4: *U bitsa diphahlo ka puo ea hau?* [Setswana] What do you call *diphahlo* in your language?

14.S5: We don't have a name for it but we call it [Shona]*chingwa ne machips ne nyama*

From this discussion S3 proposes that after discussing some virus in detail there was no need to discuss the HI virus in depth because to them there was enough information about the virus, however, S6 emphasises that the HI virus can now be managed by antiretroviral drugs. S6 (*par.2*) (*see appendix D under group C for a full version of the discussion*) clarifies S2's question on the effects of the antiretroviral drugs by making on a connection to what had already been discussed about viruses that the antiretroviral drugs do not eradicate the virus from the body but rather they protect the cell and prevents it from replicating hence making the virus to be manageable. The 'recallers' move on to talk about the Hantavirus, Marburg and Ebola viruses. S5 and S6 explain to the group members how all the viruses spread through human contact with some animals. This prompts S2 (*par. 10*) to realise and conclude that these animals can be dangerous to humans. S3 brings in the fact that some people eat animals that are considered dangerous but they still have a long life

expectancy rate. Although S3 makes these remarks in Setswana S5, using English explains that the reason is that those people eat healthily. As she makes the explanation, S5 brings in some humour by using *diphahlo* as an example of some of the unhealthy foods that are eaten in South Africa. This makes other group members want to know if *diphahlo* is eaten in her country, which is Zimbabwe.

Even though S5 does not speak any of the South African languages except English, she worked well with her group. She managed to play her 'recaller' role using English and still, her group members understood the concepts and were able to comment and make their analysis based on S5's recall. It is important to mention that even in instances where group members used Setswana, S5 continued to actively participate in the group discussion. She did not sulk just because the group members spoke a language that she was not comfortable with. I use 'comfortable' because from the conversation it appears S5 could understand Setswana though she could not speak it, she could understand enough Setswana to participate in the conversation.

The cohesion in the group discussions presented in this section may be explained by what Makalela (2015, 2016, and 2017) refers to as the *Ubuntu* Translanguaging Pedagogy (UTP). The UTP referred to by Makalela is the underlying factor that brings people (students) to work together effectively. The UTP as Makalela (2017) puts it is based on the human belief that humans need each other to exist. The *Ubuntu* that exists in people manifests a proclamation in the value of interdependence and the interconnectedness of human beings and their cultural

products, as represented by the shibboleth, '*I am because you are, you are because we are*' (Makalela, 2016, 2017). Makalela (2017) emphasises that multilingual classrooms become havens of fluid, unbounded and interdependent repertoires through which students make sense of the world and become who they need to become.

Thus, when participants were exposed to the articles and were asked to read with the aim to explain to their group members and help them to understand the articles the 'Ubuntu' in them must have been evoked for them to be able to work and carry each other along during the discussions. These participants must have been guided by being aware that they needed each other in this task. It can be noted that S5 attempts to relate to the commonly eaten food in South Africa as she attempts to provide an explanation to a question that had been posed by a group member. This shows an affective aspect of using translanguaging. S5 knew that for her point to be understood she had to use a familiar example to her group members that is why she uses the *diphahlo* analogy. The 'Ubuntu' found among people propels individuals to become absorbed into the collective, yet retains an identity as an empirical being (Makalela, 2017) However, in most cases students' 'Ubuntu' is stifled because students are not allowed to exercise it in groups and this includes when they are not allowed to use their languages during discussion.

These participants approached the task knowing that they needed each other for them to succeed in writing the individual writing essay. This is why every member of the group was important in their way despite the group's linguistic diversity. The fact

that translingual discussions among linguistically diverse participants proceeded without any distraction confirms the fact that languages are in fact not designated to particular groups of people as per political and nation-state ideology. Rather languages are fluid (Garcia and Li, 2014; Garcia, Flores and Woodley, 2012; Makoni and Pennycook, 2007, Li 2016) and can be used by anyone in any form as long as the speaker finds meaning in using the languages. Thus, when students work collaboratively using translanguaging there is no need to group them according to the same languages spoken. Results from this research have shown that participants were able to work cohesively and productively using different languages. It is however due to this observation that I argue that students can work effectively in linguistically diverse collaborative groups using translanguaging and reading comprehension will still take place.

5.5 Researcher's perspective based on observations in the classroom

During the group discussions, I was observing and taking note of noteworthy moments from the groups. Firstly, I deliberately did not ask the groups to elect group leaders who would moderate the discussion. Thus, students had to organize themselves and make their own rules on how the discussion would be conducted. However, although there were no elected group leaders there were individuals who took the opportunity to lead the group discussions. This assisted in maintaining order in the group and ensured progress in the group.

Given that, students were given the opportunity to use their own languages to discuss what they had read with their group members, one would expect them to divert from the main discussion and talk about other issues. My observations of the students were that they were determined to fully understand the articles and especially that when the discussions were in their own languages they made an effort to listen and seek for clarification from each other in order to fully understand the articles.

Notably, there was a common purpose for the whole process of discussion, which was the essay that they were supposed to write. From my observations, students used their own languages more than they used the English language to explain the essay question to each other. This was done so that everyone could understand what the question required of them. In essence, even though students were discussing by recalling and listening to each other about the articles they had read, they all focused on helping each other to understand what the question required of them. Therefore, the discussions were tailor-made to provide the answer to the essay.

Groups worked well; there was good collaboration among students. They all gave each other the opportunity to present what they had read to each other. It should be mentioned that using their own languages allowed all students to participate and contribute to the discussion. I noticed that students who usually were quiet and timid in class now were active and forthcoming during group discussions. These students were able to verbalise in their own languages what they had read. On this note, I took the time to observe the participation of international students in the class. In

particular, this class had two students from Zimbabwe and their home language is Shona. Although these students presented what they had read in English their group members further clarified the content to each other in their own languages. They would seek clarifications from their 'Shona speaking' group members and they would explain to each other in their own languages. When the other students were presenting in their languages the international students would again seek clarification in English until they understood the concepts. I observed a cordial relationship among students from diverse linguistic backgrounds where communication was smooth, and a shared goal of understanding the articles was the ultimate reason for such cohesiveness.

In the same vein, there were students who at first wanted to use English only during the discussion. Other group members who continued to seek clarification using other languages besides English neutralized this. Eventually, however, those students too began to utilise all languages at their disposal for discussion. I observed uninterrupted discussions in such instances.

As mentioned earlier on, students were expected to come to class having read an article after which they were required to explain to the rest of the group as if they were the 'experts' in that particular article. In addition, as they were presenting, the students were allowed to use any language to recall what they had read. On the other hand, the rest of the group would be listening and posing questions as and when the need arose. My observation was that the 'recallers' were well read in the articles on which they were presenting. I observed the excitement and commitment on the faces of those who were recalling what they had read to the rest of the group.

Their presentations too showed that they were well prepared to share what they had read to the group members. When compared to other group discussions that were assigned to students, my observations are that students enjoyed and participated more during the group discussion where they could use their languages to discuss than in group discussions where they were expected to use English only. This observation is based on a reading that was discussed in groups but was conducted in English. Although it was not part of this research, I noticed that students did not enjoy the group discussion as much as they did when they were allowed to use translanguaging. Students were not as focused and committed to this task as much as they were to the task where they used translanguaging.

This section has presented data based on observations from the researcher. The observations help to corroborate and support the data that was documented from the audio recordings and the focus group discussions. The following section will present data collected from focus group discussions. The focus group discussions were conducted using seven participants selected from the MBChB, BOT and BRAD groups. These participants had participated in the summary writing, questionnaire and audio recorded data. Thus, perceptions of these participants reflect the experience of using translanguaging during group collaboration activities.

5.4 Focus Group discussions

After the group discussions were conducted and recorded, a group of five students who were willing to participate was invited to participate in a focus group discussion. The intention was to follow up on the group discussions as well as the students' responses to the questionnaire. In order to have a wide range of responses, I selected one student per each group that had participated in the group discussion but their group members were not willing to be audio recorded. Thus, I had three students from the three groups that had agreed to be audio recorded during group collaboration activities as well as three students from groups that were not willing to be audio recorded but the individuals were willing and one who volunteered to be part of the focus group discussion from the BRAD group. I had seven questions that I had prepared in order to guide the discussion. The discussion was audio recorded and transcribed. The discussion was in English but not limited to English. This discussion was conducted outside class time because the students have busy lecture schedules where they can only break during lunch time, that is, between 1 pm and 2 pm. I asked students to attend the focus group discussion once a week during lunchtime. For seven consecutive weeks, we discussed one question per session. Pseudonyms have been used to present data from the focus group discussion. This is meant to protect the identity of the participants as prescribed by research ethics

As mentioned in chapter 3, focus group discussions were conducted as a follow up to the participants' responses to the questionnaire. The verbal discussions with a selected group of participants were meant to elaborate on the opinions about the

intervention i.e the group discussions as well as the use of translanguaging during the discussions. Five participants were willing to participate in the focus group discussion sessions. This section will discuss and analyse the participants' views based on their responses to the questions.

Seven questions guided the discussions; however, the discussions were not strictly confined to the question guide. Participants were given the opportunity to freely express themselves during the discussions. The researcher was able to follow up and seek clarification where it was necessary on some of the responses from the participants.

Analysis and discussion will be done per question and focus will be on the general perceptions of participants per question. A full version of the focus group discussion is available in Appendix E.

Question 1 intended to find out participants' feelings after using translanguaging during group discussions. Participants showed a general sense of happiness when they were allowed to use their own languages to discuss. The major highlight from the participants' responses is that they expressed a sense of security found in the use of their languages in class. When English is imposed on them as the only language to be used for discussion, students feel that they become limited in terms of expressing themselves.

From the focus group discussion, Tumi bluntly says that when discussions in class are confined to English that portrays him as someone who is 'dull' when in actual fact he is being limited by the language used at that particular moment. He says:

Tumi: *Nna [Setswana] I know that my English is not so good, so when discussions in class are conducted in English I can't participate I am always afraid to say wrong things in English. Ha ho, joalo ha ke tsebe empa (It is not as if i do not know but) English limits my participation. Therefore, when I am allowed to use any language to discuss I feel relaxed and learning becomes interesting to me.*

In addition, Sandile points out that he feels more confident to express his ideas using his entire linguistic repertoire. In addition, he feels that if he is restricted to using one language (English) the other languages in his repertoire are being undermined. Sandile says:

Sandile: *Maam if only we were allowed to use our languages for discussion it will help me especially to understand. I feel more confident in myself if I can explain to my friends what I have read. I know we write examinations in English and English is the business language but eish it's not my mother tongue also it is difficult for me to express myself in English. I am a 'die-hard' African ma'am and I love my language.*

From these responses, it is important to consider that multilinguals have a single linguistic repertoire, which includes two or more languages (Garcia and Li, 2014) from which they select linguistic features that they need for communicative purposes. Thus, when students are forced to use only one linguistic feature from their repertoires it is tantamount to rendering these students linguistically 'impotent'. Forcing students to use only one feature (English) does not take into consideration the potential in their multilingual nature and it definitely undermines other languages as Sandile says. In fact, according to Sandile, all languages in his repertoires should be accorded the same recognition. One of the tenets of translanguaging

corroborates these sentiments. Translanguaging theory dictates that languages should not be viewed from a hierarchical point of view (Garcia and Li, 2014) rather they should be treated as equal and fluid.

Tumi's response reflects an analogy of a situation where a motor vehicle is expected to move and transport passengers to a destination when one of its wheels has been removed. Similarly, if a part of the student's linguistic repertoire (i.e. if one language) is taken away from them they are rendered to be academically incompetent. Whereas, when they are allowed to utilise their full linguistic repertoires as multilinguals they will be able to perform better than when they are restricted to using one language.

Canagarajah (2011), points out that multilinguals possess funds of knowledge, which are useful in their learning. What is required is for multilingual students to be recognised and acknowledged as academically capable.

In addition, subtractive bilingual models of teaching have been proven no longer suitable to cater for the 21st-century classrooms (Garcia, 2009b) where students possess a conglomerate of languages in their repertoires. Translanguaging is the suitable model that will embrace multilingual students as academically capable beings because it recognises all languages to be useful and equally important in leveraging students' academic abilities, especially during group discussion.

It is important to note that the responses of the participants in this focus group discussion showed that they wish to use translanguaging and that from their experience of using translanguaging they were able to understand concepts better.

There is, however, scepticism to use their full linguistic repertoires among students because English has been elevated to a superior status in society. This puts students such as Mxolisi in a difficult position, where on the one hand they are convinced that they can understand read material when they discuss this with peers using translanguaging. On the other hand, it has been instilled in them that English is the only language that can guarantee them academic success. Mxolisi says:

Mxolisi: *Although I think discussing in my language helps me to understand better; English is mostly used because it is from the superpowers so we have to use English le Hoja ka linako tse ling ho utloisisa ho thata [Setswana] although understanding it is difficult sometimes. Using my language for discussion makes life easier for nna [Setswana] me.*

Such students, eventually conform to societal norms and resort to the monolingual use of English even if they are inadequately prepared to do so, they do so in order to attain their academic goals. What needs to be considered is the fact that these students bring awareness of their own multilingual potential to succeed academically and this awareness enhances their desire to apply their full linguistic repertoires in their education (Klapwijk and Van der Walt, 2016).

Students do not just bring their multilingual awareness into the classroom; they also bring academic capabilities based on their multilingual nature. It is important to note that the multilingualism brought by the students is not a deficit but rather an advantage to their cognitive abilities (Canagarajah, 2011). It is therefore important for lecturers to use or allow translanguaging during discussions as a guiding principle for classroom practices. This would support the learning of multilinguals, especially by

enhancing their comprehension of the academic material. The undoubted fact that needs serious consideration is that the current linguistic landscape does not make monolingualism a norm (Harfenick and Wiant, 2012), especially in institutions of learning. In fact, lecturers should adopt the new shift and re- turn (Makalela, 2015, 2016, 2017) to multilingualism.

The 21st century has seen an increase in the mobility of people (Garcia, 2009a) across the globe. Due to this movement of people, transnational students have become the norm especially in institutions of higher learning. This research had one participant from Zimbabwe whose linguistic repertoire is dominated by the Shona language. However, when asked about how she felt about using translanguaging during group discussions, she pointed out that she does not have a problem listening to her group members presenting what they had read in Setswana and isiZulu.

She says:

Kundai: *I am a foreign student but my language is Shona (Zimbabwe). However, I try to learn and understand other languages so that I can contribute to group discussions. I can say although cannot speak any other language besides English I can understand when my classmates discuss in Setswana and Zulu especially. Therefore, when Setswana or Zulu are used for discussion I do not mind listening to my friends although I cannot speak the languages.*

Kundai acknowledges that even though she cannot speak Setswana and isiZulu she could understand both languages that were used for discussion by her group members. Her group members benefitted from her role as a 'recaller' but she also benefitted from her group members. Makalela (2017) uses the Mapungubwe

civilisation to show that different languages that were used among the people reflected mutual interdependence and a porous discursive system of existence. Such mutual interdependence of languages can be used to organise multilingual classrooms. It is important to mention that Kundai's situation represents Garcia's (2009b), the metaphor of a four-wheeled motorbike that is designed to endure different linguistic terrains (see *Chapter 2 figure, 2.2: 30*). Kundai was able to adjust and adapt to the linguistic diversity in her group, she benefitted from the process, and the same can be said about her group members.

It is important to note that the linguistic diversity in my classroom did not deter me from organising a translingual approach to teaching. Rather, this was used as a strength to ensure that students benefitted from using translanguaging during discussions to enhance their comprehension of the academic text that they were assigned to read. If the Mapungubwe settlement of the 13th century (*a full explanation is in Chapter 2: 56*) proved to be the strongest hub of civilisation of the time without the use of English during the conducting of business, what makes English today to become the only key to academic success? It should be noted and acknowledged, however, that English is used as a lingua franca; it also serves as a communicative resource in business and industry especially where some languages are not mutually intelligible. My argument is that the English language should not be the only language used for teaching and learning rather, it should be used with other languages to enable deep understanding of academic concepts in students.

Ndlhovu (2017) provides a befitting description when he refers to the standard ideology about languages, which was brought by colonialism. The standard ideology labelled the English language as the 'orthodox' language. Therefore, making it the 'linguistic currency' (Klapwijk and Van der Walt, 2016), required for purchasing an

academic success. Those students found in classrooms and do not possess the required proficiency in the English language are considered to be in need of academic remedial action (Ndlhovu, 2017). Responses from students such as Kundai show that with translanguaging during group discussion dismantles the walls that were created to separate languages and allow the interdependence and fluid nature of languages to manifest in students and allow them to understand concepts. English should be seen as a language that forms part of a multilingual's linguistic repertoire and should be used by the speaker just as any other language to allow for meaning-making and understanding of concepts requires it.

Undoubtedly, translanguaging is an inherent part of multilinguals especially when they are faced with situations that require them to make meaning from academic material (Garcia, 2009b; Canagarajah, 2006; Li, 2016). That is to say, multilinguals engage in translanguaging even when lecturers have not mandated them to do so (Ngcobo, 2014; Garcia and Li 2014; Boakye and Mbirimi –Hungwe, 2015). The fact that multilinguals have a translanguaging instinct that propels them to keep afloat in their academic endeavours should prompt lecturers to shift their bias towards multilingualism. In his response, Sandile says he is a 'die-hard' African and he loves his language and he feels some satisfaction when he is allowed to use his languages for learning purposes. This shows that language is a form of identity that students value. Thus, even though multilinguals have a translanguaging instinct which they use to understand difficult concepts, even in instances where lecturers insist on using English, translanguaging may be used by students to affirm their identity as well as for solidarity with other speakers of their language. Kamwangamalu (2001) notes that many students consider their home languages as symbols of their identity. If a monolingual ideology to learning is perpetuated in classrooms, it will result in a

two-fold stifling of students. Firstly, they will be stifled from freely using their linguistic repertoires to make deep meaning of academic material. Secondly, they will be subdued by manifesting their identity. It is important for lecturers to consider this and allow students to manifest themselves linguistically in a dignified manner. In addition, students need to feel comfortable and they need to have a sense of belonging in the classroom in order for them to learn effectively.

Question 2 asked for participants' responses on whether they had benefitted from the group collaborative activity through translanguaging. This question required participants to respond and give their perceptions in relation to the class activity that I had tasked them to do. From the responses, Tumi responded by relating her own experience with the English. She says:

Tumi: *Yes, I think if only we could discuss all we that we read in our languages it would make life easy for some of us. Sometimes we fail because the language that is used is difficult for us to understand haholo-holo ho 'na ke ne ke loana ka English bakeng sa matric. [Setswana] especially for me I struggled in English for my matric.*

Tumi acknowledged that understanding academic concepts in English is a difficult task for her. The reason being that she has always struggled with understanding concepts in English even when she was in high school. The reasons for poor performance especially in reading comprehension in South Africa were discussed in detail in Chapter 1: 4-6. Poor teaching methods have been the major reason why many students struggle to read and comprehend texts especially when they enrol at university (Currin and Pretorius, 2012). The problem is compounded when students

enter university and they have to read huge amounts of more complex academic articles than they did at school (Boakye and Mai, 2016).

Having Tumi, concurring with what the literature says about the poor reading situation in South African schools highlights the fact that a shift in the mindset of especially teachers and lecturers is required. If students such as Tumi (who represents many students) see the benefits of using translanguaging during group discussions to help them to comprehend texts then it is advisable to allow students to use it. When students are allowed to express ideas, they would have read in their home languages they develop critical thinking skills that will enable them to write in the second language because they would have deeply understood the reading material through discussion (Fu, 2003). Tumi points out in her response that she understood the articles on viruses much better when she discussed them with her group members in her home language. Similarly, students find using translanguaging for discussion after reading a text as a way of enhancing their understanding. If only students could be allowed to use a translingual approach to discussing texts, they would understand texts better. Consequently, this would avert the high failure rate dominating South African universities now. Instead of using orthodox remedial methods (that have not been solving the problem) to improve students' reading comprehension, students' languages can rather be used to enhance their reading comprehension. In simple terms, multilinguals possess the solution to the problem; all that is required is to allow the manifestation of the solution by allowing them to use translanguaging during group discussion.

Tsepo brings out the fact that his group used Siswati, Zulu, Xitsonga and Setswana to discuss concepts from the articles. He, however, mentions that not all languages that were used for discussion by his group members are his home languages but he

could understand the concepts that were being discussed by his group members. Tsepo says that his home language is Tshivenda. Even though Tsepo claims that his home language is Tshivenda, he confirms that he is proficient in all the languages that were used by his group for discussion. This allowed him to be able to understand the articles as they were discussed by his group members.

Tsepo says:

Tsepo: *It might not be the mother tongue ma'am. Like in my group, we used Siswati, Xitsonga, Setswana and Zulu to discuss the articles. Even though none of those is my mother languages, I was comfortable discussing in any of those languages because you know it was better to understand the articles when we discussed in those languages than in English.*

Students like Tsepo, who possess many languages in their linguistic repertoires such that they can use those languages to understand concepts without even using their so-called home languages, confirm the question that has been raised by the critical post structural sociolinguists. Garcia and Li (2014), emphasise that multilinguals' use of languages has no boundaries due to their single linguistic repertoire that consists of several languages. A linguistic repertoire is an integration of different language practices that are available to know and do. The same applies to students like Tsepo. Such students have acquired different language practices from social interaction and those languages comprise their linguistic repertoires. If Tsepo was able to select linguistic features from his repertoire that were appropriate for him to contribute and make sense of the articles he had read without using his home language, is there the need to have languages to be labelled L1 and L2? From Tsepo's response languages that were used for discussion by his group members were not labelled in order of L1, L2 and so on. Rather, all the languages in Tsepo's

repertoire reside in a single form and they are not labelled in sequential order. Tsepo selected linguistic features that were relevant for meaning-making despite the fact that they were not his L1. In fact, by using translanguaging during group discussions Tsepo was afforded the opportunity to take control of his language practices to access meaning from the texts he had read and to acquire knowledge. The response from Tsepo shows that indeed all multilinguals are translingual and not native speakers of a single language (Canagarajah, 2013). Thus, the emphasis on using one language to understand concepts is asking for the impossible from multilinguals. Instead, translanguaging accommodates multilinguals because it goes beyond a static definition of languages as pure and rather allows for the fluid use of languages depending on the needs of the speaker.

Question 3 sought to find out if participants benefitted from group discussions. Responses from participants of the focus group discussion show that they feel that group discussions are convenient for them on condition that they are well organised. Sandile confirmed that he benefitted from his group because his group gave him an insight into how to answer the essay question. However, he points out that discussion groups can become ineffective when some group members do not contribute to group discussion. Sandile points out that his group worked well. (*refer to Appendix E for a full version of the conversation.*) They benefitted from the group discussions because there was a spirit of wanting to show off their knowledge of what they had read because they had been labelled as 'experts' of the articles they had read.

Sandile says:

Sandile: *It depends on the group ma'am. I was lucky to be in a group where the discussion helped us to know how to answer the essay question. So in this group, I benefitted but some groups it's not useful because some members would not have read they just want to listen to other people discussing.*

Having translanguaging during group discussions is what Lewis *et al* (2012) refer to as the pupil (student) directed translanguaging where students take control of the discussion with the benefits in mind. When multilinguals find information by reading or discussion with others they will be able to make meaning using their linguistic resources. Thus, as confirmed by Sandile, their group was able to make meaning through discussion among themselves and this helped them to become prepared to write the essay. Translanguaging strategies such as group discussions promote a high sense of self-efficacy as students regulate their learning (Velasco and Garcia, 2013). Sandile confirmed the self-efficacy in his group members when he acknowledged that students used their roles as 'experts' during discussions to 'show off their knowledge of the articles.' They used the opportunity of being the 'experts' in the articles to share their knowledge interpersonally with the 'listeners'. Thus, it gave them the confidence to share ideas and knowledge.

He says:

Sandile: *I don't know ma'am maybe people were excited about discussing as 'experts' and using our own languages. You know they wanted to show off that they knew a lot about viruses... [Laughter from the group] and everyone was prepared to play their part. Maybe, ma'am, I think that's the reason.*

It is thus, important to mention that even though the discussions were student directed the lecturer was involved in the planning of the activities. As mentioned

earlier on (Chapter 3 section 3.1) students had clear instructions on how to conduct themselves during the discussions. The lecturer insisted on having 'recallers' who were 'experts' in what they had read and listener roles rotated among the group members so that all group members had the opportunity to be both 'listeners' and 'recallers'. Lewis *et al* (2012), insist that even though translanguaging can be student-led it has to be done in a planned and orderly manner where the teacher moderates the process. From the responses from the focus group discussions, Sa Kundai acknowledged that because her group was organised as such she benefited from the group discussion. Kundai says:

Kundai: *Surprisingly, ma'am I enjoyed this one and I think I benefitted (I will see from my essay mark) [laughs] but I think it depends on how the discussion is set up. With this one, everyone knew they had a role to play either being the 'listener' or 'recaller'. This helped us to get clarifications of things that we could not understand when we were reading. So yaa ma'am the way you set it up made us benefit from the discussions...*

Thus, group discussions through translanguaging can indeed be effective to enhance comprehension of articles provided it is done in a planned manner.

Tumi responded to question 3 of the focus group discussion by raising an interesting but important aspect of reading that requires lecturers to pay some attention.

Tumi says:

Tumi: *I noticed gore [Setswana] that the topic Viruses is an interesting topic and many people wanted to share what they had read especially because like some of the viruses we had never heard of them. So yes, I think for this discussion ya Virus I*

benefitted. Some of the discussions I have not benefitted at all. I prefer to read for myself and make sure I understand without any discussion.

According to Tumi, she benefitted from the group discussion activity because the topic that they were discussing was quite an interesting topic. Many students struggle to comprehend texts because they are disengaged. Guthrie and Wigfield (2000), classify disengaged students as those who approach reading academic texts with avoidance. Such students could be those without the required reading skills due to a poor reading education background which made them become disengaged readers. Disengaged readers have low affective reading levels and they need to have their levels improved and developed (Boakye and Mai, 2016). According to Boakye and Mai (2016), assigning interesting texts is one way of developing engaged students and improve their affective reading levels.

However, I would like to suggest that in addition to assigning interesting texts to students it might be a useful strategy to allow translanguaging during group discussion of any assigned reading. As emphasised by Velasco and Garcia (2013), translanguaging during group discussion promotes self-efficacy. When students have a high sense of self-efficacy they are able to endure and overcome obstacles (Bandura, 1997) that they may face when they read academic texts. However, the starting point to help students develop the required self-efficacy is by assigning interesting texts that can be discussed during group discussions in a translingual manner. This will allow students to develop self-efficacy and most importantly help them to understand academic articles.

In his response, Tsepo acknowledges that the group discussion helped him to understand the articles. Tsepo mentions that most importantly he acquired more knowledge about viruses from the discussion he had with his group members and that he will never forget what he learnt from his group members about viruses.

He says:

Tsepo: *I agree with everyone that the way the assignment was structured made everyone to benefit because everyone had a role to play. The discussion groups forced us to drag each other along so that we could all understand the articles. I never used to think I could benefit from group discussion but ho bua 'nete [Setswana] (to be honest) I benefitted from my group I think they also benefitted from... [He points at himself laughing]*

According to the sociocultural theory (Vygotsky, 1978), knowledge is acquired in a relationship with other people before it becomes internalised. From what Tsepo says he managed to interiorise what he had read after the group discussion. From this discovery, it is safe to conclude that when students are exposed to translanguaging during a group discussion, the ultimate result is the internalisation of concepts. In this research, responses from students acknowledge show that they were able to comprehend the academic articles as a result of translanguaging during group discussions.

Lastly, based on question 3 of the focus group discussion, Tsepo concurs that the group discussion activity allowed them to help each other along as they explained concepts to each other.

.....The discussion groups forced us to drag each other along so that we could all understand the articles. I never used to think I could benefit from group discussion but ho bua 'nete [Setswana] (to be honest) I benefitted from my group I think they also benefitted from... [He points at himself laughing]

This confirms my earlier assertion that group discussions helped students to have a sense of belonging evoked by the 'Ubuntu' that exists in them. As confirmed by Tsepo students felt that they were responsible for each other and this enabled them to discuss effectively in their groups. In the process, students benefitted from playing both the 'recaller and listener' roles.

Question 4 asked participants of the focus group discussion if they were able to learn any new ideas or receive clarifications from their group members when they discussed the texts after reading it individually. Responses from participants such as Kundai and Sandile show that students acknowledge the importance of reading in relation to their academic endeavours.

Kundai: *In my opinion, new ideas and new understanding come during a discussion with others after reading on your own. Also, it works when you have read on your own. Some group members who had not read were getting lost in the discussion because they had not read the articles. So discussion helps only if you have read on your own.*

Sandile: *I agree with Kundai if I had not read all the three articles, I would not have understood most of the things about viruses. Of course, I understood better after discussing with my group members.*

From their responses, they acknowledge that for them to gain meaningfully from the group discussions they had to read the articles individually before discussing with their group members. These group discussions worked as reinforcements to their comprehension of the articles. Students need to understand that academic reading forms an integral part of university requirement (Boakye and Mai, 2016). Thus, they need to develop reading comprehension strategies and one of them is reading the required texts and discussing them with each other by means of translanguaging. Students should actually utilise their different linguistic resources to enforce the comprehension of texts. As acknowledged by Kundai and Sandile, discussing texts with friends in a translingual manner helped to them to understand what they had read. It is important to emphasise that using translanguaging during group discussion does not replace the need to read academic texts individually. Instead, group discussions conducted translingually work as reinforcement to the comprehension of the texts.

Tsepo, Mxolisi and Tumi concur that the discussion sessions they had in their groups helped them to clarify concepts that they had not understood when they were reading on their own.

Tsepo: *Yes, like for me I got many ideas especially for the essay of which if I did not discuss with my group I would not have known about those ideas. When I was reading on my own I did not understand how the virus works in the human body now from discussions manje ngiyazi izinto eziningi ezifana no lytic cycle [Zulu] (I now know a lot of things like the lytic cycle) (laughs).*

Lecturer: *How was the lytic cycle clarified for you to understand better than after you had read on your own?*

Tsepo: *It was clarified that the virus enters the body and they use enzymes of the cells to reproduce and attack each other. So, in other words, I virus lisebenzisa amacells omzimba ukuze ahlasele i-in order to multiply the virus. [Zulu] (the virus uses body cells to attack each other in order to replicate the virus). I never knew about this until it was clarified during group discussion.*

Mxolisi: *Yes, ma'am I do and I think Tsepo covered it nicely for me. I also had things clarified during group discussions. For me you won't believe it I had never heard of the Dengue virus so my group members explained it to me and now I know what it is.*

Tumi: *My group helped me to understand that there is a difference between a virus and bacteria (laughs). All the time I was reading about viruses I thought it was the same as bacteria until someone asked the difference in my group and that is when I realised that I was wrong. So yah ma'am haeba e ne e se ka group discussions [Setswana], if it was not for the group discussion, nka be ke sa tsebe phapang [Setswana] (I would not have known the difference).*

These participants confess that when they were reading on their own they struggled to understand some concepts until they discussed the articles with their group members by means of translanguaging. It is important to emphasise that many students enter university with low literacy levels, such that they are not prepared to cope with academic tasks such as reading (Yeld, 2009) (see *Chapter 1: 3*). Many students who enter university read at a basic or intermediate level.

According to Yeld (2009), students who read at a basic level or intermediate level face academic reading challenges when they enrol in university. In the same manner, students like Tsepo, Mxolisi and Tumi, are often those students who face challenges in comprehending academic texts that they are expected to read. These

students as mentioned earlier might have attended schools where the importance of reading was not emphasised (Pretorius, 2000) hence students did not read as much as is required enough to help them to comprehend texts. Yet these students manage to find their way into university but still have reading challenges (Grabe and Stoller, 2011). These students do not require lecturers to teach them the basics of reading comprehension. More importantly, such students need to be made aware of the importance of identifying main ideas from the texts (Grabe and Stoller, 2011). Furthermore, these students require lecturers to plan group discussion activities where they can use translanguaging to help them understand concepts. Thus, besides the fact that some students lack the required literacy proficiency they have linguistic resources that can help them to leverage their academic capabilities. It is important, therefore, for lecturers to be flexible, tap, and most importantly utilise the linguistic resources that students possess to help them cope with the academic reading challenges that they may have.

It is important to note that the three respondents, i.e. Tsepo, Mxolisi and Tumi in the focus group discussion admitted that the group discussion helped them to clarify concepts that they had not grasped when they were reading the articles. Tsepo declared that if it were not for the group discussions he would not have understood what a 'lytic cycle' is in relation to viruses. The same applies to Mxolisi, who understood about the Dengue virus through group discussion, and lastly, Tumi did not know the difference between bacteria and virus until this was clarified during group discussions. These three respondents represent a large group of students who read individually and because there is no one to help them clarify some concepts with them, they end up failing to comprehend texts.

However, when students are allowed to use translanguaging during group discussions they are able to sojourn with group members and jointly understand what they would have read (Swain, 2000). In addition to clarifying concepts to each other, students can also focus on explaining difficult vocabulary to each other thereby enhancing the understanding of the reading material. Tsepo did not understand the meaning of 'lytic cycle', a phrase that was used in the virus articles to explain how the virus works. The phrase lytic cycle was explained during the group discussions and group members used their diverse linguistic resources to explain to each other until they could all make meaning from the texts.

Lastly, regarding question 4 it can be suggested that there are two groups of students found in many classrooms. There is the group that is represented by Kundai and Sandile; such students may not be struggling with reading comprehension. This can be seen from the way they respond by saying that even though the group discussions enhanced their understanding of the texts, from their point of view they had understood the texts by only reading on their own.

Kundai: *In my opinion, new ideas and new understanding come during a discussion with others after reading on your own. Also, it works when you have read on your own. Some group members who had not read were getting lost in the discussion because they had not read the articles. So discussion helps only if you have read on your own.*

Sandile: *I agree with Kundai if I had not read all the three articles, I would not have understood most of the things about viruses. Of course, I understood better after discussing with my group members.*

On the other hand, there are students such as Tsepo, Mxolisi and Tumi, who struggle to comprehend texts. However, such students could understand the texts better when they discuss them with others. Having these groups of students in the classrooms should prompt lecturers to use group discussions using translanguaging where non-proficient students who read at basic level (Yeld, 2009) fuse with the proficient or academically prepared and they then help each other to understand concepts. This is possible when lecturers plan group discussion activities and allow students to use their linguistic resources to discuss and clarify concepts to each other. Based on the finding from the focus group discussion it can be safely said using group discussion through translanguaging is indeed effective to help students to comprehend texts. The use of translanguaging during group discussion helps to bridge the social gap created by the use of English only. When there are two groups in a class where one group struggles with comprehending academic texts and the other is managing to understand, and the lecturer does not put measures in place to help the struggling group, learning is hindered. Unfortunately, many lectures are employing a divisive strategy in many multilingual classrooms where those struggling to comprehend texts are relegated to academic failure while those who cope are let to proceed academically.

Question 5 from the focus group discussion schedule asked participants if they faced communication challenges based on the fact, their groups spoke different languages. Responses reveal an interesting aspect of multilingualism. See the responses below:

***Mxolisi:** I speak seven of the South African languages so for me I do not struggle communicating with people wherever I go I can communicate. So I did not struggle*

to communicate with my group members because I understood most of the languages.

Sandile: *I can speak all the 11 official languages in South Africa but I can also speak French and now I am learning to speak Shona (laughs).*

Sandile and Mxolisi reveal that they did not face any challenges in communicating with their group members because they can speak in 11 and 7 languages respectively. In the same vein, Tsepo says that his home language is isiZulu but his group mostly used Xitsonga for discussion but he was able to move along with the group discussion. When one considers the example of these students, it can be noted that Sandile uses 11 languages that constitute his linguistic repertoire and among the languages, English is one. When Sandile contributed during the focus group discussion, there was no evidence to show that he was mentally confused by having 11 languages accommodated in his brain. Rather, Sandile confesses that all the languages work to his advantage because he can appropriate them where necessary in order to make meaning. Examples of multilingual students such as Sandile exist in many classrooms and evidently, there is no competition between one language over another (Garcia and Li, 2014) as these students appropriate knowledge and meaning of academic materials. Sandile has benefitted from being multilingual in that he has been able to understand concepts using his entire linguistic repertoire. It is also important to note that Sandile's multilingual nature does not only benefit him in his communication but he uses his linguistic repertoire to develop language practices that are valued and of assistance for academic purposes (Garcia and Li, 2014).

In addition, it is important to note that there are students represented by Tsepo, Kundai and Tumi.

Kundai: *I am Shona speaking and I come from Zimbabwe but what I have noticed is that when I listen carefully I can understand many of the languages that my classmates speak. Although I can't speak the languages, I could understand and I was asking questions in English getting responses in many languages but I could figure out what they were saying. So our communication was not hindered in any way. Though I am still learning some of the languages.*

Tumi: *I speak Siswati and very few people speak Siswati on this campus. So when I was allocated to a group with different languages being spoken I was a bit worried. But my group members tried to accommodate me by using Zulu. I can understand Zulu very well because it is almost the same as Siswati. Vele even though my group used Setswana during the discussion I did not struggle to understand because I could ask for clarification where I did not understand. My group members were so caring (laughs) sasebenza kahle ndawonye [Siswati] (we worked very well together).*

Tsepo: *Mina ngumuZulu [Zulu] (I am a Zulu) but many people do not know because my Setswana, Sepedi, Xitsonga, English and Xhosa are very fluent so I didn't have a problem communicating with my group members.[see **Appendix E for a full conversation between the lecturer and Tsepo]***

These students face situations where their home languages are in the minority by virtue of them being spoken by a few people around them. Kundai speaks Shona as her home language and Shona is a dominant language in Zimbabwe. When she is in South Africa, many people do not speak Shona. The same applies to Tumi. She

speaks Siswati and Siswati is not widely spoken in Gauteng, which is where her university is situated. Lastly, Tsepo is isiZulu speaking but because Setswana is the commonly spoken language in Pretoria, he had to conform to the dominant languages. These students understood that there were languages that were dominantly spoken in their groups they had to conform to using those languages for the benefit of themselves and their group members. These students did not attempt to use their languages to compete with the dominant language in their group discussions instead they became 'critically conscious' (Janks, 2000) of this fact and they were able to develop tools to engage with their groups. Kundai says that she managed to use her listening skills to understand her group members and when she could not understand she sought clarification using English. In this sense, Kundai created a translanguaging space where she allowed herself to make meaning of concepts using the different languages around her. Li (2011) refers to translanguaging spaces where linguistically diverse students are able to co-construct their language expertise depending on their linguistic repertoires, recognise each other as useful resources, and act on their knowing and doing. Thus, when lecturers face linguistically diverse classrooms where some languages are dominantly spoken over others it is important for them to allow a translanguaging space where they allow students to use the language practices that would allow them to negotiate meaning with their classmates (Li, 2011). Insistence on the monolingual use of English fails to take into account the language practices possessed by students, which are useful in understanding concepts.

Question 6 intended to source out students' perceptions about being allowed to use their languages during group discussions. Responses from participants show that

they were generally happy and they felt some comfort in knowing that their languages could be used for purposes of learning. Sandile, for example, expressed his surprise when he was asked to use translanguaging for group discussion.

Sandile: *Maam at first I was shocked that you asked us to use our languages to recall what we had read to our group members. I thought at university it's only English that is allowed to be used in class. So when you asked us to recall what we had read in our own languages, I felt proud of myself being able to read in English and explaining to my group members in Xitsonga. [see the full conversation in Appendix E]*

Sandile bluntly says that he never thought that any of his languages were qualified to be used for discussion for academic purposes except English.

Many students have a strong belief in the importance of English for academic purposes (Klapwijk and Van der Walt, 2016). This belief by Sandile and many other students emanates from the generally acclaimed perception that English holds the key to success academically, in life and work (Heugh, 2007). This perception has led many students to believe that other languages especially their home languages cannot be used for purposes of learning except English. When Sandile noticed that he could acquire knowledge by using other linguistic resources that he possesses, he claims that he felt comfortable and he felt proud of himself that he could read articles in English and could explain in one of his languages. It is therefore important for lecturers to note that 'Education is about acquiring knowledge and not learning about English' (Brock-Utne, 2010). Thus, indisputably, students can learn concepts in any language that they bring to the classroom; what is required is the creation of

translanguaging classrooms by lecturers. Translanguaging during group discussions will assist multilinguals to appropriate their full linguistic repertoires and make deep meaning of texts. After all that is important is for students to acquire knowledge in spite of the language used to do so.

Tsepo and Mxolisi too responded to question 6 of the focus group discussion expressing feelings of confidence in themselves. For example, Mxolisi says that he felt confident in himself just because he managed to read a text in English and was able to explain what he had read to his group members using a language that he felt comfortable to use. In addition, Mxolisi said that after he successfully explained what he had read to his group members, he noticed that his proficiency in the English language is 'not that bad'.

Mxolisi: *Ma'am that was something I will never forget I felt like very confident of myself. It showed me that I had understood the text if I could explain it in my own language. Also, I noticed that my English is not that bad because I read in English and managed to explain in Setswana.*

It is important to note that because English has been separated from other languages it has endowed higher status compared to other languages. Now, when students notice that English can be used for learning together with other languages, they begin to realise that they can use all languages in their linguistic repertoires to make meaning as and when it is suitable for them. This will reinforce their confidence and it results in them using other languages to support the English language thus resulting in an improvement of their proficiency in the language (Lewis, *et al* 2012). I would like to suggest that when languages are treated separately, students' will be forced to go against the natural flow of the single linguistic repertoire that they

possess. In this regard, insisting on the separation of languages is going against multilingual students' natural inclination of utilising their full linguistic repertoires. Thus, it is important for lecturers to consider shifting their mindset and allow students to incorporate the English language in their linguistic repertoire and use it the same way as other languages to acquire knowledge.

Question 7 asked students' views on whether lecturers should allow them to use translanguaging during group discussion. All students agree that if lecturers allow them to use translanguaging during group discussions it will assist them to understand texts better. However, some students expressed some scepticism of the use of translanguaging during group discussions citing that even though they discuss in their languages they will still be required to write examinations and assessments in English. For example:

***Kundai:** Ma'am I am just thinking about our tests and assignments. We have to write in English so if we get used to using our mother tongue too much we will struggle when we are writing in English. So yes, lecturers should allow us to use our mother tongue but we should also remember that we will be tested (examined/assessed) in English.*

***Tumi:** English is the language of business ma'am. In as much as it is fine to use our mother tongue to discuss but like Kundai is saying English will always be used for our learning so we should not be too relaxed and want lecturers to allow us to use our own languages always. We should learn to use English but also lecturers should not be too strict with us because English is not our mother tongue.*

These students confirm the fact that they have accepted the fact that English is the 'linguistic currency' for obtaining the cultural capital afforded by tertiary education (Klapwijk and Van der Walt, 2016). This mindset has been acculturated in many students in South Africa. Responses from the participants show that students see and they acknowledge the benefits of using translanguaging during group discussion to enhance the comprehension of texts. However, students remain entangled in a dilemma because English still holds a high status in the academia when compared to other languages because it is the language used for assessment. What is required is an initiative driven by classroom practices through lecturers that would support multilingual learning strategies rather than continue with the monolingual perspective that privilege one language over the other. A translingual approach during group discussions needs to be adapted to allow students to use their full linguistic repertoires for meaning making and deep understanding of concepts.

Mxolisi represents many students in South African universities.

He says:

***Mxolisi:** For me ma'am I think lecturers should allow us to express ourselves in our mother tongue. Isn't it there is freedom of expression moss? (Laughter) Why can't we express ourselves freely when we are learning? I think lecturers should consider that learning becomes more interesting if we learn in languages that we understand better. Ma'am Afrikaans speakers can learn in Afrikaans, so what about us?*

Mxolisi strongly feels that the South African constitution affords him the right to freedom of expression and that right should be expressed for academic purposes.

Mxolisi submits an important aspect that requires language policies in universities to

be reconsidered. Currently, the constitution of South Africa through the Language Policy for Higher Education (LPHE) affords all 11 languages to be recognised for purposes of teaching and learning in higher education. In fact, the policy states that consideration should be given to the development of other South African languages for use in instruction as a strategy to promote multilingualism (Department of Education, 2002). In addition, the policy stipulates that languages should not act as a barrier to equity and access. While an admirable policy exists at a glance, which should ensure the recognition and promotion of multilingualism, many institutions (Maseko, 2014; Makalela and McCabe, 2013) have not implemented the plan. Maseko (2014) cites the lack of strategies to monitor tertiary institutions for compliance with the provisions of the policy.

Due to such challenges, a monolingual status quo has been maintained in many institutions of higher learning. It is, however, concerning to note that the monolingual use of English does not only deprive students of academic success but also it is a form of social injustice. As mentioned earlier on, many students feel a sense of identity from the use of their languages for learning purposes, depriving students of using their languages for learning is denying them of their identity. On the other hand, a translanguaging approach to learning takes into consideration the speaker's language practices (Garcia and Li, 2014) and allows the students to utilise their entire linguistic practices for purposes of learning thereby upholding their rights to expression. It is, therefore, imperative for policymakers to start ensuring that measures are put in place to monitor institutions so that multilingualism is recognised and acknowledged as a vehicle towards academic success for students.

5.5 Conclusion

This chapter has analysed and discussed the results of the study. Since the research used a convergent parallel mixed method, results from both the quantitative and qualitative data sets were analysed in a parallel form in this chapter. Analysis and discussion of the quantitative results were proffered followed by the qualitative description of the quantitative data from the questionnaire. A qualitative analysis and discussion of the audio recordings as well as the focus group discussion were presented. The following chapter, (Chapter 6) intends to converge the results of the research and interpret the results. The chapter will interpret results from both strands of data by presenting the convergence, divergence, contradictions, or relationships based on the results (Cresswell, 2009; Cresswell and Plano Clark, 2011).

CHAPTER 6

Interpretation of results

6.1 Introduction

This chapter aims to interpret results emanating from the study in an integrative manner. Since the research is a convergent parallel mixed method design, data strands (both qualitative and quantitative) were collected separately, analysed and discussed separately too. However, the data will be integrated in this chapter. The main purpose of integrating data is to examine research results gathered from both qualitative and quantitative forms in order to generate deep structure conclusions (Castro and Nieri, 2008). In addition, the conclusions will convey enhanced explanations beyond the sole use of a qualitative or quantitative approach (Castro and Nieri, 2008). In fact, this chapter will report on an integrated form of explanations emanating from data collected from results from written summaries, participants' responses from the closed-ended questionnaire as well as themes emerging from the group discussions and focus group discussions. The ultimate aim is to come up with conclusions to answer the research questions of this study.

It is also important to note that during the interpretation process the results from the two strands of data will be compared to identify convergence, divergence, contradictions, or relationships (Cresswell, 2009; Cresswell and Plano Clark, 2011). These will be presented and conclusions will be drawn based on this. In order to integrate the data common themes across the data will be interpreted.

6.1.1 Convergence from results

The aim of this study was to establish the effectiveness of using translanguaging during collaborative activities. Group discussion was used for collaboration among participants and results from both strands of data show that participants' comprehension of the assigned texts was enhanced after the intervention. This interpretation is because written summaries results show a significant difference between the performance of the treatment group and the control group. The treatment group performed better than the control group in the summary writing activity with a t-stat that is less than the t critical ($-6,64247 < 1,663884$). The t stat is indeed less than the p-value of 0.5. This interpretation is corroborated by participants' responses to the closed-ended questionnaire where an average of 82% of participants agreed with the statements from the questionnaire. Eighty-two percent of the respondents agreed to the benefits of using translanguaging during group discussion especially about enhancing their reading comprehension.

In addition to this, participants of the group discussions who were audio recorded show that the process of recalling what they had read and using their own languages or repertoires helped them to understand the texts better. The audio recordings exhibited a process where participants could pose questions to each other to clarify concepts that were difficult to understand. The recallers were able to extrapolate the main ideas of the texts they had read and presented to the group members. In order to confirm the audio recordings results, questions from the focus group discussions asked for verbal expressions from participants about the effects of using translanguaging during group discussions on their comprehension of the articles. The verbal responses confirm that participants understood better what they had read

after discussing the text content in their groups using translanguaging. There was also confirmation from the verbal responses during the focus group discussions where participants expressed their wish to be allowed to use their languages to discuss academic texts because from their experience that would help them to enhance their comprehension of texts. The four sets of data that were collected from both qualitative and quantitative strands suggest that participants confirmed the benefits of using translanguaging during group discussions to as a vehicle towards the comprehension of texts.

One of the factors that define translanguaging especially for pedagogical purposes is that it allows the students to use their full linguistic repertoires to make meaning of complex material (Garcia and Li, 2014). In this sense, the linguistic profiles of the participants in this study show that they are multilinguals and for that reason, they used all languages at their disposal during group discussion to make meaning of what they had read. The fact that the treatment group performed better than the control group in the written summaries indicated that by using their linguistic repertoires during discussions participants could understand the text better and ultimately produced written summaries of higher quality than their counterparts from the control group did.

When one looks at the responses to questions (questions 6-10) on the questionnaire that specifically asked participants whether they agree to have used translanguaging to understand the articles, the responses concur that participants used all the languages at their disposal and they managed to understand the articles. A glance at the audio recordings indicates the use of various linguistic resources during

discussions for participants to understand the texts. Participants demonstrated the use of all languages at their disposal for meaning-making. There was a mesh of all languages available in the process of meaning-making. It is also important to mention that the English language also formed part of the mesh of languages that students used. Thus, it can be suggested that even though students use their linguistic repertoires to discuss academic content, English forms part of the repertoire that helps them to make meaning of academic material.

The focus group discussions enabled a verbal confirmation from participants that if it were not for the group discussion conducted in languages that they understood better than English, they would not have been able to fully understand the articles. Because participants were given the opportunity to discuss articles in a translingual manner, they confirmed that they could understand the articles better than when they read individually and had not discussed.

Orthodox teachers (*see chapter 2: 37*) for a long time have alleged that when bilingual students use their home languages to understand English concepts they become mentally confused. The rationale has been that languages should be treated as separate entities that have no connection even though they reside in a multilingual brain. However, results collected from both qualitative and quantitative strands for this study differ from such assertions, in the sense, that there was no mental confusion reported or observed among participants after discussing articles in their languages. During the audio recording discussions, participants could relate to what they had read in English, as well as explain in their languages and during the process participants also made an effort to use what they had understood to apply it

to what the essay question required. The essay was to be written in English and the students were not in any way confused about this.

In addition, when the focus group discussion was conducted, participants did not indicate any fears of confusion after reading articles in English and discussing them in their home languages. In fact, responses from the focus group discussions demonstrate happiness and a sense confidence in most of the participants after being able to read articles in English and being able to recall and discuss them in their languages with group members. The fact that participants' self-efficacy in the comprehension of the articles was enhanced shows that no mental confusion was experienced by using translanguaging to discuss and understand the English articles. In fact, results from the study confirm the fact that languages in a multilingual's mind dwell in a single repertoire without interference with each other (Makalela, 2016; Garcia, 2009; Garcia and Li, 2014; Baker, 2007; Bock and Mheta, 2014) (*see chapter 2: 37- 40*).

Despite the verbal confessions from participants to benefitting from translanguaging during group discussions, the statistical analysis of the summaries written by participants panoply that there was no 'commotion' in the participants' minds. In fact, participants wrote the summaries in English after having discussed the main ideas of the summary using other languages besides English. Participants used their entire linguistic resources to support their understanding of the article they had read. In addition, they used the support to write good summaries that included most of the main ideas of the text that they had read. In all the summaries that were written by participants from the treatment group, there was no participant who confused

languages in writing the summaries, rather all summaries were written in English as was required even though discussion of the main points of the article was done in their home languages. This finding concurs with Baker (2011) (*cited in Chapter 2: 45*) who purports that when students read a topic in the target language (English in most cases), discuss the main ideas of the topic in other language(s) and write about it in the target language means that the subject matter has to be processed in the mind. The result of the processing has cognitive benefits to the multilingual students where the languages at their disposal reinforce the target language in order to increase understanding (Lewis *et al*, 2012) (*cited in Chapter 2:45*). The same is confirmed by the responses to the questionnaire where participants agreed that the use of translanguaging augmented their understanding of the articles. Thus, the use of translanguaging during group discussions assisted students to comprehend the articles.

Instead of multilingualism to be a source of confusion and poor academic performance among students, results from this study suggest from both strands of data that participants' academic performance was enhanced when all languages in their repertoires were used. In this case, it appears multilingual students actually become mentally confused when they are coerced to use one language when they know they have many languages that are active in their minds and these languages can help them to understand the academic material. I, therefore, want to emphasise that when multilingual students are 'duressed' to become monolinguals by lecturer's insistence on using English only it causes 'linguistic trauma' in their minds and this ultimately results in academic failure. Preferably, students should be allowed to use their linguistic resources to understand concepts. Teachers should understand that

multilinguals are not linguistically 'dull'; instead, they know how to regulate their use of language as and when it is required. Therefore, they should not be restricted from using their full linguistic repertoires especially during group discussions for fear of creating confusion in their minds or fear of them confusing languages when they write academic essays or when they respond to examination questions.

In relation to this, during the focus group, discussion participants registered their concern that even though they are allowed to discuss academic articles using their languages they will still need to use English to answer examination questions and to read and write essays. Students are worried about the 'linguistic currency' (Klapwijk and Van der Walt, 2016) possessed by the English language for them to obtain a tertiary qualification. However, students, on the other hand, believe that they benefit from using their own languages to understand the concepts that they need to explain in English during the assessment. In other words, they are aware of needing all languages including English. The only predicament faced by these students is not being able to place the English language at the same level of importance as all the other languages in their repertoires. In this case, it takes lecturers to understand as well as impress upon students that in as much as English is the language used for assessment they can still use other languages for meaning-making and understanding of concepts. It should be emphasised that the use of translanguaging does not remove or replace the English language as a language required for academic purposes. Rather, translanguaging is concerned with all languages in a multilinguals' repertoire being utilised for a deep understanding of concepts. In this study when participants were discussing the articles they had read, English was

indeed being used together with other languages as students tried to make meaning of what they had read.

When considering results from data collected from both qualitative and quantitative strands, there is convergence showing that the use of translanguaging during group discussion can be implemented successfully at the classroom level. This helps students to understand concepts and this understanding supports them and helps them to succeed in writing their assessments. Even though the language of teaching and learning (LOTL) is English at SMU and many other universities in South Africa, translanguaging during discussion at classroom level in this study was used to support the production of the written summaries in English, which is what is expected at the policy level. The questionnaire responses also show that participants concur to having been supported during the group discussion through translanguaging in order for them to understand the articles which they needed to write essays in English. Similarly, students during the group discussions who were audio recorded indicated that they knew that what they had discussed in their languages was supposed to help them to write an essay in English. They even discussed and helped each other with the outline of the essay that was to be written in English using their languages. During the focus group discussions as well, participants expressed how the discussion in their languages had helped them to clarify concepts that they did not understand and the clarifications helped them to have a clear picture of what the essay required of them.

Thus, these results consent to the fact that using translanguaging during group discussion was and can be used to support students to understand difficult concepts

that they need to succeed in their assessments. What is required is for lecturers to use translanguaging at the micro level (Baldauf, 2010), that is, at classroom level in order to leverage students' academic abilities. As mentioned earlier in Chapter 1 section 2.2.1: 6 language policy transformation at the institutional level to promote multilingualism is not being implemented and may take a long time to be adopted by many universities in South Africa. Inevitably, students will also continue to face academic challenges that result in high academic failures.

I, therefore, propose that transformation should begin at the classroom level and help students to attain the required academic achievement. Instead of lecturers lamenting and reporting academic failures caused mainly by the monolingual use of English, it is advisable to create 'translanguaging classrooms' (Garcia and Kleyn, 2016) that support students' academic requirements. The utilisation of the translanguaging *corriente* (Garcia and Kleyn, 2016) cited in Chapter 2:42 found among multilingual students in a planned way such as during group discussions will also help to support students to comprehend texts. Thereby, ameliorating academic challenges caused by non-comprehension of concepts that they need to succeed during assessments.

Accordingly, translanguaging during group collaboration can be used to support the academic success required of students at university. Instead of attributing university success to competence in the English language, all languages in a multilingual's repertoire should be credited for enhancing understanding of concepts even though assessment is done in English. After all, the English language also forms part of the multilinguals' repertoire, which does not make it more important than the other

languages. This can be initiated at the classroom level as suggested by the results of this study.

Translanguaging considers languages within a multilingual form as a single linguistic repertoire (Garcia and Li, 2014; Garcia, Flores and Woodley, 2012). It is from this repertoire that multilinguals appropriate suitable components of the repertoire to make meaning. Thus, from a translanguaging view, there is no L1, L2, L3, etc. all languages are equal. In fact, a translanguaging lens views the enumeration of languages as a colonial construct that was meant to build nation-states (Makoni and Pennycook, 2007; Ndlhovu, 2017; May 2014; Garcia and Li, 2014; Makalela, 2017). Results from the data collected concur that indeed students selected what was required for them to make meaning of reading materials as and when it was required. During group discussions students were not grouped according to the languages they spoke at home rather, the groups were linguistically heterogeneous. However, discussions were conducted as participants went back and forth explaining to each other using the language resources that were available to them. English was also formed part of the languages that were used for discussion.

The summary results show that participants from the treatment group performed fairly well with a mean score of 57% as compared to the control group with a 37% mean score. Thus, the treatment group had an advantage over the control due to the use of translanguaging during group discussions. Concepts could be understood better by using various explanations provided during the group discussion. This can be corroborated by results from the questionnaire where participants mostly agreed that their groups worked well even though they spoke different languages. During

audio-recorded group discussions, participants did not focus on strictly using their home languages to discuss the articles. Where it became necessary, some participants used languages that helped them to understand the articles even though the language was not their home language. According to the participants, the focus was not about whether their home languages were being used, rather it was about them using the entire linguistic resources available for them to make meaning of what they had read as well as what was being discussed by the group. The focus group discussions confirm this when some participants during the focus group discussion session (Chapter 4: 169) divulged that they used languages that were not their home languages for discussion because their focus was on understanding concepts and not the language used for discussion.

Thus, in multilingual classrooms the focus among students should not be about the home language it should be about allowing students to utilise the linguistic resources among them to understand concepts. If participants in this study had focused on languages in order of L1, L2 or L3 they would not have worked cohesively during group discussion to understand concepts. It was also going to be difficult for them to discuss and understand the main ideas of the texts. Consequently, the treatment group may not have been able to produce good summaries as they did. Rather, students considered each other's linguistic resources and used those to understand concepts. Even in cases where there were foreign students participating in group discussions, fellow group members accepted and paid attention as the foreign students recalled what they had read in English. Clarifications were sought using other languages in order to affirm and understand what had been presented in English.

Questions and clarifications were requisitioned in various languages and group members helped each other to clarify concepts until all group members came to an understanding of the concepts. If L1, L2 or L3 had played a significant role during translanguaging for these participants, the group discussions in this study would not have worked as well as they did. It would have been chaotic, as group members could have demanded the use of their home languages or their L1. However, due to the interrelatedness of languages and the single linguistic form languages take in a multilinguals mind, participants were able to transcend the politically and culturally erected linguistic boundaries (Garcia and Li, 2014; Li, 2016, Makoni and Pennycook, 2007; May 2014) and were able to work towards understanding the articles and pulling each other along. The propensity of the social cohesion perspective of collaborative learning (Battisch, Solomon and Delucci, 1993; Cohen, 1994) *cited in Chapter 3:65* is what propelled participants to go beyond languages and focus on working together for the common goal of understanding the articles. In essence, what sustained the group discussions and supported the summary writing and the group discussions was not the enumerated languages. Rather, it is the 'Ubuntu' (Makalela, 2015) that guided the participants as they collaborated and negotiated meaning using suitable and appropriate components of their linguistic repertoires to understand concepts.

Instead of lecturers perpetuating monolingualism and alleging that the use of translanguaging, especially during group collaboration is inapplicable to the South African context due to the linguistic diversity existing in classrooms. They should view multilingualism as an asset possessed by students. All that is required is for them to allow the 'Ubuntu' in multilingualism to manifest in students.

Results from this study have shown that translanguaging during group collaboration is effective in helping students to understand read material, in particular formal, academic or scientific material. In fact, it is due to the linguistically diverse nature of participants in this study that allowed them to understand concepts as they were explained from different perceptions using various languages. The linguistic diversity among students may have forged a deep understanding of the articles, as the students were able to explain to each other using various language practices. I would safely assert that translanguaging during group discussion is not a divisive catalyst among multilinguals, but rather a unifying factor associated with academic benefits to students. What is required is for those benefits to be tapped.

Reading comprehension has been portrayed as one of the major challenges faced by many university students. The major reason for this has been poor teaching methods at primary school level (Currin and Pretorius, 2010) (see *Chapter 1:5*) and a lack of the development of a culture of reading from the primary school level (Pretorius, 2010). These problems have been shown to spiral and affect students' academic literacy skills especially at university (Boakye and Mai, 2016). This may be true considering the high failure rate reported in South African universities and research that point to the poor performance of students, especially concerning academic reading.

However, bearing in mind the results of this study, one needs to consider that there was an improvement in the understanding of articles by participants from the treatment group, which their summary writing scores confirmed. Students responded to the questionnaire and showed that they understood the articles better after using

translanguaging during group collaboration. Evidence from the group discussions shows that students worked hard to explain concepts to each other until they understood the main concepts from the articles. Verbally, during focus group discussions participants agreed to the benefits of using their linguistic resources to help them grasp concepts, especially during group collaboration. Some participants precisely refer to concepts from the articles they read that they would not have understood if it were not for the group discussions. With all data, corroborating to the benefits of using translanguaging during group discussions it is clear that reading comprehension problems among university students can be addressed by incorporating translanguaging and group collaboration in teaching. Many researchers have conceded to the benefits of using translanguaging (Boakye and Mai, 2016; Mbirimi-Hungwe, 2016; Anderson, Kagwesage, and Rusanganwa, 2012; Mazak and Carroll, 2016; Makalela, 2015; Madiba, 2014) to improve understanding of concepts in reading at university. What is required is for lecturers to adopt a translanguaging mode of teaching and salvage students' poor academic performance due to reading comprehension challenges. For me, based on this study's results, translanguaging is more effective when incorporated during group discussions for students to understand read material. My assertion is based on the sociocultural theory (Vygotsky, 1978) which dictates the need for social contact during learning. In particular, participants in this study have confirmed the advantage of using translanguaging during group collaboration (social contact) to enhance reading comprehension of academic articles.

This section has shown how the results from qualitative and quantitative data converge in explaining the effectiveness of using translanguaging during group

collaboration especially using group discussions. There is also a convergence between the results of this study and what the body of literature posits with regards the use of translanguaging during group discussions to enhance the reading comprehension in multilinguals.

However, there is a need to mention that there is some incongruence identified between the data strands of the results of this study and the literature concerning how multilinguals use translanguaging. The following section will unveil the divergence and attempt to explain the disparities, which were also articulated.

6.1.2 Divergence from results

Although results from this study show convergence between the two strands of data collected as well as with the literature, it is important to mention that results from this study show a divergence from both the data strands and the existing body of literature with regards to using translanguaging during group collaboration to enhance reading comprehension.

The literature has pointed to the fact that when multilingual students are faced with difficult material, especially complex reading material they usually resort to using 'unmandated' translanguaging in order for them to understand concepts (Canagarajah, 2011; Klapwijk and Van der Walt, 2016; Van der Walt and Dornbrack). The use of translanguaging is an instinct found in multilinguals (Li, 2016, Garcia, Johnson and Seltzer, 2016) and whether lecturers allow it or not multilinguals will always resort to using translanguaging in order to support their understanding of

academic material. Williams (2012) refers to this as *natural* translanguaging and Baker (2012) calls it *pupil directed* translanguaging.

In this regard, there is evidence based on available literature that students do use translanguaging naturally with or without specific instructions from lecturers to use it. However, in this particular study, participants from the control group were not instructed to use their languages to discuss the main ideas of the article rather; specific instruction was given to use English during discussion since this was an English task. However, it can be assumed, based on the literature available, that they might have used translanguaging during their group discussions in order to understand and clarify concepts from the article they had read even though they had not been asked to do so. This raises the question that that requires an explanation. If multilinguals instinctively use translanguaging especially during group discussions in order to understand concepts, why is there a significant difference in the performance of the control group and the intervention group in the written summaries? One would assume that both the control group and the intervention group would perform the same in the summary writing exercise due to the instinctive translanguaging that they would have applied. Results from the written summaries could have shown a non-significant difference in the performance of the two groups. Instead, there is a significant difference between the performance of the control group and the intervention group. This finding shows some divergence between the literature and the results of this study.

However, although further research is required on this matter I would like to explain this discrepancy. Students who participated in the control group might not have

discussed the main ideas of the text in detail because they restricted themselves to using English because they were not given the mandate to use other languages besides English. It is important to reminisce about the fact that people are creatures of habit (Bourdieu, 1990). Perhaps the control group struggled along in English because it has always been expected of them to do it in English and so despite being in a group they were just passive and never thought of using translanguaging in their discussion. If they did use translanguaging during their group discussion, they did it behind the lecturer's back (Van der Walt, Mabule and de Beer, 2004) which was not enough to help them to understand the article and the main ideas. The reason being that they have been acculturated to believe that the English language possesses the 'linguistic currency' (Klapwijk and Van der Walt, 2016) that is required for them to access academic success. This might have restricted their understanding of the article because instead of using their full linguistic resources to support the deep understanding of the article they stuck to using English which resulted in a shallow (King, 2007) understanding of concepts.

Hence, even though multilingual students possess a translanguaging 'instinct' (Li, 2016) the instinct can become suppressed because students are inclined to accept the dominant linguistic status that is held by the English language and the belief that for them to be successful in their academic endeavours they need to use the English language. Students also may take into consideration the fact that the assessment was to be written in English thus, they would rather use English to discuss the article. The indisputable fact based on the results show that students from the control group did not perform well in their summaries and the major reason being that they were

not able to extract the main ideas of the article. The reason for this could be that they did not understand the article well enough to put together good summaries.

Results from this study drive home the point that it is not enough for lecturers to assume that students use translanguaging, in any case, to discuss difficult concepts, therefore, they will understand what they read. It is important for lecturers to bear in mind that many students have been instructed for a long time to speak English even during group discussions and so they too may just assume that they should use mainly English. If they do translanguage they may do so guiltily and thus do not participate fully. They attach too much status to English and do not use it as a mere tool to achieve their goals. It is thus, advisable for lecturers to be proactive and give explicit instructions to the students on the use of translanguaging during planned group collaborative activities. Most importantly, students should be allowed to use translanguaging in class during the assigned collaborative activities. This will affirm students' confidence in using translanguaging to enhance their understanding of concepts. Consequently, it will leverage the translanguaging 'instinct', which can be used to deeply understand concepts. If lecturers do not give students the mandate to use translanguaging during group discussions, they lose the opportunity to clarify concepts to each other successfully as well as manage the task correctly because their linguistic repertoires will be restricted from making meaning of their learning due to the use of English only (Storch and Wigglesworth, 2003). I, therefore, would conclude that translanguaging during group discussion results in comprehension of articles if it were a planned activity by the lecturer. It is also important to conscientise students on the importance of using their linguistic resources to understand the academic reading material.

It is of paramount importance to mention that according to the findings of this study, participants concur and confirm that due to translanguaging and group collaboration through discussion they were able to understand the scientific articles that they were assigned to read and understand. Results from the summaries written by the treatment group also confirm that students indeed had understood the article they had read. However, these results show a difference, especially from the questionnaire responses, where some participants indicated that they still find reading to be an appalling activity even when allowed to discuss with friends in languages they felt comfortable. This was also confirmed during the focus group discussions where some participants pointed out that some students had not read the articles and this was evident during the group discussions where they could not make meaningful contributions.

One of the advantages of using translanguaging during group discussion has been that it allows students to become engaged in knowledge acquisition. They also improve their self-efficacy and are able to self-improve (Velasco and Garcia, 2013). For university students, one of the ways to acquire knowledge is through reading academic texts. However, many students become disengaged from reading academic material because of various factors. One of the reasons for disengagement from reading is lack of comprehension (Guthrie and Wigfield, 2000). If students do not understand what they read they do not enjoy reading they, therefore, disengage from reading. The results of the questionnaire with regards to students' views of reading show that some students, despite using translanguaging

to discuss what they had read, are still disengaged, readers. They do not enjoy reading. Results from the focus group discussion show participants expressing joy and feelings of relief when they were allowed to use translanguaging during group discussion; they also concur that they understood the articles better. However, there is still incongruity in the responses from the questionnaire because some participants still feel that reading is not interesting. As a researcher, I had anticipated that using translanguaging during group discussion, comprehension of articles would be enhanced. I, therefore, envisaged that participants could also improve their attitude towards reading. Discovering that some students even after experiencing translanguaging during group discussion and acknowledging the benefits, they still do not enjoy reading was not anticipated.

In this regard, further research can be conducted to find out how disengaged students can become engaged readers who enjoy reading. In the meantime, one explanation for lack of interest in reading could be their poor school backgrounds. As reported by Pretorius (2010) poor schooling backgrounds where reading was not emphasised results in students who struggle to cope with reading especially at university level. This divergence in the results can be explained firstly by acknowledging the presence of disengaged readers (Guthrie and Wigfield, 2000) among students who enter into university. The other reason could be lack of exposure to the pleasure of reading or a reading culture at home and school (Currin and Pretorius, 2010). If students come from homes where parents are unemployed or earn very little buying books is very low on the list of priorities food, clothes, a roof over the head, school fees are more important. Boakye (2012) reports on how socioeconomic factors affect students' affection in reading. Another explanation could be that students find the assigned readings boring and too difficult to read and

understand (Boakye and Mai, 2016). Given all these factors, further research is recommended to find ways of assisting disengaged students.

Translanguaging is still in its infancy in the field of applied linguistics and there is a dearth of research in the field, especially at the university level. However, this study, results have revealed that translanguaging can be used effectively during group collaboration discussions to enhance a deeper understanding of concepts contained in academic articles. There is corroboration from the quantitative and the qualitative strands of data to show that participants benefitted from using their full linguistic repertoires to understand concepts as shown in the summaries that were produced by the intervention group. The majority of the participants' responses to the questionnaire also exhibit a positive perception of the use of translanguaging during group discussions and this was confirmed in the focus group discussion sessions too. Ultimately, the results from both strands of data show convergence in attesting to the effectiveness of using translanguaging during group collaborative activities.

6.2 Conclusion

This chapter has presented data from the two strands of data being integrated. The integration of the data has seen more convergence than divergence in the results. It should also be noted that not only the data corroborates but there is also a synergy between the data and the existing body of literature. This synergy between data strands enables the researcher to come up with in-depth conclusions. It is, however, important to acknowledge that there is some divergence in the data as presented in

section 6.1.2: 264 of this chapter. This divergence will too allow some conclusions to be drawn.

The next chapter will present the conclusions drawn from the integration of the data. Based on the conclusions drawn, recommendations and limitations will be presented too. A research model will also be unveiled.

CHAPTER 7

Conclusion, Limitations and Recommendations

7.1 Introduction

The previous chapter (Chapter 6) presented integrated data from the qualitative and quantitative data emanating from this study. The integrated data was also interpreted in relation to the research question of this study. As per the prescripts of the research design for this study, an interrogation of the results showed both convergence and divergence and these were interpreted too. These will be used to come up with in-depth conclusions and recommendations.

The purpose of this chapter is to draw conclusions from the interpretations provided in the preceding chapter. These conclusions will be used to provide recommendations for further study as well as recommending transformation in teaching practices that may benefit students. It is also important to mention that the conclusions will be presented in line with the research questions of this study. This will help to show if the study has addressed the problems as depicted by the research questions.

All research comes with limitations, thus this chapter will present the limitations that might have restricted from conducting the study.

7.1.1 Summary of the study

The purpose of this study was to establish the effectiveness of using translanguaging during group collaboration activities to enhance reading comprehension among first-year students. Using the convergent parallel mixed methods design, the research utilises data gathered using qualitative and quantitative strands. Data was collected separately and analysed separately until the interpretation stage. Data was collected using written summaries, a closed-ended questionnaire, audio recordings as well as focus group discussion. Results from the written summaries as well as responses from the closed-ended questionnaire were analysed quantitatively. Similarly, audio recording and focus group discussion data were analysed qualitatively. It was during the interpretation stage that the data was converged and interpretation of the data was provided. In relation to the interpretation of the data, there was a synthesis of data collected from both strands of data to show how the data corroborate with each other as well as with the existing body of literature. In instances where there was incongruence between the data and the literature, this was highlighted and interpreted from that point of view.

The study aimed to answer the following research questions:

1. Is the use of translanguaging during collaborative learning an effective pedagogic strategy to enhance reading comprehension?
2. How can lecturers use collaborative learning through translanguaging effectively to help students read and understand academic articles?

3. What are students' views on the use of translanguaging during collaborative learning?

7.1.1.1 Research Question 1

Is the use of translanguaging during collaborative learning an effective pedagogic strategy to enhance reading comprehension?

Results from this study suggest that when translanguaging is used during group collaborative activities students engage deeply with reading material and this results in enhancing their understanding of the material. Results from the written summaries show a significant difference between the performance of the treatment group and the control group. That is, those participants who were allowed to use translanguaging during group discussions performed much better than those who were not exposed to using translanguaging during group discussions. Likewise, responses from the closed-ended questionnaire confirm this because respondents generally agreed on the enhancement of their reading comprehension after using translanguaging during group collaboration where they discussed the articles they read. The audio recordings provided the researcher with the opportunity to listen to participants' discussions of the articles they had read. Based on the transcribed data presented, students used translanguaging during the group collaboration sessions to understand concepts as well as to clarify the task. Using the focus group discussion, the researcher enquired from seven participants if using translanguaging during group collaboration enhanced their understanding of the articles they had read. Respondents concurred and confessed that the use of translanguaging during group discussion helped them to understand the articles that they had been assigned to read.

7.1.1.2 Research Question 2

How can lecturers use collaborative learning through translanguaging effectively to help students read and understand academic articles?

This study used a combination of translanguaging and group collaboration to investigate their effectiveness in enhancing reading comprehension among first-year students. Results have suggested that lecturers can use planned translanguaging during group collaboration activities where students are assigned to become role players during the discussion. The study suggests that simply asking students to discuss academic articles in their groups has less effect (as shown in the control group) than when students are provided with proper guidance on how to use translanguaging during group collaboration. When students are assigned roles to become 'recallers' and 'listeners' it results in cohesive collaboration where every group participant works towards the accomplishment of their roles. This results in effective group collaboration and subsequent comprehension of the read material. Through the 'recaller' and 'listener' roles, participants were able to question each other and clarify concepts among themselves resulting in their comprehension of the articles.

Similarly, lecturers can actually use translanguaging during group collaboration to transcend the language boundaries created for political reasons. This study has shown that grouping students in linguistically heterogeneous settings help them

overlook the language boundaries and focus on attaining a deep understanding of the reading material. Also, by allowing students to collaborate using all languages spoken by group members it results in them understanding concepts from different language practices used by the group members. Thus, the study has shown that lecturers can use translanguaging during group collaboration activities by planning and provide explicit instructions to students. Students benefit more if the activities are well planned. In addition, lecturers can also use translanguaging during group collaboration to support students as they prepare for an assessment.

From this study, students used translanguaging to discuss and clarify the main ideas of the text they had read in preparation for the written summary assessment. Similarly, students were allowed to discuss the three articles on viruses in preparation for the expository essay. This assisted the students by providing them with the required comprehension to tackle the assessment activities. It also helped them to understand the requirements of the essay question such that they focussed on extrapolating main ideas that answered the question during their discussions. It is also important to mention that although students focussed mainly on answering the essay question during discussions, they also clarified some concepts based on the context of the texts to each other. For example, the concept 'lytic cycle' was explained in detail to those who did not understand it. There was clarification on whether viruses such as smallpox can transmit to unborn children the same way HIV does.

This study shows that by allowing students to discuss concepts among themselves using translanguaging there is an improvement in general understanding of texts.

Students' critical thinking skills are also leveraged as they challenge each other during clarification of concepts. So lecturers can use can indeed plan translanguaging using group discussions and allow students to propel their acquisition of knowledge using their linguistic resources.

7.1.1.3 Research Question 3

What are students' views on the use of translanguaging during collaborative learning?

Students' perceptions of the use of translanguaging during group collaboration were solicited using a closed-ended questionnaire as well as the focus group discussions. Data collected from both instruments show that students agree with the benefits of using translanguaging during group discussion especially with regard to reading comprehension. Students affirmed that they understood the assigned articles after they had discussed them in their groups by means of translanguaging. In addition, students' responses acknowledged that their collaboration groups worked cohesively with both 'recallers' and 'listeners' performing their obligations as the group members negotiated meaning from the articles. An analysis of the audio-recorded conversations attests to the fact that by using the various languages at their disposal students were able to explain, clarify and argue some points to their group members as they made meaning of the read materials. Likewise, during focus group discussions participants expressed confidence, joy and feelings of relief when they realised that they could understand what they had read and were able to discuss their views, understanding or difficulties with their group members by

translanguaging. Along with this, participants also acknowledged the cohesive collaboration they experienced during the process.

This study has confirmed that indeed students realise the benefits of using translanguaging during group discussions to enhance their reading comprehension. It has also confirmed the positive effects that the use of translanguaging during group discussion has on students both on their reading comprehension and on their confidence. Equally, the study has shown that lecturers can plan the use of translanguaging during group discussion as a strategy to help students enhance their reading comprehension, especially concerning academic texts.

7.2 Contributions of this study to the body of knowledge

This study has been able to provide answers to the research questions, it is important to mention how using translanguaging during collaboration activities contributes to the knowledge and understanding of higher education pedagogy. The use of group discussion has been a pedagogic strategy used by many lecturers. However, there has not been acknowledgement and utilisation of students' linguistic practices and repertoires in the use of group discussions. A monolingual bias towards English has been the norm. This research has contributed knowledge that translanguaging when used during group collaborative activities it enhances deep understanding of concepts in students. It underlines the need for further research into the implementation of translanguaging.

Firstly, translanguaging allows students to utilise their full linguistic repertoires for purposes of learning. A monolingual bias towards English deprives students of propelling their academic potential. Secondly, translanguaging can be used to support the use of the English language which is the language of teaching and

learning in many higher institutions of learning. Therefore, translanguaging does not separate languages and advocate for the use of home languages only rather it is a strategy that can be used to support learning in the target language i.e English. Translanguaging can thus be used to help students to prepare for tasks that will be written and assessed in English, however, the preparation can be done through translanguaging. Translanguaging allows students to understand concepts from their linguistic repertoires point of view hence allowing them to have a deep understanding of those concepts. The fact that translanguaging allows for an understanding of concepts using linguistic repertoires makes it imperative to acknowledge and incorporate in the knowledge that translanguaging does not only lean itself to “augment the students’ ability in all languages residing in their repertoires”. It is also a tool to “increase understanding of academic concepts” (Williams, 2002).

Affectively, translanguaging allows students to learn in a flexible linguistic environment where they can use their full linguistic repertoires to make meaning of material. It also gives them confidence to participate freely in classroom discussions. As mentioned by some participants in this study, students feel more relaxed when allowed to translanguage because they can freely draw from their linguistic repertoires for them to make meaning on concepts. Unlike in a monolingual use of English where some students may feel restricted to seek for clarification in order to understand if only English is used. In addition, translanguaging allows students to appreciate and learn from each other’s language practices. When students collaborate in a translingual manner they learn from each other both academic concepts as well as language practices.

Having said this, translanguaging as a theory defines languages as unbound and not enumerated and thus, should be used fluidly for pedagogical purposes. However, for learning purposes, translanguaging allows the use of all languages at the student's disposal for meaning-making and understanding of concepts. Therefore translanguaging views all languages as equal (since they form a single linguistic repertoire in the multilinguals mind). The call to implement the South African multilingual policy compliments translanguaging pedagogy rather than contradicting it. If students learn in any of the African languages translanguaging still allows them to utilise all the other languages in their repertoires for meaning-making and understanding of concepts. That is to say, if a student learns in IsiZulu that student can use English as well as other languages in order to understand some concepts if the need arises. Thus, translanguaging can allow the fluid nature of languages to become a reality by destroying the boundaries created by the nation-state ideology.

7.2.1 Tensions within myself

It is important, however, to acknowledge that even though in this thesis I have shown the effectiveness of using translanguaging through collaborative learning I have been caught between some tensions. Translanguaging is a theory that is situated within the critical poststructuralist (*see chapter 2 for detail*) paradigm; it advocates for the dismantling of languages boundaries and further asserts that languages were named and created for political reasons. In other words, translanguaging advocates for languages to become unnamed because of their fluid nature. During the writing of this research I had this knowledge at the back of my mind but implementing it in my writing of this thesis was difficult. In situations that I had to refer to 'IsiZulu speaker' 'Setswana home language' I felt that I was going against the tide of translanguaging which says languages should not be named and bound to specific people. On the

other hand, I had no proper and recommended way from the literature of referring to these languages without naming them or labelling participants using the languages they speak. The situation was exacerbated in situations where I had to count i.e. 'enumerate' and report on the different languages spoken by the participants. In a similar way, it felt again as if I was not convinced about the translanguaging theory because I could not practice what it propagates in its tenets. This was due to a lack of the alternative or the correct nouns to use when referring to languages. Also this raised the question; 'will it be possible in real life to escape labels based on language?' This tension may require further research and attention to find ways of resolving it. In as much as I am convinced about translanguaging being an effective pedagogic strategy more still needs to be done in order for many people to adopt it fully without reservations.

It is important for me to mention that people raise the question 'will students improve their English Proficiency if languages are mixed?' I however, believe that if students understand what they are learning, the confidence and relaxed attitude from being allowed to use their entire repertoire will ultimately also improve their English proficiency.

In as much as the study has shown the benefits of using translanguaging during group collaborative activities as well as the contribution of translanguaging to pedagogy in South Africa, it is important to acknowledge and mention that conducting this study posed some limitations to the researcher and these limitations might have affected certain aspects of the research. The following section outlines the limitations of the study.

7.3 Limitations of the study

The researcher's initial plan was to get video recordings of the group discussions. The aim was to get a visual expression of participants during discussions. The authorities did not permit this and I had to resort to relying on audio recordings. Although I could understand and follow the discussions, using audio recordings, I had presumed visual recording could enhance my understanding of the process such that I could report on the observations based on the recordings. Even though audio recordings were obtained, few students were willing to be audio recorded during their group discussions. Due to ethical principles and considerations, I could not record these students without their written consent.

Out of the six groups, only three groups agreed to be recorded. One of the groups whose views that I was interested in was a group that had Afrikaans speakers who were grouped together with Setswana and Sepedi speakers. As a result of the group not being willing to be audio recorded, the data in this study reports on the other language speakers excluding Afrikaans. The same applies to the focus group discussions. I was hoping to get views from the Afrikaans speaking participants concerning their experience of the group collaboration where translanguaging was used. None of the Afrikaans speaking students was willing to participate too. This hurdle has limited and confined my research to getting perceptions from students who were willing to participate and coincidentally it is only speakers of indigenous South African languages, as well as two more African languages, namely, Chishona and Siswati.

Although some students were not willing to be audio recorded during group discussions as well as focus group discussions, they were willing to respond to the questionnaire. However, because there was no identification on the questionnaire I could not match the responses on the questionnaire to those who had refused to be audio recorded. Therefore, I could not draw specific conclusions from these students about their views because of this.

Despite these limitations, the study went ahead and the data that was collected from both the qualitative and quantitative strands was enough to be analysed and provide statistical value. This also allowed in-depth conclusions to be drawn. The following section provides the conclusion and recommendations drawn from the study.

7.4 Conclusion and Recommendations

The purpose of this study was to ascertain the effectiveness of using translanguaging as a strategy during group collaboration to enhance reading comprehension among first-year students. Results have shown that reading comprehension is enhanced when students are allowed to discuss concepts using their linguistic resources. Responses from students based on the questionnaire and the focus group discussions have confirmed a positive perception. The majority of respondents indicated that they understood the articles that they were assigned to read much better because they were allowed to use their languages during group discussions. The research has also unveiled the effectiveness of planning group collaborative activities. Based on the results, structured/planned group collaborative

activities can be used successfully to help students achieve a deep understanding of the learned material. The study has undoubtedly established the benefits of social interaction using group discussions for the purposes of learning.

The study has also presented the advantages of allowing students to utilise their linguistic repertoire for purposes of learning. This has been concluded because multilinguals possess a single linguistic repertoire in which all languages reside without conflicting with each other. In fact, languages within a multilingual's mind work collaboratively to enhance the understanding of concepts. Unlike what orthodox teachers purport that multilingual education causes mental confusion in students. The study has shown suggested that instead; when students are forced to use one language to understand academic concepts they actually become confused. This is because all languages are active in their mind and only one language is being used. Thus, by forcing them to silence these active languages might actually confuse them. It is then important for lecturers, especially language lecturers, to adopt a mind shift and accept the benefits of multilingual education using translanguaging.

An important aspect that can be concluded from this study is that translanguaging does not disregard the use of the English language for teaching. Rather, the study has shown that all languages at the students' disposal (this includes the English language) can be used for learning and understanding of concepts. In addition, when students understand academic texts in their own languages it may improve their output language (English). The students help each other produce answers in English

and this, in turn, helps the students write summaries (and paraphrase) as well as essays.

When students understand concepts using the languages in their repertoires they can use the gained understanding to respond to assessments. Thus, languages within a multilingual's mind can be used to support the student to understand concepts that are important for success during the assessment. Understanding of concepts cannot thus take place during the assessment, but rather takes place when students are preparing for the assessments. Therefore, translanguaging during group collaboration can be used to help students to understand the academic material that they read before assessment. Consequently, lecturers can allow languages in a multilingual's repertoire to support each other and scaffold the content to be learned by allowing students to use translanguaging during group discussions. Separation of languages for academic purposes does not support a multilingual to learn; rather it exacerbates academic challenges, in particular, reading comprehension.

It is important to acknowledge that it is not feasible for lecturers to implement language policies in universities that transform and embrace the use of indigenous South African languages for purposes of teaching and learning. As outlined in Chapter 1 section 1.2.1: 5 the responsibility lies with the universities to adopt and implement existing policies regarding the recognition of indigenous languages. Consequently, there are no available practical measures put in place by the government to monitor the implementation. Given that, lecturers are the ones who

are in contact with students I recommend that in the meantime they create translanguaging classrooms that allow students to collaborate and make meaning of learned material. It is, however, proposed that in the end language lecturers need to lobby and advance the implementation of the existing language policies to be incorporated in the official LOTL in universities.

The study used health science students as well as health science reading material to ascertain the effectiveness of using translanguaging during collaborative activities to enhance reading comprehension. Many students understood the articles better in a group than when they had read them individually. The undoubted fact, based on research, is that students at university from all fields of study struggle to comprehend academic articles (Yeld, 2009; Boakye and Mai, 2015; Grabe and Stoller, 2011; Pretorius, 2012). It can be concluded that translanguaging during group collaboration is not a strategy that pertains to language lecturers only. Instead, I recommend that lecturers from other faculties adopt the strategy and help students to understand academic articles. This requires language researchers to raise awareness, advocate and convince academics from various fields of study to embrace the use of translanguaging especially during group collaboration as part of their teaching methodology.

The sociocultural theory posits that human learning is a social process that requires individual interaction with peers. This theory was applied in this research using collaboration during group discussion. The theory has proven in this study to benefit the participants to understand articles better. Students feel more comfortable

working and getting knowledge from their peers in a relaxed environment than when a lecturer is championing the process. Allowing students to share knowledge with each other without the interference of the lecturer provides students with a platform to make meaning of concepts. The opportunity to share in their languages what they had read to each other through group discussion boosted students' self-efficacy and it leveraged their understanding of the articles. That being so, lecturers may need to adopt a translanguaging approach using group collaboration and allow students to co-construct knowledge. Permitting students to learn through group collaboration using translanguaging may be a way of relieving students from being recipients of knowledge making them constructors of knowledge.

Allowing students to discuss read texts using translanguaging promotes self-regulated learning where students can check their understanding of texts by bringing in their language practices as well as their existing knowledge on the matter. If linguistic repertoires are not utilised fully some language practices that students possess are suppressed thus restricting their ability to relate to what they have read. Students from this study were able to relate to some aspects of their language practices thus enhancing their understanding of the articles. By relating their personal experiences in their languages regarding what they had read many students could make deep meaning of concepts. This also allowed the listeners in the groups to obtain better explanations of the concepts than if they had attempted working on their own. The collaboration together with the confidence resulting from being able to discuss the articles and difficult concepts in languages familiar to them further enhanced their understanding. This then points to the fact that when language practices and the existing or prior knowledge of students are incorporated during group discussions it results in a better understanding of concepts. The use of

translanguaging during group discussions amplifies students' understanding of concepts. Instead of confining students to reading texts that are sometimes so abstract to students that it makes them difficult to understand, lecturers can allow students to manoeuvre through their linguistic repertoires, language practices and existing knowledge until they make meaning of the texts. This can be achieved by adopting a translanguaging approach that allows group discussion. Lecturers can still require students to respond to assessments in English but at least by the time, they do so they would have worked out the essence of what the articles are about without also having to struggle to understand by using English only.

7.3.1.1 The transcollab model

Lastly, I recommend lecturers to adopt a transcollab model of teaching. The use of the name 'transcollab' is based on the combination of translanguaging and collaborative learning for pedagogic purposes. The translanguaging concept was first coined by Williams (1996) and later developed by Garcia (2009 a & b) and many other scholars are advancing the theory. Several scholars have used the collaborative model but this research used Slavin's (2000) collaborative model, which encourages peer tutoring, practice and assessment.

The transcollab model represents how lecturers can plan transcollab activities that can assist students to understand texts. The model represents the diversity found in classrooms where students come from different linguistic, cultural and social backgrounds (hence, the different colours of participants in the model as depicted in Figure 7.1 below). In fact, students should be grouped into groups where the group members speak different languages. The transcollab model does not require

students to be grouped according to the languages they speak. Instead, they should be grouped in linguistically heterogeneous groups. This assertion is based on the fact that translanguaging purports that languages are used as and when the speaker deems fit. So even though students may group among diverse language backgrounds they will understand and make meaning according to the language practices available to them at a particular time. Although some may argue that students need to be grouped according to their home languages during group discussion, (I am referring to transnational students) the challenge comes when there are students who do not share their home language with anyone in the classroom. It will not be proper and is tantamount to discrimination to leave them out of discussions just because they do not speak any of the languages spoken by their classmates, however, such students may be encouraged to think and contribute using their repertoires and practices so that they make meaning of what they would have read. Then they may present in English with their group members. Kundai from Zimbabwe shared her experience during the focus group discussion where she said she used her linguistic repertoire to make meaning of the text first before she could explain to her group members in English.

When students are tasked to discuss what they have read by assuming both the listener and recaller roles, each participant should be able to recall and explain what they have read as well as listen to other group members' contribution. Thus, all participants are expected to bring their understanding of the texts to the discussion while using their linguistic repertoires as well as their individual backgrounds to help each other clarify concepts. Thus, using the transcollab model every student possesses a useful linguistic piece of the puzzle, which they can share with the

group members. This results in a complete understanding of the text for all participants.

The use of the 'FnFnFn' band has been adapted from Garcia and Li's (2014) dynamic bilingual model (see *figure 2.5 Chapter 2: 37*). The model represents languages in a single linguistic system that depicts a multilingual's repertoire, that is, to show that languages in a multilingual's mind are not separate, even when they speak, all languages are active as they attempt to make meaning. Thus, during group discussions, all languages are active in the speaker's mind as they recall what they would have read. This allows them to select appropriate features of their repertoire to clarify and explain concepts. Hence, in the transcollab model, there are no named languages but the 'Fn' is used to represent the languages.

It is important to note that the transcollab model does not recommend the interference of the lecturer during the group discussion. The lecturer is responsible for planning the transcollab activity and to give specific instructions to the students. The students then become responsible for each other as they co-construct knowledge and gain a deeper understanding of concepts.

An illustration of the recommended transcollab model



Figure 7.1: The transcollab model

Lastly, based on the results of this study, I recommend further research to be conducted in order to establish what can be done to ignite interest in reading for students who do not enjoy reading. Results have shown that despite the majority of students declaring that reading has become interesting for them now that they know that they can discuss what they read with their friends using their own languages, other students. Although, they were few students in this study, who still find reading to be unpleasant. Research is required to find alternative ways of helping such students.

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APPENDIX A

Questionnaire

Dear Participant

Thank you for your willingness to participate in this survey. Your input is greatly appreciated, as it will assist in establishing ways of helping university students improve their reading comprehension. Kindly note that all your answers are important and no answer will be considered incorrect. I value your honest and sincere opinions. Please note that all your answers will remain anonymous. Even though your student numbers will be required on the questionnaire, they will only be used for tallying purposes. There are no disadvantages in responding to this questionnaire.

Please tick (using an X) the number that best reflects your opinion accurately

	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree		
Students' experience with Translanguaging							
1. When I read I discuss with my friends in other languages besides English in order to test my understanding of what I would have read	1	2	3	4	5	V1	
2. I understand texts better when I discuss concepts with friends in other languages besides English	1	2	3	4	5	V2	

3. When I do not understand some concepts in English I try to ask my friends to explain to me in other language(s) that I can understand	1	2	3	4	5	V3	
4. When assigned to do some group work we / I use other languages besides English to discuss the task	1	2	3	4	5	V4	
5. During class discussions the lecturer encourages us to express ourselves in other languages besides English.	1	2	3	4	5	V5	
Students' views on collaborative learning							
6. Discussing ideas from a text with group members helps me to understand concepts better.						V6	
7. The group discussions gave me the opportunity to express my understanding of the text in my own language						V7	
8. My group members worked well and always tried to help each other to understand the texts						V8	
9. Reading academic texts has become interesting because I can discuss with my group members using other languages besides English						V9	
10. My group discussed the texts using different languages besides English						V10	
Students views about the listener/ recaller roles							
11. I played the recaller role during class discussion						V11	

12.I played the listener role during class discussion					
13.Recalling and explaining what I had read to the class helped to understand the text better					

V12	

14.How many languages do you speak?

15.Which languages do you speak?

English	Sepedi	Setswana	Isizulu	Xitsonga	Isixhosa	Afrikaans	Tshivenda	Other specify
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16.Which of the type of schools below did you go to? Please tick the appropriate box

Township	Rural	Urban	Private
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Student number _____

Thank you.

APPENDIX B

Interview questions (Focus Group discussions)

1. How does it feel when you are allowed to use your mother tongue in an English class/lecture to express and explain ideas and concepts to your class/group members?
2. Do you think the use of your mother tongue for discussion after reading a text helps you to understand texts better?
3. Do you benefit from group discussions after reading a text?
4. Do you get any new ideas/clarifications from your group members when you discuss a text after reading it on your own?
5. Do the different mother tongues spoken by you and your group members hinder your communication and group discussion?
6. How does it feel when you are able to tell and explain to your group members what you would have read and understood from the text?
7. Do you think your lecturers should allow you to use you mother tongue (not insisting on using English) during class/group discussion? Why?

APPENDIX C

Letter of Consent

Dear Participants

My name is Vimbai Hungwe and I am a lecturer but also studying towards a PHD. In order to best inform my teaching practices as found in the body of literature on Translanguaging, I am conducting a research study. I am kindly requesting your participation in the research. The research requires you to participate by responding to a questionnaire and to participate in classroom activities that will be video recorded during lecture times. A detailed explanation will be provided before you fill in the questionnaire.

There is no harm in participating in the research, as your identity will be kept in confidence using pseudonyms. The video recordings will be used for purposes of analysing data only and will not be used against you in any way. However, consequently the researcher will be able to watch the videos after recording as she analyses the data from the videos.

You may or may not choose to participate in the research and your choice not to participate will be respected. There will be no consequences for choosing not to participate. If you are below the age of 18 and you wish to participate in this research, your parents or guardian should provide their consent on your behalf.

If you agree to participate in this research, kindly put your name and signature in the spaces provided below.

Kindly indicate your age in the space provided.

Thank you for your willingness to participate.

Kind Regards

Vimbai Hungwe

Participant's name _____

Participant's signature _____

Please enter your age

Are you above the age of 18?

yes

no

APPENDIX D

Group A

Results from a group that I called the Xitsonga group will be presented first. This group comprised of two Setswana speakers, 3 Xitsonga speakers and one Sepedi speaker. However, when they started their discussion they spoke in English trying to establish which language they were going to use during their discussion.

S1: She said we could use our mother language

S2: ai tirhiseni Xitsonga (let us use Xitsonga)

S1: loko hi tirhisa ririmi rahina vata hitwamhani lavaya? (If we use our mother language, is she (the lecturer) going to hear us?)

Although the students speak different languages among themselves, they were confident that they were going to understand each other among themselves irrespective of which language was going to be used. They were worried about whether their lecturer would understand their conversation.

Although there was no verbal consensus on whether Xitsonga was to be used for discussion, the conversation continued in Xitsonga. To start the discussion one of the group members called the group to order

S3: he guys ahi tshikeni kuhuwaha (guys let's stop playing)

S1: OK. Article 1 vavutisa kulike what is a virus, vathleva hlamusela structure xa virus na ku eh yi invade njhani ka host cell. (OK article 1 explains the structure of a virus and ehh how it invades the host cell).

S2: *ani hi fane hi explain no ingena njhani ka inani (we should also explain how it enters (the human body)*

S3: *Start from what is a virus*

S1: *ka article yo sungula (from the first article?)*

S3: *Yar (Yes)*

S2: *mmm ani laka article 1 ne, va hivutise ku what is a virus ne. so ansara yakona va kuri vathle vahi byela u virus I infectious microorganism leyi yi nga na DNA genetic make up, ya leyi nga, it can either be DNA or RNA so le yinga enclosiwa ka inani, genetic material yako yi enclosiwe ka protein covering, ivi so loko inani, vathla va hi byela ku microorganism leya virus, loo invade a host cell, leyi nga vaku bacteria, fungus and animal cell ne. Loko yi hijack genetic material ya inani ya host cell, laha se yi tetaku over kahlekahle, yisungula kusend ti message ka cell yaleyo ku yi fane yendla ti mmm ti cell tinwani. Yaa so loko se yi invade kwalhaya ku nankarhi lowu cell liya yinga ta break ne se lok yi break lhaya, ku tava kuri nat new viruses leti gat ava tiri kona.*

mmm, in this article 1 right, they asked us what is a virus right, so the answer is that it also tells us that a virus is an infectious microorganism that has a DNA...genetic makeup, that has, either DNA or RNA, that has been enclosed on the protein covering. They also tell us that microorganism of the virus, when it invades a host cell that can be, bacteria, fungus, and animal cell right, when it has invaded, it hijacks genetic material of the host cell, where it starts to take over actually, and it starts to sends messages to that particular cell that it should form mmm, other cells.

Yes, so when it has invaded there is a time that particular cell can break right, so when it breaks there, there will be new viruses.

S3: loko se yibreak lhayani ne... (So when it breaks there right...)

S1: loko se yi breaker yi ta create, yita humesa ti new viruses, leti nga attack ti cell se yva yifini cell liya. (So if it breaks, it will create, it will create new viruses, that can attack other cells, so that cell will be dead).

S3: He Caroline uleku nwi tweni Masingita la? (Caroline are you listening to Masingita?)

S2: Yaa I just want to say ivi vaku viruses enter a host cell ye enter host cell and process liyayi vitaniwa lytic cycle, laha kunga naabsorption (not audible) ku van a replication kuva assembly kava narelease se loyi I tava narelease se loyi I tava akha a hi hlamusela ti process le tiya ku tifamba njhani.

Yes I just want to say that the article says viruses enter a host cell in a, in a, okay it enters a host cell and that process is called lytic cycle, where there is absorption, (not audible), there is replication, there is release so this one (referring to the partner) will be explaining how these processes work.

S1: clears throat. Loko virus yi enter ka ticells ka ti body cell. Se kuna I type of cycles tahambana liya ya lytic cycle hiloko virus yinghena andzenika cell yi control a function of a cell.

(Clears throat). When the virus enters the cells, in the body cell. Therefore, there are types of cycles. There are different, the one of the lytic cycle is when the virus enters a cell, it controls a function of a cell.

S3: *Loko virus liya yinghena ndeni ka cell ne, yifika yi destroy the function of the cell, yi take over and then yi instructor that cell to replicate and then liya ya... (Not audible) yifika yi combine ti genetic instruction ta yona nata cell liya ivi ti divide.*

When the virus enters the cell, it destroys the function of the cell, it takes over and then it instructs that cell to replicate and then the one ... (not audible) then combines its genetic instruction of itself and that of the cell? In addition, they divide.

S1: *Se loko ti virus leti nwani loko se tiri lahaya ndei ka cell ti fika ti multiply, se ti huma tinwani tihuma ti human je vitani ti naked virus virus*

So when the other viruses are inside a cell they multiply, then they get out. The other ones get out and they just get out, they are called a naked virus.

S4: *O vulavulela hasi.* (She does not speak loudly)

S3: *A wuswi twangi swa mapela* (You seriously didn't hear it?)

S4: *A niswi twangi.* (I didn't hear it)

S3: *Loko tiri na, let's take kuri na influenza, that's why utwa ku vava laka e throat I mhaka ku virus liya yi va yi destroy ti cell. Se ani lahaya ka respiratory what-what, yi prevent ti foreign particles from ... loko ti cell letiya ti se ti disitroyekini, swi vula ku u tava kuri na runny nose.*

Let's take the influenza virus for example that is why you feel pain on the throat it is because the virus has destroyed the cells. So on the respiratory what what those cells would have been destroyed it means you will have a runny nose.

S5: *(laughing) hile ku switwisiseni.* (We understand)

S2: So very eh, ti virus leti nwani ti nga ha transpotiwa na hi vectors. Ti vectors ku ngava swilu leswi hambu virus yova yiri ndeni ka yona yona yinge vbyi, yo tirha kutransport tsena. So ku prevent kuti virus leti ti nga ngheni inside the body, kun a ti methods tinwani ti tirhisiwaku, a hi tona tsena maar very tinga pfuna ku ti hungusa ku ti virus ti spread from vanhu.

So, they say eh, vectors can also transport the other viruses. A vector can be something that can carry a virus but does not get sick; its duty is to transport the virus only. Therefore, to prevent these viruses from entering the body there are methods of preventing the viruses from spreading.

S6: Okay viruses. Ka ti questions they say discuss three viruses. I will do (article) 3 then you will continue. Article 3 is all about deadly viruses the first one was ahh Rotavirus.

S5: Mangani byela a ku humelel yini ka nwina vatwo, mihleka yini?

Can you please tell me what's going on between you two, why are you laughing?

S6: Hiku ni vula vula hi xilungu okay mo ni vula vula hi Xitsonga ke. Okay, kuna Rotavirus. (because I am speaking in English, okay let me speak Xitsonga then. Okay there is Rotavirus).

Rotavirus hi yona khosaku diarrhoea. Rotavirus yi phasiwa hi yini, hi vari swivitana yini? Hiloko ti small faeces ti helela like nonweni, hi leswiwani ka. Loko ti small faeces ti helelela nonweni. Hi swona yi spreadisa ku xi swona retovirus. (Rotavirus is the one that causes diarrhoea in children. When small faeces end up in the mouth. That is how rotavirus spreads).

S1: Hi loko ti helela nonweni? When it ends in the mouth)?

S2: *na mina aniswi twisisi* (I also don't understand).

S4: *loko munhu adya* (when a person ingests)

S6: *So obvious ka ti developed world va ngvi, vange hlupheki hi swona ngopfu just because va developed. Coz swaiswa so vaswi kota ku deal na swona vona, vaswikota ku rehydrate, se swidlaya ngopfu vanhu kati undeveloped countries. Then ya vu two i deng eish is Dengue.*

So obvious in the developed countries they will not suffer much about Rotavirus because they know how to deal with this kind of things (diarrhoea) they know how to rehydrate. So rotavirus kills more people from undeveloped countries. The the second one is deng eish is Dengue.

S5: *Ya i Dengue* (Yes Dengue)

S6: *Ya i Dengue. Eish, xilungu xa dlaya hey.* (Yes, it's Dengu. Eish English kills hey).

S4: *So ka Dengu, Dengue like ava, Dengue yi kumeka kati subtropical or tropical areas.* (Dengu is found in sub tropical or tropical areas).

S5: *Dengue ok ka dengue.* (Dengue yes dengue)

S4: *Vonani loko yoza yi minghena didengi, a yiya va ya yona inga mihlakata maar haa yo ayi hlakati ngopfu ... loko mika teki treatment kuna twenty percent chances yo minga survive, tsena loko minga teki treatment. Swivulaku loko mikha mi teka treatment kuright, mita hanya, yi spread hiku, yi spreadiwa hi ti mosquito ma vo, so eih loko tolo nikha nikuma ku nileku dyiweni hi mosquitoes yeses. Swa mapela he boti. Yindla kumiva na fever...*

Look if that thing (dengue virus) enters you, it can destroy you but it does not destroy much if you take treatment. If you don't take treatment, there is 20% of survival but with the treatment, you can survive. It is spread by mosquitoes so eish yesterday when I was reading I was bitten by a mosquito. The virus causes fever and...

S3: Fever?

S4: *Yaar maar ya manejeka.* (Yes but it is manageable).

S3: *Fever kumbe favour?* (Fever or favour)?

S4: *Fever. Mavona ku yi karhata kwini ne, loko yi kofanana le Limpopo le kaya, yaa le yinga mihlata lee. I ndhawu yo hisa ma VO and tindhawu to hisa rhandiwa ngopfu hiti nsuna.*

You see, in a place like my home in Limpopo they (mosquitoes) can destroy you. It is a hot place and mosquitoes like hot places.

S1: Is there a vaccination against Dengue?

S4: *Hoo yi hava vaccination vahari na hope vanga humelela maar he*

Okay, it does not have a vaccination; they still have hope to succeed.

S5: *Okay sweswi hiya ka influenza. Okay influenza ahh influenza yi cause flue, so influenza liya yina ti strings to hambana hambana, so kutshama kuva na influenza yinwan yinga cause Spanish flu hi 1918. Influenza liyani yi dlayi yi infect 40 % of the population, yi dlaya approximately 50 million people.*

Okay, we are now going to influenza. Okay, influenza ahh influenza causes flu and influenza has different strings, for example, there was once influenza that caused the

Spanish flu. That influenza infected 40% of the population and it killed approximately 50 million people.

S3: *He boti ayi kahle* (My brother it is not good)

S2: *Va yi kotini maar?* (Did they prevent it?)

S4: *Yaa va vuye va yikota. Maar vate like ya hari kona possibility yo influenza yo fana na leyi yi nga thle yi occur nakambe. Ya hari kona possibility and very like ti strings letiya kova na new strands tinga spredeka easy through a human population*

Yes, they prevented it. But they said like there is still a possibility of that same influenza to occur again. There is a possibility and they say those strings if there is a new strand it can spread through the human population.

S6: *Kambe veri I man vito leriya?* (What do they call the name of the one?)

S5: Hantavirus

S6: *Hantavirus yaa wa vona hantavirus liya yi khoma ngopfuvanhu lavaya va tirhisanaku naleswa makondlo. Lava vaku vari kusuhi naleswa makondlo. Maar makondlo lamanga infected, hikona yi khomaku, so yi affect hambu ni taku mbilu loko ni nga jilangi, aniswi tsalangi, maar yaa yi a mbilu, I pulmonary syndrome se swivula kutinsu watitiva tinsu? Mahawu hayi tinsu niyo jila nyana.*

Hantavirus yes you see the Hantavirus mostly affects people who work in rats infested areas. If the rats carry the virus then they can be infected. It affects the heart if I am not mistaken no it causes pulmonary syndrome so it's the kidneys. Do you know the kidneys? Lungs not kidneys I made a mistake.

S1: *Ey ka tika ne* (Ey it is rough).

S3: *Uri mahawu kumbe tinsu?* (Are you saying lungs or kidneys?)

S6: *Ey mahawu.* (Ey lungs.)

S2: *I yini tinsu?* What is tinsu? (kidneys)

S6: *Tinsu iti kidneys.* (Tinsu is kidneys)

L: Right let's wrap up I am sure we all have the information we need to write the essay.

Group B

S1: We are forced to discuss I English vele?

S2: No, we can use any language

S3: But she cannot speak Tsonga

S4: You can speak in Zulu I hear and understand

S3: Zulu you are pure Zulu that is why you don't understand Tsonga?

S1: *Wabonagala uthi umZulu, umSwati* [Zulu] (Are you Zulu or Swati)?

S4: My mother is a Swati from Mpumalanga

S4: I think when we discuss we should refer to the main essay question. As I discuss I will be answering the question. So what I understood from this article is that viruses need a host in order for them to be active. I also learnt that viruses are different from bacteria although they are commonly confused there is a difference and viruses are more dangerous.

S1: So viruses need to be inside a host to be active. *Asithi mlhabe* [Zulu] let's talk about the air. *Asithi* if they are within the air its that they are dead they will be inactive it is only when they enter a host that is when they become active.

S2: So does that mean that viruses die or they are dead already?

S4: They don't die they can be weakened by antiviruses only.

S5: Scientists consider them as living because they display characteristics of being alive the moment they enter a host. That is how they conclude *gore* [Setswana] (that) they are living *wabona* [Zulu] (you see). So like yar they have this listic cycle.

S3: What is it called?

S5: *Bare* [Setswana] (they say) Listic listic I don't how to pronounce it

S3: Spell it

S1: *Uthi* (It's called) lytic cycle. *Wabona mabaya ngena ngo mafiga azo xala* [Zulu] (You see when they enter the host they multiply.) The replication is what is called the lytic cycle because it's a process they go through.

S4: The cycle is when they enter into a host they enter the cell and from the cell they use the enzymes of that cell to reproduce.

S3: So viruses attack other cells?

S5: Yah that cell like *diattackana* [Setswana] (they attack each other) so.

S4: So sometimes it does not break the cell they say it 'pitchout' they do not destroy the cell of the host cell from the membrane. The membrane-like *wabona skhanya sesenxane* [Zulu] (you see it has a thin lining)

S3: Like *ti huma empobovho* [Xitsonga], (let's take a pool for example). This is the cell they break it there are viruses are inside the cell neh.

S4: Ok *tiya ngena wabona* inside the cell *tienda* once they are done *angithi* they replicate. (So when they enter the cell they replicate). So *ukuthi* they burst the cell *angithi laphakathi*. [Zulu] (So they burst the cell inside.)

S1: So when they do that the human immune system responds. So let's say it's the flu virus *neh, wabona loku umuntu agula vele e temperature yakhe yakhula* [Zulu] (when someone has flu you find that the body temperature rises) so that is the response *vele*.

S2: Ok moving onto types of viruses. So mina I chose three, which are Ebola, HIV and Rabies

S3: Which common viruses can you mention besides the common one HIV and AIDS?

S1: *Ufuna sithathe amanye?* [Zulu] You want us to discuss more?

S3: *Yah sithathexe amanye ama virus.* [Zulu] Yes, let's pick up other viruses)

S1: Let's take HIV, Ebola and the flu virus. There is more *angithi* [Zulu] (Isn't it?) For discussion, I chose Rabies. This virus affects pets such as dogs, it is mainly found in some parts of Africa, and when a pet that is infected bites another. When contracted it affects the brain and eventually, the victim dies if they don't get treatment immediately.

S6: Can we ask? You said it's the virus that attacks the pets?

S1: *Wabona* [Zulu] (You see) it is found in pets.

S6: Yah what I am asking is *ayi khoni kusuka ete kuwe like directly hayi I suke ete kuwe*. [Siswati]. Does rabies infect you when you get in contact with an infected pet?

S1: No no no. Unless it bites you. They say *kuri* [Setswana] (that) vaccine is available *mara* [Afrikaans] (but) if you don't get the treatment you will die.

S3: *Noma wena u* make contact with *noma aya lumanga* [SiSwati] (whether you are bitten or if you make contact). There is a documentary that I was watching *laphane* [SiSwati] (there is) this girl neh, she is young kubo like they had a farm kubo she started to behave strangely.

S2: *So uya hlakana?* [Zulu] (So you don't agree?)

S3: Yah it was as if she was hallucinating then her mother took her to the hospital and they couldn't find what was wrong until the girl died. After she had died, they discovered *uthi* [SiSwati] it was rabies. *So ba mbuka amabehaviour akhe* [SiSwati] (They investigated her behaviour before she died). She behaved like someone who was on drugs *nje*. *Wa bona* [SiSwati] (You see) animals did not bite her *mara* [Afrikaans] (but) she had daily contact with animals so she ended up getting rabies may be when she was feeding the animals. *Phela* [SiSwati] (So) there are many ways one can get rabies besides being bitten by a dog *wa bona* (you see).

S2: So can it be treated?

S1: Yah they say *gore* [Setswana] vaccine is available is available *mara* you don't take the treatment there is a hundred possibility that you are going to die.

S2: Ok so all pets have rabies, how do we know?

S4: Ok from what I was taught in primary school like *ba bala e that thing ebe ba kibela donkey*. [Zulu] (We read that they contacted it from a donkey). *Kahlekahle ba bala* [Zulu] (well we read) almost every pet except for *inku* [Zulu] (chicken) can spread rabies.

S5: How do I know *kure ke nja ena* [Setswana] (that a dog has) rabies?

S1: Normally they become aggressive. *Base fundzisa kuthiinja tangala makhaya and bathi* [Zulu] (they taught us back home that) the main symptom is aggressiveness like if it sees someone *vele ifuna ngumuluma* [Zulu] (it just wants to bite them).

S3: Ebola is next

S5: Yah so Ebola *bare* [Setswana] (they say) is spread through contact with infected blood and body fluids or tissue. So if you have Ebola when I touch your blood I get Ebola.

S6: As a doctor, if I want to take temperature of an infected person I have to do this (demonstrating)

S1: *Bathi amadoctor athatha ama* [Zulu] (They say doctors should take) precautions

S3: *Vele if ihamba nge* [Zulu] (well if it moves in) blood how did doctors end up getting infected cause *uthe bathatha ama precautions* [Zulu] (you said they take precautions)

S4: *Mmm phela* (Siswati) (yes that's true)

S6: Ebola just kills. You should not even go near a dead body the ebola virus will still be active.

S2: That is my question *sweswi mina* [Tsonga] I was saying *kuthi even if umunthu se ashonile* [Zulu] (that if a person has died) Ebola is still active even if the person is no longer functioning?

S6: Yah that's what I am saying they should not touch the dead person they will be infected with the virus.

S3: Mmmm. The next one is...?

S5: Err *bare* [Setswana] (it says) Rotavirus. It causes severe illness, especially in young children.

S4: It causes what?

S6: *Letshogolo akere* [Setswana] (Isn't it diarrhoea?)

S5: *Yah letshogolo* [Setswana] (Yes diarrhoea) and then *legore* [Setswana] (also) it can spread rapidly through ingestion of small particles of faeces.

S3: *Eba erekwini, sweba swili kwini* [Xitsonga] (So what causes the diarrhoea?)

S5: It's the virus and Rotavirus affects mostly developing countries, *vele* [Zulu] where there is poverty. The best preventative measure is to ensure hygiene environment.

S4: Yah neh viruses. *Nkhathi sibale ama* [Siswati] (we should write about) three viruses from the articles *funi sibale ama* [Siswati] (and the) prevention measures.

S2: *Angithi uzoba ni introduction yakho mhlambe* [Zulu] (isn't you will have your introduction) you introduce the whole topic. You introduce amaviruses angu 3.

S3. The introduction should discuss generally on how the viruses affect the human system.

S5: I am thinking kutshi for the whole essay and for the structure the introduction like you said then I will talk about each virus per paragraph. Let's say I am talking about Ebola I will say what is Ebola and what causes it, the causes and the prevention. Then I write the conclusion.

S4: So what do I need to know about antivirus can I talk about antivirus?

S3: But don't move away from the topic.

S1: What about the conclusion?

S5: Angitshi in the conclusion we sum up we just say things we have talked about in the essay.

S6: Which means its five paragraphs akere they say 5-6 paragraphs.

L: Right let's wrap up I am sure we all have the information we need to write the essay.

Group C

The following group comprised of two Xitsonga speakers, one Zulu speaker, one Shona speaker (from Zimbabwe) and two Setswana speakers.

I decided to call this the Setswana group.

S1: Viruses have always been a problem even before modern life people have been struggling to find ways of fighting viruses.

S2: Education is the only way

S3: Yah education on how to cure this virus yah lets challenge this progressively.

S2: [Setswana] *The article says E kena ka har'a seleng e ntan'o etsa hore sele eo e phatlohe, ha e felile e bolaea sele eo ebe pele e bolaea sele, e etsa hore sele e arohane 'me e lokela ho atisa ho ba le palo e kholo*

It gets inside the cell and then causes that cell to burst when it is done it kills that cell and then before it kills cell, it makes the cell to divide and it must multiply to like a large number right

S4: What does it do?

S2: It is called mitosis, like replication

S5: Oho so like...

S3: [Setswana] *Mitosis e etsahala ka cell, e tšoana le e tsamaisa mitosis ho etsahala empa ha e lokolle lisele tse ling empa e ntša likokoana-hloko mme qetellong sele e shoa 'me joale ha e ntse e atisa, e ata ka limilione.*

Mitosis happens in the cell, is like it is manipulating the mitosis to happen but it does not release the other cells but it releases the virus and then ultimately the cell dies and then when they are multiplying, they multiply in millions.

S2: [Setswana] *ke tsela eo e ireplicate ka eona, 'me hape e ngata e tla etsahala, virus e etsa hore motho e be ea fokolang ka tsela leha e le efe e ka ba ka hare, ka seleng e le' ngoe ebe seleng eo e tla fetola 'mele oa hao, joalo ka ha e tla kopanela lisele tse ling le ha li khomaretsoe lisele tse ling tse kang ntho e le 'ngoe' me li qala ho itšireletsa mafung ho sitoa ho loana*

That's how it replicates and, and again a lot will happen, the virus makes the person weak, anyway it will be inside, into one cell and then that cell will replicate across the body, they will attach to other cells and when they are attached to other cells they weaken the immune system.

S4: [Zulu] *Uthola kanjani ivirus ngaphandle komzimba?* How do you get the virus out of the body?

S3: [Setswana] *Yar, hobane hona joale ba atisa ho thibela ivirus ho hang, empa ho thata ho emisa virus ho hang empa ke tlameha ho re, 'mele o lokolla seo o se bolelang hore o thibela ho thibela ivirus, o tla thibela kokoana-hloko hore e se ke ea replicate, empa ha e khone ho bolaea evirus eo*

Yes, because now they are many and again, ne, the article says, it is difficult to stop the virus at all but I have to say, is the body releases what is called the antiviral it will help to, stop the virus from replicating a lot, but it is unable to kill that virus.

S2: [Setswana] *Hape ho thata ho bolaea virus with antivirus drugs, hobane virus ka har'a cell, kahoo e bolelang hore meriana eo ha e khone ho fihla ka hare ho cell, e tla koahela seleng eo feela. Ke kahoo seleng eo e sa khoneng ho ikarabella, ho etsa hore licell tse ling li replicate*

It is also difficult to kill the virus with medicine because the virus is inside the cell, so which means that those antiviruses are not able to reach inside the cell right, they will always cover only that cell. That is why that cell is unable to replicate, to make other cells to replicate.

S4: [Zulu] *Mara ivirus lihlala njalo?* Will the virus always stay in the body?

S3:[Setswana] *e sebetsa ka hare empa ha e arabela hobane medicine eo e pota-potile cell ka ntle.*

Yes, it stays inside but it does not replicate because that medicine surrounds the cell outside.

S2: [Setswana] *Hape the article sena se hlalosa hore uhmm ho na le mefuta e meng ea li-virus, e ka sebelisoang e le mokhatlo oa bacteria o kenang li bacteria*

'meleng, ho bolaea kokoana-hloko. Joaloka yah sena se tla immune system sa hau sa 'mele ho khona ho loantša ivirus.

Again the article explains that hmm there is some forms of the virus, which can be used as bacterium agency they insert the bacteria in the body, to kill the virus. Like yah, this will stimulate your immune system to be able to fight the virus.

S1: You mean vaccines?

S4: [Zulu] *sidinga njalo sibe nemavaccines.* We need to always have the vaccines

S3: [Setswana] *Etsa joalo ka flue eo ke e utloileng e re e lula ho uena joale ha tsamaiso ea hau e fokola hanyenyane ke nako ea ho hlasela 'mele*

Yes, cause like the flu I heard they say it is always in you then when your system becomes weak a little is the time to attack the body

S2: [Setswana] *Ho na le mekhoha e fapaneng ea ho thibela li virus ho ata ka ho hlaka ho tšoana le ho hlatsoa matsoho a hao ho etsa bonnete ba hore ha u ama metsoako ea 'mele ea batho, kahoo joaloka joalo empa' nete ke li-virus e tla lula e le 'meleng, e hloka feela tsamaiso*

There are various ways to prevent viruses from spreading obviously is also like wash your hands, cover your mouth, making sure you don't touch peoples body fluids, so like but then the truth is viruses will always be in the body, it just needs management

S6: Ok, article three, are you finished? Article 3 just talks about deadly viruses that are on planet earth, like the ones that kill many people, you see. So and then there are ways you can stop viruses, the vaccines, err medicine, so the first virus they talk about is Rotavirus. Rotavirus mostly attacks babies and young children and it causes severe diarrhoea. Like the best way to stop diarrhoea is to rehydrate the patient. Therefore, like in developing countries things like these, like there is a shortage of water, there is always yah you see. Like the best way to stop diarrhoea is to

rehydrate the patient. Therefore, like in developing countries things like these, like there is a shortage of water, there is always yah you see. Then you find the other one they say is dengue.

S6: Dengue was first discovered in the Philippines they do not explain *gore* what it does to the body, it just say *gore* it is transmitted by mosquitos. Yar no vaccine, no nothing about it. Statistics say it killed 52 million a year.

S3: They did not explain what it does to the body.

S6: That's why I have said that.

S4:[Zulu] *Futhi-ke, iSmall pox?* And then, Smallpox?

S5: Oh yah, there is something about smallpox. [Zulu] *Ngakho bathi Smallpox ingenye yegciwane engavamile sengathi ikhona, njengokuthi ingaphandle nje ingabulali anyone, kubangele ukuthi vaccine ya available.* So they say smallpox is one virus that is no longer common. It is now under control.

S5: Yah so they say a long time ago it killed one in three people, like maybe when we are three, so it kills one of us. Now they have eradicated it, there are no longer like many deaths due to smallpox and stuff yah.

S3: And then HIV virus, HIV virus we all know?

S6: Ok HIV virus they say is still here on earth, but now there are anti-retroviral drugs that slow down the replication process of replication.

S2: The ARV they just slow down replication neh?

S6: As was explained the ARVs can't get in to remove the virus, so it just covers the, like a cell from outside so that the cell cannot replicate.

S5: So we get to what we call a Hunter virus. Is actually Hunter Penuire Syndrome (HPS). It started, in the US in 1993. Actually, this virus is from rats. The faeces of a rat.

S4: So like this one cannot be transmitted from one person to another, but with the faeces of a rat. So this means gore rates are dangerous / joo (Eish).

S5: But if you touch them. The virus causes respiratory complications and if not treated you can die.

S6: *Bese-ke laba ababili ngizobachazela njengomunye they are the same. Ebola futhi yini? Igciwane leMarburg. Yah yibo abangela i-Himboheadache, angikwazi ispelling i-Himboheadache. Ayena lokhu kubangela umuntu ukuba abe ne high fever futhi aphephe umzimba. Njengama-openings.*

Then these two I am going to explain them as one since they are one thing. Ebola and what is it. Marburg virus. Yah this one they cause a fever called Himboheadache, hey I cannot spell it Himboheadache is the one. Yah this one it causes a person to have a high fever and bleeding through the body. Like at the openings.

S5: Yah all the openings eyes, nose, and mouth. It leads to shock and the failure of internal organs and then death. It enters like they say it enters through body fluids like you touch blood, sweat, whatever like tissue of that person then you become infected. Then this one is from the monkeys. They say in Congo they actually eat monkeys that is how Ebola is contracted.

S2: [Setswana] *Empa liphoofolo tsena li kotsi ho uena.* However, these animals are dangerous you know.

S3: [Setswana] *China ba ja likatse le ntja. Ba ja ntho e 'ngoe le e' ngoe ka hare ho naha, le linoha empa ba phela nako e telele.*

In China, they eat cats and dogs. They eat everything and snakes but they live long

S5: You know they do not eat *diphahlo*, they eat healthy those people. *(Laughter)*

S4: *U bitsa diphahlo ka puo ea hau?* [Setswana] What do you call *diphahlo* in your language?

S5: We don't have a name for it but we call it [Shona] *chingwa ne machips ne nyama*

S1: [Setswana] *a re re ha u sa le mocha o ne a entoa ka smallpox 'me joale virus e ne e sa hlakoloe' meleng oa hao, 'me joale u na le ngoana, ho bolela hore ngoana o tla ba le menyetla e mengata ea ho ba le smallpox?*

Let's say when you were young you were vaccinated for smallpox and then the virus was not eradicated from your body, And then you have a baby, it means like the baby will have as more chance of having smallpox?

S5: When you have flu and you have a baby, will he or she have flu?

S1: No

S4: It will depend on *gore* the virus is transmitted by which means.

L: Right let's wrap up I am sure we all have the information we need to write the essay.

APPENDIX E

Focus group discussions

Question1: *How does it feel when you are allowed to use all languages at your exposure to express and explain ideas and concepts to your class or group members?*

Generally, participants expressed a sense of happiness and they indicated that they appreciate moments in class when they could express themselves freely in any language.

Tumi: *Nna* [Setswana] I know that my English is not so good, so when discussions in class are conducted in English I can't participate I am always afraid to say wrong things in English. *Ha ho, joalo ha ke tsebe empa* (It is not as if i do not know but) English limits my participation. Therefore, when I am allowed to use any language to discuss I feel relaxed and learning becomes interesting for me.

Tsepo: For me, the school I went to rarely used English during class discussions we always discussed in either Xitsonga or Tshivenda and this helped me to understand better. *Manje* [Zulu] here at university it feels scary to say anything in Xitsonga especially in a class with those Professors who always speak English. If I were to be allowed to use any of the languages, I would feel comfortable.

Kundai: I am a foreign student but my language is Shona (Zimbabwe). However, I try to learn and understand other languages so that I can contribute to group discussions. I can say although cannot speak any other language besides English I can understand when my classmates discuss and Setswana and Zulu especially. Therefore, when Setswana or Zulu are used for discussion I do not mind listening to my friends although I cannot speak the languages.

Mxolisi: Although I think discussing in my language helps me to understand better; English is mostly used because it is from the superpowers so we have to use English *le Hoja ka linako tse ling ho utloisisa ho thata* [Setswana] although understanding it is difficult sometimes. Using my language for discussion makes life easier for *nna* [Setswana] me.

Sandile: Maam if only we were allowed to use our languages for discussion it will help me especially to understand. I feel more confident in myself if I can explain to my friends about what I have read. I know we write examinations in English and English is the business language but *eish* it's not my mother tongue also it is difficult for me to express myself in English. I am a 'die-hard' African ma'am and I love my language.

Question 2: *Do you think the use of your mother tongue for discussion after reading a text helps you to understand the texts better?*

Mxolisi: Yes ma'am *haholo-holo tsela eo re ileng ra e etsa ha re ntse re lokisetsa essay ea Virus* [Setswana] [*laughter from the group*] especially the way we did it when we were preparing for the Virus essay. I could ask for clarification from my group members where I did not understand.

Kundai: The discussions in mother tongue helps a lot. Even though I did not have anyone who speaks in my mother tongue in my group I managed to discuss with other Shona speakers from other classes before I came to present to my group. This helped me to understand the articles better. Therefore, yah it helps a lot.

Sandile: Like I said, it helps. I understood the virus articles much better because it was like we worked as a team to help each other to understand. It was easy to

understand because the languages that were used were not difficult for us to understand.

Tumi: Yes, I think if only we could discuss all we that we read in our languages it would make life easy for some of us. Sometimes we fail because the language that is used is difficult for us to understand *haholo-holo ho 'na ke ne ke loana ka English bakeng sa matric*. [Setswana] especially for me I struggled in English for my matric.

Tsepo: It might not be the mother tongue ma'am. Like in my group, we used Siswati, Xitsonga, Setswana and Zulu to discuss the articles. Even though none of those is my mother languages, I was comfortable discussing in any of those languages because you know it was better to understand the articles when we discussed in those languages than in English.

Question 3: *Do you benefit from group discussions after reading a text?*

Sandile: It depends on the group ma'am. I was lucky to be in a group where the discussion helped us to know how to answer the essay question. So in this group, I benefitted but some groups it's not useful because some members would not have read they just want to listen to other people discussing.

Lecturer: So what do you think made your group members benefit from each other?

Sandile: I don't know ma'am maybe people were excited about discussing as 'experts' and using our own languages. You know they wanted to show off that they knew a lot about viruses... *[Laughter from the group]* and everyone was prepared to play their part. Maybe, ma'am, I think that's the reason.

Tumi: I noticed *gore* [Setswana] that the topic Viruses is an interesting topic and many people wanted to share what they had read especially because like some of the viruses we had never heard of them. So yes, I think for this discussion ya Virus I

benefitted. Some of the discussions I have not benefitted at all. I prefer to read for myself and make sure I understand without any discussion.

Kundai: Ma'am I do not enjoy group discussions at all maybe because I enjoy working on my own.

Lecturer: So you mean you did not benefit from the group discussion on Viruses?

Kundai: Surprisingly, ma'am I enjoyed this one and I think I benefitted (I will see from my essay mark) *[laughs]* but I think it depends on how the discussion is set up. With this one, everyone knew they had a role to play either being the 'listener' or 'recaller'. This helped us to get clarifications of things that we could not understand when we were reading. So yaa ma'am the way you set it up made us benefit from the discussions...

Mxolisi: Haa ma'am for nna I think I benefitted from everything especially recalling what I had read in my own language and explaining to my group members. I understood the information better than if I had read on my own.

Tsepo: I agree with everyone that the way the assignment was structured made everyone to benefit because everyone had a role to play. The discussion groups forced us to drag each other along so that we could all understand the articles. I never used to think I could benefit from group discussion but *ho bua 'nete* [Setswana] (to be honest) I benefitted from my group I think they also benefitted from... *[He points at himself laughing]*

Lecturer: What is the most outstanding reason for you to say you benefitted from this group discussion?

Tsepo: *oa bona* [Setswana] (you see) ma'am I was free to express myself, especially in my language also I knew that after I recalled what I had read to my group members I had the opportunity to listen and question others where I did not

understand. This was exciting to me and I think I now know a lot about viruses and *ha ke na ho lebala seo ke ithutileng sona ho sena*. [Setswana] (I won't forget what I learnt from this).

Question 4: *Do you get any new ideas/ clarifications from your group members when you discuss a text after reading it on your own?*

Kundai: From my opinion, new ideas and new understanding come during a discussion with others after reading on your own. Also, it works when you have read on your own. Some group members who had not read were getting lost in the discussion because they had not read the articles. So discussion helps only if you have read on your own.

Sandile: I agree with Kundai if I had not read all the three articles, I would not have understood most of the things about viruses. Of course, I understood better after discussing with my group members.

Tsepo: Yes, like for me I got many ideas especially for the essay of which if I did not discuss with my group I would not have known about those ideas. When I was reading on my own I did not understand how the virus works in the human body now from discussions *manje ngiyazi izinto eziningi ezifana no lytic cycle* [Zulu] (I now know a lot of things like the lytic cycle) (*laughs*).

Lecturer: How was the lytic cycle clarified for you to understand better than after you had read on your own?

Tsepo: It was clarified that the virus enters the body and they use enzymes of the cells to reproduce and attack each other. So, in other words, I *virus lisebenzisa amacells omzimba ukuze ahlasele i-in order to multiply the virus*. [Zulu] (the virus uses body cells to attack each other in order to replicate the virus). I never knew about this until it was clarified during group discussion.

Mxolisi: Yes, ma'am I do and I think Tsepo covered it nicely for me. I also had things clarified during group discussions. For me you won't believe it I had never heard of the Dengue virus so my group members explained it to me and now I know what it is.

Tumi: My group helped me to understand that there is a difference between a virus and bacteria (*laughs*). All the time I was reading about viruses I thought it was the same as bacteria until someone asked the difference in my group and that is when I realised that I was wrong. So yah ma'am *haeba e ne e se ka group discussions* [Setswana], if it was not for the group discussion, *nka be ke sa tsebe phapang* [Setswana] (I would not have known the difference).

Question 5: *Do the different mother tongues spoken by you and your group members hinder your communication during group discussion?*

Mxolisi: I speak seven of the South African languages so fo *nna* I do not struggle communicating with people wherever I go I can communicate. So I did not struggle to communicate with my group members because I understood most of the languages.

Kundai: I am Shona speaking and I come from Zimbabwe but what I have noticed is that when I listen carefully I can understand many of the languages that my classmates speak. Although I can't speak the languages, I could understand and I was asking questions in English getting responses in many languages but I could figure out what they were saying. So our communication was not hindered in any way. Though I am still learning some of the languages.

Tumi: I speak Siswati and very few people speak Siswati on this campus. So when I was allocated to a group with different languages being spoken I was a bit worried. But my group members tried to accommodate me by using Zulu. I can understand

Zulu very well because it is almost the same as Siswati. *Vele* even though my group used Setswana during the discussion I did not struggle to understand because I could ask for clarification where I did not understand. My group members were so caring (*laughs*) *sasebenza kahle ndawonye [Siswati]* (we worked very well together).

Sandile: Mina I had no problems at all because most of the languages spoken by my group members I speak them.

Lecturer: Sandile how many languages can you speak and which ones?

Sandile: I can speak all the 11 official languages in South Africa but I can also speak French and now I am learning to speak Shona (*laughs*).

Tsepo: *Mina ngumuZulu* [Zulu] (I am a Zulu) but many people do not know because my Setswana, Sepedi, Xitsonga, English and Xhosa are very fluent so I didn't have a problem communicating with my group members.

Lecturer: How did you become fluent in all those languages?

Tsepo: Some of them I learned as I was playing with other children and I do not remember how I learnt some of the languages.

Lecturer: But what language do you speak at home with your family?

Tsepo: Mostly we speak in Zulu but we can use any language because my family can speak many languages just as I do.

Question 6: *How does it feel when you are able to explain in your languages to your group members what you would have read and understood from the text?*

Sandile: Maam at first I was shocked that you asked us to use our languages to recall what we had read to our group members. I thought at university it's only English that is allowed to be used in class. So when you asked us to recall what we

had read in our own languages, I felt proud of myself being able to read in English and explaining to my group members in Xitsonga.

Lecturer: But Xitsonga is not your mother tongue how did it feel explaining in Xitsonga knowing it is not your mother tongue?

Sandile: Ma'am to me all languages are my mother tongues because I do not prefer one language over the other (*laughs*) as long as I can communicate.

Kundai: I did not use my mother tongue to explain to my group members but I think being allowed to use our languages made the discussions to be more interesting.

Mxolisi: Ma'am that was something I will never forget I felt like very confident of myself. It showed me that I had understood the text if I could explain it in my own language. Also, I noticed that my English is not that bad because I read in English and managed to explain in Setswana.

Tsepo: Guys let's be honest everyone wants to show that they understood what they read and in most cases saying it in English does not really show that you know what you read. But in my languages, I can explain in detail and even give examples to help me to explain better. So I felt proud of myself.

Tumi: SiSwati was not used in my group but being able to explain in Zulu made it easier for me to express myself and explain to my group. I must say, ma'am, it feels relaxing explaining in my language rather than in English.

Question 7: *Do you think your lecturers should allow you to use your mother tongue (not insisting on using English) during class/group discussion? Why?*

Tsepo: Yes, ma'am I would appreciate it. When like we discussed the viruses in our mother tongue I understood better than if I had to discuss in English only. If lecturers

could allow us to use our mother tongue there will be more participation in class during because we will be feeling comfortable.

Kundai: Ma'am I am just thinking about our tests and assignments. We have to write in English so if we get used to using our mother tongue too much we will struggle when we are writing in English. So yes, lecturers should allow us to use our mother tongue but we should also remember that we will be tested (examined/assessed) in English.

Tumi: English is the language of business ma'am. In as much as it is fine to use our mother tongue to discuss but like Kundai is saying English will always be used for our learning so we should not be too relaxed and want lecturers to allow us to use our own languages always. We should learn to use English but also lecturers should not be too strict on us because English is not our mother tongue.

Mxolisi: For me ma'am I think lecturers should allow us to express ourselves in our mother tongue. Isn't it there is freedom of expression *moss?* (*Laughter*) Why can't we express ourselves freely when we are learning? I think lecturers should consider that learning becomes more interesting if we learn in languages that we understand better. Ma'am Afrikaans speakers can learn in Afrikaans, so what about us?

Sandile: For me I just want lecturers to respect all languages and not make English more important than other languages. If I could understand viruses in English and explain in Xitsonga so why can't I be allowed to use all the languages to express myself?