

The role of the mother tongue in enhancing English for Academic Purposes in the linguistically diverse context of first-year students at the North-West University

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DECLARATION

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ABSTRACT

This dissertation investigated the role of the mother tongue in the acquisition of English for academic literacy among first-year students in two flagship modules in the Faculty of Education at the North-West University, South Africa. The literature review, that forms the basis of the theoretical framework of this study, focusses on Cummins's theory of second language acquisition as well as the notion and role of Translanguaging in multilingual contexts. These theories are relevant because they corroborate students' English additional language knowledge alongside their mother tongue and other languages in their linguistic repertoires and how the knowledge assists them in learning. A convergent mixed-method research design was employed, and the data collection instruments included language repertoire questionnaires, language portraits, individual interviews, as well as participants' scores of academic literacy tests and their final marks in the flagship modules.

Afrikaans, English, one German and African mother tongue participants took part in this study. The findings from the language portraits, and individual interviews provided evidence of the relevance of Cummins's Developmental Interdependence Hypothesis and it affirmed the importance of the role of the mother tongue in strengthening English for Academic Purposes. However, no relevant evidence of Cummins's Threshold Hypothesis was established among the study participants. The findings indicated that, instead of the mother tongue strengthening the additional language, the African mother tongue participants mostly use their English FAL to strengthen their mother tongue. Furthermore, findings from the language repertoire questionnaires, language portraits and interviews established that the African mother tongue participants used English for education and the Home Language to establish and confirm their identity. The findings also revealed other possible roles the mother tongue fulfils in a multilingual classroom for communication related to identity and cognition.

Key terms

Language of Learning and Teaching (LoLT); Mother Tongue; English for Academic Purposes; Additional Language; Monolingualism; Multilingualism; Plurilingualism; Translanguaging; Flagship modules

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CHAPTER 1 INTRODUCTION

1.1 Introduction

This chapter focuses on the concept clarification, introduction to and rationale for the study, problem statement, theoretical framework, research- aims, questions and objectives, research design, methodology, data analysis, ethical considerations, trustworthiness, time schedule, chapter outline, and bibliography.

1.2 Concept clarification

1.2.1 Official language:

The official language is a language proclaimed by the government of a nation with constitutional approval to be the language of government. This means that it is the language that is expected to be employed as a medium of communication in all government establishments (Odinye & Odinye, 2012:5). Furthermore, in Lecomte (2015: 6), the Official Languages and Bilingualism Institute (OLBI) points out that different political sociologists and scientists decided on defining official language as a language in which the government of a nation agrees to function, as well as the citizens acknowledging a language as official because its constitutional support frequently grants them language privileges.

1.2.2 Language of Learning and Teaching (LoLT):

The Language of Learning and Teaching (LoLT) is a language employed by learners and instructors during schooling hours, which is specifically used for academic purposes. Language of instruction (LoLT) can also mean medium of instruction (Stein, 2017:2).

1.2.3 Mother tongue (MT) and mother tongue education:

Richard (2019) defines the mother tongue as an individual's first, dominant, or native tongue learnt from birth. The use of a language or languages that are most known to children is referred to as mother-tongue education. These are typically the languages spoken at home, but not always the mother's native tongue. The debate over multilingualism has made mother-tongue education a hot topic in Africa. With more than 2000 languages, Africa has a rich linguistic population (Magocha, Mutasa & Rammala, 2019). Educators working in primary, intermediate, and tertiary institutions of higher learning express a variety of opinions about mother-tongue teaching. Some people are optimistic and believe that mother-tongue education will save students from having low academic achievement. Conversely, pessimists believe that

mother language instruction will spell the end of high standards in education (Magocha, Mutasa & Rammala, 2019). Due to South Africa's diversity of languages, Magocha, Mutasa, and Rammala (2019) affirm that there are quite a few issues with the implementation of mother tongue education such as the state of South Africa's economy, the political influence of mother tongue education policy, social factors, demographic change, a sociolinguistic profile of South Africa, English hegemony over South Africa's languages, and restricted vocabulary.

English for Academic Purposes (EAP):

English for Academic Purpose (EAP) deals with the interaction and knowledge/expertise that are essential for knowledge acquisition/ 'learning' in a proper schooling setting (Jordan, 2001). This denotes that EAP actively assists students to develop their educational writing and reading abilities as well as developing confidence in their educational studies. Furthermore, EAP includes the acquisition of professional or expert knowledge in a particular field of study or subject (Wingate & Tribble, 2012:5).

1.2.4 Additional language:

Additional language according to Judd, Tan, and Walberg (2001:85) includes any language, besides one's mother tongue. In most international settings, English is offered as a mother tongue, second language, or foreign language level. However, this terminology was not adopted in South Africa. English is referred to as an additional language. This is because, for many multilingual or plurilingual students, English could be a third, fourth, or fifth language (therefore not a second language). English can also not be regarded as a foreign language in SA as students' exposure levels to English are more than those of students in countries where English is offered as a foreign language.

1.2.5 Monolingualism:

Ellis (2006: 3) defines monolingualism as confining a person to one language code for all communication.

1.2.6 Multilingualism:

Multilingual is derived from a Latin expression, *multi* (many), and *lingua* (tongue or language). A speaker can communicate in many tongues at a level of proficiency similar to that of the speaker's mother tongue (Wallner, 2016). It is also the co-existence of many tongues in a constitutionally established community like South Africa, Nigeria, or Canada (Odinye & Odinye, 2012: 3). Therefore, the trend now is that multilingualism refers to individuals who are competent users of more than two languages (Franceschini, 2011).

1.2.7 Plurilingualism:

A person who often speaks three or more languages is referred to as being plurilingual. A French person who speaks their mother tongue and also speaks English, Italian, and Spanish is an example of a plurilingual individual (Monev, 2015). To be plurilingual, people need not be fluent in all of the languages, but they must be able to demonstrate sufficient linguistic proficiency to interact with a variety of interlocutors.

Also, plurilingualism is the ability of an individual to separately or jointly employ dual or more languages for various uses, various areas of life, through various persons. Since the requirements and usages of language in people's daily lives are generally quite diverse, plurilingual speakers are seldom similarly or completely fluent in all the languages included in their language repertoires (Moore & Gajo, 2009:6). The Common European Framework of Reference for Languages (CEFR) defines plurilingualism as the capacity of a person to be knowledgeable and proficient in several languages to effortlessly change from one language to the other for efficient interaction during a specific communication process (Celik, 2013:2).

The presence of many languages within a single social group or geographic area is sometimes referred to as multilingualism. For instance, South Africa is multilingual due to the usage of the 11 languages much as Belgium is due to the use of French, German, and Dutch (Monev, 2015). A region, organisation, or country that speaks many languages like South Africa is referred to be multilingual, and South Africans who speak multiple languages are referred to as plurilingual. Biliteracies and multiliteracies

Biliteracy denotes different definitions depending on the individual perspectives of language researchers. Hornberger (2003) notes that in prior language studies, biliteracy generally included reading and writing in two languages. Biliteracy, according to Hornberger (1990: 213), is any written communication in two or more languages. However, researchers like Fishman (1980: 49) have a contrary opinion. To Fishman, biliteracy is the comprehensive knowledge of an individual in both reading and writing in two or more languages. Likewise, Niyekawa (1983) describes biliteracy as an advanced stage of bilingualism where the person involved is not only able to speak two languages easily but also to read and write the two languages through formal education (the mother tongue and First Additional Language). This is also justified by Khan (2016:1), who argues that the procedure of acquiring a first and second language is similar and that the concepts of biliteracies and multiliteracies have been identified based on the advanced stage of bilingualism.

1.2.8 Translanguaging:

Translanguaging is the strategic/intentional usage of well-organised dual languages to instruct (in the case of the educator) and to learn or acquire knowledge (in the case of students) (Williams, 1994; 1996). Furthermore, Vallejo (2018) and Garcia and Wei (2013:20) refer to translanguaging as the complex and varied language usage of plurilingual people along with the instructional methods used to teach language usage in multilingual contexts.

1.2.9 Multilingual pedagogies:

A multilingual pedagogy is a learner-centred approach that aims to develop students' language awareness and language learning awareness across the languages that students know" (Neuner, 2004).

1.2.10 Flagship module

The North-West University's Language Policy defines a flagship module as an academic curriculum that develops and uses an African language for teaching and learning (NWU, 2018:1).

1.3 The rationale for the study

At present, there is no other language in the world that can compete with English in terms of its growth as a global language (Crystal, 2012:6). It is predicted that nearly half of the world's population will speak English by 2050 (Plonski et al., 2013: 3). The increased growth and the status of English as a global language have to do with the reciprocally connected nature of every continent of the world (Plonski *et al.*, 2013: 4). This means that the more the continents of the world become connected through development, the more established the English language will become (Mydans, 2007). Therefore, due to the enhanced role of the English language, countries, or nations where the mother tongue is different from that of English, are adopting the language as a *Lingua Franca* as well as granting it official language status.

There are two ways in which a language can be recognised and upgraded to the status of an official language in a country (Crystal, 2012:4). Foremost, a language assumes official status in a country when it serves as a means of conveying information for people in government, for judicial staff workers, for media houses and academics, and the educational sector. The second way a language can be prioritised in a country is when such a language is used as a medium of instruction in schools. Crystal (2012:4), however, views the role of English in the latter instance as complementary to the mother tongue and not as threatening to the mother tongue. It is

complementary to the mother tongue because the knowledge of the learners' mother tongue may assist in the acquisition of the target or second language.

Gordon (2005) affirms that a minimum of 800 mother tongue languages are used on the African continent; however, despite the huge number of first languages in Africa, there has been a rise in the use of English as a language across the continent. English as a global language not only serves as a medium of interaction for 53 nations on the African continent (Negash, 2011; Crystal, 2012), but it also serves as the official language of the African Union (Plonski *et al.*, 2013: 5).

Furthermore, 26 nations on the continent have recognised the language as the sole official language or as an official language among other African languages (Negash 2011; Plonski *et al.*, 2013: 5). Bender *et al.* (2005) list these African nations as Botswana, Cameroon, Eritrea, The Gambia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

It is posited that there are approximately 25 spoken languages in South Africa (Kamwangamalu, 2001:363). Among these languages, only 11 of them (English included) are recognised as official languages (Brezinge, 2017:44). According to the South African Language in Education Policy, the reason for the selection of these 11 languages from the approximately 25 spoken languages is that over 98% of South Africans use these languages as mother tongues (Department of Basic Education, 1994:4).

Therefore, parents and pupils are allowed to select the language of teaching in elementary schools to promote and enhance all official languages in South Africa (Rendel, 2004; Manyike, 2013:188). However, due to the status of the English language as a world language, Manyike (2013:188) asserts that the problem is that in most black schools, there are students who speak a variety of African languages as their mother tongue, which then results in the general selection of English as LoLT from Grade 4 onwards. This period of transition to a different medium of instruction in Grade 4 is a common phenomenon in Africa as it is applied in countries like South Africa, Botswana, Rwanda, Namibia, Zambia, and Zimbabwe (Totemeyer, 2010; Sibomana, 2014; Mokibelo, 2016:666).

Of the 11 official languages in South Africa, Taylor and Fintel (2016: 76) assert that Afrikaans or English is an indigenous language to around 23% of the population. These two languages are the only languages in which students can write their Grade 12 examinations because both languages are well-established and have advanced academic literature. However, because of

the standardised nature of English and its acceptability globally, many South African students prefer to study and learn through the medium of English (Taylor & Fintel, 2016:76).

Even with the justification of the importance of English as a LoLT (Language of Learning and Teaching) in South Africa, South African learners' general performance in English as an additional language is very poor. For instance, in the fourth assessment of the Progress in International Reading Literacy (PIRLS) of 2016, South Africa was one of 50 countries that were evaluated on the reading abilities of Grade 4 learners. The outcome of this evaluation indicated that among the 50 participating countries, South Africa has a mean score of 320, which makes it the worst-performing country (Howie *et al.*, 2017:13). What is also significant is that 4% of Grade 4 international learners do not have the fundamental/essential reading abilities, while 78% of South African Grade 4 learners cannot read for meaning, thereby not meeting the fixed international benchmark (Howie *et al.*, 2017:13). Noteworthy is that these poor performances in reading and language learning are not only limited to Grade 4 learners.

In the Higher Education sector of South Africa, Van Rooy and Coetzee-Rooy (2015:32) the Council on Higher Education CHE affirmed that language is indicated as one of the crucial causes of academic failure among South African university students. Weideman (2003) holds that there has been a high failure in the literacy levels of newly admitted first-year students at many South African universities in recent years. The failure of students to comprehend and make use of suitable academic discourse has a negative outcome on academic achievement (Weideman, 2003). These low academic performances among students at South African universities, according to Van Rooy and Coetzee-Van Rooy (2015:2), are said to be alarming and worrisome.

According to Van Dyk (2005:1), there has been a decline in the standard of (academic) language ability among students who apply for university studies. According to

Van Dyk (2005:1), statistics indicate that 25% of newly admitted students at South African universities quit before the completion of their university education, which indicates an economic loss of around R1,3 billion per year. Additionally, the grave impact of the poor academic outcome of South African university students is buttressed in the statistical report of Van Rooy and Coetzee-Van Rooy (2015), which reports that a test on English reading proficiency among undergraduate students in the Faculty of Humanities at UNISA, revealed that more than 1200 undergraduate students had comprehension rates lower than 50% and many of the students who were given a reading test, read 96 words or fewer per minute.

To address these failures and tap into the benefits of utilising diverse mother tongues, South African universities have adopted various language diversification strategies/methods/policies in enhancing the effectiveness of the teaching and learning processes as well as accommodating students from different linguistic backgrounds (Antia & Dyers, 2016:526). For instance, as part of its language diversification policies for effective teaching and learning in a multilingual context, the University of Limpopo has a detailed merged dual-medium (mother tongue and English language) BA degree in Contemporary English Language Studies (CELS) and Multilingual Studies (MUST) (Antia & Dyers, 2016:527). The CELS aspect of the degree is communicated and evaluated in the English language, while the MUST aspect is completely taught in Sesotho sa Leboa (Northern Sotho) (Ramani & Joseph, 2002).

Some South African universities (Rhodes University, Cape Peninsula University of Technology, and the University of Cape Town) employed the growth and improvement of “multilingual glossaries” to serve the language diversification policies (Antia & Dyers, 2016:527). The University of Cape Town, for instance, indicated that the method was adopted based on the appeals from university lecturers for this kind of support and the necessity of assisting the newly admitted first-year students because of their poor proficiency in academic English (Nkomo & Madiba, 2011; Antia & Dyers, 2016:527). These language diversification strategies employed by the universities is an effort to answer to the National Plan for Higher Education (Department of Education, 2001) and the Education White Paper 3 of 1997 on makeover objectives for the Higher Education sector (Department of Education, 1997). A number of the makeover objectives are the increase and improvement in the chances of admission to universities, to enhance the rate of access of deprived students to university studies, and the enhancement in the productivity of university graduates. Morrow used the concept of epistemological access to describe these language diversification goals (Muller, 2012; Du Plooy & Zilindile, 2014). This phrase explains in what way obstruction to educational admission is handled, to enable newly admitted students the right to available knowledge. Epistemological access is affected by the delivery of a curriculum, the student's knowledge of the content, and the student's active involvement in making and negotiating meaning.

One of the challenges to epistemological access is that of linguistic difficulties associated with the South African multilingual context, where previously a language was used as an instrument of

discrimination in education during the apartheid¹ period (Antia & Dyers, 2016). Hence, the committed determination of the Department of Higher Education and Training and South African universities in proposing the latest Language Policy Framework for Public Higher Education (LPPHE, 2020) to find a solution to the linguistic difficulties in the multilingual context of South Africa.

1.4 Problem statement

The need for a global language (in this case English), which not only serves as a language of communication but also complements the use of the mother tongue(s) of most countries has led to the movements of bilingualism or multilingualism across the world. For this reason, the concepts of biliteracy² and multiliteracy³ have become important.

South Africa is a multilingual nation with 11 official languages with speakers of these languages randomly spread across the nine provinces of South Africa (Mariam & Spivey, 2003). Except for Ndebele, at least 15% of the population speaks one of the eleven official languages in at least one province. At least 10% of people in three provinces speak Afrikaans, compared to 2% who speak English, 2% who speak Ndebele, 2% who speak Xhosa, 3% who speak Zulu, 2% who speak Pedi, 2% who speak Sotho, 2% who speak Tswana, 1% who speak Swazi, 1% who speak Venda, and 2% who speak Tsonga (Evans, 2015). With regards to the languages spoken in each Provinces of South Africa, the Xhosa speakers (78.80%) dominated the Eastern Cape Province, while the Afrikaans speakers (10.60%) are the least; the S.Sotho speakers (64.20%) dominated the Free State Province, while the Afrikaans speakers (12.70%) are the least; the Zulu speakers dominated the Gauteng Province (19.80%), followed by English speakers (13.30%), followed by Afrikaans speakers (12.40%), while the Sotho speakers (11.60%) are the

¹ The apartheid structure established disparities in education by employing clear discriminating policies. The 1952 Bantu Education law guaranteed that the education Blacks acquired limited their learning possibilities and stayed in the proletariat (working class). Education was mandatory from the age of seven to sixteen (for Whites), from the age of seven to fifteen (for Asians and Coloureds), and from the age of seven to thirteen (for Blacks), which signified that black students acquired the least education, had fewer options in the labour market and had limited access to further education.

The disparities in education were also obvious in funding. The Bantu Education law established different Educational Departments by race, which provided limited funds to Black institutions while providing a large amount of money to White institutions. Thus, given the fact that funding is a determinant of the number and worth of instructional tools, facilities, and instructors, disproportionate funding⁴ obviously established differences in the academic context. Furthermore, the Apartheid structure negatively impacted the quality⁵ of instructors. The White schools had 96% of instructors with certificates in teaching, whereas a mere 15% of instructors in Black schools had any form of certification. Finally, Bantu Education also caused the shutdown of many schools, since funding from schools associated with religion were withdrawn and these were the type of schools that provided education to a considerable number of Black students (Ocampo, 2004).

least; the Zulu speakers dominated the KwaZulu Natal Province (77.80%), while the English speakers (13.20%) are the least; the Pedi speakers (52.90%) dominated the Limpopo Province, followed by the Tsonga speakers (17.00%), while the Venda speakers (16.70%) are the least; the Swazi speakers (27.70%) dominated the Mpumalanga Province, followed by the Zulu speakers (24.10%), followed by the Tsonga speakers (10.40%), while the Ndebele speakers (10.10%) are the least; the Afrikaans speakers dominated the Northern Cape (53.80%), while the Tswana speakers (33.10%) are the least; the Tswana speakers (63.40%) dominated the North-West Province, while the Afrikaans speakers (9.00%) are the least; the Afrikaans speakers (49.70%) dominated the Western Cape Province, followed by the Xhosa speakers (24.70%), while the English speakers (20.30%) are the least (Evans, 2015). The country is also well known for its multilingual language policies, but only two of these languages (Afrikaans and English) have been developed as academic languages (Statistic South Africa, 2012). For the process of learning, it is widely recognised that the in-depth understanding and the flexible usage of the mother tongue, affect students' learning of a second language (L2) or First Additional Language (FAL) – the term used within the context of Education in South Africa (Mariam & Spivey, 2003).

Therefore, for students to be competent and improve in the performance of their First Additional Language (FAL), the mother tongue has a vital role to play. The fact that students may not be well-grounded in their mother tongue is detrimental to the process of FAL acquisition (Pretorius, 2002). Merrill and Sharon (2000) investigated the connection between the usage of the mother tongue and the second language from the perspective of bilingual education for minority language learners. The outcome of the study affirmed that the growth and maintenance of the proficiency level of the mother tongue assist in the development of the second language in a child. This means that the more proficient a learner becomes in his/her mother tongue, the greater the possibility of developing proficiency in the second language.

As established by Tsebe (2021), it is imperative to acknowledge that mother tongue education is not only beneficial for minority children but also for the adults and students in this study. Thus, a student's mother tongue has a major role to play in the in-depth understanding of the L2/FAL. This is emphasised by Cummins's Threshold Hypothesis, which states that before a speaker of a second language can effectively use that language, such a speaker must have established a minimum threshold in language proficiency. Cummins (2013) underlines that a student should have acquired a recognised degree of competency in his or her mother tongue to be proficient in the second language.

Similarly, advocates of bilingual transitional models assert that to acquire the essential expertise in the second language, students ought to have acquired a competent degree in the usage of

their mother tongue (Bender *et al.*, 2005). This means that in-depth knowledge of a learner's mother tongue goes a long way in understanding the second language. The reality, therefore, is that since students who enrol for tertiary education come from various linguistic backgrounds where a single mother tongue has not been firmly established, some of these students have limited capacity in acquiring English language proficiency (Brenzinger, 2017), which leads to poor academic performance at university.

Therefore, with the enrolment of students who bring varied linguistic repertoires into South African universities, the universities are compelled to promote some form of multilingualism and plurilingualism, due to various policies adopted by South African universities in improving the effectiveness in the instructing and learning practices and accepting students from different linguistic backgrounds.

To this effect and to align with other universities in South Africa in promoting multilingualism, the North-West University Council approved a new language policy on the 28th of November 2018. This language policy aims to promote some form of multilingualism in teaching-learning activities and accommodate diverse students from various linguistic backgrounds. This language policy is now at a stage where it needs to be implemented. The problem is, however, how students' mother tongues can be utilised in the implementation of the language policy.

As English provides access to tertiary education and many studies have been done on improving students' English proficiency, the rationale for this study is to investigate the role of the mother tongue in the acquisition of English as a medium of instruction, to examine the reason behind the underperformance of students, as well as to explore the roles that biliteracy and multiliteracy fulfil in the academic endeavours of first-year students at the North-West University.

1.5 Theoretical frameworks

The focus of this study will be on second language acquisition, which is a field of research theories, policies, and practices concerning language. Ellis and Ellis (1994: 11) state that *multilingualism* is the custom in several African and Asian nations; therefore, many students in these nations are multilingual in that they have attained a certain level of proficiency in other languages besides their mother tongue. According to Larsen-Freeman and Long (2014: 26), the term second language does not always mean the second language that is learnt, therefore it is not always as straightforward as it first looks. Second language acquisition denotes the acquisition of whichever tongue(s), apart from one's mother tongue. Hence, second language acquisition research addresses the acquisition of third and fourth languages as well (Larsen-

Freeman & Long, 2014). These are referred to as additional languages in the South African school curriculum.

Khan (2016) asserts that the process of acquiring two languages (mother tongue and L2/FAL) in a bilingual speaker is similar. However, many bilingual or multilingual students who come from disadvantaged backgrounds experience it as a huge challenge to acquire English as an additional language and as a Language of learning and Teaching (LoLT) in university settings in South Africa (Van Rooy and Coetzee-Van Rooy, 2015:3; Mngomezulu, Dhunpath & Munro, 2017). According to Ebrahim (2009), the term disadvantaged refers to students who reside in an underserved community and have underprivileged social and economic circumstances. Ebrahim (2009) argues that students who come from these disadvantaged contexts mostly only use their mother tongue for communication, and when they gain access to university, their low level of proficiency in English as LoLT results in their poor academic performance.

This study examines the role of the student's mother tongue in learning the second/additional language, examines how the students' mother tongue is practically applicable during the learning of English as a medium of instruction as well as explores the extent or degree to which the knowledge acquired in the mother tongue has assisted first-year students of the North-West University in acquiring academic literacy in their second/additional language. Thus, the two theories of Cummins's hypotheses on second language acquisition (the Developmental Interdependence Hypothesis and the Threshold Hypothesis) and the concepts of Cognitive Academic Language Proficiency (CALP), Basic Interpersonal Communication Skills (BICS), and Translanguaging are chosen for the study. The reason that pedagogical translanguaging applies to this study is that a variety of study findings had demonstrated beneficial links between L1 and L2 literacy-related skills to support the inclusion of students' mother tongues in teaching and encourage instructors to support their continuous growth (**Cummins, in press**). Research has also shown that implementing multilingual instructional strategies, also known as pedagogical translanguaging, can effectively support academic performance, foster critical language awareness, encourage active student engagement with literacy in both their mother tongue and school languages, and validate students' identities. This has been evidenced through documentation of early instructional initiatives as well as more recent examples (**Cummins, in press**).

1.5.1 Cummins's theory of second language acquisition

Cummins's theory of second language acquisition, which he established in 1979, is centred on three hypotheses: the Developmental Interdependence Hypothesis, the Threshold Hypothesis,

and the concepts of Cognitive Academic Language Proficiency (CALP) and Basic Interpersonal Communication Skills (BICS).

The Developmental Interdependence Hypothesis –addresses the functional interdependence between the development of L1 and L2 skills“ (Cummins, 1979b). This hypothesis suggests that the growth in the competence of a student in a second language is, to some extent, attributed to the kind of competence such a student developed in his/her mother tongue (Khatib & Taie, 2016). Simply put, the in-depth understanding or capability a student develops in the mother tongue, assists him/her to become proficient in the second language (Baker & Jones, 1998).

Furthermore, *the Threshold Hypothesis* states that for a student to attain whatever advantages in bilingualism, that student must have at least reached a certain level of proficiency in the two languages, namely the mother tongue and L2/FAL. However, if the student has limited proficiency in the two languages (mother tongue and second language), the learner can experience learning challenges or cognitive limitations that prevent them from benefiting from being multilingual (Cummins, 1976; Jessica, 2014).

In addition, Cummins (1979a) coined the terms BICS (Basic Interpersonal Communication Skills) and CALP (Cognitive Academic Language Proficiency). He stated that BICS is the competency required to communicate fluently with individuals in daily social interactions (Cummins, 1979a), while CALP refers to the linguistic skills necessary for a student to interact and learn in an educational environment, for instance, listening, reading, speaking as well as how to write on pertinent academic topics.

Cummins's theory of second language acquisition is germane because, during the process of using the additional language at university (either for communication or medium of instruction), the student's capability and comprehensive understanding of their mother tongue will assist them in acquiring the second/additional language.

Also, for a first-year student at the North-West University to enjoy any benefits of being a bilingual speaker in a tertiary environment, it is mandated that such a student should have attained a certain level of proficiency and capability in both languages (mother tongue and L2/FAL). However, if the student is not proficient in both languages, such a student will be faced with cognitive challenges, thereby denying him/her the benefits and opportunities associated with being bilingual or multilingual.

1.5.2 Translanguaging

The term translanguaging^{ll} was first used in 1994 by a Welsh researcher named Williams (Mokolo, 2014). In his definition, he says that translanguaging is the intentional usage of well-organised dual languages for instructing (by the educator) and acquiring knowledge (by the students) (Williams, 1994; 1996). Translanguaging was given a more detailed definition by Baker (2003; 2011), who defined it as the procedure of creating denotation, forming and developing know-how, and acquiring knowledge and lore with the usage of dual languages. Both scholars (Williams and Baker) indicate that it is a term that describes how students increase their reasoning/cognitive growth using dual languages. Thus, to an extent, in supporting a possibly stable growth of a student's dual languages, Williams (2003) alludes that translanguaging regularly makes use of the student's stronger language in developing the weaker language. In a bilingual classroom setting, translanguaging is crucial because it requires the student's and instructors' usage of dual languages (Mokolo, 2014). Furthermore, while coming across unfamiliar concepts in the schoolroom, regardless of the usage of the students' various languages, translanguaging gives the students the liberty to productively make use of the other languages in their repertoires (Mokolo, 2014).

Furthermore, Wei (2017) defined translanguaging as a practical theory of language. And further stated that practical theory does not give explanations of particular sections of data observed, but rather gives general explanations of the entire data observed by the investigator.

Hence, since it is a practical theory, translanguaging is relevant to this study because it allowed the researcher to observe the impact the students' home/first language has on the L2/FAL. It assisted the investigator in seeing for himself how the students are at liberty to make use of dual languages simultaneously during teaching and learning activities.

1.6 Research aim, questions, and objectives

1.6.1 Research aim

This study investigated the role of the mother tongue in the acquisition of English for academic literacy among first-year students in the flagship modules in the Faculty of Education at North-West University.

1.6.2 Research questions

The following questions were addressed:

1. How evident is the relevance of the following theories of Cummins among multilingual first-year students?
 - (a) the Developmental Interdependence Hypothesis;
 - (b) the Threshold Hypothesis.
2. What other possible purposes/roles does the mother tongue fulfil in a first-year multilingual classroom?
3. What strategies could empower first-year students to utilise their mother tongues in the acquisition of academic literacy in English?

1.6.3 Research objectives

This study ought to achieve the following objectives;

1. To test the basic hypotheses stated by Cummins for multilingual societies and education in multilingual societies. This was done quantitatively and qualitatively.
 - (a) the Developmental Interdependence Hypothesis (e.g., by determining the linguistic repertoire of students through language portraits and language history questionnaires)
 - (b) the Threshold Hypothesis (e.g., by assessing students' levels of language proficiency in their mother tongues and FAL through their Grade 12 marks, their scores in a test on academic literacy, and comparing that to their academic results in the flagship modules completed in their first year),
1. To look at other possible purposes/roles the mother tongue fulfils in a multilingual classroom (by analysing students' language portraits and by following up with individual interviews).
2. To identify strategies that could empower first-year students to utilise their mother tongue in the acquisition of academic literacy in English.

1.7 Research design

1.7.1 Pragmatic paradigm

The research in this study was based on the pragmatic paradigm, which allows the research to select and utilise methods of research that would be the –most appropriate for studying the phenomenon at hand (Kivunja & Kuyini, 2017:30). This paradigm did not originate from one philosophy or reality but rather focuses on the ‘what’ or ‘how’ of the research (Creswell, 2003:11). Furthermore, the study is pluralistic as it focused on the real-world practice and multiple data collection methods that can –shed light on the actual behaviour of participants, the beliefs that stand behind those behaviours and the consequences that are likely to follow from different behaviours (Kivunja & Kuyini, 2017:30). The pragmatics paradigm, therefore posits a mixed methods methodology and a combination of quantitative and qualitative research methods were employed as part of this study.

1.7.2 Mixed methods research design

This is a case study that uses mixed method design. Mixed methods research is widely defined as the mixing of qualitative and quantitative data in a particular investigative study (Wisdom, Cavaleri, Onwuegbuzie & Green, 2012; Creswell, Plano & Clark, 2011). The term mixing according to Glogowska (2011) and Zhang and Creswell (2013) denote the procedure by which the elements of qualitative and quantitative studies are linked together to provide a comprehensive view of the research issues.

Furthermore, Creswell (2014) views mixed methods research as:

“An approach to research in the social, behavioral, and health sciences in which the investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research”

The essential notion of the mixed method, according to Creswell (2014), is that the combination of the numerical developments (quantitative data), as well as individual experiences (qualitative data) by the researcher, gives an improved knowledge of the issue that is investigated.

Hence, this study will employ mixed methods to have a broader knowledge of the role of the mother tongue in enhancing English for Academic Purposes in the linguistically diverse context of the first-year classes at North-West University.

1.7.3 Basic designs in mixed methods

Basic designs are the main designs that serve as the framework for the whole mixed-method study (Creswell, 2014). He further categorises the basic designs in mixed methods into three categories: a convergent design, an explanatory sequential design, and an exploratory sequential design.

This study will employ a convergent design which entails a combination of the findings of the analyses of both quantitative and qualitative data. Combining the findings of these two data sets provides a better understanding of the two forms of data as quantitative findings present a broad pattern, whereas qualitative findings give comprehensive specific views of people. By employing this design, a mixed-method researcher can proceed with different viewpoints and verify any database over another.

1.8 Scope of research

The fieldwork was carried out for 12 weeks in the identified flagship modules in the Faculty of Education on the Potchefstroom campus of the North- West University in the North-West Province in South Africa.

1.9 Research methodology

1.9.1 Population

Trochim (2006) defines a population as a group of people that the researcher wants to choose a sample from, to address finding answers to a research problem. Population is also defined as the total number of people or participants that fulfil or satisfy a certain standard stated for an investigative study (Alvi, 2016). The population of this study included first-year students at the North-West University in the identified flagship modules in the Faculty of Education, instructed through the medium of English of Afrikaans. Therefore, for the researcher to be able to identify the first-year students in the flagship modules, a sample method was selected to depict the entire population.

1.9.2 Sampling Technique

Alvi (2016) defines sampling as the procedure by which a sample is taken out of a population. Therefore, this study made use of the purposive sampling technique. Purposive sampling, otherwise called selective, subjective, or judgement sampling, is a sampling technique with which the investigator depends on his/her judgement in the selection of people within the population to involve in the research. It is also a non-probability sampling technique because

the chosen participants for the sample are selected based on certain criteria. Furthermore, purposive sampling entails identifying and selecting individuals or groups of individuals who are completely aware of or well-versed in a certain topic of interest (Creswell & Plano, 2011). In this instance, the first-year students were bi- or multilingual and learning in multilingual classrooms where English or Afrikaans is the LoLT. The criteria for the selection of the participants were as follows:

- Students who are bi- or multilingual with a mother tongue other than English;
- First-year students;
- Students who attended one of the identified flagship modules at the NWU in the Faculty of Education;
- Students who attended the flagship modules in the Faculty of Education that are presented through the medium of English or Afrikaans.

The students were approached and recruited by independent volunteers. These volunteers were language practitioners or postgraduate students who explained the study and the rationale behind the research instruments to the students, and they obtained informed consent from the participants who were willing to take part in the study.

1.10 Data collection

This study is a sub-project within a bigger project on multilingual pedagogies. The following instruments of data collection were used: language repertoire questionnaires, individual interviews, language portraits, students' scores in Grade 12 for the Home Language and the FAL, as well as for a test in academic literacy and the student's academic results in the flagship modules.

1.10.1 Language repertoire questionnaire

Language repertoire questionnaires were established by researchers like Gullberg and Indefrey (2003), who worked in the field of psycholinguistics. These are quantitative data collection instruments and were employed in gathering language background information on the participants in the flagship modules. These were discussed with and presented to all the students before they gave their written consent.

The questionnaire concentrated on taking information from the bi or multilingual participants who have a mother tongue other than English. Also, for this research, the questionnaire was

used to allow multilingual participants to share information about the languages that form part of their language repertoires. Most of the questions were open-ended and focused on how the participants acquired the languages in which they are proficient and the reasons for learning these languages.

The language repertoire questionnaire takes about 30 minutes to complete (for participants who completed grade 12). About 2000 participants completed this questionnaire in 2010, and no discomfort was reported. Privacy was protected in that a case number was provided for each participant when the data were captured.

1.10.2 Language portraits

A language portrait is a qualitative data collection instrument that was used in this study. Language portraits are principally used in multilingual studies (Busch, 2010). Initially, language portraits were used as instruments to create language awareness in education. However, Busch (2018) posits that language portraits are currently and gradually employed as an investigative instrument examining in what way speakers are knowledgeable in explaining how they put their repertoires and heteroglossia into practice.

Thus, this methodology necessitated the participants to employ the use of colouring pencils to draw the linguistic resources in their repertoires on a silhouette of a human being. The participants were also requested to write notes explaining why they position languages on certain parts of the body, why they used a specific colour to point to languages, and what the languages mean to them.

During previous studies where language portraits were used, some participants were unsure and wanted guidance. The language practitioners who facilitated the process were trained to reassure the participants that there were no rights or wrong answers. The language portraits took between 10 and 20 minutes, depending on the amount of time the participant wanted to spend on them. Case numbers were assigned to the portraits to ensure privacy.

1.10.3 Individual interviews

Individual interviews were conducted as part of the qualitative data collection methods of the study. After completing the language portraits and the language repertoire questionnaires, six of the participants agreed to take part in follow-up interviews. These participants provided additional information on the colour selection and the positioning of languages on their language portraits and the multilingual learning approaches they employed in the flagship modules in

2020. During the interviews, participants' views on the role of their mother tongues in the learning process were also explored.

1.10.4 Language proficiency tests

Language tests are merely known as data instruments or processes of collecting specific types of data/information, especially data/information that deals with students' language capabilities (Norris, 2012). The test can be of different arrangements and structures, lengths, item categories, and grading requirements, which can be used to determine the kinds of language tests depending on the features and data made available by any of the tests.

The Language Policy Unit of the Council of Europe describes a language test as the proper/correct tool for evaluation. The Council outlines the merits of a well-organised, established as well as properly controlled, and managed language test as;

- the findings/outcomes are unified and dependable. This denotes that to liken the examinees to similar or dissimilar supervisions/control will be simple.
- examinees are evaluated in a great standard of liberty plus fairness.
- a considerable number of examinees can be evaluated within a limited time.
- assessment effectiveness assists in guaranteeing objectivity.

The data available on the student administration system about language proficiency in English and the mother tongue of the students (e.g., Grade 12 results, results of academic literacy tests for English and Afrikaans) were used together with an analysis of the academic achievement of the students in the identified flagship modules.

The academic literacy tests took one hour to complete. The tests are well-designed and did not add any degree of discomfort regarding testing that schoolgoers had not regularly experienced when they were in school. Anonymity was protected in that case, and numbers were assigned to all answer books. Furthermore, as it's English and Afrikaans names indicate, the Test of Academic Literacy Levels (TALL) (Toets van Akademiese Geletterdheidsvlakke (TAG)) is relevant to this study because it is a South African test carried out for measuring the level of academic literacy, which at present is an authoritative test that has been applied over the years at various Higher Education institutions in South Africa (Du Plessis *et al.*, 2011). This TALL / TAG test is South Africa's sole set of academic literacy assessments created expressly for use in multilingual institutions (Du Plessis *et al.*, 2011) and arguably South Africa's most thoroughly tested language and academic literacy assessments.

Because TALL / TAG has been exposed to comprehensive analyses and examination, there is sufficient proof that it conforms to the standards for practicality (Bachman and Palmer, 1996; McNamara and Roever, 2006; Weideman, 2010, 2011). The standards of practicality that the TALL / TAG test adhere to are reliability, validity, interactiveness, expected impact, and practicality (Du Plessis *et al.*, 2011).

1.10.5 Academic scores for the flagship modules

The student's marks in the identified flagship modules were also obtained and used for quantitative analysis and descriptive statistics together with the other instruments that were discussed previously.

1.11 Data Analysis

1.11.1 Analysis of the language repertoire questionnaire data

In analysing the language repertoire questionnaire, descriptive statistics like frequencies were employed. These analyses were done in collaboration with statistical services at North-West University.

1.11.2 Analysis of language portrait data

Concerning the analysis of the language portraits, the data analysis suggested by Kruger (2018) was employed since the researcher is not an expert and a trained psychologist. The colours and the placements of languages on the silhouette were captured on an Excel spreadsheet. Also, the frequencies of colour used for languages with the frequencies of the placement of the languages on the silhouette were employed in identifying the important developments in the data of the language portrait.

1.11.3 Analysis of language tests and academic results for the flagship modules

The participant's scores for the Home Language and the FAL in Grade 12, as well as their general academic achievement, were correlated to explore possible relationships and strength of relationships between these variables. The participants' scores in the academic literacy test and the scores of the participants' Grade 12 Home Language and FAL were correlated with their marks in the Flagship modules to determine if the Cummins hypotheses hold for these multilingual participants. This was done with the help of statistical services at North-West University.

1.11.4 Analysis of all data sets

Finally, the findings drawn from all data sets were linked to a macro-analysis, which provided detailed and inclusive knowledge of the character/nature of multilingual repertoires from both a direct and indirect observational view.

1.12 Ethical considerations

This study is a sub-project within a bigger project on multilingual pedagogies. The NWU has clear guidelines that should be followed if permission is asked from students to participate in a study. Additional gatekeeper guidelines and the NWU guidelines for the POPI act were followed when consent was received from students to access their NWU application forms and/or academic results. Therefore, this study adhered to the same ethical considerations as those of the umbrella project.

- (a) Cleaning of the data sets: care was taken to protect all data sets to make sure that the data are correct when it will be analysed. For example, the questionnaire data were captured in Excel and analysed in Statistica / SPSS.
- (b) Enhancing the trustworthiness of interpretations: the researcher made sure that all the findings in the study were trustworthy. Interview data, interpretations as well as selecting coding were verified by the participants or co-coders. In this study, the promoters of the study acted as co-coders. For the descriptive statistics, interpretations were verified with a statistical consultant at North-West University.
- (c) All data sets in the umbrella/bigger project were secured in a cabinet in the project leader's office; thereby, the anonymity of the participants was protected. Excel spreadsheets and Atlas.ti analyses documents included only case numbers of participants, and no names were added.
- (d) The entire data set was strictly used for the stipulated research intention.

1.13 Trustworthiness

In any research study, the researcher needs to establish the trustworthiness of the study. Since this study employed mixed-method research, trustworthiness should be taken into account with the gathering and analysing of qualitative and quantitative data. Hence, the approaches that were employed for trustworthiness in this study are self-reflexivity, confirmability, transferability, credibility, and dependability.

1.13.1 Self-reflexivity

A researcher can determine the trustworthiness of a study using self-reflexivity. For interpretive researchers, Giddings and Grant (2009: 128) state that self-reflexivity includes the procedures of assuring their truthfulness and reliability. It is necessary that the researcher explicitly declares his knowledge along with previous beliefs or assumptions. The prior knowledge that comprises the researcher's principles, ideals, and individual prejudices concerning the matter subject to the investigation was made clear at the beginning of the research. Thus, such self-knowledge/awareness was developed by being questioned by a different qualitative researcher who is experienced in the selected methodology. This role was fulfilled by the promoters of the study.

1.13.2 Confirmability

Baxter and Eyles (1997) state that confirmability relates to the extent to which the findings of a study may be substantiated or confirmed by different researchers. Confirmability also ensures that data and interpretations are not the inquirer's imagination but based on the evidence (Tobin & Begley, 2004:392).

To ensure that the findings of this study were not based on the researcher's prejudices and guesses, confirmability was ensured by creating an audit trail that provided a detailed description of the process of data collection, data analysis, and interpretation of the data.

1.13.3 Transferability

Transferability denotes to which extent the findings of the qualitative research could be transferred to different situations or settings (Anney, 2014:278). Moreover, through extensive description and careful sampling, a researcher helps future user judge transferability (Bitsch 2005:85). Both these techniques were employed in this study.

1.13.4 Credibility

Credibility requires that the study findings provide trustworthy facts from the participants' original knowledge and accurately explain their original opinions (Anney 2014: 276). Also, in Anney (2014), credibility is referred to as the trust that can be established in the reality of the results of the study. To develop credibility in this study, the credibility techniques of triangulation, member checking, and peer examination (Anney, 2014) were applied.

1.13.5 Dependability

Dependability, according to Cohen *et al.* (2013), is ensured when the research study's findings are consistent and repeatable. Similarly, Bitsch (2005) denotes dependability as the steadiness of results for some time. Therefore, the researcher of this study ensured the dependability of the study by submitting it for external examination after its completion (which would be similar to an external audit).

1.14 Contribution of the study

This study contributed to the body of knowledge by assisting in understanding the roles played by the various language repertoires brought to the environment of North-West University by first-year students in gaining academic proficiency in English. Furthermore, it sheds light on the role played by bilingualism and multilingualism in the academic performance of first-year students at North-West University.

1.15 Chapter Outline

This study is divided into five chapters, which are outlined as follows:

Chapter 1: Introduction and rationale for the study

This chapter outlines the proposed title and keywords, concept clarifications, introduction and rationale for the study, problem statement, theoretical framework, research aim, questions and objectives, research design, -methodology, data analysis, ethical considerations, contributions of the study, and time schedule.

Chapter 2: Theoretical framework

Chapter two provides the theoretical framework that informed and guided the study. These include Cummins's theory of second language acquisition and the theory of Translanguaging.

Chapter 3: Research methodology

This chapter focuses on the methodology employed for this study. The population, sample techniques, and data collection instruments which consisted of the language repertoire questionnaires, language portraits, follow-up individual interviews, students' scores in Grade 12 for the Home Language and First Additional Language as well as their scores for the TAG/TALL tests as well as the academic marks reported in the flagship modules.

Chapter 4: Data analysis, results, interpretation, and discussion

Chapter four will describe the analysis of the following; the language history questionnaire data, the language portrait data, the transcribed data of individual interviews with participants, students' scores in Grade 12 for the Home Language and First Additional Language, their scores for the TAG/TALL tests as well as the academic marks reported in the flagship modules. This chapter also presents the results of the research and the interpretation thereof, as well as discussions based on the findings.

Chapter 5: Conclusions, limitations, and recommendations

Chapter five provides the conclusion of the findings, the limitations of the study, and further recommendations that might emerge from the research results.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

The previous chapter provided a concept clarification, an introduction to and the rationale for the study, a problem statement, a theoretical framework, a research aim, questions and objectives, research design, research methodology, data analysis, trustworthiness, ethical considerations, and the time schedule.

This chapter focuses on the two selected theories of second language acquisition, namely Cummins's theory of second language acquisition (which includes the four-quadrant model including the notions of Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP), the Developmental Interdependence Hypothesis, and lastly, the Threshold Hypothesis) and Translanguaging which form the theoretical framework of the study. These theories are relevant to this study because NWU first-year students are from diverse linguistic contexts, and these theories underpin students' knowledge of English as an additional language in tandem with the mother tongue and other languages in their linguistic repertoires and how this knowledge assists them in learning. Hence, these theories and their relevance to the study will be comprehensively discussed.

Mother tongue in South Africa

In 1953, the phrase "mother tongue" was first used as a synonym for "native tongue" to mean the language a child learns and uses for cognition and communication. At that time, the mother tongue garnered widespread attention on a global scale (Tsebe, 2021). Taking South Africa as an example, the mother tongue alludes to the 11 official languages that serve as a testament to the country's diversity. This nation's distinctive variety is what distinguishes it as a rainbow one. The setting of South Africa is reflected in the wide social variety that results from the many tribes and their distinct languages (Tsebe, 2021). Nonetheless, the presence of linguistic discrepancies within this country and its affluent heritage gives rise to socio-economic and political predicaments.

The infiltration of the indigenous South African people's education sector by the Nationalist Party is believed to have commenced circa 1971 and is the reason for the difficulty in defining the mother tongue concept in South Africa's multilingual context (Tsebe, 2021). The education of the native population was mostly under the control of the church through the missionaries until around 1971. Tsebe (2021) affirms that when the missionaries arrived in the nation, they attempted to advance mother tongue education by assembling a group of translators for education who spoke the mother tongue. The creation of formal education in South Africa from

1652 to 1948 was aided by missionaries, who also played a key role in providing education to the country's native inhabitants. The growth of mother tongue education has, however, been a thing of the past since that time and with the advent of the new democracy. Unsurprisingly, English has become the predominant official language for instruction in many public schools where indigenous students are educated.

A comprehensive analysis of prior scholarly works indicates that language has been a significant challenge that South Africa has been contending with since its tumultuous historical background. The issue of language in education is compounded by the fundamental role of language acquisition in facilitating other areas of learning. This is because language serves as the conduit whereby all instructional, educational, and evaluative activities are conducted (Tsebe, 2021). The absence of language would render all other domains of learning non-existent. It may be necessary for South Africa to reassess its language policies and prioritise the advancement of its mother tongue, similar to the efforts made by missionaries in previous eras.

Likewise, the definition of the home language or mother tongue is a child's primary language (or one of his/her principal languages) at the point of his/her first encounter with formal schooling, i.e., at four or five (Plüddemann, 2012). While some researchers have questioned the notion of the home language or principal language, a child- or learner-centered schooling system cannot avoid establishing the young child's best-known language(s), the one (or more) she or he feels most comfortable in, and that is most likely to enable successful literacy development and learning at school. In most cases, and especially in Africa, Plüddemann (2012) assert that the child's home language will be one or more local or regional dialects, sociolects, or non-standard varieties distinct from the spoken prestige variety or the written standard. In these cases, a mother-tongue or home-language-based schooling system is responsible for mediating access to the established variety and adding additional languages to the child's repertoire.

2.2 Cummins's theory of second language acquisition

Second Language Acquisition (SLA) is an established field of study where much research has been carried out throughout higher institutions of learning and is part of the division of Applied Linguistics that is recognised by the research and practices of Psychology, Sociology, and Linguistics (Aljumah, 2020). Mitchell, Myles, and Marsden (2019: 56) define a second language (L2) as a foreign language generally employed as an instrument for communication in business, education, or government. In the context of South Africa, many first-year students have completed English as a First Additional Language (FAL) in the national curriculum as it is not their Home Language or one of the languages they speak at home, and it is also the medium of instruction in the majority of schools (Department of Basic Education, 2010:21-22)

Researchers in the field of education have argued that learning an additional/second language does not mean that the mother tongue is excluded from the learning process. For instance, Irujo (1998: 6), with Deller and Price (2007: 9), put forward that a student's mother tongue assists in the process of knowledge acquisition and learning, and therefore there is no justification for not using it as an instrument of learning. However, several scholars in bilingual education uphold language separation, which is the basis for a monoglossic approach to language learning as noted by Hornberger (2005) and Garcia (2009). According to Larsson (2016:6), from a monoglossic perspective, bilingual speakers are viewed as double monolinguals that are equally proficient in the two languages. In this approach, the additional/second language is taught without reference to the mother tongue in educational contexts. This is primarily called language separation, and it has been suggested that deviation from this approach could lead to poor educational performance, as well as the hybridisation and indistinctness of the languages (Cummins & Swain, 1986). Further arguments are that it may hinder a student's acquisition of an additional/second language and interrupt language growth if there is any interference from the mother tongue. Blackledge and Creese (2010) agree that, from a pedagogy perspective, bi/multilingual learn best when they are permitted and enabled to rely on all of their current language abilities (in two or more languages), instead of being confined and hampered by monolingual pedagogical ideas and practices.

Contrary to this argument, Méndez, M.D.C. and Pavón (2012) assert that the usage of dual languages in bilingual school rooms in the 1980s was not a reason for poor academic performance. Moreover, the employment of a student's mother tongue does not in any way interrupt the learning of an additional language. Accordingly, there is every possibility for bilingual students to be academically successful.

Furthermore, the separation of the dual languages for the general learning process may allow for what Cummins (2008: 65) described as the 'two solitudes assumption' where the medium of instruction is exclusive to the target language without any reference or use of students' first language (L1). This is also related to the monoglossic approach, whereby classroom instruction is solely conducted in the L2/FAL and has no room for the mother tongue. Cummins (2008) asserts that there are limited studies to corroborate the notion that the teaching of languages in the education field must be separate.

On the other hand, ample studies and evidence show that the usage of dual or multiple languages in the field of education will assist students in understanding the content (Swain, Nakajima, Green & Tran, 1984; Garcia & Wei, 2014; Jessner, 2018). The major feature of employing two languages in the learning process is that there is a transfer of knowledge using languages (Cummins, 2008). This implies that the student's ability to make use of two

languages in their language repertoires assists in properly comprehending the content when acquiring disciplinary knowledge in other subjects.

In the next section, Cummins's theory of second language acquisition is examined and integrated to explore how the NWU first-year students' various mother tongues enhance their acquisition of English as a language for academic purposes within a multilingual context.

2.2.1 Cummins's notions of BICS and CALP

To create a shared understanding of how bi/multilingual students learn, it is important to distinguish between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Cummins, 1981). Khatib and Taie (2016) note that Cummins was the first to distinguish BICS from CALP, initially used to characterise John Oller's global language proficiency.

BICS refers to language usage in social situations where relevant interpersonal and situational clues and conversational fluency build language skills (Garcia, 2009:37; Khatib & Taie, 2016). CALP, on the other hand, focuses on academic language usage and requires higher-order thinking such as hypothesising, assessing, inferring, generalising, forecasting, or categorizing (Méndez García & Pavón Vázquez, 2012: 10). CALP is the student's ability to understand and express, in both oral and written modes, concepts and ideas that are relevant to success in school (Khatib & Taie, 2016).

Furthermore, the BICS/CALP distinction is important for the educational growth of bilingual learners in diverse cultural settings. In the process of learning English as an additional language, the learner's proficiency in BICS allows for communication and survival in social settings such as informal play on the school playground and mostly involves the development of listening and speaking skills (Cummins, 2008: 66). In classroom settings, BICS allows children to understand when the teacher instructs them to do certain things, for example, to divide into small groups for classroom exercises (Cummins, 2008). These instructions often include waving or non-speech sounds like hmmm or shhh. BICS proficiency also allows for the understanding of simple written text as well as understanding written directions on worksheets (with or without illustration). Within settings where English is used informally or for social purposes, approximately three years of immersion is required for children to achieve native-like BICS proficiency in the additional language (Cummins, 2008: 66).

In contrast to what may be seen as the swift development of conversational skills in the target language, the development of academic proficiency often requires five to seven years of training and may even extend to 10 years, depending on the circumstances (Khatib & Taie, 2016).

The notions of BICS and CALP are relevant to the participants in this study as BICS, which is cognitively less demanding, is used for social interaction among first-year students who come from various linguistic backgrounds, and CALP enables students to share their understanding of different concepts within an academic context. Several studies (Van Dyk, Zybrands, Cillie, & Coetzee, 2009; Makoni, 2010; Van Dyk, 2011) have determined that academic literacy, which encompasses reading, writing, listening, or speaking, is the main reason for success or lack of academic success in university students. CALP is, therefore, important to NWU first-year students because it enables them to learn effectively through the medium of instruction, which is mostly English.

Examples of CALP are understanding and presenting an academic paper, writing a report or essay, reading mainstream discipline textbooks, using a template in completing an assignment and doing practical experiments using scientific inquiry. Unlike BICS, which is mainly about oral communication and the development of listening and speaking skills, CALP develops all four English linguistic skills in formal contexts: listening, speaking, reading, and writing.

It is important to note that bi/multilingual students need their mother tongue as a support/scaffold during the process of developing both conversational fluency (BICS) and academic linguistic competence (CALP). Cook (2003) argues that bilingual and multilingual learners differ from monolingual learners in terms of the qualitative difference between their L1 and L2 competence, their language awareness, and their language processing systems. Building on Cook's research, Jessner (2018:31) discusses the phenomenon of transfer in multilingual learning, which encompasses not just language transfer but also a transfer of cognitive skills. As a result, bi/multilingual children who are not yet academically skilled in English as an additional language and medium of instruction will employ their mother tongue in the learning process.

2.2.2 Cummins's four-quadrant model

Cummins's model is useful in determining and designing suitable activities for bi/multilingual students. For instance, in the preparation of activities for additional/second language newcomers, the instructors could begin with context-based activities as well as practical tasks which demand little cognitive action, e.g., identifying objects. On the other hand, more proficient learners would require additional and more cognitively demanding activities (Bilash, 2011). In the Higher Education system, lectures in English are typically cognitively demanding but context-reduced, and there may be students who are not proficient in English as the medium of instruction. For additional/second language students to benefit from instruction, they need to be supported at various levels of additional language development (Halbach, 2012). As the

university classroom is context-reduced, lecturers should ideally tap into the mother tongue of students who are struggling with proficiency in English (Makalela, 2015). This may better drive home the cognitively demanding concepts being taught.

With the distinction between BICS and CALP clarified, this section presents the BICS-CALP model. The BICS-CALP model is a four-quadrant model and illustrates the differences between these two language competencies. For this study, the model is integrated within the student context of the NWU as it conceptualises typical classroom tasks and activities within the four main quadrants of learning.

The four-quadrant model illustrates that the BICS-CALP difference is subdivided into a crossing continuum which emphasizes the areas of contextual assistance and cognitive requirements incorporated in a particular linguistic function (Cummins, 1981; Khatib & Taie, 2016). The BICS/CALP distinction's horizontal axis, according to Bilash (2011), represents context embedded to context reduced. This horizontal axis shows a progression from the necessary context, where students employ external ideas like facial interactions and concrete objects with oral and visual presentations, to the point where students must only rely on advanced language cues, writing (text), and speech (language) to comprehend meanings.

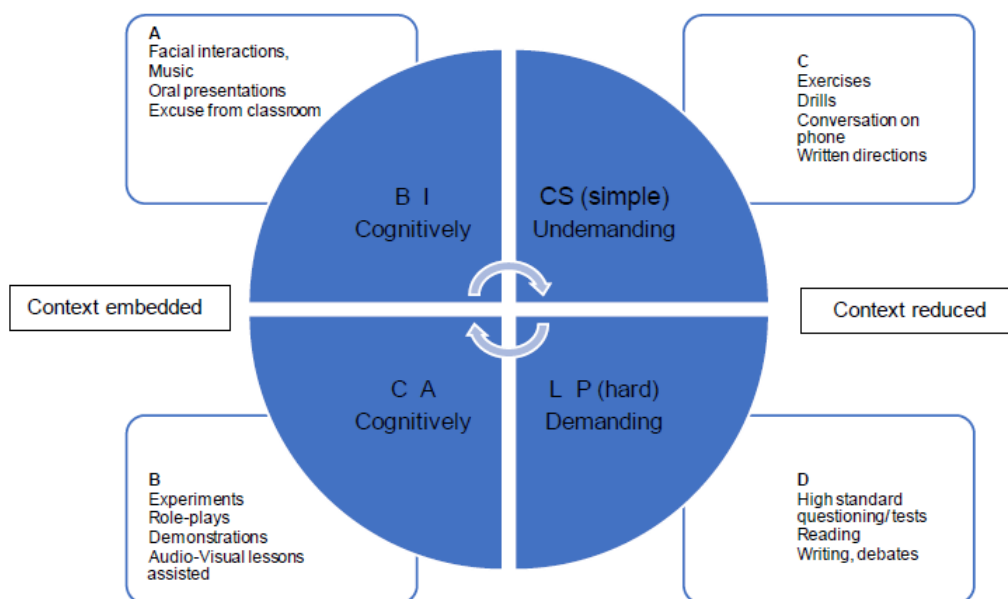


Figure 2-1: Cummins's BICS/CALP four quadrant model.

(Adapted from Bilash, 2011)

The vertical axis of the model pertains to the extent of cognitive demand on participation in each activity, ranging from activities that are cognitively less demanding to cognitively difficult tasks (Bilash, 2011). Hence, a task at the top left corner (cognitively undemanding, likewise context

embedded, usually scaffolded by face-to-face interactions) can perhaps be suitable for a student who just started learning an additional/second language. However, activities at the bottom right corner (cognitively demanding, likewise context reduced, such as answering a challenging question or writing a standardised or difficult test) could be an activity suitable for a more proficient student.

The quadrants model helps depict the linguistic challenge encountered at the institution where this research was conducted. Like in any educational setting where the medium of instruction is different from students' mother tongue, they vary in levels of proficiency – in this case, English language proficiency. Hence, their English language proficiency will determine the usefulness of their mother tongue as a means for both social interaction and cognitive academic learning. For example, a student's mother tongue can support both the acquisition of content knowledge and the medium of instruction as the student is engaged in a cognitively demanding learning process in the classroom. The same happens when students employ their mother tongue to support communication in an additional language when they engage in cognitively undemanding tasks for social communication outside the classroom setting.

Furthermore, lectures in Higher Education are typically cognitively demanding, and since the development of students' additional/second language starts from quadrant A to the other quadrants, it is expected that, in a multilingual classroom like at the NWU, lecturers should consider the types of cognitive tasks they set for students. These should start from less demanding to more demanding. Also, this allows students to use their mother tongue to acquire basic knowledge. Consequently, this mother tongue knowledge assists the students in understanding and addressing a cognitively demanding task. From there, the instructor can focus on academic concepts in the medium of instruction and challenge the students to use the Language of Learning and Teaching (LoLT) to produce responses to cognitively demanding tasks through the medium of English.

Even with this increasing demand in terms of academic activity, the lecturer should continue to provide some form of scaffolding for students' language production in situations where students need to demonstrate knowledge acquisition (Coelho, 2009). Accordingly, the instruction and the student's academic tasks develop to quadrant C, where little scaffolding is needed for bi/multilingual students. Students keep working on the demanding academic tasks in this quadrant.

Quadrant D includes English activities that are far beyond the understanding of the students, otherwise known as tasks within an abstract context. Quadrant D is probably the most demanding for students because the English activities are both cognitively demanding and

context reduced. Given that the students would have difficulty completing these activities through the medium of English, their academic progress may be hindered (Coelho 2009). Thus, activities in quadrant D require English additional/second language students to be relatively competent in the additional/second language; otherwise, academic achievement is a challenge.

2.3 Cummins's developmental interdependence and threshold hypotheses

As discussed earlier, the BICS-CALP notion and Cummins's four-quadrant model have been examined because the BICS-CALP distinction shows how languages can be used in social and academic contexts. Likewise, Cummins's four-quadrant model depicts how students progressively gain proficiency in the Language of Learning and Teaching (LoLT) if the latter is different from their mother tongue. To further understand the role played by the mother tongue in the acquisition of an additional/second language, Cummins conceptualised the Developmental Interdependence and Threshold Hypotheses. Both these hypotheses will be dealt with in the following sections.

2.3.1 Developmental Interdependence Hypothesis

A hypothesis is a statement or belief regarding an occurrence or circumstances, the fact or certainty of which one has no idea (Mukherjee, 2019). Cummins's (2005) Developmental Interdependence Hypothesis is formulated on the notion that learning a second or additional language is interdependent on the mother tongue (Cummins 1979b: 227; Khatib & Taie 2016), meaning that the degree to which the student can draw on the home language to support learning in the second/additional language is dependent on the level of proficiency developed in the home language. There is no direct correlation between the level of knowing the home language and learning a second language. This implies that if students have not reached a specific threshold of proficiency in the mother tongue, they will struggle to learn through the medium of another language that they are acquiring. The Developmental Interdependence Hypothesis, therefore, is a well-developed mother tongue as a resource in the process of acquiring content knowledge and growing proficiency in the LoLT (Barik & Swain, 1976; Cummins & Mulcahy, 1978; Goncz & Kodopeljic, 1991; Ricciardelli, 1992).

Consequently, the Developmental Interdependence Hypothesis guided Cummins to develop the idea of a Common Underlying Language Proficiency (CULP). In CULP, Cummins employed the Dual Iceberg as a metaphor to clarify the tie that binds competencies in dual languages. Figure 2-2 establishes the overall idea of the areas of languages that are connected, which has been established by many experimental studies (Khatib & Taie, 2016; Cummins, 2005).

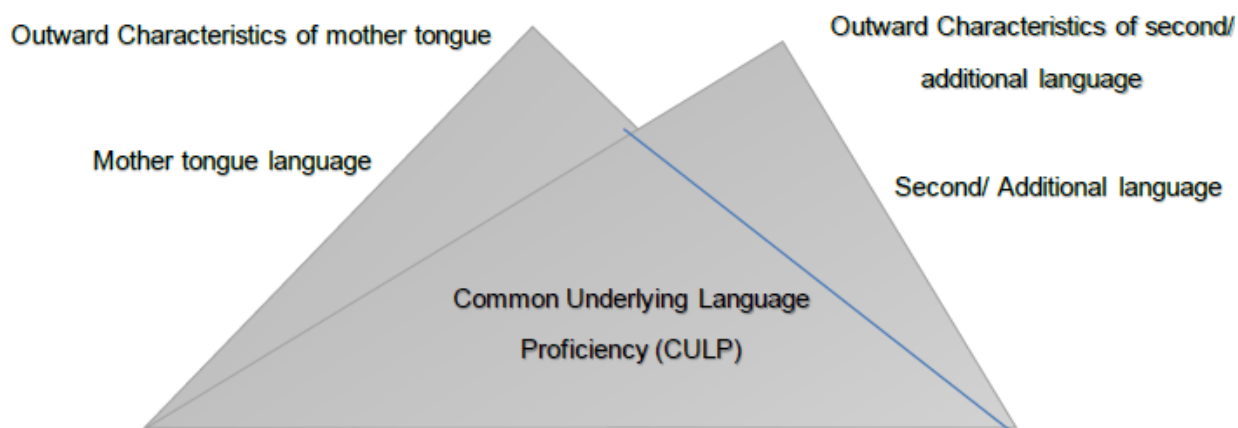


Figure 2-2: Cummins's Common Underlying Language Proficiency (CULP)

(Adapted from Cummins, 2005)

Cummins's dual-iceberg metaphor portrays that CULP binds the competencies in dual languages. As indicated in Figure 2-2, even if the outward areas of the languages vary, CULP allows for the existence of fundamental and educational competence to dominate both languages. That is, the cognitive and literacy abilities developed in the mother tongue are transferred to the second language / across languages which provides for the existence of basic and academic competence. As students increase their knowledge of one language, their knowledge of the other languages they are studying also increases. CULP grows as students gain a deeper understanding of their respective languages, and as CULP grows, it becomes simpler to acquire additional languages.

The L1 and L2 languages, which are the channels of Common Underlying Language Proficiency (CULP), are shown by Cummins' balloon metaphor as being two languages in the human skull (Khatib & Taie, 2016). The L1 and the L2 are connected, and when either of these is activated, these areas interact. Cummins was able to therefore discuss the shift of mental/educational or knowledge-associated competence based on the transition from one language to another.

Likewise, it was affirmed that these connections were discovered even within languages that are completely different (Swain, Nakajima, Green & Tran, 1984; Khatib & Taie, 2016). Hence, it postulates that CULP need not be regarded as only language competence (Cummins, 2005) but also as a theoretical view.

Formal studies have explored CALP and correlated acquisition difficulties with evaluation approaches. At a Spanish university, Guzmán-Simón and Garca-Jiménez (2015) studied college students' academic literacy and reasons. The University of Seville's Primary Education

Bachelor Degree students received a "Questionnaire on Reading and Writing Habits." This survey found academic literacy-boosting teaching practises and student literacy. The study found that pre-school and primary education bachelor's students have distinct academic literacy levels, as predicted. Prospective teachers need specialist reading and critical writing skills to convert knowledge, promote awareness, and regulate intellectually.

Butler (2017) says higher education in South Africa seldom respects or promotes non-English and Afrikaans speakers. Unfortunately, there are few suitable programmes; for instance, Paxton (2009) reports that the University of Cape Town uses isiXhosa to teach new ideas, while Ramani et al. (2007) report a dual-medium BA degree taught in Northern Sotho and English at the University of Limpopo. Butler is unsurprised that more students at risk of failing postsecondary courses due to a lack of academic literacy in English or Afrikaans get admitted to South African universities. The University of Pretoria, North-West University, and Stellenbosch University have awarded the English TALL and Afrikaans TAG to first-year students for years. The study found that many students at these universities lack academic literacy in English and Afrikaans, placing them at risk of failing. English and Afrikaans academic literacy tests are reliable for new students. However, there are no equivalent tools for the other official South African languages, which is a drawback.

Even though English and Afrikaans are the main languages of instruction, the NWU encourages the use of home languages like Sesotho and Setswana in teaching and learning at its three campuses. Butler (2017) researched practical multilingualism in higher education at North-West University's Vaal Triangle Campus (VTC). A valid assessment of students' academic literacy in Sesotho (Southern Sotho) and isiZulu in the teaching-learning environment at this institution is a first step, according to this study. Because there are no Sesotho and isiZulu academic reading assessments in higher education, translating an existing test may be ideal. The Test of Academic Literacy Levels (TALL), which has a good track record of assessing students' English literacy, was translated into Sesotho and isiZulu. The study concluded with a detailed account of the Sesotho translation process (the researcher prioritised Sesotho because it is the home language of almost all VTC students) and positive results for the development of a linguistically and functionally appropriate TALL.

With regards to the foregoing, the students at the NWU Potchefstroom campus at which this research was conducted are allowed to tap into their mother tongue which therefore broadening CULP and acquiring proficiency in the language of instruction becomes simpler. This means that Common Underlying Language Proficiency (CULP) forms the basis of the intellectual growth of the mother tongue and promotes CALP in the LoLT. That is, as first-year students continue to communicate using their mother tongues within the academic environment,

it helps to broaden their knowledge in the mother tongue which leads to broadening their knowledge in acquiring the LoLT, enabling epistemic access and improved academic performance. In a bi-multilingual context, this view is consistent with research that suggests that all languages in the students' linguistic repertoires are utilised during cognitive processing (Van Heuven and Dijkstra 2010; Jessner, 2018) and resists the view of multilingual competence as a deficit or drawback.

Conclusively, if applied to the population of this study, the interdependence hypothesis can account for growth in proficiency in the LoLT if the mother tongue is used as a resource in teaching and learning. The relevance of the Threshold Hypothesis as regards additional/second language students is further examined in the following section.

2.3.2 Threshold Hypothesis

The Threshold Hypothesis suggests that a bi/multilingual student should reach a threshold degree of language proficiency in their mother tongue to prevent cognitive difficulties in their additional/second language. The lack of reaching the threshold then prevents the possible advantageous features of bilingualism from impacting the mental and educational performance of the bi/multilingual student (Cummins, 1979b).

Baker (2011) explains that this threshold may vary depending on the cognitive stage and the academic needs of students. There are, therefore two thresholds: Once the lower threshold level of bilingual competence is achieved in the mother tongue (i.e. a high level of competence in one of the languages — dominant bilingualism), bilingualism will not bring about any negative cognitive effect, whereas once the higher threshold level of bilingual competence is achieved (high levels in both languages - balanced bilingualism) bilingualism will have positive cognitive effects (Baker 2011; Lasagabaster, 1998:119).

Skutnabb-Kangas and Toukoma (1976) elaborated on the negative impact of bilingualism on the educational and mental successes of bi/multilingual students. Accordingly, Cummins assumes that the negative impact is possibly attached to the lower proficiency of the students in the Home Language (Khatib & Taie, 2016).

Meanwhile, this hypothesis is also related to the distinction between additive and subtractive bilingualism (Lambert 1975; Khatib and Taie 2016). Additive bilingualism is when an individual learns an additional/second language, and maintains the development and usage of the mother tongue (Cummins, 2017). Subtractive bilingualism, on the other hand, is when an individual learns the additional/second language to the detriment of his/her mother tongue, thereby substituting the mother tongue (Cummins, 2017). In earlier studies, Cummins (1979b) observed

that research focussing on additive bilingualism usually has a positive impact on language acquisition and cognition, while studies on subtractive bilingualism harm language acquisition and cognitive ability (Khatib & Taie, 2016: 384). Against this background, Cummins (1978), as well as Khatib and Taie (2016) postulated the existence of the two thresholds.

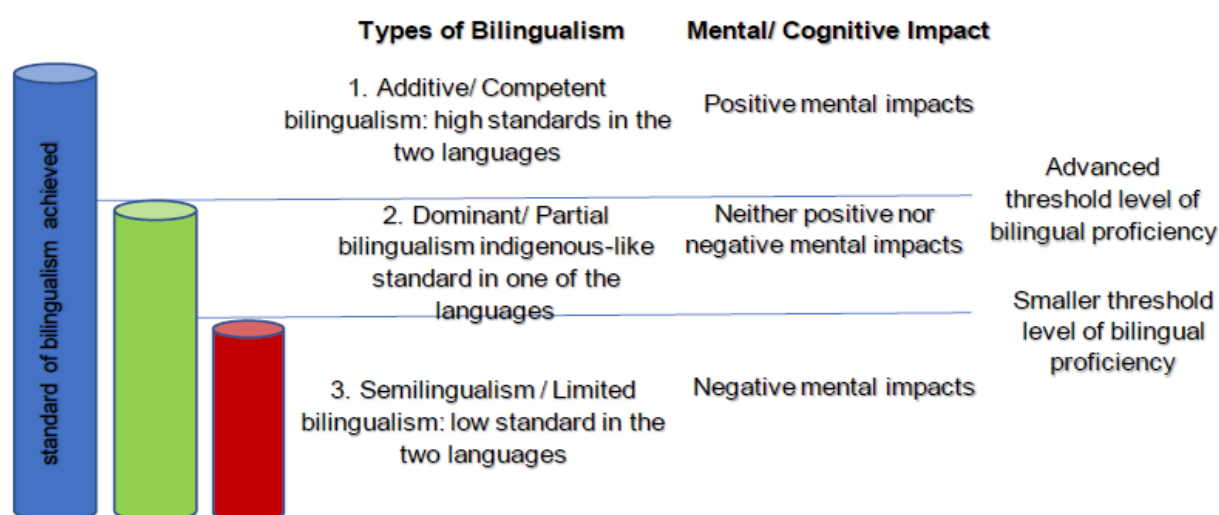


Figure 2-3: Mental/ Cognitive Impact of Various Types of Bilingualism

(Adapted from Cummins, 1979: 230)

Figure 2-3 illustrates that the positive impacts of bilingualism cannot be accomplished unless the bi/multilingual students attain the minimum threshold. This implies that first-year students entering the classroom need advanced competence in both languages to derive an advantage from their bilingualism.

Rolstad and MacSwan (2014) examined students' English literacy using the Threshold Hypothesis and found that multilingual students benefitted more in the learning of English second/additional language. These groups were Turkish-German, Vietnamese-German, and Russian-German, where English was the third language. Then an important relationship was established for the German second language (at 0.01 level) as well as English third language (at 0.580) and the mother tongue with the additional/second language at (0.638), whereas the mother tongue is related to the third language at (0.277). The relationship of the mother tongue with the additional/second and third language implies that the Threshold Hypothesis is explicitly subject to the ability level of the mother tongue in the process of additional/second language attainment (Rolstad & MacSwan 2014; Lechner & Siemund 2014).

However, the hypothesis has been criticized by scholars like Canale (1981), Genesee (1984), Troike (1984), Wald (1984), and Spolsky (1984) who all assert that they consider extra causes

which hinder students' attitudinal, political, cultural, and social successes in terms of learning additional languages. These researchers assert that Cummins's theory prevents educational institutions from also carefully considering the socio-economic differences which impact the student's academic successes (Mabiletja, 2015). Furthermore, in a South African study among

Grade 7 learners in a high-poverty primary school, Pretorius and Mampuru (2007) found that the direction of proficiency influence can also go from the second or additional language to the Home Language. Therefore, there is merit in exploring whether there is evidence of this Hypothesis among multilingual first-year students who come from diverse backgrounds.

2.4 Translanguaging

2.4.1 Introduction

The previous section discussed Cummins's view on additional/second language acquisition as it applies to bi/multilingual students. Further, it is important to examine translanguaging as a theory of additional/second language acquisition. Translanguaging, as a pedagogical practice, helps to understand the importance of the mother tongue and its role in complementing and strengthening students' proficiency in the LoLT (if the LoLT is different from the mother tongue). Translanguaging assists in accessing knowledge, academic achievement, and the cognitive advancement of students' language repertoires.

Welsh researcher Williams initially coined the word translanguaging in 1994. He defined translanguaging as the conscious application of harmonised dual or multiple languages for instruction (by the educator) and the students' knowledge acquisition (Williams, 1994; 1996). In a broader context, translanguaging is a method of making meaning, developing knowledge, acquiring knowledge, and applying knowledge of two or more languages (Baker 2003; 2011). Williams and Baker (2011) also submitted that translanguaging helps expand students' cognitive growth using dual/multiple language instruction.

Translanguaging is then important in bi/multilingual classrooms because its application is beneficial to the development of both the instructors' and students' linguistic repertoires (Mokolo, 2014). Therefore, this theory is then relevant to this study because of the multilingual nature of North-West University. Investigating students' perceptions of translanguaging in first-year classes in a multilingual context will assist in gaining insight into the usefulness of the pedagogy.

Plurilingualism

The ability to use a variety of languages is referred to as plurilingualism (Lamb 2015). The terms multilingualism and plurilingualism are often used interchangeably. Although multilingualism is a social phenomenon according to the Council of Europe and refers to the coexistence of many language variations in a certain geographic region; and the variety of languages or linguistic styles that a person may utilize (an individual phenomenon) is referred to as plurilingualism (Eleuch, 2011). Multilingualism is a phenomenon that affects both individuals and society, according to some scholars. Plurilingualism is another term for the phenomenon that affects society. More accurately, the capacity to employ many languages as a cohesive whole for communication and intercultural interaction is known as plurilingualism. It does not involve one language replacing another or being to another as different monolingualism (Eleuch, 2011).

Garcia and Otheguy (2020) expressed that the academic community is now engaged in a dispute over the vocabulary (and the concepts incorporated therein) that should be used by researchers and educators: plurilingual pedagogy or translanguaging. Some advocates of plurilingual teaching and/ or translanguaging work hard to highlight the contrasts between these two strategies. Although generally, plurilingual pedagogy and the idea of translanguaging have a lot together; hence, the terms should work together harmoniously (Garcia & Otheguy, 2020).

2.4.2 Translanguaging in multilingual contexts and South African language policies

In the case of South Africa, various formal guidelines are provided for the function and use of the country's diverse mother tongues in public and educational sectors. These include the Language in Education Policy (Department of Education (DoE) 1997); the Higher Education Act (RSA, 1997); the Language Policy for Higher Education (DoE 2002); the South African Languages Bill (RSA, 2011); with the Use of Official Languages Act No. 12 (RSA, 2012) (Ngcobo, Ndaba, Nyangiwe, Mpungose, & Jamal, 2016). Within the tertiary education sector, all public Higher Education Institutions (HEIs) in SA must adhere to the Language Policy Framework for Public Higher Education (LPFPHE, 2020). This policy aims to admit and advance African languages as a medium of interaction, pedagogic and educational evaluation.

Moreover, the development of African languages for educational goals is considered a matter of urgency in South Africa (Paxton, 2009). Consequently, in addressing the disparity of the education system in South Africa, the Language Policy for Higher Education (DoE, 2002) has positively supported the development of multilingualism in education over the years. Translanguaging is therefore regarded as a suitable instruction and learning method that is well-grounded in academia (Mazak, 2017). Since South African language policy is engrained in multilingualism and as multilingualism is central to effective translanguaging pedagogy, this

deserves studying, owing to the little that has been carried out (Mwinda & van der Walt, 2015).

Translanguaging theory is appropriate for the South African setting as it can make a significant contribution to progressive teaching and address difficulties in the education system (Ngcobo *et al.*, 2016; Garcia & Wei, 2014: 92). There is an underlying necessity for educators to employ translanguaging as a medium of instruction since it will foster instructional literacy in multilingual settings.

2.4.3 Application to multilingual settings

Previous research discovered that educational difficulties encountered by most South African students were not only caused by English as the medium of instruction, but students also lacked certain types of literacy required for learning at the tertiary level (Ngcobo *et al.*, 2016). For example, summary writing is an important literacy skill required for effective learning, but English additional language (EAL) students find summarising challenging due to a lack of

English vocabulary (Choy & Lee, 2012; Dehkordi & Shafiee, 2016; Idris, Baba & Abdullah, 2011). Another academic literacy skill that students lack is the ability to identify core ideas within a text for summary purposes (Choy & Lee, 2012). According to Choy and Lee (2012), implementing a translanguaging model as a pedagogical instrument helps learners overcome these difficulties.

The process of learning a different language, specifically for educational purposes in a multilingual classroom, may be challenging for students. Also, being knowledgeable about the emerging methods of learning an additional/second language in an academic institution is difficult (Garcia & Wei, 2014). Furthermore, English as an additional/second language, aside from being used as a medium of instruction for students, creates opportunities for future study and work, helps in building relationships with people from different language contexts, and enables students to carry out different activities (Garcia & Wei, 2014: 79).

According to Garcia and Wei (2014), acquiring an additional/second language is like a new way of living. In understanding the importance of language to human existence, Becker (1991) borrowed the term languaging. Becker made use of this term because of the belief that languaging is continuous; that is, language never ends or is ever completely developed. Accordingly, much remains to be done in the learning of an additional/second language, which includes translanguaging.

Translanguaging is related to the ability of bi/multilingual students to take charge of their acquisition of knowledge (Garcia & Wei, 2014). This is based on the task the students are requested to accomplish in class. The pedagogy or the learning strategies that emerge in the use of more than one language helps them to individually determine when and how to make use of the languages within their language repertoires. This alludes to the schoolroom as a space for natural translanguaging (Williams, 2012).

For instance, it implies that multilingual students are permitted to language and make use of meaning-making acquisitions which are not available in the schoolroom nor are necessarily familiar to instructors. Self-regulated knowledge acquisition underlines the freedom of the students, which specifically determines the students' understanding of activities in gaining knowledge, increasing knowledge, and allowing for self-improvement (Paris & Paris, 2001). The approaches of translanguaging, therefore, encourage greater degrees of self-directedness in the students as they individually control or determine their knowledge acquisition (Velasco & Garcia, 2014). Translanguaging, therefore, views knowledge acquisition as a process and not a result (Garcia & Wei, 2014: 81).

There are, however, several conditions that are required for effective translanguaging to take place. These include the principles of investment, positioning, transfer, and integration. These conditions will be discussed in greater detail below with specific reference to the context of this study.

Additional/second language usage among multilingual students like at the NWU can only develop in connection with the student's mother tongue and without conflicting with the existing recognized consciousness that constitutes languaging. This determination to take part in the acquisition of knowledge is what Norton (2000) refers to as an *investment*. This principle aims to facilitate a significant relationship between the need of the students and their dedication to learning a language (Norton, 2013). From the students' side, there are certain requirements for participation and investment in learning additional/second languages. Firstly, students require a safe consciousness that enables them to correctly use the additional/second language as they participate in an uninterrupted process (Garcia & Wei, 2014: 79). Moreover, students are expected to engage cognitively and socially using their additional/second language during the learning process.

In addition, students also need to embrace their *positioning*. Positioning refers to the language attempts learners make during their linguistic engagement in the classroom. These attempts are often affirmed (or not) by other learners (Hawkins, 2004). Embracing *positioning* is a discursive procedure where individuals actively and cognitively contribute to collectively made plans

(Davies & Harre, 1990: 48; Garcia & Wei, 2016: 79). Garcia and Wei (2014) stated that the achievement and failure recorded by any educational institution are due to societal procedure or development, which directs students' conduct and reasoning. Hence, when bi/multilingual students' constructive engagement with knowledge acquisition is made possible through, for example, translanguaging, their individuality, self-identification, and academic performance is promoted (Palmer, 2008).

Aside from switching between languages for educational and social purposes, it also allows for the integration of bilingual activities. This implies that translanguaging permits students to abandon Cummins's idea of *transfer* (this is when the knowledge of the mother tongue assists in additional/second language acquisition) established in bi/multilingual education as well as to accept a concept of *integration* of language usages as represented by the students (Garcia & Wei, 2014: 80). Translanguaging, therefore, surpasses acquiring the knowledge of different language formations, but instead of the acquisition of a different distinct additional/second language, students engage with languaging which means that they use different languages in their repertoires to make meaning. Thus, they do not necessarily only use the language associated with their household or school. It denotes that since languaging is a process that is continuous and ongoing, the student's ability to make use of and integrate the languages in their repertoires comes from their knowledge and understanding because of their relationship with society and not from the home or school.

Moreover, for multilingual students to have access to learning and continue with the development of their different languages, their respective mother tongues are crucial. The reasons for translanguaging the mother tongue and the additional language in multilingual classrooms are further discussed.

2.4.4 Usefulness of translanguaging in a multilingual classroom

Translanguaging is developed from the framework of sociocultural theory. Vygotsky (1978: 57) states that knowledge acquisition in the sociocultural theory is interpersonal (Garcia & Wei, 2014). That is, before the occurrence of internalisation, there is an established connection with others and the entire world. Hence, it denotes that translanguaging is crucial 'for metatalk (talk about talk) ', 'metacognition (talk about the task)' and 'whispered private speech' (Kibler, 2010) that are completely relevant for knowledge acquisition. Lantolf (2000) also submitted that the zone of proximal development might broaden through the students' use of translanguaging.

Moreover, the usage of the student's mother tongue had been established by Swain and Lapkin (2000) to offer three purposes: Firstly, there is the collaborative movement of the task since

there is the establishment of shared meaning with the students. This implies that bi/multilingual students can translanguage with other students from the same mother tongue speaking environment by collaboratively working on given tasks and sharing ideas which will make such tasks solvable as a result of the shared mother tongues.

Secondly, it permits students to concentrate on grammatical and vocabulary points. Proficiency in the mother tongue allows speakers to easily correct themselves grammatically and in their choice of words. This is a result of their mother tongue knowledge. Although this is not the case when they use an additional or second language.

Thirdly, there is the enhancement of personal communication. Storch and Wigglesworth (2003) established that students are mostly translanguage while managing and clarifying tasks. The use of the mother tongue during these exercises assisted in providing group members with the meanings of difficult vocabulary and grammatical interpretations (Garcia & Wei, 2014: 81). This is therefore beneficial for the acquisition of academic literacy because it fosters instructional literacy in multilingual settings.

In the diverse linguistic context of South African institutions including that of the NWU, translanguage is useful in aiding understanding and promoting knowledge access. This means that in the student's entire language repertoire, no language enjoys a higher status than the other languages as all the languages support the process of meaning-making. For instance, when a student who is not proficient in the medium of instruction (English or Afrikaans in this case) is asked a question in the classroom, such students can translanguage using his/her mother tongue in answering the question. Likewise, an academic can develop his/her lecture in English, but use the respective students' mother tongues in translanguage to explain difficult concepts so that all the tasks can be scaffolded during the instruction process. Finally, students have a distinct advantage in translanguage because once the students can utilise all the languages in their linguistic repertoires during the learning process they can more easily access knowledge and have a better chance of academic success.

2.4.5 Promoting English language skills along a continuum of learning languages

Multilingual students can acquire knowledge in different ways as part of a continuous learning process (Garcia & Wei, 2014: 86). At the starting end of the continuum, emerging multilingual students tend to use translanguage as *support* and occasionally to *develop* their knowledge during the instruction process (Garcia & Wei, 2014: 86). However, the bi/multilingual students at the higher level of the continuum, known as the experienced ones, further employ translanguage as a method of *enhancement* (Garcia & Wei, 2014: 86) by refining what they

are already knowledgeable about. As previously explained, Cummins's four-quadrant model elucidates that there is a need to support bi/multilingual students at different stages of their additional/second language growth for them to benefit from the instructional process. This agrees with the understanding that translanguaging is generally employed for the *enhancement*, and *support* with *expansion* purposes irrespective of the student's level on the bilingual continuum (Garcia & Wei, 2014: 86). The developmental interdependence and threshold hypotheses are related to translanguaging because they believe that whatsoever cognitive/academic proficiencies that are required in an academic environment should be based on the full linguistic repertoire of the students.

It is important to differentiate between the beginning of the continuum of bilingual students (i.e. the students at the commencement stage of learning an additional/second language) and the higher level of the continuum. The bilingual students at the beginning of the process possess a reliant translanguaging design, while the higher-level students most often employ an autonomous translanguaging design (Garcia & Wei, 2014).

To further differentiate between these two levels on the continuum and emphasise how translanguaging can be used both as a support and for expansion; Kano interviewed an emerging English language student, Satomi, who immigrated to the US at the age of 12 years. She was at the beginning stage of learning an additional/second language (which was English). The transcription of her response is below:

Satomi's response: *In English, I was reading corresponding passages in the Japanese language whenever I didn't understand them in English (citing Garcia & Wei, 2014: 87).*

Simply put, Satome employs the Japanese text as a *scaffold* for comprehending the English text.

Haruka, another bilingual student was further along the continuum of acquiring English and lived in Singapore, Hong Kong, and Japan before going to the US. She watched a video of herself where she was busy with English vocabulary practice and was requested to come up with synonyms. Her response shows that translanguaging is used as an expander rather than a support. Below is the transcription of Haruka's response:

Haruka's response: *I was thinking in Japanese at the time.... I couldn't think of synonyms in English because Japanese words kept shooting through my mind one after another. So, I depended on my Japanese. [For example], we had 'use up' among the list. When I understood the word in Japanese, the English word 'consumes' came to my mind. This way, I used the Japanese language for the task (citing Garcia & Wei, 2014: 87).*

Garcia and Kano indicate that though Haruka was also an emerging bilingual student, the connections she had across several cultural beliefs in Singapore and Hong Kong gave her the chance to utilise translanguageing not only to clarify meaning but to make meaning. Thus, the two students (Satomi and Haruka) illustrate a reliant translanguageing design (Garcia & Wei, 2014: 88).

Similar instances to the two discussed could occur among the multilingual first-year students of the NWU, especially during their reading and writing process. The researcher came across students' assignments in which they interchangeably employed their mother tongue with words and phrases when they failed to find a synonym or explanation of a specific concept. Much of their English writing resulted from their mother tongue knowledge. Hence being emerging bilinguals (bilinguals at the beginning of the continuum), translanguageing supports the reading and writing process.

A bilingual student, Yuji, on a more advanced level of the continuum, narrates how he employed the two languages in his repertoire to study because he desired to obtain the most accurate data for his study. He remembers how he employed the two languages in preparing a paper. Below is a transcription of Yuji's recalling:

This year, when I was researching the pros and cons of cell phones, I used materials both in Japanese and English I searched for articles in Japanese on whether cell phones were beneficial, and I took some of them. Then I did the same thing in English. I ended up using the materials in both languages.... I searched in both languages to get the best ones available.

Yuji was born in Canada and relocated to the US at 4 years of age. He has never lived in Japan but confidently uses Japanese. Garcia and Kano state that Yuji is a vigorous 'translanguager' who makes use of all chances to develop his bilingual skills.

A more experienced bilingual student such as Yuji, shows a tendency to translanguage autonomously. Yuji translanguages in improving his work, displaying a high level of independence as well as the capacity to self-adjust his languageing. Green (1986), as well as Thierry and Wu (2007), emphasise that the two languages appear to have a continuous activation, however, to varying levels (Garcia & Wei, 2014: 88). Yuji in this instance uses translanguageing to function as enhancement and expansion of knowledge.

Based on research conducted by Garcia and Kano, it can be said that bi/multilingual first-year students at the NWU irrespective of their position on the continuum, may be engaged in translanguageing to make sense of academic content. In the above illustration, translanguageing allows for profound reasoning when bilingual students are offered difficult or detailed information, and develops numerous individualities. It concurrently evolves language and academic literacy (Blackledge & Creese, 2010; Creese & Blackledge, 2010; Fitts, 2009; Garcia, 2009, 2013, 2014; Garcia, Flores & Woodley, 2012; Heller & Martin-Jones, 2001; Hornberger &

Link, 2012; Lewis, Jones & Baker, 2012; Wei Li, 2011; Lin, 2013; Palmer & Martinez, 2013; Sayer, 2008, 2013).

2.4.6 Critique on translanguaging

Researchers have criticised translanguaging for its application in multilingual classroom settings, expressing doubt about its effectiveness in the instructional process. In this section, some of these points of critique are discussed.

Ticheloven's (2016) criticism of translanguaging is based on the lack of practical evidence that it positively impacts academic performance. While instructors often complain about the failure of a distinct explanation concerning instructional instruments, they admit that the purpose of translanguaging is extremely logical (Ticheloven, 2016; Duarte, 2020). Despite empirical evidence that translanguaging is beneficial to bi/multilingual students who are challenged to learn through the medium of a second/additional language, it has not been included in the instructional design of academic programmes in most African and European schools. However, Higher Education Institutions in South Africa are now mandated by the Language Policy Framework for Public Higher Education (LPFPHE, 2020) to allow epistemic access and ensure student success by utilising and advancing African languages as a medium of interaction, formally introducing multilingual pedagogies, and adapting the assessment practices of programmes.

Furthermore, it should be noted that translanguaging stands in contrast to established principles of monolingual models in education, usually interpreted as 'immersion models' (Duarte, 2020). Supporters of monolingual models believe that translanguaging interferes with language acquisition and prevents learners from reaching advanced levels of proficiency in different target languages. In reaction, Cummins (2008) asserts that similarly there are limited studies to corroborate the notion that the teaching of languages in the education field must be separate and, as discussed in Sections 2.4.3 and 2.4.4, studies and evidence are proving that the usage of dual languages in the field of education do assist students in making meaning and promoting learning.

The application of translanguaging is also considered by some as illegitimate because of uncertainty about instructors' understanding of the standard of tasks to be executed by students when they use additional languages to do so (Kamwangamalu, 2010).

2.5 Conclusion

Sembiante (2016) asserts that Cummins's theory of second language acquisition and Williams translanguaging is useful in the field of additional/second language acquisition. In its turn, translanguaging is aimed at enabling bi/multilingual students to cope in different sociolinguistic settings by switching between languages that make up their linguistic repertoires to make meaning and communicate effectively.

These theories are related to each other because they agree that learning in an additional language is governed by rules and processes resulting from the knowledge a student has in his/her mother tongue (Salmona, 2014). These theories furthermore emphasise the importance of proficiency in the mother tongue to enable the transfer of strategies from the mother tongue to the additional language as well as the development of cognition (Salmona, 2014). It can be concluded that both Cummins's theories and the theory of translanguaging play significant roles in the usage of the student's mother tongue to learn through the medium of an additional/second language, mostly English.

CHAPTER 3 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The previous chapter focused on theories of second language acquisition as proposed by Cummins in his BICS/CALP distinction, Developmental Interdependence Hypothesis, and the Threshold Hypothesis, as well as translanguaging as the study was guided by these theoretical concepts. This chapter focuses on the research paradigm, describing the mixed-method research design, methodology, data collection procedure, data analysis, and trustworthiness, as well as the ethical principles taken into consideration while conducting the research.

3.2 Research paradigm

The American philosopher Thomas Kuhn first used the word paradigm to describe a logical concept in his book (*The Structure of Scientific Revolutions*) in 1962 (Kivunja & Kuyini, 2017). Based on research in education, Mackenzie and Knipe (2006) state that a paradigm is employed in explaining the position of a researcher's opinion, idea, thought process, or general view that clarifies the significance of study data (Kivunja & Kuyini, 2017: 30). Also, a paradigm helps with the establishment of theoretical opinions that form the way a researcher views, understands and operates inside the world.

Candy (1989), a leading member in the paradigm field classified academic research paradigms into three major categories of positivist, interpretivist, and critical paradigms, while other researchers such as Tashakkori and Teddlie (2003a; 2003b) and Kivunja and Kuyini (2017) also identified the pragmatic paradigm –that borrows elements from these three (Kivunja & Kuyini, 2017:30). This study is based on the pragmatic paradigm.

This paradigm is supported by philosophers (such as Alise & Teddlie, 2010; Biesta, 2010; Tashakkori and Teddlie, 2003a, and 2003b; Patton, 1990) who argued for a worldview would provide methods of research that are seen to be most appropriate for studying the phenomenon at hand (Kivunja & Kuyini, 2017:30) and would not be restricted by a single scientific method. The pragmatic paradigm focuses on the what or how of the study rather than being grounded in any particular philosophy or reality (Creswell, 2003:11). This study is, therefore, pluralistic as it focuses on the real-world practice and multiple data collection methods that can shed light on the actual *behaviour* of participants, the *beliefs* that stand behind those behaviours and the *consequences* that are likely to follow from different behaviours (Kivunja & Kuyini, 2017:30).

This paradigm posits a mixed methods methodology, and a combination of quantitative and qualitative research methods were employed as part of this study. According to Kivunja and Kuyini (2017:35), the pragmatic paradigm advocates non-singular reality ontology, and this study is based on the belief that the participants have their unique interpretations of the role and functions of language in their lives. This study is also based on subjectivist epistemology as the researcher interpreted the data through cognitive processing which was informed by interactions with the participants. Knowledge was, therefore, constructed socially and through interactive personal experiences with participants (Punch, 2005).

The following characteristics of the pragmatic paradigm as identified by Kivunja & Kuyini, 2017:36), are drawn from the work by Creswell (2003), Tashakkori and Teddlie (2003a); Patton (1990), and Martens (2015) are evident in this study:

- An emphasis on workability' in research and the use of what works' allow the researcher to address the questions being investigated by seeking to utilise the best approaches to gaining knowledge and using relevant methodology that helps in knowledge discovery.
- A rejection of the need to locate the study either in a positivist or an interpretivist paradigm.
- A search for useful points of connection within the research project that facilitate understanding of the situation.

3.3 Mixed methods research design

This is a case study that uses a mixed method design. Mixed methods research (MMR) is a form of multi-method research comprising a combination of one or several qualitative methods together and one or several quantitative methods (Schoonenboom & Johnson, 2017). In MMR, Maxwell (2012) submits that the term design has two unique definitions. The emphasis of one definition is on the *procedure* of the design, while the second definition emphasizes a *product*, which is the outcome of a design. The mixed method research design of this study will be discussed in terms of both these definitions in this section.

MMR is a kind of study whereby the components of qualitative and quantitative research methods (e.g. employing both qualitative and quantitative perspectives while, gathering and analysing data) are combined in a study to reach the overall objective of a study in terms of the 'breadth and depth' of knowledge as well as its validation (Schoonenboom & Johnson, 2017: 2).

Creswell and Plano Clark (2007) provide that the employment of both the quantitative and qualitative methods offers a deeper insight into complex problems instead of just employing one of the methods. Thus, through the triangulation of different groups of findings, the validity of the findings of the study is improved (Molina-Azorin, 2016). Furthermore, Molina-Azorin (2016) highlighted the fact that MMR can explain or confirm the findings of one approach through the results of a second approach, it can assist in developing and promoting different approaches and it can expand the size and scope of the research.

Creswell and Clark (2017) attest that research designs are important since they assist in deciding the methods to be employed in research and establish the rationale whereby researchers provide explanations after their research. They also state that each style of design has its history, function, concerns, philosophical presumptions, processes, advantages, disadvantages, and variations (Creswell & Clark, 2017). There are three basic designs of MMR, namely the convergent design, exploratory sequential design, and explanatory sequential design (Creswell, 2014). A convergent design was selected for the MMR in this study and will be explained in the next section.

For the data analysis processes of this study, Prof. Coetzee-Van Rooy (an assistant supervisor) foremost trained the study researcher on how to use the atlas.ti software (a program that assisted in the qualitative research data analysis of this study). After that and the upon the ethics approval and gatekeeper approval, the 61 first-year students' Language Portraits who attended the identified Flagship modules in 2020 were extracted from the data set curated by Professor Coetzee-Van Rooy. These 61 first-year students are from the Faculty of Education, Potchefstroom campus, NWU. All the information provided by the students for the language portrait data set was carefully captured on an Excel spreadsheet and afterward cleaned for the atlas. The clean Excel spreadsheet was thereafter converted to pdf and imported into the atlas where necessary codes were generated and analysis done, followed by interpretation and discussion.

Secondly, the language repertoire questionnaires were distributed to interested participants in the study. This questionnaire allowed the multilingual participants to share information about the languages that form part of their language repertoire. But before the distribution of the questionnaires, the researcher made use of an independent third party to send informed consent forms through email and university's learning management system to the 61 participants who completed language portraits and nine of those participants consented to completing the questionnaires. Upon receipt of the completed questionnaires, the researcher captured the data on an Excel spreadsheet, and the privacy of the participants was protected in that a case number was provided for each participant. The captured data on an Excel

spreadsheet was thereafter emailed to the statistical unit of the university for analysis. The analysis of the responses of the nine participants was therefore interpreted by the researcher and with the help of the supervisors and was discussed in the study.

Thirdly, follow-up interviews were conducted with five of the nine participants who completed the questionnaires and who consented to being interviewed. These follow-up interviews concentrated on information regarding colour selections and placement of the languages on the silhouette/portrait with questions on participants' experiences of multilingual strategies in attaining academic literacy in the identified flagship modules and the role of their mother tongues in the learning process were carried out. Online interviews were conducted and recorded on Zoom and the recordings were transcribed. The interview transcriptions were then converted to pdf format and imported into Atlas.TI where necessary codes were generated and data analysis was done.

Finally, with the signed consent forms of the participants, gatekeeper was obtained, and goodwill permission was sought from the Director of the School of Languages and the chairperson of the subject group Academic Literacy for the results of the TAG and TALL test results and the students' module marks obtained in the flagship modules. Hence, TALL and TAG tests as well as the module marks of the flagship modules of all 61 participants were released for statistical analysis by a qualified statistician at the university's statistical services unit.

3.3.1 Convergent Design

While this design is termed convergent by Creswell (2014), it is also referred to as a concurrent design by Schoonenboom and Johnson (2017). For purposes of this study, the researcher followed a convergent design.

The goal of a convergent design is to combine the findings of the analyses of both quantitative and qualitative data. The purpose of combining the findings of different data sets is to promote better understanding and interpretation and it also helps in approaching data from different viewpoints. Simply put, quantitative findings present a broad pattern with connections that are frequently required, whereas qualitative findings give comprehensive specific views of people.

Figure 3-1 illustrates how the two different data sets were combined in the convergent design. In stage one of the studies, the qualitative data are collected and analysed and in a parallel process the quantitative data are collected and analysed. These data sets are then merged after the completion of the parallel processes so that the data can be interpreted.

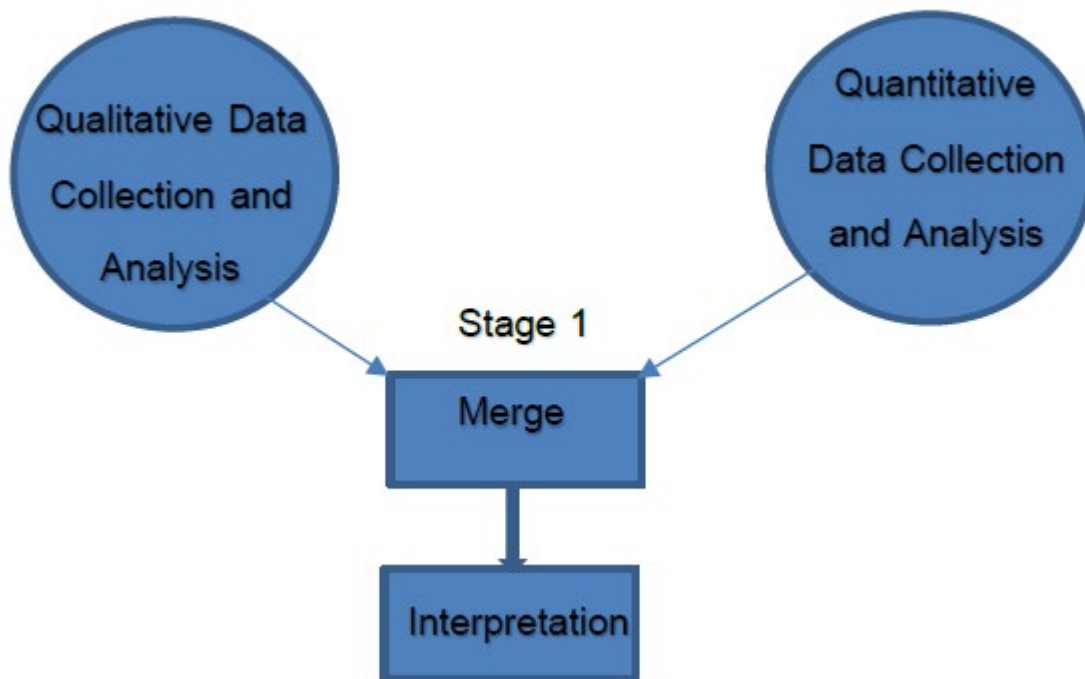


Figure 3-1 Convergent Design (Adapted from Creswell, 2014) Convergent Design Procedures

The following steps for the convergent design as described by Creswell (2014) were followed in this study:

1. The researcher independently gathered and analysed the quantitative data (in the form of the language repertoire questionnaires, academic literacy test scores, and the final module marks of the participants) and the qualitative data (in the form of language portraits and individual interviews with participants).
2. The findings of the quantitative and qualitative data were then merged through a *discussion* in which these findings were compared and related to the research questions of the study.
3. Lastly, after merging the findings, the degree to which the qualitative findings reaffirmed the quantitative findings were discussed and related to the current research and literature in the field. The researcher focused especially on the instances where the findings varied to try to explain the occurrence of such variations.

3.4 Data collection procedure

Regardless of the area of research, data collection is at the centre of any research study (Parveen & Showkat, 2017). This is the procedure of thoroughly collecting suitable information, with minimal misrepresentation, that would enable an effective analysis to provide reliable and

logical responses (Sapsford & Jupp, 2006). For this study, the data collection procedure is described by referring to the following: site selection, sample selection, data collection methods, and data collection process.

3.4.1 Site Selection

A public research institution in South Africa, the North-West University (NWU) has campuses in Potchefstroom, Mahikeng, and Vanderbijlpark. In 2004, the North-West University (formerly the University of Bophuthatswana) and the Potchefstroom University for Christian Higher Education—which also had a branch in Vanderbijlpark—merged to establish the new institution.

North-West University is a multilingual institution. Hence, the population of this study is the first-year students within the two recognised flagship modules in the Potchefstroom campus of the NWU in the Faculty of Education. These first-year students are from various linguistic environments and were educated using English or Afrikaans as a medium of instruction.

3.4.2 Sample Selection

Polit and Hungler (1999: 95) define sampling as the procedure of choosing a part of the populace in portraying the people at large. According to Creswell and Plano (2011), purposive sampling is a method whereby among the population of a research study, the researcher relies on certain criteria for the selection of individuals. The selection of participants was based on the following criteria:

- Students who are bi/multilingual with a mother tongue other than English;
- First-year students;
- Students who were enrolled in one of the recognised flagship modules in the Faculty of Education were presented in the medium of English or Afrikaans.

3.4.3 Data collection methods and procedure

In this section, the instruments of data collection that were employed for this study will be discussed. These are language repertoire questionnaires, language portraits, follow-up individual interviews, the scores of standardised academic literacy tests, the Grade 12 marks of participants for the Home Language and First Additional Language, and the final marks of the students in the flagship modules.

3.4.3.1 Language repertoire questionnaires (Please refer to Addendum (283 - 299) for the entire questionnaire)”

The language repertoire questionnaire is one of the instruments employed for this study's data collection. This instrument is quantitative and was used in the collection of basic language data of the first-year students involved in the flagship modules. These questionnaires are well-known to researchers such as Gullberg and Indefrey (2003) who specialise in psycholinguistics.

The focus of the questions in the language repertoire questionnaires was to collect information from bi/multilingual first-year students with a mother tongue other than English. Furthermore, the questionnaire included questions on the language repertoires of participants. and the questions concentrated on how the participants' languages were developed and the reasons for acquiring the languages.

Due to the Covid regulations and restrictions at the time, the questionnaires were sent online to the participants in the study, and 9 students completed and returned the questionnaires. On average, the participants completed and returned the questionnaire within 3 days.

3.4.3.2 Language portraits

Busch (2010) states that language portraits are primarily employed in multilingual research. Originally, language portraits were developed for language awareness implementation (Busch, 2018:2). At present, though, language portraits are now more often used as a kind of research instrument for participants to explore and clarify the role and purpose of the language(s) in their repertoires within their own contexts (Busch, 2018). The language portraits are qualitative data-gathering instruments employed in this study.

All the participants (61) completed the language portraits during their orientation programmes at the beginning of their first year. Case numbers were allocated to each language portrait and, on average, the participants spent 20 minutes completing the language portraits.

3.4.3.3 Follow-up individual interviews

The follow-up interviews focused on gathering additional information from individual participants regarding the colour selection and the positioning of languages on the portraits together with information on the multilingual learning approaches employed by participants while participating in the flagship modules in 2020 and specifically on their views on the role of their mother tongues in the learning process. 6 of the participants agreed to take part in the follow-up interviews and the data collected was part of the qualitative data gathering process.

3.4.3.4 Language proficiency tests

Language proficiency tests vary in terms of arrangements and structure, lengths, item categories, and grading systems and are employed to gather different kinds of data related to the literacy and proficiency of learners (Norris, 2012).

Hence, to gather data related to the language literacy skills of the NWU first-year students, the Test of Academic Literacy Levels (TALL) (administered through the medium of English) or the Toets vir Akademiese Geletterdheidsvlakke (TAG) (administered through the medium of Afrikaans) was employed and these tests are divided into both qualitative and quantitative sections. In South Africa, the TALL and TAG have been used for years in undertaking academic literacy at different higher institutions of learning (Du Plessis *et al.*, 2011). Furthermore, Du Plessis *et al.* (2011) claim that the TALL and TAG “is the only set of academic literacy tests” that has proved worthwhile and exclusively designed for usage at multilingual Higher Education institutions in South Africa. Consequently, on this premise and based on the level of adequate evidence of the conformity of principles of the practicality of the TALL/ TAG as a result of the test exposure to research and in-depth analysis as identified by Bachman and Palmer (1996); McNamara and Roever (2006) as well as Weideman (2010; 2011), the results of the TALL/ TAG tests that were completed by the 61 participants during the orientation programme of the NWU were used for gathering data on the academic literacy levels of first-year bi/multilingual students who participated in the study.

Furthermore, first year students who are admitted to different programmes at the NWU are expected to have passed at least two languages as part of their final Grade 12 examinations. One language is on Home Language (HL) level, while the other is on First Additional Language (FAL) level. The final marks of the 61 participants for the HL and FAL in Grade 12 were also used as part of the data collection tools of this study. The scores of the participants' TAG/TALL tests, as well as their final marks for the HL and FAL, were used as part of the quantitative data analysis process.

3.4.3.5 Academic scores for flagship modules

A flagship module is defined as a recognised academic module within a specific programme of the North-West University whereby there is a focus on the use and expansion of either Sesotho or Setswana (African languages) in the learning process and as a language of teaching and learning (North-West University, 2018). The two flagship modules involved in this study were Business Studies for teachers in the Senior and FET Phase (BSTE) and English Home Language for teachers in the Foundation Phase (ENFF). The number of participants who

completed BSTE were 41 and the number of participants who completed ENFF were 18. Against the backdrop of Covid, the module marks of the flagship modules were constituted by assignments and tasks that were completed and submitted online as part of continuous assessment in 2020. The module marks of the participants for the flagship modules were used as part of the quantitative data analysis process.

3.4.4 Data Analysis

3.4.4.1 Analysis of language repertoire questionnaire data

Descriptive statistics (frequencies) were used in the analysis of the language repertoire questionnaire. Only 9 participants completed the questionnaires. The frequencies of responses are reported as they were provided by the participants. No inferential statistics were done for this small group of participants. Central tendencies were inferred were they emerged from the small group of participants. The questionnaire analysis was carried out jointly with the statistical services of the North-West University. Upon receiving the statistical breakdown of the language history data, the researcher thereafter interpreted and discussed the data.

3.4.4.2 Analysis of the interview data

The interviews were recorded and transcribed. The transcribed data were coded using the following steps suggested by Creswell (2015:243):

Step 1: Getting an overview. The researcher carefully read through all the transcriptions to get an overview of the six interviews and he made preliminary notes of possible themes that started to emerge.

Step 2: Asking and answering questions. The individual transcriptions were each read again while asking questions suggested by Creswell (2015:243) such as what is this person talking about? and by making notes on participants' responses.

Step 3: Identifying the themes. The researcher then started to code the transcriptions of each individual interview by identifying the main themes related to the research questions of this study.

Step 4: Identifying the codes of interview 1. The researcher started with the first interview and made a list of the codes that were used the most. At that stage, he did not code too much, as he planned to come back to the first interview once the other interviews were coded to ensure that none of the codes were missed.

Step 5: Identifying the codes of the remaining interviews. The list of codes generated from interview 1 was used to code the other interview transcriptions. The researcher also added new codes as other themes emerged as the analysis progressed.

Step 6: Reducing codes. After coding all the interview transcriptions, the researcher reduced the codes and created the final themes substantiated by the identified codes. The transcriptions of all the interviews were then read again to ensure that none of the themes or codes were missed.

The steps of analysis aided in developing the participants' responses into themes and sub-themes. This thematic development then helped in dividing the different sections by following the research questions.

3.4.4.3 Analysis of language portrait data

Considering that the study researcher is not experienced and a qualified psychologist, the recommended data analysis by Kruger (2018) was used for the language portrait analysis. Thus, the positioning of the languages with the colours on the silhouette was captured on an Excel spreadsheet. Moreover, the colour frequencies employed for languages together with the frequencies of the positioning of the languages on the silhouette were also recorded. In the process of completing the portraits, participants were expected to use coloured crayons to draw the language resources of their repertoires on a silhouette of a human body. Afterward, the participants were asked to make some notes on the reasons for positioning different languages on specific areas of the body, the reasons for selecting particular colours to indicate different languages as well as the purpose and importance of the languages to the participants in their lives.

These responses from the participants were analysed using Atlas.ti:

Firstly, the language portrait data collected were captured on an Excel spreadsheet where the data was thoroughly cleaned and prepared for Atlas.ti. The data cleaning involved the following steps:

- deleting the student number and any demographic information that were not relevant to the study to ensure anonymity;
- ensuring correct and neat alignment of all relevant information to the case numbers that were assigned to participants instead of the student numbers that could potentially identify participants;

- inserting the numbers of languages and relevant demographic information for each participant as captured from the language portrait row by row on the spreadsheet;
- converting the spreadsheet into a pdf document to upload to Atlas.ti.

Secondly, the four-stage method by Bengtsson (2016:9-12) was chosen to analyse the language portrait data on the Excel sheet using Atlas.ti. Applying the following four stages of Bengtsson's method allowed the researcher to systematically decode and transcribe data.

In Stage 1 (referred to as decontextualisation), the researcher familiarised himself with the data to find and create codes for units of meaning that present themselves within the data. The data on the Excel spreadsheet were inspected to find relevant data that would apply to the roles of the mother tongue in the learning process of participants.

Stage 2 (referred to as recontextualisation) involved the re-reading of the material with codes in mind, to determine whether all relevant information has been included, what information should be included in the findings, and what should be ignored. These decisions were informed by relevant quotes from participants and by references from other studies and documents that supported or refuted the information.

In Stage 3 (referred to as categorisation) the researcher categorised the codes and meanings into themes

Stage 4 entailed the preparation and reporting of the findings of the study. Automated processes on Atlas.ti were employed to catalogue data, organise codes and code descriptions, use memos which aided in creating an audit trail, and in noting qualitative findings (Zhang and Wildemuth, 2009:6). These findings were discussed with the supervisor and then presented using tables and discussions as can be seen in chapter 4.

3.4.4.4 Analysis of language tests and academic results for the flagship modules

The participants' matric marks for their Home Languages and for English as a First Additional Language were compared with their final marks in the flagship modules to examine likely links with the role of the mother tongue in the participants' academic performance and to Cummins's hypotheses. Furthermore, the marks that participants scored in the TAG/TAL tests were analysed and also compared with their final marks in the flagship modules. This analysis was carried out with the support of the statistical services of the North-West University.

3.4.4.5 Analysis of all data sets

Finally, the findings drawn from all data sets were linked to a macro-analysis, which were related to the research questions of the study and discussed in chapter 5.

3.5 Conclusion

This chapter explained the research design of the study. The use of the pragmatic research paradigm was explained and justified. The choice of a convergent mixed method was justified and explained within the context of the study and lastly, the data collection methods and methods of data analysis were discussed.

Finally, the ethics application process of this study went through the ethic committee where the researcher explained the method and participants, then got university gatekeeper permission and the marks of the participants who are part of the portrait. All ethics clearance was approved.

For the language portrait, the 61 participants were permitted to use the language portrait data, then the participants from the language portrait were contacted for the language history questionnaires in which only 9 of them agreed to fill the questionnaires; hence the researcher worked with 9 participants for the questionnaires (these 9 participants signed the consent forms where the data will be reported anonymously and confidentially); then the participants from the questionnaires were contacted for the interview in which only 5 of the agreed to be interviewed; hence, the researcher worked with the 5 participants for the interview (these 5 participants signed the consent forms where the data will be reported anonymously and confidentially). Accordingly, the researcher observed the ethical approach by only working with the participants that agreed and consented to fill out the questionnaires and also with participants that gave their written permission to use the interview. The researcher also mentions using their academic record as part of the study and the 61 participants permitted as part of the interviews.

CHAPTER 4 PRESENTATION AND DISCUSSION OF FINDINGS

In this chapter, the results and findings from the quantitative and qualitative data sets gathered for the study are reported. The quantitative data sets included the language repertoire questionnaire results; TAG/TALL test results, BSTE 112 and ENFF 111 flagship module marks, and marks obtained by participants in Grade 12 for the Home Language, and the First Additional Language, while the qualitative data sets included data from the language portraits and the follow-up individual interviews.

A graphical illustration of the discussion of the results in this chapter is presented below.

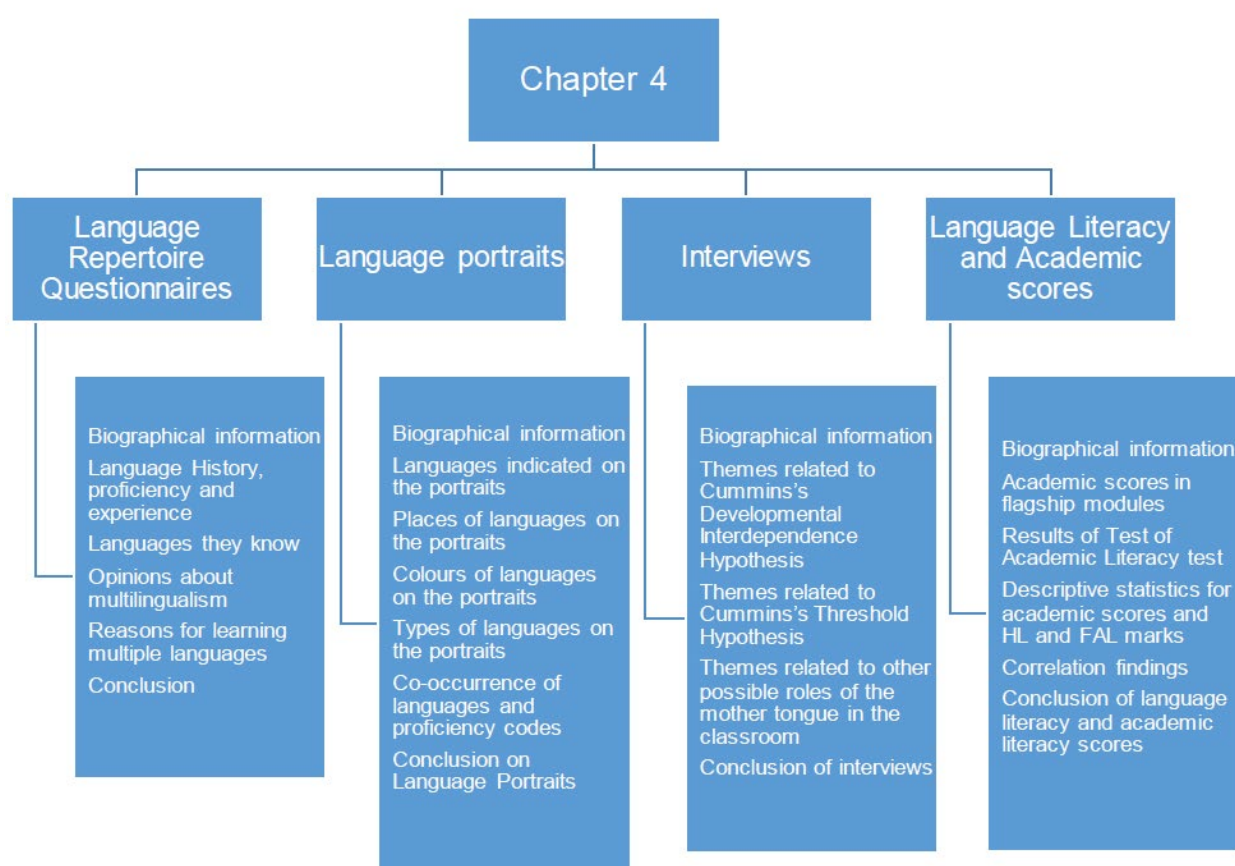


Figure 4-1: Discussion of the results

4.1 Language repertoire questionnaire discussion

This section reports on the analysis of the language repertoire questionnaire. The questionnaire is divided into four sections and data findings from each section are discussed. The findings from the language repertoire questionnaire include the biographical information of the study respondents, the language history, experience and proficiency of the respondents' language

repertoires, the strongest and second strongest languages the study respondents know, the responses from participants on the importance of knowing more than one language in South Africa and the conclusion of the findings.

4.1.1 Biographical information

The study respondents'biographical information like gender, age, population group, the highest level of main caregiver education, and the highest level of second caregiver education data are presented and discussed in this section.

Table 4-1: Biographical information

		FREQUENCY	PERCENT
Gender	Female	9	100.0
Age	18-24 years	8	88.9
	25-30 years	1	11.1
	Total	9	100.0
Population Group	African	1	11.1
	Black	1	11.1
	Black African	1	11.1
	Coloured	1	11.1
	Whites	5	55.6
	Total	9	100.0
Highest Qualification Father	I did not have a main caregiver when I grew up	1	11.1
	My main caregiver completed secondary school (Grade 12 or the former Standard 10)	3	33.3
	My main caregiver completed a qualification/s at University or College	5	55.6
	Total	9	100.0
Highest Qualification Mother	I did not have a second caregiver when I grew up	1	11.1
	I do not know my second caregiver's highest educational level	1	11.1
	My main caregiver completed secondary school (Grade 12 or the former Standard 10)	2	22.2
	My main caregiver completed a qualification/s at University or	5	55.6

		FREQUENCY	PERCENT
	College		
	Total	9	100.0

The total number of first-year students who were enrolled in the B.Ed. programme for 2020 is 2191 for all campuses and both contacts and distance students. 60% of this number are female and 40% are male.

Table 4.1 above, it is clear that only 9 out of 61 of the possible participants submitted completed questionnaires and all the respondents are females. The small number of survey responses, as well as the fact that only female participants responded, limits the confidence with which the findings can be generalised outside of the group of participants.

Age is the second biographical element presented above in Table 4.1. Consequently, Table 4.1 portrays 8 of the study participants (n=8, 88.9%) are between the ages of 18 to 24 years while 1 of the study participants (n=1, 11.1%) is between 25 to 30 years of age. This is a typical age bracket for university students in South Africa.

The population group is the third biographical element presented in Table 4.1. The table above presents the frequency table of the study respondents' self-reported population group. This information provides adequate knowledge of which population group the study respondents are from within the South African environment. The majority of the participants (5 out of 9, or 55, 6%) in the survey identified as White South Africans and other participants identified as African, Black, Black African or Coloured. The prominence of White South African respondents in the questionnaire should be kept in mind when the questionnaire results are interpreted.

The highest qualification of the father is the fourth element related to the biographical information of the participants presented in Table 4.1. In many African societies especially during the ancient days, education was not that valued as a result of many factors. However, in modern society, an average African man better understands the importance of education in society and its impact on the lives of their children. The educational levels of parents are an indicator of the level of support that the participants get to further their education. The educational level of the participant parent is an indicator for socio-economic status. Educational level of parents is perceived as indicator of the potential of children to get access to higher education. For the study respondents to have achieved this educational feat of being in the university, this study needs to know the highest level of education achieved by both parents (main caregiver).

On the contrary, higher levels of education are typical for White South African parents due to the privileges of apartheid and also the importance and emphasis that White Afrikaans' Home Language people put on education in general (Tomlin, 2016).

Accordingly, in Table 4.1 above, 5 of the study respondents (n=5, 55.6%) indicated that their father (main caregiver) completed a qualification/s at University or College. 3 of the study respondents (n=3, 33.3%) affirms that their father (main caregiver) completed secondary school (Grade 12 or the former Standard 10), while 1 of the study respondents (n=1, 11.1%) said she did not have a father (main caregiver) when she grew up. Conclusively, aside from the respondent who did not have a caregiver when she grew up; all other study respondents' fathers are educated, and one can infer that they appreciate the value of education in the lives of their children.

The highest qualification of the mother is the fifth biographical element presented. Table 4.1 shows that 5 of the respondents (n=5, 55.6%) confirm that their mother (second caregiver) completed qualification/s at university or college. 2 of the respondents (n=2, 22.2%) also said that their mothers completed secondary school (Grade 12 or the former Standard 10). While 1 of the respondents (n=1, 11.1%) reported that she did not know her mother's highest educational level. Also, another respondent (n=1, 11.1%) affirms that she did not have a mother when she grew up. Similar to the fathers of the participating students, the mothers are educated and one can infer that they appreciate the value of education in the lives of their children.

With this, it is regarded that most of the study respondents' parents are educated, and they took care to ensure that their children are educated to enjoy the benefits of being educated. The high levels of education among white mothers are part of the privilege of apartheid and the tendency of white Afrikaans Home Language South Africans to emphasise and encourage education (Figone, 2012). Besides, the education levels of mothers often co-vary with the emic achievement from a sociolinguistic perspective (Coetzee-Van Rooy, 2013). It is important to note that the respondents' mothers have fairly high levels of education and that this could be related to good achievements among their children.

The small group of participants seems to represent a part of the typical population in the Potchefstroom campus, Faculty of Education at the NWU; mainly female participants, an almost equal distribution of participants from different groups, within the typical range of age of students and with parents who are educated.

4.1.2 Language history, experience and proficiency of the respondents' language repertoires

In this section, the findings of the language repertoires of the participants are reported. The language repertoire findings give answers to which languages the respondents report as their Home Language, the number of other languages they know, the age at which they started acquiring the strongest and second strongest languages, motivation for learning the strongest and second strongest language, skills of the strongest and the second strongest language, data showing how strongly they agree with some statements when they think about their strongest and second strongest language, factors that contributed to learning the strongest and second strongest language and factors that contributed to currently using the learning of strongest and second strongest language.

4.1.2.1 Home Language

In the table below, the Home Languages reported by the participants are reported.

Table 4-2: Home Languages reported by the participants

	FREQUENCY	PERCENT
Afrikaans	2	22.2
English	3	33.3
German	1	11.1
Northern Sotho	1	11.1
Southern Sotho	1	11.1
Setswana	1	11.1
Total	9	100.0

Looking at Table 4.2, English Home Language respondents have the highest frequency ($n=3$, 33.3%), followed by Afrikaans Home Language/mother-tongue respondents with a frequency of 2 ($n=2$, 22.2%). Thereafter, there are 1 ($n=1$, 11.1%) German, Northern Sotho, Southern Sotho and Setswana Home Language respondents in this data. This portrays the prominence of English and Afrikaans Home Language/mother-tongue speakers who participated in the survey. The prominence of English and Afrikaans Home Language participants in the data set should be kept in mind when the results are interpreted.

The prominence of English and Afrikaans Home Language speakers is a reflection of the Home Language being spoken within the environment where the Potchefstroom campus of the NWU

is located. According to Olivier (2014), the Potchefstroom Campus of the NWU is traditionally related to Afrikaans while demographically, Afrikaans Home Language speakers have the highest number of people, followed by the Tswana and English Home Language speakers. This Home Language prominence is also reflected in a study carried out by Coetzee-Van Rooy (2018) at the NWU Vaal Triangle campus in the South-Gauteng region where the participants are mostly from the Southern Sotho Home Language environment.

4.1.2.2 Total number of languages

In the table below, the number of languages reported by each participant in their language repertoires is reported.

Table 4-3 Number of languages reported by each participant

		FREQUENCY	PERCENT
Valid	2	5	55.6
	4	3	33.3
	5	1	11.1
	Total	9	100.0

Table 4.3 depicts that 5 of the respondents ($n=5$, 55.6%) reported having two languages in their repertoires, hence they can be conceptualised as bilingual speakers, keeping in mind that there probably is a continuum of bilingual proficiencies at work. 3 of the study respondents ($n=3$, 33.3%) understand four different languages. While, 1 of the study respondents ($n=1$, 11.1%) affirms that she understood a total of five different languages.

It is therefore concluded from the data that none of the study respondents is a monolingual speaker and that most of the respondents are either bilingual or multilingual. This is an important result for the study because the study aims to understand how the Home Language or mother tongue relates to the learning of English as an additional language in the repertoires of the participants.

4.1.2.3 L1 learnt first; L2 learnt second; L3 learnt third and L4 learnt fourth

Please see addendum 283, item 8 in the questionnaire. The participants were asked to list the languages they were learning in the order in which they learn it. There were no opportunities in the questionnaire to indicate cases where participants might have learnt two or three languages at the same time. This is a limitation which might be addressed in future study by changing the question item or by having interviews where the participants could explain the language learning

experiences in more detail. This criticism also applies to the questionnaire items reported in Table 4-7b. The questionnaire item does not make provision for participants to learn two or more than languages in the families from the beginning. This is a limitation which will need to be address in future studies by changing the questionnaire items. In the table below, the first, second, third and fourth languages learnt by the participants are reported.

Table 4-4: First, second, third and fourth languages learnt by the participants

		FREQUENCY	PERCENT
L1 learnt first	Afrikaans	2	22.2
	English	2	22.2
	German	1	11.1
	Southern Sotho	2	22.2
	Setswana	1	11.1
	Total	8	88.9
No	System	1	11.1
Total		9	100.0
L2 learnt 2 nd	Afrikaans	3	33.3
	English	3	33.3
	Northern Sotho	1	11.1
	Southern Sotho	1	11.1
	Total	8	88.9
No	System	1	11.1
Total		9	100.0

In Table 4.4, the study respondents indicate various languages as the first languages that they learnt. 2 of the study respondents ($n=2$, 22.2%) affirmed that they learnt Afrikaans first. Another 2 respondents ($n=2$, 22.2%) claimed they learnt English first. Also, 2 of the study respondents ($n=2$, 22.2%) said they learnt Southern Sotho first. 1 of the study respondents ($n=1$, 11.1%) affirmed that she learnt German first, while 1 respondent ($n=1$, 11.1%) said that she learnt Setswana first. Lastly, 1 of the study respondents ($n=1$, 11.1%) did not indicate which language she learnt first.

This data helps to understand the complexity of the concept of Home Language or Mother Tongue in the South African context. Three participants (see table 4.2) for example indicated that English is their Home Language. However, only 2 of these respondents indicated that they learnt English first in their lives. South Africa's multilingual environment makes language

acquisition difficult. When respondents say English is their home language, it's complicated. The issue is that one expects the home language to be learned first in life, yet just two of the respondents in this study indicate that their traditional home language is not the same as someone in England or Germany.

In Table 4.4, 3 of the respondents ($n=3$, 33.3%) indicated that they learnt Afrikaans secondly in their lives, and another 3 respondents ($n=3$, 33.3%) reported that they learnt English secondly. While 1 respondent ($n=1$, 11.1%) said she learnt Northern Sotho secondly and another 1 respondent ($n=1$, 11.1%) said she learnt Southern Sotho secondly. Meanwhile, 1 of the respondents ($n=1$, 11.1%) did not indicate the language that she learned secondly.

In sum, the data show the prominence of English and Afrikaans as languages learnt first or second by the study respondents. This emphasises the importance of either of these two languages as languages used as cultural identity languages or languages used in important domains, like education. Furthermore, for the participants in the questionnaire study, these languages would probably be related to academic progress.

The data demonstrated that 2 of the study respondents ($n=2$, 22.2%) indicated that English was learned thirdly in their lives. While 1 respondent ($n=1$, 11.1%) said Afrikaans was learned thirdly and 1 respondent ($n=1$, 11.1%) indicated Setswana as the language learned thirdly. Whereas, 5 of the study respondents ($n=5$, 55.6%) did not indicate any language learned after Afrikaans or English. Hence, the constant appearance of English and Afrikaans shows the importance of the two languages among these study respondents. Also, the data elaborated and confirmed that a few of the study respondents are multilingual while the majority of them are bilinguals.

The findings reported that 2 of the respondents ($n=2$, 22.2%) learnt Zulu fourthly in their lives. While 1 of the respondents ($n=1$, 11.1%) each learnt Afrikaans and English fourthly. However, 5 of the study respondents ($n=5$, 55.6%) did not indicate any language learned fourthly.

This data shows that very few of the participants learned languages beyond a second language. It affirms that very few of the study respondents are multilingual while the majority of the respondents are bilinguals (with combinations of Afrikaans and English). Finally, none of the respondents reported learning a 5th language

4.1.3 Languages they know

Due to the bilingual nature of the participants' language repertoires reported above, the data related to the strongest and second strongest language will be reported. Thus, the data of the study respondents' two strongest languages are presented and discussed.

The main interest in perceptions about the strongest and second strongest languages is to learn more about the nature of the knowledge of the languages understood by the study respondents.

4.1.3.1 Strongest language

The previous tables have already affirmed that all the study respondents are either bi- or multilingual. The tables in this section present and discuss the findings related to languages the study respondents think are the strongest languages in their repertoires. The strongest language was defined as the easiest language to use for communication and the language in which they feel they are the most proficient.

Table 4-5a: The strongest language

	FREQUENCY	PERCENT
Afrikaans	2	22.2
English	4	44.4
German	1	11.1
Southern Sotho	1	11.1
Setswana	1	11.1
Total	9	100.0

4.1.3.2 Second strongest language

The below table present and discusses which of these languages the study respondents think is the second strongest in their language repertoires.

Table 4-5b: The second strongest language

	FREQUENCY	PERCENT
Afrikaans	4	44.4
English	4	44.4
Setswana	1	11.1
Total	9	100.0

In Table 4.5a above, two languages are considered to be the study respondents' strongest languages and they are English and Afrikaans. With 4 as the highest frequency ($n=4$, 44.4%), with which most of the study respondents confirm that they perceive English as their strongest language. Followed by Afrikaans which is the perceived as second strongest language by 2

respondents ($n=2$, 22.2%) in the study. While 1 respondent ($n=1$, 11.1%) each affirms that they perceive German, Southern Sotho and Setswana as their strongest language.

This implies that the biggest group of the respondents perceive English as their strongest language and that some perceive Afrikaans as their strongest language. The relationships between English and Afrikaans were perceived as the strongest and second strongest languages that provide some indication of the nature of the language repertoires of the participants in the questionnaire part of the study.

However, Coetzee-Van Rooy's (2013) findings disagree with this study's findings. Coetzee-Van Rooy (2013) carried out her study among the NWU first-year students in the Vaal Triangle campus of the Gauteng Province. The study findings indicated that Afrikaans was the strongest language as indicated by the participants as against the English language. The difference between the two studies is that the participants of this study chose English as their strongest language when Afrikaans is the strongest language being spoken in the Potchefstroom environment. While the participants in the Coetzee-Van Rooy (2013) findings still attest that Afrikaans is their strongest language, which is also a dominant language (Afrikaans and Southern Sotho are dominant languages in the Vaal Triangle region) in the Vaal Triangle environment.

In Table 4.5b above, out of 9 study respondents, 4 of the respondents ($n=4$, 44.4%) each affirmed that Afrikaans and English are perceived as their second strongest languages, while 1 respondent ($n=1$, 11.1%) said Setswana is her second strongest language. This data, therefore, depicts the prominence of English-Afrikaans bilingualism among the study respondents. This is also true when compared to Table 4.2 depicting data for the Home Language speakers and Table 4.5b depicting data for the second strongest language. It is seen clearly that 3 respondents with other languages choose either Afrikaans or English as their second strongest language except for the Setswana respondent who affirmed that Setswana was her second strongest language.

When comparing this with the studies done within South Africa, Coetzee-Van Rooy's (2013) findings indicated that English is the second strongest language for Afrikaans Home Language speakers, that English is the second strongest language for the Southern Sotho participants (Coetzee-Van Rooy, 2018) and that Afrikaans is the second strongest language for English Home Language speakers (Coetzee-Van Rooy, 2021). There is a similarity between this study and the study by Coetzee-Van Rooy in the sense that both studies show the importance of English or Afrikaans as the participant's second strongest language, thus signifying the importance of English-Afrikaans bilingualism in the South African education context. However,

none of the above studies perceived English-Afrikaans as equally used as the second strongest language.

4.1.3.3 Age at which students started acquiring the strongest language

The table below presents and discusses the age when the study respondents started learning their strongest language.

Table 4-6a: Age at which students started acquiring the strongest language

	FREQUENCY	PERCENT
0-2 years	7	77.8
3-6 years	1	11.1
7-13 years	1	11.1
Total	9	100.0

4.1.3.4 Age at which students started acquiring the second strongest language

The various ages during which the respondents acquired their perceived second-strongest languages are presented and discussed below.

Table 4-6b: Age at which students started acquiring the second strongest language

	FREQUENCY	PERCENT
0-2 years	3	33.3
3-6 years	2	22.2
7-13 years	4	44.4
Total	9	100.0

In Table 4.6a above, the study respondents gave the various ages that they started learning their strongest language. 7 of the respondents ($n=7$, 77.8%) said they started learning their strongest languages when they were between 0 to 2 years of age. 1 respondent ($n=1$, 11.1%) reported that she started learning her strongest language between the age of 3 to 6 years. While 1 respondent ($n=1$, 11.1%) said she started learning her strongest language between the age of 7 to 13 years. None of the respondents mentioned that they started learning their strongest language at the age of 14 years or above. One would expect all strongest languages to be learnt from the ages of 0-2 years of age. The discrepancies with this assumption in table 4-6a again indicate that in the South African context the language learnt first is not necessarily

later on perceived as the Home Language or the strongest language. A language learnt later in life could also take that role.

It is therefore concluded that most of the study respondents started learning their strongest language when they were toddlers, which is between the ages of 0 to 2 years. This finding conforms with the study of Stavans and Jessner-Schmid (2022) where most of the participants started learning their strongest languages between the ages of 0 to 2 years.

While in Table 4.6b above, the study respondents gave the various ages they started learning their second strongest language. 3 of the respondents (n=3, 33.3%) said they started learning

their strongest language when they were between 0 to 2 years of age. 2 respondents (n=2, 22.2%) reported that they started learning their second strongest language between the age of 3 to 6 years. While 4 respondents (n=4, 44.4%) said they started learning their second strongest language between the age of 7 to 13 years. None of the respondents mentioned they started learning their second strongest language at the age of 14 years or above. These are very ordinary ages of acquisition for perceived second-strongest languages.

It is therefore concluded that the most prominent group of the study respondents started learning their second strongest language during their primary school age, which is between the ages of 7 to 13 years. However, keeping the unique language contact situation between Afrikaans and English Home Language-speaking South Africans in mind, it is noted that an almost similar number of the respondents acquired their second strongest language before school-going age. This differs from the findings by Stavans and Jessner-Schmid (2022) where the most prominent group started learning their second strongest language between the ages of 7 to 13 years, which is school-going age.

4.1.3.5 Motivation for learning the strongest and second strongest language

The tables below are the presentation and discussion of the various reasons that the study respondents reported for their decisions to learn the languages that they perceive as their strongest and second strongest languages.

Table 4-7a: Motivation for learning the strongest language

	FREQUENCY	PERCENT
I was born into a family that uses the language	6	66.7
It was used as the language of teaching and learning at school	1	11.1
Language is important in the world of work	1	11.1

The reason or motivation is (please write in the reason)	1	11.1
Total	9	100.0

Table 4-7b: Motivation for learning the second strongest language

	FREQUENCY	PERCENT
I was born into a family that uses the language	3	33.3
It was used as the language of teaching and learning at school	3	33.3
I wanted to communicate with people in my community or close environment	1	11.1
I wanted to communicate with people in the broader South Africa	1	11.1
I had another reason or motivation to learn my perceived second- strongest language	1	11.1
Total	9	100.0

See the limitation of the questionnaire address earlier (4.1.2.3). This should be addressed in future studies.

From the code interpretation and Table 4-7a above, 6 of the study respondents ($n=6$, 66.7%) affirmed that the motivation behind learning the strongest language is because they were born into a family that uses the language. 1 of the study respondents ($n=1$, 11.1%) stated that the reason for learning the strongest language is that it is the language of teaching and learning at the school. Another 1 of the study respondents ($n=1$, 11.1%) said that her motivation was based on the importance of language in the world of work. Finally, a respondent ($n=1$, 11.1%) said she was motivated to learn her strongest language because:

"I was exposed to the language through television because before I started school I watched television most of the day and English was used most of the time, then I learnt more of the language in school".

Conclusively, the majority of the study respondents affirm that being born into a family that uses the language is the reason or motivation for learning the strongest language. Hence, it is seen that most of the study respondents' strongest languages are perceived as their mother tongues or Home Languages. The remaining respondents gave reasons for learning their strongest languages related to the language of teaching and learning at school; the language in the world of work; and exposure to television where the English language was predominantly used.

Meanwhile, from Table 4-7b above, out of the 9 respondents, 3 of the study respondents (n=3, 33.3%) affirm that the motivation behind learning the perceived second strongest language is because they were born into a family that uses the language; and it is the language of teaching and learning at the school. While 1 of the respondents (n=1, 11.1%) each stated their motivation for learning the second strongest language as a desire to communicate with people in their community or close environment; with people in the broader South Africa; and because

“It is a subject in all South African schools”

In conclusion, most of the study respondents affirmed similar reasons for learning their second strongest language as the reasons provided for learning their strongest languages and those are predominantly related to being born into a family that uses the language and the importance of the language in teaching and learning at school.

4.1.3.6 Skills related to the strongest and second strongest languages

The tables below present and discuss how the study respondents rate their listening, speaking, reading and writing skills in their strongest and second-strongest languages.

Table 4-8a: Skills related to the strongest languages

		FREQUENCY	PERCENT
Listening	Good	2	22.2
	Very good	6	66.7
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0
Speaking	High average	1	11.1
	Good	2	22.2
	Very good	5	55.6
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0
Reading	Very poor	1	11.1
	Good	2	22.2
	Very good	5	55.6
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0

		FREQUENCY	PERCENT
Writing	Below average	1	11.1
	Good	1	11.1
	Very good	6	66.7
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0

Table 4-8b: Skills related to the strongest and second strongest languages

		FREQUENCY	PERCENT
Listening	High average	1	11.1
	Very good	7	77.8
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0
Speaking	Average	1	11.1
	Above average	1	11.1
	Good	1	11.1
	Very good	5	55.6
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0
Reading	Very poor	1	11.1
	High average	1	11.1
	Good	1	11.1
	Very good	5	55.6
	Total	8	88.9
Missing	System	1	11.1
Total		9	100.0
Writing	Very poor	1	11.1
	Average	1	11.1
	Good	1	11.1
	Very good	5	55.6
	Total	8	88.9
Missing	System	1	11.1

		FREQUENCY	PERCENT
Total		9	100.0

As can be seen in Table 4-8a, 2 of the study respondents ($n=2$, 22.2%) said they are good when it comes to listening in their strongest language, while most of the study respondents ($n=6$, 66.7%) affirmed they possess very good listening skills their strongest language. However, 1 of the respondent ($n=1$, 11.1%) did not rate her strongest language listening skill. In conclusion, this indicates that many of the study respondents believe that they are good or very good listeners in their strongest language. That is, they believe that they understand conversations very easily without difficulties.

In terms of the speaking skills in the strongest language in Table 4-8a above, 1 respondent ($n=1$, 11.1%) rated herself as above average in the speaking skill of her strongest language. 2 of the respondents ($n=2$, 22.2%) said that they are good when speaking in their strongest language, while 5 of the study respondents ($n=5$, 55.6%) affirmed that they are very good when speaking their strongest language. However, 1 of the respondents ($n=1$, 11.1%) did not rate her speaking skills. Conclusively, many of the respondents confirmed that they believe that they are fluent speakers of their strongest language, while none of the respondents confirmed that they believe that they are not that proficient in speaking their strongest language.

From the interpretation of the reading skills of the strongest language, it implies that 1 of the study respondents ($n=1$, 11.1%) believed that she is a poor reader in her strongest language. 2 of the respondents ($n=2$, 22.2%) claimed that they are good readers in the strongest language. Also, 5 of the respondents ($n=5$, 55.6%) who have the highest frequency affirmed that they believe that they are very good readers in the strongest language. 1 of the respondents ($n=1$, 11.1%) did not rate her strongest language reading skill. In sum, the data reflect that many of the study respondents believe that they are very good readers of their strongest language.

The writing skill data of the strongest language in Table 4-8a affirm that 1 of the study respondents ($n=1$, 11.1%) said she perceives her writing abilities in her strongest language as below average. Further, 1 of the respondents ($n=1$, 11.1%) claimed that she is a good writer in her strongest language. Also, 6 of the respondents ($n=6$, 66.7%) affirmed that they write very well in their strongest language. Meanwhile, 1 of the participants ($n=1$, 11.1%) did not rate her writing skills in her strongest language. As reflected in the data, many of the study respondents confidently attested that they believe that they are good writers in their strongest language.

In conclusion, looking at the perceptions of the respondents concerning all the skills in their strongest languages, many of them assert that they believe that they are good or very good listeners in their perceived strongest language. Also, many of the respondents said that they believe that they are good or very good speakers of their strongest language. In addition, many of them asserted that they believe that they are good readers of texts in their strongest language. Lastly, many of the study respondents affirmed that they believe that they have good or very good writing skills in their strongest language. Overall, the respondents believed that they are proficient or very proficient in the skills listed for the languages that they perceive as their strongest languages.

Meanwhile, in Table 4-8b, for the listening skill, 1 of the study respondents (n=1, 11.1%) said she is an above-average listener in her perceived second strongest language. While 7 of the respondents (n=7, 77.8%) affirmed they are very good listeners in their perceived second strongest language. 1 of the respondents (n=1, 11.1%) did not rate her listening skills in her second strongest language. In conclusion, this indicates that the majority of respondents believe that they are very good listeners in their perceived second strongest language. That is, they understand conversations in their perceived second language very easily without difficulties.

For the speaking skill, 1 of the respondents (n=1, 11.1%) each confirmed that she is an average speaker in her perceived second strongest language; that she is above average when speaking her perceived second strongest language; and that she is good when speaking her perceived second strongest language. Additionally, 5 of the study respondents (n=5, 55.6%) affirmed that they are very good when speaking their perceived second strongest language. Again, 1 of the respondents (n=1, 11.1%) did not rate her speaking skills in her second strongest language. Conclusively, many of the respondents confirmed that they are fluent speakers of their perceived second-strongest language.

From the data interpretation, 1 of the study respondents (n=1, 11.1%) said that she is a poor reader in her perceived second strongest language; one said that she is an above average reader in her second strongest language and another stated that she is a good reader in her second strongest language. Moreover, 5 of the respondents (n=5, 55.6%) affirmed that they are very good readers in their perceived second strongest language. 1 of the respondents (n=1, 11.1%) did not rate her reading skills in her second strongest language. In sum, the data reflect that the majority of the study respondents believed that they are very good readers of their perceived second strongest language.

The data for the writing skill showed that 1 study respondent (n=1, 11.1%) each affirmed that she is very poor in her second strongest language writing skill; that she is an average writer in

her second strongest language and that she is a good writer in her second strongest language. Meanwhile, 5 of the respondents (n=5, 55.6%) confirmed that they believed that they are very good writers in their perceived second strongest language. 1 of the participants (n=1, 11.1%) did not rate her writing skills in her second strongest language. As reflected in the data, many of the study respondents confidently affirmed that they are very good writers in their perceived second strongest language.

In sum, the data imply that the majority of the respondents rate themselves as good or very good in all skills of their second strongest language. The respondents' beliefs that they are very good in all the skills in their perceived strongest and second strongest languages present the typical profile of Afrikaans and English bilinguals in South Africa (Coetzee-Van Rooy, 2013).

4.1.3.7 Views about the reasons for using languages

The tables below present and discuss how strongly the study respondents agree with the statements 'I like to speak this language', 'I feel confident using this language', 'I think it is important to be good at this language', and 'This language forms part of who I am (my identity)' when they think about their perceived strongest and second strongest languages.

Table 4-9a: The reasons for using the strongest languages

	FREQUENCY	PERCENT
I like to speak this language		
Neither agree nor disagree	1	11.1
Generally agree	1	11.1
Completely agree	7	77.8
Total	9	100.0
I feel confident using this language		
Slightly agree	1	11.1
Completely agree	8	88.9
Total	9	100.0
I think it is important to be good at this language		
Neither agree nor disagree	1	11.1
Completely agree	8	88.9
Total	9	100.0
This language forms part of who I am (my identity)		
Generally disagree	1	11.1
Slightly agree	1	11.1
Completely agree	7	77.8

	FREQUENCY	PERCENT
Total	9	100.0

Table 4-9b: The reasons for using the second strongest languages

	FREQUENCY	PERCENT
I like to speak this language		
Generally agree	1	11.1
Slightly agree	1	11.1
Generally agree	1	11.1
Completely agree	6	66.7
Total	9	100.0
I feel confident using this language		
Generally disagrees	2	22.2
Generally agree	1	11.1
Completely agree	6	66.7
Total	9	100.0
I think it is important to be good at this language		
Neither agree nor disagree	1	11.1
Generally agree	1	11.1
Completely agree	7	77.8
Total	9	100.0
This language forms part of who I am (my identity)		
Completely disagree	1	11.1
Generally disagree	1	11.1
Neither agree nor disagree	1	11.1
Slightly agree	2	22.2
Completely agree	4	44.4
Total	9	100.0

I like to speak this language

From Table 4-9a above, 1 of the study respondents ($n=1$, 11.1%) neither agree nor disagree with the statement that she likes to speak her strongest language. Moreover, 1 of the respondents ($n=1$, 11.1%) generally agrees with the statement that she likes to speak her strongest language. Finally, 7 of the study respondents ($n=7$, 77.8%) completely agree that they

like to speak their strongest language. This shows that most of the study respondents strongly agree with the statement that they like to speak their perceived strongest language.

In Table 4-9b above, 1 of the study respondents ($n=1$, 11.1%) each said that she generally disagrees with the statement that she likes to speak her perceived second strongest language; that she slightly agrees with the statement that she likes to speak her second strongest language; and that she generally agrees with the statement that she likes to speak her second strongest language. Finally, 6 of the study respondents ($n=6$, 66.7%) completely agree that they like to speak their perceived second strongest language. This data depicts that the majority of the study respondents strongly agree with the statement that they like to speak their perceived second strongest language.

I feel confident using this language

In the data presented in Table 4-9a above, 1 of the respondents ($n=1$, 11.1%) slightly agrees that she feels confident using her perceived strongest language. While 8 of the study respondents ($n=8$, 88.9%) completely agree with the statement that they feel confident using their perceived strongest language. Conclusively, the majority of the respondents feel confident using their perceived strongest languages.

The data in Table 4-9b show that 2 of the respondents ($n=2$, 22.2%) generally disagree that they feel confident using their perceived second strongest language. While 1 of the respondents ($n=1$, 11.1%) generally agrees that she feels confident using her perceived second strongest language. Finally, 6 of the respondents ($n=6$, 66.7%) completely agree with the statement that they feel confident using their perceived second strongest language. In conclusion, the majority of the respondents completely agree and feel confident using their perceived second strongest language.

I think it is important to be good at this language

Table 4-9a presents that 1 of the respondents ($n=1$, 11.1%) neither agree nor disagree that it is important to be good at her perceived strongest language. However, 8 of the respondents ($n=8$, 88.9%) attest that it is important to be good at their perceived strongest language, hence, they completely agree with the statement.

1 of the respondents ($n=1$, 11.1%) in Table 9b neither agrees nor disagrees that it is important to be good at her perceived second strongest language, while 1 of the respondents ($n=1$, 11.1%) generally agrees that it is important to be good at her perceived second strongest language. Finally, 7 of the respondents ($n=7$, 77.8%) attest that it is important to be good at their perceived second strongest language; hence, they completely agree with the statement.

This language forms part of who I am (my identity)

From Table 4-9a above, 1 of the respondents ($n=1$, 11.1%) generally disagrees that her strongest language forms part of who she is (that is, her identity). Further, 1 of the study respondents ($n=1$, 11.1%) slightly agree that her strongest language forms part of who she is (that is, her identity). Meanwhile, 7 of the study respondents ($n=7$, 77.8%) corroborate that they believe that their perceived strongest language forms part of their identity. In sum, the data portray that the majority of the study respondents completely agree that their perceived strongest language is related to their identity.

From Table 4-9b, 1 of the respondents ($n=1$, 11.1%) each said that she completely disagrees that her perceived second strongest language is part of her identity; one stated that she generally disagrees that her second strongest language is part of her identity, and one participant stated that she neither agrees nor disagrees that her second strongest language is part of her identity. However, 2 of the respondents ($n=2$, 22.2%) generally agreed that their perceived second strongest language forms part of their identity. Finally, 4 of the respondents ($n=4$, 44.4%) completely agreed that their perceived second strongest language is part of their identity. The data, therefore, show that many of the study respondents confirm that their perceived second strongest language is part of their identity, although the trend is true for fewer participants when compared to the strongest language. The finding that the participants perceived their strongest and second strongest languages to form part of their identity is a possible expression of the Afrikaans and English bilingualism among most of the respondents.

In conclusion, most of the study respondents completely agree with the statements that they like to speak their perceived strongest language; that they feel confident using their perceived strongest language; that it is important to be good at their perceived strongest language and that the perceived strongest language forms part of their identities. Furthermore, the majority of the study respondents completely agreed with the statement that they like to speak their perceived second strongest language; that they feel confident using their perceived second strongest language; that it is important to be good at their perceived second strongest language and many of the participants strongly agree that their perceived second strongest language forms part of their identities.

4.1.3.8 Factors that contributed to learning the strongest and second strongest languages

The tables below present how friends, family, reading, self-instruction, television, radio and school/education factors have contributed to the respondents learning their strongest and second-strongest languages.

Table 4-10a: Factors that contributed to their strongest learning

		FREQUENCY	PERCENT
Friends factor	Average contribution	2	22.2
Contributed to a large extent		1	11.1
	Contributed a lot	2	22.2
	Contributed the most	4	44.4
	Total	9	100.0
Family factors	Did not contribute at all	1	11.1
	Contributed to a small extent	1	11.1
	Contributed the most	7	77.8
	Total	9	100.0
Reading factor	Contributed very little	1	11.1
	Contributed to a small extent	1	11.1
	Contributed to a large extent	1	11.1
	Contributed a lot	3	33.3
	Contributed the most	3	33.3
	Total	9	100.0
Self-instruction factor			
	Did not contribute at all	1	11.1
	Contributed very little	3	33.3
	Average contribution	1	11.1
	Contributed the most	4	44.4
	Total	9	100.0
TV factor	Contributed very little	2	22.2
	Average contribution	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	4	44.4
	Total	8	88.9
No	System	1	11.1
Total		9	100.0
Radio factor	Contributed very little	1	11.1
	Contributed to a small extent	2	22.2
	Average contribution	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	4	44.4
	Total	9	100.0

		FREQUENCY	PERCENT
School/education factor			
	Did not contribute at all	1	11.1
	Contributed the most	8	88.9
	Total	9	100.0

Table 4-10b: Factors that contributed to their second-strongest learning

		FREQUENCY	PERCENT
Friend factor	Contributed to a small extent	1	11.1
	Average contribution	1	11.1
	Contributed to a large extent	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	5	55.6
	Total	9	100.0
Family factor	Contributed very little	3	33.3
	Average contribution	1	11.1
	Contributed to a large extent	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	3	33.3
	Total	9	100.0
Reading factor	Did not contribute at all	1	11.1
	Average contribution	1	11.1
	Contributed to a large extent	1	11.1
	Contributed the most	6	66.7
	Total	9	100.0
Self-instruction factor	Did not contribute at all	1	11.1
	Contributed very little	1	11.1
	Average contribution	2	22.2
	Contributed to a large extent	2	22.2
	Contributed a lot	1	11.1
	Contributed the most	2	22.2
	Total	9	100.0
TV factor	Did not contribute at all	1	11.1
	Contributed very little	1	11.1
	Contributed to a small extent	1	11.1

		FREQUENCY	PERCENT
	Average contribution	1	11.1
	Contributed to a large extent	2	22.2
	Contributed a lot	1	11.1
	Contributed the most	2	22.2
	Total	9	100.0
Radio factor	Contributed very little	1	11.1
	Contributed to a small extent	1	11.1
	Contributed to a large extent	2	22.2
	Contributed a lot	1	11.1
	Contributed the most	3	33.3
	Total	8	88.9
No	System	1	11.1
Total		9	100.0
School/education factor	Did not contribute at all	1	11.1
	Contributed to a small extent	1	11.1
	Contributed the most	7	77.8
	Total	9	100.0

Friends factor

In the data displayed in Table 4-10a, 4 of the respondents ($n=4$, 44.4%) affirmed that interacting with friends contributed the most to learning their strongest language. 2 of the study participants ($n=2$, 22.2%) said that interacting with friends on averagely contributed to the learning of their strongest language. While another 2 respondents ($n=2$, 22.2%) stated that their interaction with friends contributed a lot to learning their strongest language. Lastly, 1 of the study respondent ($n=1$, 11.1%) affirms that friends' interaction contributed to a large extent to learning her strongest language. Consequently, a greater number of the study respondents opined that interacting with friends is a factor that contributed significantly to learning their strongest language. This finding differs from some Home Language findings of Coetzee Van-Rooy (2012) where Southern Sotho and Zulu Home Language participants do not regard FRIENDS as such an important factor in the learning of their strongest languages. The FAMILY is the most important factor for them.

In Table 4-10b, 1 of the respondents ($n=1$, 11.1%) each attested that interacting with friends contributed to a small extent to learning her perceived second strongest language; averagely contributed to learning her perceived second strongest language; contributed to a large extent

to learning her perceived second strongest language, and that interacting with friends contributed a lot to learning her perceived second strongest language. Finally, 5 of the respondents ($n=5$, 55.6%) stated that friends contributed the most to the learning of their perceived second strongest language. Conclusively, the majority of the study respondents confirmed that interacting with friends is a factor that contributed the most to learning their perceived second-strongest language.

Family factor

From Table 4-10a, it is clear that 7 of the study respondents ($n=7$, 77.8%) attested that family interaction is a factor that contributed the most to the learning of their strongest language. 1 Of the respondents ($n=1$, 11.1%) affirms that interacting with the family contributed to a small extent to learning her strongest language. While another 1 respondent ($n=1$, 11.1%) said interacting with the family did not contribute at all to learning her strongest language. It is then concluded that the majority of the respondents affirmed that interacting with the family is a factor that contributed the most to learning their strongest language. This indicates that the family plays a major role in the learning of the strongest language, possibly also experienced as the Home Language which is also reported by Coetzee-Van Rooy (2012) for Southern Sotho and Zulu participants.

From Table 4-10b, it is clear that 3 of the respondents ($n=3$, 33.3%) confirmed that family interaction is a factor that contributed very little to learning their perceived second strongest language. Furthermore, 1 of the respondents ($n=1$, 11.1%) each said that family interaction is a factor that averagely contributed to learning her perceived second strongest language; that family interaction contributed to a large extent to learning her perceived second strongest language, and that family interaction contributed a lot to learning her perceived second strongest language. Finally, 3 of the study respondents ($n=3$, 33.3%) attest that family interaction contributed the most to learning the second strongest language. Therefore, most of the respondents affirm that family interaction is a factor that either contributed to a large extent or contributed the most to learning the perceived second-strongest language.

Reading factor

In Table 4-10a, 1 of the respondents ($n=1$, 11.1%) said that the reading factor contributed very little to learning her strongest language. Furthermore, 1 respondent ($n=1$, 11.1%) attested that the reading factor contributed to a small extent as well as contributed the most to learning her strongest language. Another 1 respondent attests that reading contributed to a large extent in learning her strongest language. While 3 of the respondents ($n=3$, 33.3%) confirm that the reading factor contributed a lot to learning their strongest language; also another 3 of the

respondents ($n=3$, 33.3%) said that the reading factor contributed the most to learning their strongest language. In conclusion, the majority of the study respondents affirm that the reading factor either contributed a lot or contributed the most to learning their strongest language. This is an important finding in the context of education. Reading contributes significantly to the learning of the strongest language, perceived as the Home Language in the case of the participants.

In Table 4-10b, out of the 9 respondents, 1 of the respondents ($n=1$, 11.1%) confirms that the reading factor did not contribute at all to learning her perceived second strongest language; and that the reading factor averagely contributed to learning her perceived second strongest language. Another respondent indicated that the reading factor contributed to a large extent to learning her perceived second strongest language. Finally, 6 of the respondents ($n=6$, 66.7%) affirmed that the reading factor contributed the most to learning their perceived second-strongest language. In summation, the majority of the respondents to the questionnaire attested that the reading factor contributed the most to learning their perceived second-strongest language.

Self-instruction factor

1 of the study respondents ($n=1$, 11.1%) in Table 4-10a above said that the self-instruction factor did not contribute at all to learning her strongest language. Another respondent ($n=1$, 11.1%) maintained that the self-instruction factor averagely contributed to learning the strongest language. 3 of the study respondents ($n=3$, 33.3%) attested that the self-instruction factor contributed very little to learning their strongest language. Finally, 4 of the respondents ($n=4$, 44.4%) affirmed that the self-instruction factor contributed the most to learning their strongest language. In sum, a greater number of respondents attested that the self-instruction factor contributed the most to learning their strongest language; although an almost equal number of participants reported that self-instruction did not contribute to the learning of their strongest language at all.

In Table 4-10b above, 1 of the study respondents ($n=1$, 11.1%) each said that the self-instruction factor did not contribute at all to learning her perceived second strongest language; contributed very little to learning her perceived second strongest language. Another respondent stated that self-instruction contributed a lot to learning her perceived second strongest language, while 2 of the respondents ($n=2$, 22.2%) each affirmed that the self-instruction factor averagely contributed to learning their perceived second strongest language; contributed to a large extent; and that the self-instruction factor contributed the most to learning their perceived second strongest language. In a conclusion, an almost equal number of the study respondents

believed that the self-instruction factor did not contribute (4/9) and conversely did contribute (5/9) to learning their perceived second strongest language.

TV factor

In Table 4-10a, 2 of the respondents ($n=2$, 22.2%) attested that the -watching TV factor contributed very little to the learning of the strongest language. 1 of the respondents ($n=1$, 11.1%) said that watching TV averagely contributed to learning her strongest language. Furthermore, 1 of the respondents ($n=1$, 11.1%) maintained that watching TV contributed a lot to the learning of her strongest language. Finally, 4 of the respondents ($n=4$, 44.4%) affirmed that the -watching TV factor contributed the most to the learning of their strongest language. In conclusion, the data portray that a greater number of the respondents confirm that watching TV contributed the most to learning their strongest language.

In Table 4-10b, out of the 9 respondents, 1 of the respondents ($n=1$, 11.1%) each attested that watching TV as a factor did not contribute at all to learning her perceived second strongest language; contributed very little to learning her perceived second strongest language; contributed to a small extent to learning her perceived second strongest language; averagely contributed to learning her perceived second strongest language and that contributed a lot to learning her perceived second strongest language. 2 of the respondents ($n=2$, 22.2%) each said that watching TV as a factor contributed to a large extent to learning their perceived second strongest language and contributed the most to the learning of their perceived second strongest language. Conclusively, the data show that an almost equal number of the respondents confirmed that watching TV either did not contribute to them learning their perceived second strongest language (4/9) or contributed to them learning their perceived second strongest language (5/9).

Radio factor

In Table 4-10a above, 1 of the respondents ($n=1$, 11.1%) confirms that listening to the radio contributed very little to the learning of the strongest language. Furthermore, 2 of the respondents ($n=2$, 22.2%) said that listening to the radio contributed to a small extent to the learning of their strongest language. Moreover, 1 of the respondents ($n=1$, 11.1%) affirmed that listening to the radio averagely contributed to the learning of their strongest language. Another respondent ($n=1$, 11.1%) confirmed that listening to the radio contributed a lot to learning the strongest language. Finally, 4 of the study respondents affirmed that listening to the radio contributed the most to learning their strongest language. It is thus concluded that the majority of the respondents affirmed that listening to the radio is a factor that contributed a lot or contributed the most to learning their strongest language.

In Table 4-10b, 1 of the respondents (n=1, 11.1%) each affirmed that listening to the radio contributed very little to the learning of the perceived second strongest language; contributed to a small extent to learning of the perceived second strongest language and contributed a lot to learning of the perceived second strongest language. Furthermore, 2 of the respondents (n=2, 22.2%) attested that listening to the radio contributed to a large extent to learning the perceived second strongest language, while 3 of the respondents (n=3, 33.3%) confirm that listening to the radio contributed the most to learning the perceived second strongest language. Finally, the data show that the majority of the respondents attest that listening to the radio is a factor that contributed to a large extent or the most to learning the perceived second strongest language.

School/ education factor

In the interpretation of data in Table 4-10a, 1 of the respondents (n=1, 11.1%) said that the school/education factor did not contribute at all to learning her strongest language, while 8 of the respondents (n=8, 88.9%) attest that school/education factors contributed the most to learning their strongest language. This means the majority of the study respondents affirm that school/education is a major factor behind learning their strongest language. This is an important finding in the education context, confirming the role of the strongest language or Home Language in education.

Table 4-10b shows that 1 of the respondents (n=1, 11.1%) said that the school/education factor did not contribute at all to learning her perceived second strongest language. Another respondent (n=1, 11.1%) affirmed that the school/education factor contributed to a small extent to learning her perceived second strongest language, while 7 of the respondents (n=7, 77.8%) confirmed that school/education as a factor contributed the most to learning their perceived second strongest language. Therefore, the majority of the respondents maintained that school/education as a factor contributed the most to learning their perceived second-strongest language.

In conclusion, the school/education factor was indicated by most of the study respondents as contributing the most to the learning of the strongest language. Secondly, the family factor was also indicated as significant in contributing the most to learning the strongest language. Thereafter, the self-instruction, television and radio factors were indicated by most study respondents as contributing the most to learning the strongest language. Finally, the reading factor is the least indicated by most of the respondents as contributed the most or contributed a lot to the learning of the strongest language.

In terms of the second strongest language, the education factor was indicated by most of the study respondents as significant. Secondly, the reading factor was indicated by most of the

study respondents as contributing to learning the second strongest language. Thirdly, the friend factor was indicated by most of the study respondents as contributing to learning the second strongest language. Thereafter, family and radio factors were indicated by most of the respondents as contributing to learning the second strongest language. Finally, self-instruction and television factors are least indicated by most of the respondents as contributing to the learning of the second strongest language.

4.1.3.9 Factors that contributed to current reasons for using the strongest and second-strongest languages

The table presents and discusses how friends, family, reading, self-instruction, television, radio and school/education factors have contributed to the respondents' current use of their strongest and second-strongest languages.

Table 4-11a Factors that contributed to current reasons for using the strongest languages

		FREQUENCY	PERCENT
Current friends factor	Average contribution	1	11.1
	Contributed a lot	2	22.2
	Contributed the most	6	66.7
	Total	9	100.0
Current family factor	Contributed very little	2	22.2
	Contributed the most	7	77.8
	Total	9	100.0
Current reading factor	Contributed to a small extent	1	11.1
	Contributed a lot	2	22.2
	Contributed the most	6	66.7
	Total	9	100.0
Current self-instruction factor	Contributed very little	2	22.2
	Average contribution	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	5	55.6
	Total	9	100.0
Current TV factor	Contributed very little	3	33.3
	Average contribution	1	11.1
	Contributed a lot	1	11.1

		FREQUENCY	PERCENT
	Contributed the most	4	44.4
	Total	9	100.0
Current radio factor	Contributed very little	1	11.1
	Contributed to a small extent	1	11.1
	Average contribution	1	11.1
	Contributed a lot	2	22.2
	Contributed the most	4	44.4
	Total	9	100.0
Current school/education factor	Did not contribute at all	1	11.1
	Average contribution	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	6	66.7
	Total	9	100.0

Table 4-11b: Factors that contributed to current reasons for using the strongest and second-strongest languages

		FREQUENCY	PERCENT
Current friends factor	Average contribution	1	11.1
	Contributed the most	8	88.9
	Total	9	100.0
Current family factor	Contributed very little	3	33.3
	Contributed to a small extent	1	11.1
	Average contribution	1	11.1
	Contributed the most	4	44.4
	Total	9	100.0
Current reading factor	Contributed very little	2	22.2
	Contributed a lot	2	22.2
	Contributed the most	5	55.6
	Total	9	100.0
Current self-instruction factor	Did not contribute at all	2	22.2
	Contributed very little	1	11.1
	Contributed to a small extent	2	22.2
	Average contribution	1	11.1

		FREQUENCY	PERCENT
	Contributed the most	3	33.3
	Total	9	100.0
Current TV factor	Did not contribute at all	1	11.1
	Contributed very little	1	11.1
	Average contribution	3	33.3
	Contributed to a large extent	1	11.1
	Contributed a lot	1	11.1
	Contributed the most	2	22.2
	Total	9	100.0
Current radio factor	Did not contribute at all	1	11.1
	Contributed to a small extent	1	11.1
	Average contribution	2	22.2
	Contributed a lot	1	11.1
	Contributed the most	4	44.4
	Total	9	100.0
Current school/education factor	Did not contribute at all	2	22.2
	Contributed to a large extent	1	11.1
	Contributed a lot	6	66.7
	Total	9	100.0

Current friends factor

In Table 4-11a, 1 respondent ($n=1$, 11.1%) confirmed that interacting with friends averagely contributed to currently using her strongest language. Furthermore, 2 of the respondents ($n=2$, 22.2%) affirmed that interacting with friends contributed a lot to using their strongest language currently. Finally, 6 of the respondents ($n=6$, 66.7%) stated that interacting with friends contributed the most to their current use of their strongest language. In sum, most of the study respondents maintained that interacting with friends contributed the most to using the strongest language currently.

In Table 4-11b above, 1 respondent ($n=1$, 11.1%) confirmed that interacting with friends as a factor averagely contributed to currently using her perceived second strongest language, while 8 of the respondents ($n=8$, 88.9%) affirmed that interacting with friends contributed the most to their perceived current use of their second strongest language. In conclusion, the majority of the study respondents confirmed that interacting with friends contributed the most to the current use of their perceived second-strongest language.

Current family factor

Table 4-11a data portray that 2 of the respondents ($n=2$, 22.2%) confirmed that family interaction contributed very little to currently using their strongest language while 7 of the respondents ($n=7$, 77.8%) attested that interacting with the family contributed the most to their current usage of the strongest language. This indicates that the majority of the study respondents affirmed that family interaction contributed the most to using their strongest language. This finding is similar to that of Coetzee Van-Rooy (2012, 2013).

The data in Table 4-11b show that 3 of the respondents ($n=3$, 33.3%) stated that family interaction contributed very little to their current use of their perceived second strongest language. Furthermore, 1 respondent ($n=1$, 11.1%) each maintained that family interaction contributed to a small extent to their current use of her perceived second strongest language, and averagely contributed to her current use of her perceived second strongest language, whereas 4 of the respondents ($n=4$, 44.4%) attested that interacting with the family contributed the most to their current usage of their perceived second strongest language. This reveals that almost an equal number of participants believed that the family as a factor did not contribute to their current use of their perceived second strongest language (4/9) while 5/9 of the respondents believed that the family did contribute to their current use of their perceived second strongest language.

Current reading factor

The data in Table 4-11a reflect that 1 respondent ($n=1$, 11.1%) maintained that her reading contributed to a small extent to the current use of her strongest language. Moreover, 2 of the respondents ($n=2$, 22.2%) said that the reading factor contributed a lot to currently using their strongest language. Finally, 6 of the respondents ($n=6$, 66.7%) affirmed that the reading factor contributed the most to the current usage of their strongest language. In conclusion, the data show that almost all the respondents attested that the reading factor contributed the most to currently using their strongest language. This is an important finding confirming the use of the strongest language or Home Language in education.

The data in Table 4-11b reflect that 2 respondents ($n=2$, 22.2%) each maintained that the reading factor contributed very little to the current use of their perceived second strongest language; and that the reading factor contributed a lot to the current use of their perceived second strongest language. Finally, 5 of the respondents ($n=5$, 55.6%) attested that the reading factor contributed the most to the current usage of their perceived second-strongest language. In sum, the data reveal that the majority of the respondents confirmed that the reading factor

contributed the most to currently using their perceived second strongest language, which also has implications for the use of the second strongest languages in education.

Current self-instruction factor

In table 4-11a 2 of the study respondents ($n=2$, 22.2%) affirmed that the self-instruction factor contributed very little to the current use of their strongest language. Furthermore, 1 of the respondents ($n=1$, 11.1%) said that the self-instruction factor averagely contributed to currently using her strongest language, and 1 respondent ($n=1$, 11.1%) said that self-instruction contributed a lot to the current use of the strongest language. Finally, 5 of the study respondents ($n=5$, 55.6%) affirmed that self-instruction contributed the most to currently using their strongest language. In conclusion, the majority of the respondents attested that the self-instruction factor contributed the most to the current usage of their strongest language.

In table 4-11b, 1 of the study respondents ($n=1$, 11.1%) each said that the self-instruction factor contributed very little, or averagely contributed to the current use of her perceived second strongest language. Moreover, 2 of the respondents ($n=2$, 22.2%) each affirmed that the self-instruction factor did not contribute at or contributed to a small extent to the current use of their perceived second strongest language, while 3 of the respondents ($n=3$, 33.3%) confirmed that the self-instruction factor contributed the most to the current use of their perceived second strongest language. In conclusion, the majority of the respondents (5/9) believed that self-instruction did not contribute to the current use of their perceived second strongest language; while 4/9 of the respondents believed that it did contribute to the current use of their perceived second strongest language.

Current TV factor

Data from Table 4-11a show that 3 of the respondents ($n=3$, 33.3%) said that watching TV as a factor contributed very little to currently using their strongest language. However, 1 of the respondents ($n=1$, 11.1%) said that watching TV averagely contributed to the current use of her strongest language. 1 of the respondents ($n=1$, 11.1%) confirmed that watching TV is a factor that contributed a lot to the current use of the strongest language. Lastly, 4 of the study respondents ($n=4$, 44.4%) affirmed that watching TV as a factor contributed the most to the current use of their strongest language. In sum, the data portray that a greater number of the respondents affirmed that watching TV as a factor contributed the most to currently using their strongest language.

In Table 4-11b, 1 respondent ($n=1$, 11.1%) each confirmed that watching TV as a factor did not contribute at all or contributed very little to currently using her perceived second strongest

language, while 1 respondent each indicated that watching TV contributed to a large extent or a lot to currently using her perceived second strongest language. Moreover, 2 of the respondents ($n=2$, 22.2%) attested that watching TV as a factor contributed the most to the current use of their perceived second strongest language, and 3 of the respondents ($n=3$, 33.3%) said that watching TV as a factor averagely contributed to their current use of their perceived second strongest language. In conclusion, the data show that the majority of the respondents affirmed that watching TV contributed averagely, a lot or to a large extent to currently using their second strongest language.

Current radio factor

Out of the 9 respondents reported in Table 4-11a, 1 respondent each ($n=1$, 11.1%) said that listening to the radio contributed very little, to a small extent, or contributed averagely to currently using her strongest language, while 2 of the respondents ($n=2$; 22.2%) confirmed that listening to the radio is a factor that contributed a lot to the current use of their strongest language. Finally, 4 of the respondents ($n=4$, 44.4%) affirmed that listening to the radio as a factor contributed the most to currently using their strongest language. Conclusively, it then shows that most of the respondents attested that listening to the radio as a factor contributed the most to the current use of the strongest language.

Out of the 9 respondents indicated in Table 4-11b, 1 ($n=1$, 11.1%) each said that listening to the radio did not contribute at all, contributed to a small extent, or contributed a lot to their current use of their perceived second strongest language. Moreover, 2 of the respondents ($n=2$, 22.2%) confirmed that the radio factor averagely contributed to their current use of their perceived second strongest language, while 4 of the respondents ($n=4$, 44.4%) attested that the radio factor contributed the most to their current use of their perceived second strongest language. In conclusion, this depicts that the majority of the respondents attested that listening to the radio as a factor contributed averagely, a lot or the most to the current use of their second strongest language.

Current school/education factor

The above data in Table 4-11a show that out of the 9 study respondents, 1 respondent ($n=1$, 11.1%) each affirmed that the school/education factor did not contribute at, averagely contributed or contributed a lot to the current use of the strongest language. Finally, 6 of the study respondents ($n=6$, 66.7%) said that the school/education factor contributed the most to the current use of their strongest language. This means that most of the respondents attested that the school/education factor contributed the most to currently using their strongest language.

In Table 4-11b 2 of the respondents ($n=2$, 22.2%) said that the school/education factor did not contribute at all to the current use of their second strongest language, while 1 of the respondents ($n=1$, 11.1%) affirmed that the school/education factor contributed to a large extent to the current use of the second strongest language. Additionally, 6 of the respondents ($n=6$, 66.7%) affirmed that school/education factors contributed a lot to the current use of their second strongest language. This denotes that almost all the study respondents confirmed that the school/education factor contributed a lot to the current use of their perceived second-strongest language.

In conclusion, the family factor was indicated by most of the study respondents as currently contributing to the use of their strongest language. Secondly, friends, reading and school/education factors were indicated by most of the respondents as currently contributing to the use of their strongest language. Thereafter, the self-instruction factor is indicated by most respondents as currently contributing to the use of their strongest language. Finally, the television and radio factors are the least indicated by most of the respondents as currently contributing to the use of their strongest language.

In terms of the factors contributing to the current use of the second strongest language, the friend factor was highlighted by most of the respondents. Secondly, the school/education factor was indicated as contributing a lot to the current use of their second strongest language. Thereafter, the reading, family and radio factors were indicated by respondents as contributing to their current use of their second strongest language. Finally, self-instruction and television factors contributed the least to the current use of the perceived second-strongest language of the participants.

4.1.4 Opinions about multilingualism

A set of three questions in the survey asked participants to provide their opinions on the issue of multilingualism in South Africa.

The importance of knowing more than one language in South Africa

In this section, the table below presents and discusses the respondents' responses to the question on the importance of knowing more than one language in South Africa.

Table 4-12 The importance of knowing more than one language in South Africa

	FREQUENCY	PERCENT
Moderately important	1	11.1

Very important	1	11.1
Extremely important	7	77.8
Total	9	100.0

The data above indicate that 1 respondent ($n=1$, 11.1%) each said that it is moderately important to know more than one language in South Africa; and that it is very important to know more than one language in South Africa, while 7 of the respondents ($n=7$, 77.8%) confirmed that it is extremely important to know more than one language in South Africa. Conclusively, the majority of the respondents opined that it is extremely important to know more than one language in South Africa.

The number of languages a South African should learn

The table presents and discusses the respondents' opinions on the number of languages a South African should learn.

Table 4-13: The number of languages a South African should learn

	FREQUENCY	PERCENT
South Africans should learn their Home Language and ONE additional language	1	11.1
South Africans should learn their Home Language and TWO additional languages	6	66.7
South Africans should learn their Home Language and THREE additional languages	1	11.1
South Africans should learn their Home Language and FOUR additional languages	1	11.1
Total	9	100.0

Of the 9 study respondents, 1 of the respondents ($n=1$, 11.1%) each believed that South Africans should learn their Home Language and ONE additional language; THREE additional languages, or FOUR additional languages. Moreover, 6 of the respondents ($n=6$, 66.7%) believed that South Africans should learn their Home Language and TWO additional languages, while none of the respondents believes that South Africans should ONLY learn their Home

Language. These findings align with Coetzee-Van Rooy (2012 and 2013) where it was reported at the NWU that African Home Language students are often multilingual while Afrikaans and English Home Language students are mainly bilingual. Conclusively, the majority of the study

respondents believe that South Africans should learn their Home Language and TWO (or more) additional languages.

4.1.5 Reasons for South Africans to learn additional languages

In the questionnaire, the respondents provided reasons for why they believe South Africans should learn and know additional languages. The open-ended responses were analysed and two themes emerged from the responses.

THEME 1: SOUTH AFRICANS SHOULD LEARN AT LEAST THREE LANGUAGES BECAUSE OF THE DIVERSITY

In this theme, the majority of the respondents believe that South Africans should learn at least three languages (including the Home Language). The excerpts below from respondents support the importance of being multilingual in a diverse country such as South Africa.

[1] *I think that South Africans should learn at least three languages because it is such a diverse country, and this would enable the individual to interact with the majority of the population. I think that one of the languages must be English as this is used to communicate in most scenarios.*

South Africa is a diverse country so it is important to learn at least 2 additional languages so that we can communicate and interact with people.

We'll be able to understand each other more, more importantly, relate to and share each other's struggles. Being able to understand each other would also allow us to be empathetic towards one another.

[2] *We have a diverse country and so many different languages that I feel 2 languages are just not enough, therefore I feel 3 would just be fine.*

[3] *There are so many spoken languages in South Africa, even the non-official languages, and I think knowing at least three languages will enable you to find common ground with most South Africans, even if you are not fluent in their languages. This is based on the experience I have, that I cannot speak other languages, but I can figure out what is being said to me.*

[4] *It is important to know your Home Language so that you can communicate with the people in your environment. Furthermore, if you learn two more additional languages you will be able to communicate with a wider variety of people in South Africa and this means that you can contribute to the greater community and be a part of a greater community.*

THEME 2: SOUTH AFRICANS SHOULD LEARN ADDITIONAL LANGUAGES BECAUSE OF EDUCATION

In this theme, the respondents expressed the belief that South Africans should learn at least two languages (the Home Language and English specifically) for education. Participants also expressed the special role of English as a global language and therefore as an important language to learn. The excerpts of the respondents in support of this theme are given below.

[5] *Because most schools in South Africa have an academic language of either English or Afrikaans or both. Children should be able to learn both languages. This will help a student at University when most classes in some faculties are presented in English.*

[6] *South Africans should learn more than 2 languages to be able to educate themselves more. We are a very diverse country so to include everyone and be included in learning extra languages is advantageous.*

4.1.6 Conclusion

Foremost, the biographical information shows that only 9 respondents out of the 61 respondents for this study voluntarily participated in answering the questionnaire. These 9 respondents are all females, and the most prominent group of participants include White South African respondents between the ages of 18 to 24 years. The biographical information further depicted that most of the study respondents' parents are well-educated (completing secondary school or post-school education qualifications). Although the participants in the survey study remain a small group, they do seem to be a typical group for the education faculty on the NWU Potchefstroom Campus.

Secondly, the data depicted the prominence of English and Afrikaans as Home Languages among the respondents and that most of the respondents are either bilingual or multilingual, hence none of the 9 respondents are monolingual speakers. The data show the prominence of English and Afrikaans as languages learnt first or second by the study respondents. This emphasises the importance of either of these two languages as instructional languages. Also because Afrikaans and English are the Home Languages majorly spoken within the Potchefstroom environment (Olivier, 2014).

Thirdly, the data show that the majority of the respondents perceived English and Afrikaans as their strongest and second-strongest languages. Many of the respondents affirmed they started learning their strongest language between the ages of 0 to 2 years, while they started learning their second strongest language between the ages of 7 to 13 years. The motivation for learning the strongest language most of the respondents is because of being born to a family that uses

the language. Hence, it is seen that most of the study respondents' strongest languages are perceived as their mother tongues' Home Languages. Likewise the same motivation for learning their second strongest language because it is a language used for teaching and learning at school.

The school/education, family, self-instruction, television, radio and reading (which is the least indicated) are factors indicated by the participants as contributing to the learning of the strongest language. While education, reading, friend, family, radio, self-instruction and television (which is the least indicated) are factors indicated by the participants to learn the second strongest language.

Also, family, friends, reading, school/education, self-instruction, television and radio (which is the least indicated) are factors indicated by the participants as currently contributing to the use of their strongest language. While friends, school/education, reading, family, radio, self-instruction and television (which is the least indicated) are factors indicated by the participants as contributing to their current use of the second strongest language.

Finally, most of the respondents gave the opinion that South Africans need to know more than one language. Many of the respondents affirm that South Africans should learn their Home Language and TWO additional languages because of the diversity and finding common grounds as regards language among South Africans.

4.2 Discussion of findings from language portraits

In this section, the findings from the language portrait data are presented. This section includes the biographical information of the study respondents, the languages indicated on the portraits, the places of languages on the portraits, the colours of languages on the portraits, the types of languages on the portraits, the co-occurrence of languages and proficiency codes and a conclusion to capture the main findings from the language portraits.

4.2.1 Biographical information

Of about 10,000 participating students in the 2020 Reception and Orientation programme of the North-West University, 3863 participants provided informed consent and submitted their language portraits for research purposes. From this group of students, 61 participants complied with the criteria for the purposive selection of this study. The language portraits of these 61 participants are included in the analysis of this study. These are the same 61 participants that were invited to complete the Language Repertoire Survey in 2022 (of which 9 volunteered to

participate by submitting completed surveys that were discussed in the previous section). The demographics and biographical information of these students are set out below.

Table 4-14 Gender

CATEGORY	COUNT	PERCENTAGE
Female	46	75.40984
Male	14	22.95082
No response	1	1.63934

Table 4-15: Age

CATEGORY	COUNT	PERCENTAGE
18-24	58	95.08197
25-30	2	3.27869
No response	1	1.63934

Table 4-16 Self-Reported Population Group

CATEGORY	COUNT	PERCENT
Black Africa	16	26.22951
Coloured	16	26.22951
White	28	45.90164
Other	1	1.63934
Missing	0	0.00000

Table 4-17 Self-Reported Home Languages

CATEGORY	COUNT	PERCENT
Afrikaans	38	62.29508
English	9	14.75410
German	1	1.63934
Northern Sotho	4	6.55738
Southern Sotho	2	3.27869
Swati	1	1.63934
Tswana	3	4.91803
Xhosa	2	3.27869

CATEGORY	COUNT	PERCENT
Zulu	1	1.63934
Missing	0	0.00000

The language portrait participants are all from the Faculty of Education, at NWU, Potchefstroom campus. There are 46 females and 14 males and 1 participant who did not respond. Most of the participants' ages fall within the bracket of 18 to 24 years, while 2 of the are between 25 and 30 years old. For the self-reported population group, White South Africans are in the majority with 28 participants, followed by Coloured and Black Africans with 16 participants each and 'other' with 1 participant. Finally, the self-reported Home Languages of the majority of participants are Afrikaans with 38 participants, 9 participants indicated English as their Home Language with 4 Northern Sotho, 3 Tswana, 2 Southern Sotho and 2 Xhosa participants. There was also 1 German, 1 Swati and 1 Zulu participant in the sample.

4.2.2 Languages indicated on the portraits

First of all, an overview of the particular languages represented on the language portraits of the participants and the number of languages indicated on the silhouette is presented in the table below.

Table 4-18: The number of languages

LANGUAGES ON THE SILHOUETTE	FREQUENCIES
English	114
Afrikaans	107
Tswana	37
Zulu	32
French	22
Southern Sotho	22
Xhosa	20
German	13
Other languages	12
Spanish	12
Northern Sotho	6
Portuguese	6
Swati	6
Italian	4

LANGUAGES ON THE SILHOUETTE	FREQUENCIES
Dutch	3
Venda	2
Hebrew	0
Ndebele	0
Ndonga	0
Tsonga/ Shangaan	0
Xitsonga	0
Totals	418

When we look at Table 4.18, we see how prominent English and Afrikaans are in the language portraits of the participants; followed by the second cluster of important languages that includes Tswana, Zulu, French, South Sotho and Xhosa; while Dutch and Venda are the least prominent on the language portraits. Furthermore, one notes that the participants did not indicate Hebrew, IsiNdebele, Ndonga, Tsonga / Shangaan and Xitsonga on the language portraits at all.

To indicate why the English language gained prominence, participants whose Home Language/mother tongue is English stated that:

[7] *I chose the upper body (heart) because English was the first language I spoke and it is a language I value a lot. [Participant 1399; Female]*

[8] *Red emphasises the colour of the heart, and I used red because English is the language I grew up with, it is my identity. [Participant 1547; Female]*

Also, to indicate why the Afrikaans language gained prominence, participants whose Home Language/mother tongue is Afrikaans say that:

[9] *Afrikaans is my Home Language. It is the first language that I was taught. We work with our hands, that is why I placed the colour there as well. [Participant 1368; Female]*

[10] *I know it the best and speak it a lot and black is my favourite colour. [Participant 1474; Male]*

[11] *My Home Language is Afrikaans and my whole family, which is the centre of my heart. [Participant 619; Female]*

When we relate these findings to the findings reported about Home Languages and additional languages (see **Table 4-18**) and the existing literature, it is clear that the distinct bilingual nature of Afrikaans-English South Africans is also present among the participants in this study. Apart

from Afrikaans and English being prominent languages in the language portraits of the participants as reported in Table 4-15, Coetzee-Van Rooy (2021: 182) notes that there is an extensive history between English and Afrikaans people in South Africa that has resulted in a form of stable bilingualism which is comparable with very few similar situations across the world. When the data in the study are interpreted, one needs to keep in mind that the study was conducted at a university campus where most of the speakers are Afrikaans mother-tongue speakers, with English as an additional language. It is therefore not surprising that Afrikaans and English are prominent languages in the language portraits of the participants and that one should expect a form of English-Afrikaans bilingualism among the Afrikaans mother-tongue participants in this study.

Furthermore, an analysis of the numbers of English-speaking South Africans in the Census 2011 indicates that White South Africans made up the largest group of the English Home Language (32.7%) population, followed by African speakers of English as a Home Language (23.8%), then the Indian or Asian speakers (22.4%), with the Coloured speakers (19.3%) of English as a Home Language making up the smallest population group. However, it is astonishing to see that as compared to the 1996 Census data (Gough, 1996; Coetzee-Van Rooy, 2021), the 2011 Census data indicated that there has been a rise in the number of Black speakers of English as a home language because more people report English as home language (Posel & Zeller 2016: 363).

Conclusively, as indicated in Table 4-15 above, it is seen that English and Afrikaans are the most prominent languages reported by the participants on the language portrait. This denotes that speaking of the English language especially is not only limited to the White community or Afrikaans mother tongue speakers but across all mother tongue-speaking communities in South Africa.

The second cluster of languages represented on the language portraits of the participants as reported in *Table 15* include Tswana, Zulu, French, Southern Sotho and Xhosa. These languages could either be the mother tongue of the participants, or an additional or heritage language, or the participants could aspire or hope to learn one of these languages. Also, the Dutch and Venda which are the least prominent languages represented on the language portraits, may as well either be the mother tongue, additional or heritage languages, or languages that the participants aspire to or hope to learn. None of the participants of the study indicated languages like Hebrew, IsiNdebele, Ndonga, Tsonga/ Shangaan and Xitsonga languages on the portraits. The absence of these languages indicates that they do not perform specific functions or roles in the repertoires of these participants as they are not selected as languages to include in the portraits.

4.2.3 Places of languages on the portraits

The places selected by the participants to represent the language on their language portraits are reported in Table 4-19.

Table 4-19: Places of languages on the portraits

PLACE OF THE LANGUAGE ON SILHOUETTE	FREQUENCIES
Head/brain	48
Arm/full & half arm	27
Leg	26
Hand	23
Heart/Core	23
Both Feet/Shoes	20
Torso/Chest	20
Upper/half body	13
Right leg	8
Left leg	7
Right Arm	6
Stomach/tummy	6
Whole-body	5
Shoulder/s & limb	4
Ears	3
Left Arm	3
Lower body	3
Neck	3
Right Hand	3
Fingers	2
Left hand	2
Pant/Belt/Waist	2
Thigh/Upper/Lower/Front and back thigh	2
Eyes	1
Face	1
Knee	1
Left Foot	1
Mouth	1
Right Foot	1

PLACE OF THE LANGUAGE ON SILHOUETTE	FREQUENCIES
Totals	265

When we look at Table 4-19, we note that the most prominent places used by the participants to indicate the languages on the silhouette. These places include the head/brain, arm, leg, heart/core, feet and torso/chest. However, the least prominent places for languages as indicated by participants on the silhouette are the eyes, face, left foot, mouth and right foot. The peripheral places on the silhouette (arm/full & half arm, leg, hand, feet, right leg, left leg, right arm, shoulder/s and limb, whole-body, ears, left arm, neck, right hand, fingers, left hand, thigh/upper/lower/front and back thigh, eyes, face, knee, left foot, mouth and right foot) are represented by 178 counts while the central places on the silhouette (head/brain, heart/core, torso/chest, stomach/tummy, pant/belt/waist, lower body and upper/half body) are represented by 67 counts.

We will now discuss findings related to the central part of the silhouette. The participants that situate the language in the place of the heads/brains on the silhouette have the following to say:

[12] *Afrikaans is in my head because it is always a language that will be used to communicate with others so that you don't feel excluded. [Participant 1547; Female; about Afrikaans as Home Language]*

[13] *Because it's the language of the world and it's always in my head (used to understand other people). [Participant 1301; Female; about English as an additional language]*

Likewise, the participants that positioned Afrikaans and English in the place of the heart/core on the silhouette stated that:

[14] *Red emphasises the colour of the heart, and I used red because English is the language I grew up with, it is my identity. [Participant 1547; Female; about English as Home Language]*

[15] *Afrikaans is my Home Language, yellow is a warm colour. The core represents my heart and half of my body because I'm half Afrikaans. [Participant 1259; Female; about Afrikaans as Home Language]*

The torso/chest is the last on the list of the prominent places on the silhouette where the participants put some of the languages in their repertoires:

[16] *It's my Home Language and most people don't know that about me, I feel like it's my secret. [Participant 1456; Male; about English as Home Language]*

- [17] *The chest represents pride, and the culture of Southern Sotho speakers has lots of pride in their heritage. [Participant 1391; Male; about Southern Sotho as Home Language]*

In the section that follows, the peripheral part of the silhouette is discussed. The participants that situate the language in the place of the arm and half arm of the silhouette stated that:

- [18] *I coloured it in half arm because I can understand it but cannot fully speak it. [Participant 1391; Male; about Afrikaans as additional language]*
- [19] *This is my driver of the world controller of my communication and that's the first place one is shown warmth and respect (handshake). [Participant 1464; Female; about English as an additional language]*

The participants that positioned the language in the place of the legs on the silhouette say:

- [20] *To reach out with my hands and legs to learn Xhosa and celebrate diversity. [Participant 1268; Male; about Xhosa as additional language]*
- [21] *I was forced to learn Afrikaans and it makes my legs weak. [Participant 1472; Female; about Afrikaans as additional language]*

The feet are another prominent place where the participants situated the languages that they know on the silhouette:

- [22] *Afrikaans is the foundation of my language/verbal journey, as it was the first language I was taught. The feet/legs are the foundation to which the rest of my body connects. [Participant 1545; Female; about Afrikaans as Home Language]*
- [23] *I chose the legs and feet because it takes small steps and time to learn a new language. [Participant 619; Female; about Sotho as additional language]*

When we relate these findings to the existing literature, Busch (2010) emphasises how the various areas of the body can relay different attitudes towards the languages placed on the silhouette. The use of the human silhouette generates body metaphors that are applied to the languages represented in the language portrait. In buttressing this and relating it to this study, Obojska (2019) did a study in Norway in which the author portrayed the importance of languages in the silhouette, where the concentration was on the placement of three languages: Polish, English and Norwegian. The participants in Obojska's studies were Polish migrants in Norway, which then denotes that the participants' Home Language was Polish. Further, in the study's findings, Obojska (2019) observed that in both adult and teenage participants' portraits, the placement of the Polish language was on the chest or the head area, which is referred to as the language of the heart and the language of thoughts, while English with the Norwegian language is usually represented in the hands and arms region referring to it as the work

languages. Obojska (2019) concluded that languages with huge sentient/conscious benefits frequently inhabited the core regions of the portrait-like the head and heart, whilst the languages that are generally linked to achieving functional responsibilities of knowledge and working are usually located in the hands and arms region.

The findings in this study are similar to those reported by Obojska. In *Table 16* we note that the participants also select the central (head/brain, torso/chest and heart) and peripheral (arm, leg, and feet) places for languages on the silhouette, similar to that of the participants in Obojska's (2019) study. For the participants in Obojska's (2019) study, languages like Polish function as

Home Languages or mother tongues and these languages are placed in the chest or head area on the silhouette. Similarly, it is seen that both the languages placed in the central and peripheral regions of the silhouette achieved substantial frequencies that indicate their prominence in this study. To clarify this better, the study participants placed their Home Language in the central regions of the silhouette because of how dear the languages are to them; as a means of identity and usefulness for their daily interaction. Thus, their respective mother tongues can be the language of the heart, thought and communication in which they can easily express themselves.

Meanwhile, it is observed that languages placed in the peripheral region of the silhouette are the languages they have no choice but to learn, that is the languages of instrumental value or work languages. These languages are additional languages they learn for different reasons either willingly or unwillingly (forced to learn). For instance, as seen in the data and the above excerpts, most South African students learn additional languages formally at school (English or other languages) to use as lingua franca, because it bridges the communication gap with other mother-tongues speakers and the status of the language as a world language (English in this case), celebrating diversity or other circumstances.

Comparing it South Africa study, Rooy and Peters (2021) reported on the portrait-corpus approach study towards Afrikaans and English in South Africa indicating that languages are conceptualised as less important (peripheral languages) and more important (central languages) in the portrait. Conceptualising language as central or peripheral on the silhouette is based on how participants view the language for the purpose it is meant for. Rooy and Peters (2021) concluded that for academic success in South Africa, English is more prominent than Afrikaans as an additional language because of its usefulness academically and serves as a lingua franca, thus the reason it is placed on the silhouette central region. On the other hand, Afrikaans is placed in the peripheral region of the silhouette because the multilingual participants considered Afrikaans to be less important for their academic achievement, which is

also seen in this study. In summary, the findings from Obojska (2019), Rooy and Peters (2021) and the current study indicate the different roles and functions that languages (either Home Language/mother tongue or additional language) perform in the linguistic repertoires of students.

4.2.4 Colours of languages on the portraits

Table 4-20 reports the most prominent colours where languages on the portraits are presented by the participants.

Table 4-20: Colours of languages on the portraits

COLOUR OF LANGUAGE ON SILHOUETTE	FREQUENCIES
Red	43
Blue	41
Green	34
Purple	29
Favourite	26
Yellow	24
Orange	19
Brown/flesh/skin/Nude	15
Black	10
Peach	4
Camel	1
Pink	1
Refreshing	1
Universal	1
White	0
Totals	249

When we look at Table 4-20 we learn that the most prominent colours used by the participants in the study for languages on the silhouette are red, blue, green, purple, favourite, yellow and orange; while the least prominent colours are camel and pink. None of the participants picked the colour white for the portrait. As part of the analysis of these language portraits, it is important to know the reasons presented by participants to motivate their choice of the selected prominent colours (red, blue, green, purple, favourite, yellow and orange) for languages on silhouette did so.

The participants who chose the colour red for the language used on the silhouette said:

[R1] It makes me proud, red is a powerful colour. Afrikaans is also the most romantic language. [Participant 1368; Female; about Afrikaans as a mother tongue]

[R2] Red is the love colour and I love my mother tongue. [Participant 1472; Female; about Tswana as a mother tongue]

The participants who chose the colour blue for the language used on the silhouette said:

[24] *English is my knowledge language, I think in English and was taught in English for 12 years and blue seems like a peaceful colour, so peace of mind. [Participant 1472; Female; about English as an additional language]*

[25] *Blue are one of the colours of the French flag. [Participant 1545; Female; about French as a heritage language]*

The Colour green is one of the prominent colours chosen by the participants for their silhouette language. The participants who proposed this colour stated:

[26] *I choose the colour Green for Afrikaans because just like green is a refreshing colour so is Afrikaans a refreshing colour. [Participant 672; Female; about Afrikaans as additional language]*

[27] *Like the grass it's slowly growing within me (Afrikaans). [Participant 1464; Female; about Afrikaans as additional language]*

The participants who chose the colour purple for the language on the silhouette said:

[28] *Purple is a beautiful colour just like the language (Portuguese). [Participant 1407; Female; about Portuguese as the desired language]*

[29] *Purple is one of my favourite colours and English is one of my favourite colours. [Participant 684; Female; about English as additional language]*

The participants that chose yellow as one of the prominent colours on the silhouette for a language stated that:

[30] *I chose yellow because it symbolises the sun that will always be there and Afrikaans is also a language that will always be used. [Participant 1547; Female; about Afrikaans as additional language]*

[31] *Yellow is a vibrant colour and so is the language (Tswana). [Participant 1242; Female; about Tswana as additional language]*

The colour orange is another prominent colour chosen by the participants for the language on the silhouette. The participants have this to say for choosing the colour orange:

- [32] *I chose orange for Sesotho because the language is very bright and shouts volume just like the colour orange. [Participant 694; Female; about Sesotho as the desired language]*
- [33] *Orange is such a sign of a new day (sunrise) so is English, there's more to learn each day. [Participant 1266; Female; about English as an additional language]*

These excerpts indicate why it is difficult to interpret the colours chosen by the participants for the languages on their portraits. Yellow and orange are selected for Afrikaans, Tswana, Sesotho and English; and in both cases, the brightness or vibrancy of the colours are mentioned as reasons for representing these languages in these colours. The languages also play different roles in the repertoires but are presented with the same colours. When we relate the findings to the existing literature about colour to the findings reported above, Kress and Van Leeuwen (2002, 2006) express that the usage of colour in their research assisted in expressing different levels of feelings; and relating specific social factors and language when the participants naturally bring out the sociohistorical and sociocultural connections of colours with their usage in making sense. In the excerpts above, one can see both these factors at play. In excerpts 19 and 23, the positive feelings towards colours are expressed. In excerpts 21 and 25 the participants' links between specific languages and social or cultural expression are communicated.

In the study carried out by Lau (2016), the researcher was able to establish the importance of the role and place of colour in a language portrait; and these were made possible through two of the study participants Isabelle and Janette. Until her university education, Isabelle received her education in the French language which is also her mother tongue. However, she developed a strong interest and passion for learning the English language in Grade 4 as a result of her outstanding performances in the English language. During Lau's (2016) study, Isabelle painted the portrait given to her in two colours green and purple because of the status of both languages (French and English) in her language repertoire. Although she was not that proficient in the English language as compared to her mother tongue language (French). However, she claimed that the two languages made her and are thus inseparable in her view. Therefore, she coined the name FRENGLISH. With the passion that she has for the English language and its usefulness in her repertoire, Isabelle desired she could be as relaxed when speaking the English language as she is when she uses the French language. She selected the colour green to indicate her desire to be devoid of any obstacles particularly when she speaks English. In all, the place of the colours green and purple can be seen in her portrait. The colours express calmness and one can infer the relationship/usefulness of the colours in her portrait.

In this study, the experiences of participant 1464 with the green colour are different to that of Isabelle. As an IsiZulu mother tongue speaker, participant 1464 compared the additional language (Afrikaans), which she coloured in green, to grass that slowly grows within her and to which she's adapting. That is, participant 1464 did not learn the Afrikaans language in a formal setting like Isabelle learnt her English additional language in a formal setting. Also, from the participant's 1464 tone and narrative, she did not develop a strong passion for learning Afrikaans as an additional language. She only keeps learning Afrikaans slowly as the language keeps growing in her, unlike Isabelle that developed a strong passion and love for learning her additional language (English) because of her excellent performances in the language in Grade 4. Hence, the usage of the colour green for participants 1464 and Isabelle is dissimilar and denote different things.

In addition to the narrative related to Isabelle's portrait, Lau (2016) also reports the place of colour in the portrait as used by Janette. Janette, like Isabelle, also came from a Francophone-speaking environment, and aside from her mother tongue which is the French language, Janette as well understood and spoke the Spanish language because she began learning Spanish in her postsecondary college. However, since her mother acquired her education through the medium of English and had seen huge opportunities like jobs and overseas journeys embedded in learning the English language, Janette's mother took her to study in an English school. Even though she is proficient in the dual languages (French and Spanish), and she now uses the English language all day for communication/instruction as compared to the French language, she felt more relaxed speaking in her MT than in the English language. In the portrait, Janette painted the English language "red" because she felt there was no relationship between her and the language aside from the fact that the English language is simply instrumental and practical. The only connection she believed existed between herself and the English language is simply for educational purposes. She further expresses and sees the English language as invasive because the dual languages (French and English languages) are not equally useful as a means of expressing herself. Whilst she represented/painted her Spanish language with bright yellow on her language portrait because she sees the Spanish language as a friendly language that gives her satisfaction and cheeriness and not a draining language like English which she related to essays and examinations.

Contrary, participant 1472 being a Tswana mother tongue speaker painted her mother tongue red because of the love she has for her mother tongue against the red which symbolises dislike or hatred for Janette in learning English as an additional language. Further, participant 1472 painted English which is her additional language in blue because she described blue as a peaceful colour, thereby expressing that English is her knowledge language or language used

for cognition, which also gives her peace of mind and is not intrusive/invasive as narrated by Janette.

Conclusively from the instances given above in Lau's (2016) study, and the discussion of similar findings from this study, it can be seen that the participants of language portraits relate well and adequately make use and interpret the usefulness of colours either positively or negatively with the functions of languages within their language repertoires. There is no universal understanding or metaphor used for individual colours. Each metaphor should be studied individually.

4.2.5 Types of languages on the portraits

In Table 4-21, the frequencies of the types of languages (Home Language, additional language, heritage language and desired language) represented on the portraits by the participants are reported. Home Languages refer to the languages that the participants indicated as Home Languages on the short biographical questionnaire and described as such in their portraits. Additional languages refer to all languages that are not indicated as Home Languages, heritage languages or desired languages that the participants aspire to learn.

Table 4-21: Types of languages on the portraits

TYPE OF LANGUAGES	FREQUENCIES
Additional	110
Home	55
Hope to learn/ to learn more	24
Heritage	10
Totals	199

When we look at Table 4-21, we note that the additional languages in the repertoires of the participants were the most prominent types of languages represented by the participants. We note that six of the participants did not indicate their Home Languages on the biographical questionnaire or the portrait. The low number of frequencies of languages that the participants aspire to learn indicates that the repertoires would in general be small; also we note a small number of heritage languages. This is not out of order for this group of participants who are mainly Afrikaans and English bilinguals. It is reported elsewhere that Afrikaans-English bilinguals rarely report to now more than two languages (Coetzee-Van Rooy, 2013).

Hence, as reflected in the table, it is important to discuss the Afrikaans and English Home Language speakers who are the typical profile among the study participants. The Potchefstroom Campus of the North-West University is dominated by the presence of Afrikaans-English Home Language speakers on campus. This may be because of the location of the University in the North-West Province and within Potchefstroom where the biggest campus is located and which is largely dominated by Afrikaans speakers historically. Aside from that, as a multilingual country, South Africans generally understand and speak more than one language; English is not necessarily inclusive for South Africans who are not highly educated. However, educated South Africans in Higher Education institutions either willingly or unwillingly learn to speak English as an additional language for their academic progress and to bridge the communication gap with their colleagues, not from the same linguistic background. Below are a few excerpts from these study participants on the functions of the different types of languages in their respective linguistic repertoires (i.e., their home and additional languages):

Participant 1407 is a female who is an Afrikaans Home Language speaker who has 7 additional languages (including some desired languages) in her language repertoire. This is what she has to say regarding her Home Language and additional languages:

[34] *It is my Home Language. It is in my head because it comes easier;
Just like the ocean is naturally blue Afrikaans comes naturally to me.*
[Afrikaans]

It is a language I want to learn to speak that is why is in my mouth.
[Portuguese]

*Because I hear it a lot I only know enough to get by I would like to
know more.* [Tswana]

*I love Spanish music it just makes me want to dance and
move.* [Spanish] *It is my language of instruction and my
favourite to speak.* [English]

It's a place I would like to go to. [French]

*It is on my foot because it is the language of the native people of
Africa the foot we walk on.* [Khoisan-Griqua]

It is a language I would like to like on the back of my thigh. [Xhosa]

Participant 694 is a female who is an Afrikaans Home Language speaker with 6 additional languages (including some desired languages) in her language repertoire that says the following regarding the functions of her Home Language and additional languages:

[35] *I placed Afrikaans in my heart because it is very close to my heart and it is the first language I knew from birth. [Afrikaans]*

I know this language because I studied it and can use it as a tool when I need it; I chose a nude colour because English has no border, it is not restricted to a certain race and it is a language to connect people no matter what their race, gender or ethnic group. [English]

IsiXhosa is the weapon or rather tool I can use to take me back to my roots and it represents me the best. [Xhosa]

Sesotho is a very laid-back and relaxed language and I would love to learn this language. [Sesotho]

I would love to speak Setswana and I placed it at this particular place because every time anyone speaks Setswana to me I get butterflies in my tummy. [Tswana]

I chose this place because Zulu's a language that I would just love to understand better. [Zulu]

I chose blue because it reminds me of water and calm and collected the Venda people are; Blue reminds me of still water and the Venda people are very calm and collected. [Venda]

Participant 1399 is a female who is an English Home Language speaker with 3 additional languages (including some desired languages) in her language repertoire. She says the following regarding the functions of her Home Language and additional languages:

[36] *I chose the upper body (heart) because English was the first language I spoke and it is a language I value a lot. [English]*

It requires a lot of thinking because it's a complex language; I chose red because most of the time it symbolises danger and Afrikaans is complex therefore tongue twisters symbolise danger. [Afrikaans]

Because I aspire to speak it since I only understand it to a certain extent. Ears for hearing. [Tswana]

I chose yellow because yellow is my favourite colour and I admire French- speaking people. [French]

Participant 1469 is a female who is an English Home Language speaker who has 2 additional languages in her language repertoire. This is what she has to say regarding her Home Language and additional languages:

[37] *I feel like your legs allow your body to move around and move forward just like English it is so versatile and you can communicate to people almost all around the whole world this means that you can travel/move around communicating to almost everybody. [English]*

This language is with people that's got a heart as they have fought for such a long time to be heard, seen or involved in anything. [Zulu]

Most Afrikaans people are so generous and kind and are always willing to help, reach their arms out to you and help you. [Afrikaans]

Participant 1391 is a male who is a Tswana Home Language speaker with 3 additional languages in his language repertoire he says the following regarding the functions of his Home Language and additional languages:

[38] *I chose the whole arm because I use Setswana the most to communicate with family and friends. [Tswana]*

Most of my education is taught in English and so my thought process occurs in English. [English]

I coloured it in half arm because I can understand it but cannot fully speak it. [Afrikaans]

The chest represents pride, and the culture of Southern Sotho speakers has a lot of pride in their heritage. [Southern Sotho]

When we relate the findings in *Table 18* to the existing literature, we see that many factors are contributing to why individuals report a sizable number of additional languages. Obojska and Purkarthofer's (2018) study established that families that relocated to Norway for job opportunities and improved standards of living have no choice but to learn the Norwegian language to be well-integrated with the new society and to have opportunities to access a well-paying job. According to Obojska and Purkarthofer (2018), Eva who is a German relocated to Norway as a result of a lack of employability in Germany or improved employability in Norway.

She explained how learning the Norwegian language is related to employment in Norway; which as a result made her achieve and succeed exceedingly in Norway. From this account, it is seen that Eva's failure to learn the Norwegian language which is her additional language, might lead to her getting a job that she was satisfied with. Thus, getting a job of her choice would be very difficult if she does not improve her Norwegian. Keeping in mind that the contexts of the participants and the contexts of the study reported here are different, these findings justify the various reasons why individuals report a sizable number of additional languages as related to the above excerpts.

Further, it is noted in Lau's (2016) study that the two French-speaking participants (Isabelle and Janette) always make use more of their additional language (English) than their mother tongues because the additional languages are mostly used throughout the day since they spend longer hours schooling. They use their French mother tongues with their families, that is, within the few hours; they spend at home when they are back from school. Also, within the South African context, Wildsmith-Cromarty and Balfour (2019) with Rooy and Peter (2021) study affirmed that schooling/education and the ability to communicate with people from different mother tongues are the main reasons why many South Africans learned additional languages

These findings are similar to the experiences of the participants in this study. The participants in this study use the English language mostly for knowledge, instruction, and lectures and it is also the language used as a bridge for interaction with many other African students outside of class. The Home Languages are used at home after school.

4.2.6 Co-occurrences of Home Language and proficiency

The language portraits do not provide direct information to answer the research question about the role of the mother tongue in the acquisition of English. Information to answer this research question will be gathered in the interview data set. However, the language portraits can be used to get a perception of the participant's views of the proficiency levels they hold in the languages that they report as part of their repertoires on the silhouettes. One would at least be able to see if the participants believe that they are more or less proficient in the different types of languages in their repertoires represented in the language portraits. This could provide information about Cummins' interdependence hypothesis indirectly.

Thus, the co-occurrences of types of languages in the repertoires of the participants and their perception of their proficiency in the languages represented in the portraits are provided in this section. With a co-occurrence, it means that codes have either been applied to similar quotations or duplicated quotations (Armborst, 2017). One should keep in mind that the

frequencies of the co-occurrences are not high and the findings that emerged from these sets of data should be interpreted with caution. Firmer conclusions about the relationships between the languages in the repertoires of the participants and Cummins' hypotheses emerged from the interview data.

Table 4-22: Co-occurrences of Home Language and proficiency

PROFICIENCY	TYPE OF LANGUAGE HOME GR=55
Proficiency_Easy Gr=11	2
Proficiency_Average Gr=2	0
Proficiency_Difficult Gr=20	0
Proficiency_Strong Gr=1	0
Proficiency_Weak Gr=4	0
Total	2

In the coding process, five codes were developed to capture perceptions raised by the participants about their proficiency in the languages that they represent in their portraits. These codes are proficiency (easy, average, difficult, strong and weak).

When we look at Table 4-22, we see that the only code related to proficiency in the Home Language is that of Proficiency_Easy. This means that the participants who contributed information about their proficiency in their Home Language all believe that their proficiency in their Home Languages is so high that it is easy to use these languages. That is, the participants always find their Home Languages easy to use during communication processes.

In emphasising how proficient and easy the Home Language could be, participant 1320 says she is more dominant in Afrikaans than in her additional languages since Afrikaans is her mother tongue and because she regularly thinks and writes using her mother tongue:

[38] *Because I think and write in Afrikaans, I am more dominant in Afrikaans.*

[Participants 1320; Female]

Her perception that she is dominant in Afrikaans and she thinks and writes in Afrikaans is seen as an indicator of her proficiency in the language. Also, participant 1388, a Swati mother-tongue speaker has this to say on how well she understands her Home Language when she compares this perception to her other additional languages:

[39] *Because this is my Home Language (Swati) and it's the language I know, and I understand the most. [Participant 1388; Female]*

Participant 1266 explained how fluently she speaks her Home Language (English) when she says:

[40] *I chose the head because it is the language I know and can speak fluently. Hands are a sign of communication (English language). [Participant 1266; Female]*

Generally, acquiring the Home Language is natural and it started within the family circle and without any formal education. The acquisition of the Home Language is related to high proficiency because since the foundation of acquisition of the mother tongue is from home and the immediate environment, the individual would have had enough time to develop a comprehensive understanding of the mother-tongue language and hence finds it easy and proficient when speaking the language.

Relating this to the existing literature, for instance, it is ascertained in Lau's (2016) study that a participant named Janette, who is a multilingual student feels more comfortable with her mother tongue (French language) than the English and Spanish languages which are her additional languages. She felt comfortable in her mother tongue because the language is easy for her to speak and she's proficient in the language and also able to express herself fluently in the mother tongue as compared with her other additional languages. Also, the Rooy and Peters (2021) study indicated that Home Language speakers express positive views regarding their Home Languages. That is, Home Language speakers emphasise that they are proficient when speaking in their Home Language. Hence, this is also the situation the small number of participants of this study reflected in their portrait as indicated in Table 19: that they find their Home Language easy to speak and that they believe that they are proficient in their mother tongue as compared to do with their additional languages. None of the participants indicated that they can averagely speak their Home Language or find it difficult, strong or weak to speak.

4.2.6.1 Co-occurrence analysis of english as additional language and proficiency codes

In this section, the co-occurrence analysis of English and proficiency will be presented. In this co-occurrence, the tables indicate how English as an additional language occurs together with the proficiency codes.

Table 4-23: Co-occurrences of English and proficiency

	LANGUAGE_ENGLISH GR=114
Proficiency_Easy Gr=11	6

	LANGUAGE_ENGLISH GR=114
Proficiency_Average Gr=2	1
Proficiency_Difficult Gr=20	0
Proficiency_Strong Gr=1	0
Proficiency_WeakGr=4	0
Totals	7

When we look at Table 4-23, we see that most of the participants who reflected on their proficiency when they use their additional language (English), reported that they hold high enough proficiency in English to find it easy to use. One participant indicated that he/she only holds average proficiency in English as an additional language.

The bilingualism of Afrikaans and English people is a well-known phenomenon in South Africa. Afrikaans Home Language participants often only know 1 additional language and that is English. The same is true for English Home Language participants. This is in contrast to the African Home Language participants who know 3-4 languages. Afrikaans-English bilingualism is also reported to be unique in the world, because of the reported high levels of proficiency in the two languages (Coetzee-Van Rooy, 2013). Participant 1320 provided an example of the high levels of Afrikaans-English proficiency, which relates to the perceptions of this participant that English is easy. The participant said:

[41] *Because I colour my arms purple and would like to say that I know Afrikaans and English at about the same level. And arms and legs take up the same amount of the body. [Participant 1320; Female; Home Language – Afrikaans; English is the additional language; knows 2 languages in total]*

Participant 1472, a Tswana mother-tongue speaker also finds speaking the English language easy because English was the Language of Learning and Teaching (LoLT) in her 12 years of basic education. Participant 1472 says:

[42] *English is my knowledge language, I think in English and was taught in English for 12 years and blue seems like a peaceful colour, so peace of mind. [Participant 1472; Female; Home Language – Tswana; English is not her only additional language; knows 5 languages in total]*

Participant 1242, a Sesotho mother-tongue speaker affirmed that English is the language she knows best. She says the following about her proficiency in English:

[43] *Because it is the language that I know best. [Participant 1242; Female; Home Language – Sesotho; knows 5 languages in total]*

Meanwhile, the only participant that is not that proficient in English as an additional language, states that her proficiency is average:

[44] *I chose red as a colour because it symbolises danger for me, and I coloured the head because English sounds nice in my head but not so much when I speak it. [Participant 667; Female; Home Language – Afrikaans; knows 2 languages in total]*

The above quote was interpreted as evidence of average proficiency because danger equals not yet perfect. The participant expressed that she produces English speech, which is not yet perfect and that is why this is evidence of average proficiency.

In the language repertoires of South Africans, the English language is regarded as very important because of the precise functions of English for business, the entertainment sector and education. Aside from their respective mother tongues, all literate people in South Africa be they White, Black, Indian or Asian and Coloured South Africans make use of the English language for many functions in their daily activities. Hence, English as an additional language plays a very important role among NWU first-year students especially relating to their academics.

As reflected in Table 4-23, 6 of the student participants in the language portraits indicated that they are proficient in the additional language of English. That is, they find it comfortable and they are relaxed when speaking in the English language to the same extent as when speaking in their mother tongue. This can be related to Isabelle in Lau's (2016) study that came from a French background and speaks French as a mother tongue but became more interested in the English language because of her outstanding performance in the additional language and finds it easy and relaxed speaking in the English language even though she's not proficient in the English additional language.

One participant on the portrait as reflected in Table 4-24 indicated that s/he is an average speaker of the English language and that speaking the English language is not that easy for him/her, and none of the participants on the portrait indicated speaking in English as an additional language as difficult, strong or weak to them.

The analysis of the study's small set of portraits is a result of the small references to the proficiency levels. However, if a bigger data set was analysed, more references to proficiency levels might have brought about more insight.

4.2.6.2 Co-occurrences of functions and types of languages on portraits

Another way to investigate the potential relationships between languages in the repertoires of the participants that could provide indirect information about Cummins' hypotheses, is to review

the co-occurrences of the types of languages in the repertoires with the functions that these languages perform.

Table 4-24: Co-occurrences of functions and types of languages on portraits

	TYPE OF LANGUAGE_ ADDITIONAL GR=110	TYPE OF LANGUAGE_ HERITAGE GR=10	TYPE OF LANGUAGE_HOME GR=55	TYPE OF LANGUAGE_HOPE TO LEARN/TO LEARN MORE GR 24	TOTAL
Function_Communication Gr=84	57	1	10	1	69
Function_Identity Gr= 54	0	6	43	0	49
Function_Cognition Gr= 22	14	0	3	0	17
Total	71	7	56	1	135

When we look at Table 4-24, we see that the most prominent types of languages represented on the language portraits are additional languages followed by the Home Language, while heritage and desired languages are the least prominent languages on the silhouettes. In other words, the participants in the language portrait study referred more often to their additional and Home Languages, than possible heritage and desired languages.

The most prominent function performed by additional languages is that of communication, while a significantly smaller function performed by additional languages on the silhouette is that of cognition. In supporting the data reflected in Table 4-25 that the participants mostly used their additional language for communication (that is, the most prominent additional language English), participant 582, an Afrikaans Home Language participant said:

[45] *Because it is a language always in my head, to use when talking to other people. [Participant 582; Male; Home Language – Afrikaans; about English; knows 3 languages in total]*

Likewise, participant 1464, a Zulu Home Language speaker states how useful her English additional language is for communication among all other languages in her repertoires and how the English language accord her respect; thus, reflecting the data established in Table G. The participant said:

[46] *This is my driver of the world controller of my communication and that's the first place one is shown warmth and respect (handshake). [Participant 1464; Female; Home Language – isiZulu; about English; knows 4 languages in total]*

For the study, the cognitive function is important as we are trying to understand how Home Languages and additional languages relate to performing the cognitive function. In the data reported in Table 4-24, it is clear that additional languages perform the cognitive function for these participants. Participant 1472 is one of the few study participants that supported that the English additional language performs a cognitive function. The participant, a Tswana Home Language speaker expressed that she reasoned in English because English is her knowledge language and that she was instructed in the English language for 12 years:

[47] *English is my knowledge language, I think in English and was taught in English for 12 years and blue seems like a peaceful colour, so peace of mind. [Participant 1472; Female; Home Language – Tswana; about English; knows 5 languages in total]*

Table 4-24 above indicated that additional languages are the most prominent for communication purposes. The most prominent additional language is English (see Table 4-25). The participants in this study mainly used English as an additional language in the context of South Africa for

communication, especially when interacting with their friends from different ethnic and cultural backgrounds. Also, in an academic environment like the North-West University where the main choices for languages of learning and teaching (LoLT) are Afrikaans and English, a sizable portion of students on the Potchefstroom Campus (PC) prefer to attend English medium classes. Furthermore, there are many international students on the NWU-PC and English as an additional language is mostly used for communication during lectures which is beneficial to international students that do not understand any of the South African mother tongues used at the NWU for LoLT (Afrikaans, Setswana or Sesotho). From the aforementioned, the significance of students acquiring English as an additional language within the academic environment can be seen. The participants indicated on their portraits/silhouettes that the Home Language serves a communication function for the students that mainly employed their respective Home Languages for communication among their friends from the same language background within the university environment.

Relating the Home Language with a communication function is exemplified by participant 601 who expressed that she interacts with people daily in her Afrikaans Home Language:

[48] *Ek het grootgeword met afrikaans. Dit is my huistaal en die taal wat ek die beste ken. Die taal wat ek elke dag praat. Afrikaans is in my hart. [Participant 601; Female; Home Language – Afrikaans; knows 3 languages in total]*

4.2.6.3 English translation of the excerpt:

I grew up with Afrikaans. This is my Home Language and the language I know best. The language I speak every day. Afrikaans is in my heart.

The most prominent function performed by Home Languages is that of identity, while a significantly smaller function performed by Home Languages on the silhouette is that of communication. For instance, participant 626 who is a Xhosa mother tongue speaker said wherever she goes (be it within South Africa or abroad), she will always put her language and skin first:

[49] *Because my skin colour is black and I believe that wherever I go to the university or even overseas I will always put my language on top of everything and I love my language and colour. [Participant 626; Female; Home Language – Xhosa; about Xhosa; knows 5 languages in total]*

Likewise, participant 811, an Afrikaans Home Language speaker had this to say about the connection between Home Language/mother tongue and identity:

[50] *It is most important to me, it's my Home Language. [Participant 811; Male; Home Language – Afrikaans; about Afrikaans; knows 2 languages in total]*

This finding is harmonious with literature from other portrait studies that revealed that people never do away with their identity. Irrespective of the reasons or circumstances behind being multilingual speakers within or outside one's country, the respective findings in the studies of Lau (2016), Obojska and Purkarthofer (2018) and Obojska (2019), established the significance of the preservation of their mother-tongue because it serves as a symbol of their identity. For instance, each Polish-Norwegian household in Obojska and Purkarthofer's (2018) study, alleged Polish to be their main Home Language despite having understood the Norwegian language well while living, working and schooling in Norway. This is because they understood the importance of keeping their Home Language as a symbol of their identity intact, that is their mother tongue and not forgetting where they are coming from.

The same applies to citizens of a multilingual country like South Africa who are living, working or schooling in a diverse environment where pupils and teachers from a variety of cultural backgrounds are present, but within the same country. As reflected on their silhouette and indicated in *Table 21*, the NWU first-year students never do away with their Home Languages irrespective of where they find themselves within South Africa because it is their identity. Meanwhile, the heritage language is the least recognised for identity purposes, while the additional language could not be related at all to any identity in the data provided by these participants.

Lastly, the tables in this section show that the additional language is the most prominent language connected with cognitive function. This is because the additional language is mostly used for academic purposes and determines their academic output and performances, so the students find it so easy to carry out their daily mental academic activities with the use of English additional language. The different roles performed by different types of languages and the related proficiencies needed to perform these functions are confirmed when one analyses specific languages represented on the portraits and what the participants believe their proficiency in these languages is and what these languages assist them to do.

4.2.7 Conclusion

In sum, the language portrays the following about the language repertoires of the participating students.

English has the highest frequency of the languages represented on the silhouette followed by Afrikaans and the other languages. These two languages (English and Afrikaans) show how important the languages are to the academic achievement of the participants.

The head/brain is the most prominent place used by participants to indicate languages on the silhouette. It simply shows the participants put the languages in their heads/brains because it serves many functions. For example, languages represented by the participants in the head/brain indicate the languages that they use in education and sometimes their Home Languages.

Several colours were used on the silhouette for respective languages, but the most prominent colour is blue. It is difficult to interpret the colours selected for languages because the same colour holds different meanings for individual participants related to different languages. The colours are, however, possibly used to express feelings and socio-cultural affiliations with languages, a field of investigation that falls beyond the scope of this study.

Finally, it is revealed that the additional language in the repertoires of the participants is the most prominent followed by the Home Language, languages that the participants hope to learn and heritage languages.

The following conclusions can be drawn with caution, keeping in mind the small frequencies reported for these items. In the co-occurrences of Home Language and proficiency, the language portrait participants said that they find their Home Language easy to speak, that is, they are all proficient in their mother tongue. In the co-occurrences of English additional language and proficiency, almost all the language portrait participants affirmed that they are proficient in English as an additional language, except for one participant who indicated that he/she is an average speaker of the English language. In the co-occurrence of functions (communication, identity, and cognition) and types (additional, heritage, home/mother tongue and hope to learn) of languages; most of the language portrait participants attested that they use their English additional language for communication. Most of the language portrait participants professed their Home Language as the language related to their identity, while almost all the language portrait participants confirmed using their English additional language for cognition in the academic environment.

In summary, the language portrait data contributed to answering the research questions because there is evidence of ease of use of the Home Languages and the additional languages. This links to the proven benefits of multilingual people acquiring additional languages with more ease than monolingual people. Also, the additional language is most prominently connected to

cognitive function because the additional language is mostly used for academic purposes and determines the students' academic output and performances.

4.3 Interview data findings and discussion

The interview questions are presented in the addendum x. The findings from the interview data are presented in this section. Firstly, biographical information about the participants in the interviews is provided and then the themes of the analysis of the transcribed interviews. These themes are presented thematically, in the sense that salient words/phrases in each of the interview questions are used as themes. The themes present information about Cummins's Developmental Interdependence Hypothesis and the Threshold Hypothesis. Furthermore, the themes present information about the other possible roles the mother tongue fulfils in a first-year multilingual classroom.

4.3.1 Biographical information

Few respondents took part in the interview session. Of the 61 respondents, only 5 participants (n=5, 100%) who are all females voluntarily participated in the individual interview. The ages of the 5 interviewees are between 18 to 24 years, which is typically the age bracket of university students in South Africa and 2 (n=2, 22.2%) Black South Africans and 3 (n=3, 33.3%) White South Africans took part in the interviews. The dominance of the White South African interviewees should be kept in mind when the interview discussions are presented thematically.

4.3.2 Themes related to Cummins's Developmental Interdependence Hypothesis

This section consists of the thematic evidence for Cummins's Developmental Interdependence Hypothesis. This hypothesis suggests that the growth in the competence of a student in a second language is to some extent attributed to the kind of competence such a student developed in his/her mother tongue by the period of the commencement of thorough exposure to the second language (Khatib & Taie, 2016). There are three themes and two sub-themes that give evidence of the Developmental Interdependence Hypothesis in the interview data for this study. These themes are discussed comprehensively in the following section. The list of codes and definitions for codes used to identify the themes during the analysis of the transcribed interviews and language portrait data is presented in the Appendices 1, 2 and 4.

4.3.2.1 Theme 1: proficiency in mother-tongue/home language advances proficiency in english

Quotations related to this theme provide information about the participants' perceptions of the relationship between their proficiency in the mother tongue and advancing their English second/additional language proficiency. In ascertaining this, the cluster is made up of two codes which are: (i) Proficiency in MT/HL advances the proficiency in English No (Why) (with 2 frequencies) and (ii) Proficiency in MT/HL advances the proficiency in English Yes (Why) (with 7 frequencies).

The participants have various reasons why they believed that their mother tongue proficiency advances their English proficiency. Some of the reasons are seen in the quotations below.

[1] *Because sometimes when I don't understand an English concept it helps me to translate it to my Home Language, my mother tongue, and then try to understand that in the language and then if I translate it back to English I can understand it. But if I didn't have my mother tongue and I was faced with the same English problem, I wouldn't have any other reference besides English so I wouldn't understand the English concept, so it does help with proficiency if I can translate it to my mother tongue and understand it better. [Participant 1472; Female; Setswana Home Language speaker]*

[2] *I would say in certain aspects the more you develop your mother-tongue vocabulary the more you can develop your second language, in this case, English, you can develop it more because you have already got experience in speaking and it will be easier to build up new vocabulary in the next language. [Participant 672; Female; German Home Language speaker]*

One of the participants that do not believe that increased mother tongue proficiency advances her English proficiency gave the following reason for her belief.

[3] *I hardly use my mother tongue. I hardly use it. I know it is embarrassing but I hardly use it, so no. [Participant 646; Female; Sesotho Home Language speaker]*

As presented in the interview findings and quotation examples above, the participants confirmed that they believe that their mother tongue proficiency does advance their English language proficiency. Hence, this agrees with Nishanthi's (2020) position that it is less difficult to learn an additional language/s when there is solid knowledge and development of the mother tongue. The data confirm the experiences of the participants that there is a relationship between their proficiency in the mother tongue or Home Language and English as an additional language. These specific excerpts from the interview data provide evidence that for these participants Cummins's Developmental Interdependence Hypothesis is a real experience.

4.3.2.2 Theme 2: a good reader in mother-tongue/Home Language makes a good reader in English

This is another theme perceived by the participants in this study for the existence of the Developmental Interdependence Hypothesis posed by Cummins. This theme related to the participant's ability to read very well in their mother tongues and their perceptions that reading well in the mother tongue contributed to also making them good readers in their additional language (English).

To establish if this notion was present in the interview data, this theme comprises two codes which are: (i) Good reader in MT/HL makes a good reader in English No (Why) (with 9 frequencies) and (ii) Good reader in MT/HL makes a good reader in English Yes (Why) (with 4 frequencies). Looking at the frequencies, it is observed that most of the participants disagree that a good reader in the mother tongue makes them a good reader in the English language.

The reasons that were given by some of the participants that do not believe that being a good reader in the mother tongue makes one a good reader in English as an additional language are seen in the quotation examples below. Participant 1368 (excerpt 4) referred to the relationship between her speaking skills in Afrikaans and English, while participant 646 (excerpt 5) referred to the comparison of her reading skills in her Home Language/mother tongue (Sesotho) and English:

[4] *I don't think that because my parents are Afrikaans speaking, my friends are Afrikaans speaking, and all my social groups are Afrikaans. It's difficult for me to speak English, read English or do a presentation in English because we are so used to speaking just one language which is my mother tongue. The only exposure that I get now to English is at the University when the lecturer is having an English class. I don't think my English-speaking skills are as good as my mother tongue for the reason I don't have any exposure except to the University for this language. [Participant 1368; Female; Afrikaans Home Language speaker]*

[5] *Because I am not a good reader in my mother tongue but I am a very good reader in English. [Participant 646; Female; Sesotho Home Language speaker]*

There are different reasons why reading is accomplished, hence, individuals read for various reasons and from different sources (Nalisa *et al.*, 2019). It is ascertained that reading based on memorisation and having sizable knowledge of the information to move forward to another education level is the purpose behind why learners and university students read from the textbook. However, this type of reading is dissimilar to reading from newspapers or magazines by these same students. This is because of the difference in the purpose of the reading

(Linderholm, 2006). Since the study participants are university students who have to read to progress academically, it is important to know whether being good readers of academic texts in their mother tongues as well makes them good readers of academic texts in the English language.

Coming from an Afrikaans-speaking background where Afrikaans is their only way of life, Participant 1368 affirms that speaking, reading or presenting in English was difficult for her because her only exposure to English was at the university. Hence, she did not believe that her English speaking/reading skills are as good as those in her mother tongue. On the contrary, Participant 646 claims that she was not a good reader in her mother tongue (Sesotho) but a very good reader in the English language. This data, therefore, corroborates the findings of Nalisa *et al.* (2019) where the study participants (instructors) affirmed that the observation made while in active teaching service was that the skill of reading in the mother tongue never supports the acquisition of learners' skills to read in the English language.

There is evidence from the participants in this study that the majority do not believe that there is a positive relationship between reading proficiency in the mother tongue and reading proficiency in English as an additional language. The assumed relationship between L1 and L2 as expressed in Cummins interdependence hypothesis is not borne out in a simplistic way in this data. The majority of the participants in this study did not experience the supporting relationship between reading in the mother tongue and reading in English as an additional language. Future studies should investigate these finding by conducting emperical reading proficieny test in the mother tongue and in English to form conclusions about this issue.

- **Sub-theme 2(a): using the mother tongue freely in classes**

This sub-theme investigated how the participants would use their mother tongues if permitted to freely use them in classes and how it will make them feel. This sub-theme is related to the Developmental Interdependence Hypothesis in that the second language competence of an individual relies partially on the degree of competence previously achieved in the mother tongue. Each participant had her views on how to use the mother tongue in class if they were permitted to freely do so. Hence, a few of their views and feelings are reflected in the quotations below.

[6] *I would ask questions in my mother tongue probably and I would also (pause) want to be explained in my mother tongue. I don't have a problem with English as I mentioned but also it would be nice to be asked in your mother tongue as I am asked in English so, I would, I would, yeah, I would want to answer in my mother tongue, I would like to be asked in my mother-*

tongue questions. [Participant 646; Female; Sesotho Home Language speaker]

[7] It would make me feel good; it would really make me feel good. We can't communicate in any other language besides English, and I feel that sometimes to understand your peers better you need to find a common language, and on my side, a common language would be an African language it's Sesotho. That would make me feel good. [Participant 646; Female; Sesotho Home Language speaker]

[8] Uhm (pause). I would (pause). Firstly, it would make me feel proud that I can use my mother tongue in class and then I would use it to make the people around me understand the concepts better because sometimes language also becomes a barrier in learning, so if there is someone else who knows the language and I can explain something in the language in class it will make me feel better. [Participant 1472; Female; Setswana Home Language speaker]

It is seen that the two participants would be very excited if permitted to use their respective mother tongues in class. Participant 646 said that she would love to ask questions and receive explanations in her mother tongue, just like she receives explanations in the English language.

Also, she felt that communicating in the mother tongue is important in the academic environment instead of always communicating in English, especially among peers of the same mother-tongue community. Both participants state that they would feel good and proud to use their Home Language in the classroom.

Likewise, participant 1472 expressed that if given the chance to use her mother tongue freely in class, it will assist her in better explaining concepts to peers from the same language community that find it difficult to understand the concepts in the English language. This is because she believes language occasionally hinders learning to take place. Conclusively, these explanations conform with Cummins's Developmental Interdependence Hypothesis because there is evidence that at least 2 of the student participants are eager to make use of their mother-tongue knowledge to develop their understanding in English.

- **Sub-theme 2(b): mother-tongue gains understanding**

This sub-theme of –mother tongue gains understanding is related to the Developmental Interdependence Hypothesis in that the second language competence of an individual relies partially on the degree of competence previously achieved in the mother tongue.

This sub-theme focuses on how useful the participants' mother tongues are in gaining understanding in English language classes. Hence, there are three codes which explain the positions of the participants and these are: (i) MT in gaining understanding_(No) with 0

frequencies; (ii) MT in gaining understanding _(Sometimes) (which has 1 frequency); and (iii) MT in gaining an understanding_(Yes) (with 5 frequencies, which makes it the highest code as compared with the other two codes). Most of the participants that admit the usefulness of their mother tongue in English classes gave the following types of reasons.

[8] *I do. When I ask my peers I would use my mother tongue and they would explain in my mother tongue. [Participant 1472; Female; Setswana Home Language speaker]*

[9] *I would say I use my mother tongue to gain understanding because some words answer to English, not necessarily the same-same but you can make conclusions based on the language. [Participant 672; Female; German Home Language speaker]*

In her view, Participant 1472, who is a Setswana Home Language speaker said that when asking her peers questions, she does that in her mother tongue, and they respond to her using the Setswana mother tongue. Therefore, using of mother tongue in explaining the question to participant 1472 helped to understand the question better. Likewise, Participant 672, a German mother tongue speaker corroborates the fact that her mother tongue helped her to gain understanding in English classes. She explained that she can reason in her mother tongue based on some English words which are of course not the same as her mother tongue.

Conclusively, the participants hold the view that knowledge of the participant's mother tongues helps to improve their understanding of concepts they could not understand in the English classroom. Hence, this affirms the Developmental Interdependence Hypothesis in some way: the participants are of the view that their competence in the additional language (English in this case) is related to the level of their mother tongue competence.

4.3.2.3 Theme 3: place of mother tongue/Home Language at the university

With regards to the different mother tongues in South Africa, this cluster of codes ascertains if there is a place for students' mother tongues at the NWU. This theme consists of two codes which are: (i) Place for your MT/HL at the University_(No) (with 2 frequencies) and (ii) Place for your MT/HL at the University_(Yes) (with 4 frequencies). The 'Yes' code has the highest frequency as compared with the 'No' code.

The participants believed that their mother tongues have a place at the university as is clear from the explanations below:

[10] *Yes, I think so because you communicate the best, and you socialise the best in your mother language. So, it would be hard when you walk through the campus and you now have to speak a different language which you are*

not sure about and not confident about to accommodate other students, where we have to accommodate each other but it's easier to be in a group where you don't have to switch between languages. That is how I feel, I know other students have a problem with switching languages in a conversation but I feel it is very important to me to have the freedom of speech in my language. [Participant 1368; Female; Afrikaans Home Language speaker]

[11] *I do because in the first year there was a module in my mother tongue that I did. [Participant 1472; Female; Setswana Home Language speaker]*

Participant 1368 confirmed the place of her Afrikaans mother tongue at the university which is the language in which she communicates and socialises best. She expressed difficulty in speaking a general language understood by everyone but in which she is not confident.

Likewise, Participant 1472, a Setswana Home Language speaker acknowledged that there is a place for her mother tongue and further affirmed that she did a module in her mother tongue during her first year.

In conclusion, the participants' acknowledgement of the place of their mother tongue at the university emphasises the important role of the university in acknowledging and utilising the students' mother tongue in the learning process for their academic progress. Acquiring knowledge through the English medium does not help at times especially at the university level because of the various levels of proficiency in English as an additional language. Therefore, they need the support of the mother tongue occasionally for a better understanding of difficult concepts during the learning process. The more knowledgeable the participants are, the more swiftly they can grasp difficult concepts in their mother tongues, and the easier it will be for them to keep developing their English language knowledge which then corresponds with Cummins's Developmental Interdependence Hypothesis.

4.3.3 Themes related to Cummins's Threshold Hypothesis

This sub-section consists of thematic evidence for the Cummins Threshold Hypothesis which expresses that a bilingual student must reach a threshold degree of language proficiency in their mother tongue to prevent cognitive difficulties in their additional language (Cummins, 1979b). The themes in this sub-section are related to the responses of participants to the interview questions. Please see the list of interview questions in appendix x. The interview questions have 2 parts. Part 1 included questions about the language portraits created by the participants. Part 2 included questions about the experiences of the participants in the multilingual modules that they took. There are three themes and one sub-theme related to the

Threshold Hypothesis. However, the findings from these themes contradict the Threshold Hypothesis. All relevant themes are discussed in the next section.

4.3.3.1 Theme 4: confident in learning through the English medium at the university

The Threshold Hypothesis suggests that a bilingual student should reach a threshold degree of language proficiency in the mother tongue to prevent cognitive difficulties in their additional language (Cummins, 1979b). Learning through the medium of English at university is linked to the Threshold Hypothesis because it permits the possible advantageous features of bilingualism to impact the mental and educational performance of the bi/multilingual participants. There are three codes in this theme. These are: (i) Confident learning through the English medium at the University both (Why) (with 1 frequency); Confident learning through the English medium at the University No (Why) (with 0 frequency); and (iii) Confident learning through the English medium at the University Yes (Why) (with 8 frequencies). Here, it is seen that theme -Confident learning through the English medium at the University Yes (Why) is the most prominent code when looking at the frequencies of the codes.

This theme, related to the confidence of participants to learn through the medium of English is important as can be seen from the examples from the interview participants below.

[12] *I feel confident because since I can remember, well since Grade 3 I think it was, I was in an English class at school, so JA, it is the language which I am most comfortable with after my Home Language. [Participant 672; Female; German Home Language speaker]*

[13] *I started with this language from Gr R so I understand it and I'm comfortable with it but like I mentioned before it would be nice to somehow integrate my language so that I can better view to understand my language too. [Participant 646; Female; Sesotho Home Language speaker]*

Participant 672 explained that she found herself to be in an English class since Grade 3 and, after her German Home Language, English is the other language she is most comfortable with. Also, Participant 646 reported that she started learning the English language in Grade R and she is comfortable learning through the medium of English. Both participants emphasised having started learning English as their additional language when they were children, hence, they are comfortable with English and confident in learning through the medium of English at the university. The data support the findings of Getie (2020) that students are confident in learning through English as a medium of instruction. However, these responses do not provide sufficient evidence of Cummins's Threshold Hypothesis as both respondents had to switch to English as a medium of instruction at an early age (Grade R is around the age of 6 years and

Grade 3 is around the age of 9 years) and the role of their mother tongues in successfully making this transition is not clear from their responses.

4.3.3.2 Theme 5: language for group assignment; in-class or online

The findings from this theme also contradict the Threshold Hypothesis. The theme consists of two codes which are: (i) Language for Group Assignment (In-class OR Online)_Afrikaans (Why) (with 8 frequencies) and (ii) Language for Group Assignment (In-class OR Online)_English (Why) (that has 8 frequencies). Here, it is seen that the participants only use two languages for group assignments irrespective of their individual MT/HL backgrounds. Furthermore, these codes share the same number of frequencies, and this denotes that both Afrikaans and English are equally used by the students who participated in this study for group assignments.

Below, are some of the explanations given by the participants using Afrikaans or English for in-class or online group assignments.

[14] *Yes, Afrikaans. Because I can answer the questions easier. I don't need to go search for the right terminology to express myself. As I said it is natural. [Participant 1368; Female; Afrikaans Home Language speaker]*

[15] *Because not everyone in this group has the same mother language/mother tongue and not everyone understands my mother tongue, so we have to use English so that everyone understands. [Participant 1472; Female; Setswana Home Language speaker]*

As seen in the quotations above, Participant 1368 said since her Afrikaans mother tongue is natural, therefore, she prefers to use the mother tongue (Afrikaans) for group assignments because it allows her to make use of the right terminology in expressing herself and helps her to answer questions with ease. One could, therefore, argue that she has reached a threshold

level in her mother tongue, but no mention is made in terms of how these skills are helping her in her English proficiency. This response was in relation to the interview question about language preference for in-class and online assignment. Several of the references made by Participant 1368 relate to her preference to use Afrikaans because of her perceived high level of proficiency in the language. There could be other factors that contribute to her preference for the use of Afrikaans in-class and for online assignment. However, from extract 14, it is clear that the participant links her preference for Afrikaans to her perceived high level of proficiency in the language. This study did not include questions about other contributing factors for her language preference and therefore they cannot speculate about those. Participant 1472 who is a Setswana mother tongue speaker affirms that she uses English mostly for group assignments since not everyone in the group understands her mother tongue, but there is no indication of a

specific threshold level that was achieved in her mother tongue to explain her effective use of English.

With this data, it is seen that these NWU participants are more bilingual than multilingual. It is seen that Afrikaans mother tongue speakers prefer to use their language for group assignments while participants from an African background and the case of German participant prefers to use their English additional language for group assignments.

4.3.3.3 Theme 6: good in English makes you good in the mother tongue/Home Language

The Threshold Hypothesis that a bi/multilingual student possibly attained a threshold degree of language proficiency to prevent cognitive difficulties in their additional language is also contradicted in this theme. This theme has three codes which are: (i) Good in English makes you good in MT/HL_it depends on (Why) (with 2 frequencies); (ii) Good in English makes you good in MT/HL_No (Why) (with 4 frequencies); and lastly, (iii) Good in English makes you good in MT/HL_Yes (Why) (which has a frequency of 0).

The participants who alleged that being good in English does not make them good in the mother tongue gave the following reasons.

[16] *Not necessarily, German is different to English. [Participant 672; Female; German Home Language speaker]*

[17] *No, because I am good at English but I am very bad at my mother tongue. [Participant 646; Female; Sesotho Home Language speaker]*

Participant 1472 explained German is different to English and that she cannot see a relationship between the two languages. Hence, being proficient in the English language does not make her good in her German mother tongue. Participant 646 divulges that she is proficient in her additional language (English) but not proficient in her mother tongue. Hence, according to her response, her failure not to be proficient in her mother tongue has nothing to do with her proficiency in the English language. This finding contradicts the Threshold Hypothesis in that although they both reaped the benefits of the English language, the knowledge of the German mother tongue could not assist the one with advancing in English while the other participant claimed to have poor proficiency in her mother tongue but good proficiency in English. Both these examples indicate a lack of experience of interdependence between the relevant languages for these participants, which was also noted by other researchers in South Africa such as Pretorius and Mampuru (2007) and Coetzee-Van Rooy (2010).

- **Sub-theme 6: what you do if you don't understand something in English textbooks**

This is a follow-up theme to know the view of the participants regarding what they do if they do not understand written sections in English textbooks. The sub-theme consists of three codes, which are: (i) English textbooks, what do you do if you don't understand something in it ask a peer/study group for assistance (with 2 frequencies); (ii) English textbooks, what do you do if you don't understand something in it Email my lecturer for assistance (with 1 frequency); and lastly, (iii) English textbooks, what do you do if you don't understand something in it_use Google/ YouTube for help (with 4 frequencies).

It is seen that the code English textbooks, what do you do if you don't understand something in it_use Google / YouTube has the highest frequency followed by asking a peer/study group for assistance. One of the participants expressed her process in the quotation below:

[19] If I don't understand it, I Google it and I try to translate it into another language secondly after I Googled it. [Participant 1246; Female; English Home Language speaker]

Aside from the negative impact of the internet in society today especially among the youth, the participants' use of the internet (Google and YouTube) are to aid their learning process. This helps to appreciate how the internet has positively contributed to students' academic progress. Further, in today's world, it is seen that the internet as well serves as a teaching tool for most instructors/lecturers in the development of their lesson note topics and lectures. Therefore, because of its highest frequency, most of the participants prefer to Google or watch YouTube videos to better explain complex ideas/information in their English textbooks. The study participants have therefore justified the relationship between the interview question (If you do not understand something in an English textbook, what do you do?) and Cummins's Threshold Hypothesis because the minimum threshold that the participants gained in the mother tongue assisted them in surfing the internet and watching YouTube in the additional language for more information in situations where they encountered difficulties while studying information in their English textbooks.

4.3.4 Themes related to other possible purposes/roles the mother tongue fulfils in a first-year multilingual classroom

This section consists of the thematic evidence of the other possible roles the mother tongue fulfils in a first-year multilingual classroom. Three themes and two sub-themes are discussed in this section.

4.3.4.1 Theme 7: linguistic repertoire

The diversity of languages employed by a member of a particular speech community is referred to as the linguistic repertoire. Also, the linguistic repertoire is the understanding and skill set possessed by an individual in more than one language (Universitat Pompeu Frada [UPF], 2022). Consequently, this theme highlights the repertoires possessed by participants and how often they make use of the languages in their repertoires. Furthermore, the themes in this section also explore and discuss the functions of respondents' language repertoires. The linguistic repertoire theme is divided into two sub-themes which are languages and function. Thus, this theme provides answers that explain the other possible roles the mother tongue fulfils in a first-year classroom.

- **Sub-Theme 7(a): Language**

This sub-theme consists of six languages which are English (39 frequencies), Afrikaans (21 frequencies), German (11 frequencies), Setswana (10 frequencies), Sesotho (7 frequencies) and Zulu (3 frequencies). This cluster reveals that the English language has the highest number of frequencies, followed by Afrikaans, while German, Setswana, Sesotho and Zulu have fewer frequencies. This simply means that in the interview data, English which is the additional language is the most popular language the participants reported using in their multilingual classrooms followed by Afrikaans.

With the frequencies of the African mother tongue languages, the interpretation denotes that many of the African participants occasionally used their mother tongues (like Setswana, Sesotho and Zulu) in the multilingual classrooms, while the Afrikaans Home Language participants always employed their mother tongue Afrikaans in the multilingual classrooms. Thus, the African participants' mother tongues play limited roles in the classroom as compared to the roles and presence of English and Afrikaans in the education settings of the participants. The prominence of English and Afrikaans in the language repertoires of the participants (and the resultant Afrikaans-English or English-Afrikaans bilingualism) has been reported as one type of language repertoire prevalent in the South African context. The findings reported in this thesis therefore are referred to participants in the broader South Africa context that use these two languages regularly. This affirms the long-existing relationship between these two languages in the South Africa context (Coetzee-Van, 2021). The bilingualism prevalent among the Afrikaans and English Home Language interview participants is the same as that reported in the language portrait findings. It shows the bilingual nature of South Africans in that every South African whose mother tongue is not Afrikaans has English as an additional language in his/her language repertoires; and vice versa. Aside from their usage in the multilingual classroom,

these two languages help South Africans to extend and build relationships beyond one language community.

There are various reasons why the participants either chose English or Afrikaans as their two prominent languages for usage in a multilingual classroom.

[21] *Because since birth as child growing up my parents were Afrikaans and that was the only language that they taught me until going to pre-school where other students were English, and English was a subject and only from primary school I was exposed to English. [Participant 1368; Female; Afrikaans Home Language speaker]*

[22] *Oh, uhm, my mother is English, so I basically grew up in an English house. My dad is Afrikaans but I finished Matric in English so I would say that English is my mother tongue. [Participant 1246; Female; English Home Language speaker]*

As seen in the examples of quotations above, both Afrikaans and English Home Language speakers gave reasons for using their respective languages in the multilingual classroom. Participant 1368 who is an Afrikaans Home Language speaker affirms that Afrikaans is her parents' language. It is the language she was taught right from her childhood; hence, it is her mother tongue. However, she said that she started learning the English language in preschool through her peers and eventually she started learnt English as a subject in primary school and was exposed to it in an academic setting. Hence, exposure to English language subjects and peers allowed her to extend and build relationships beyond her language community. Further, this affirms Coetzee-Van Rooy's (2016) view that Afrikaans Home Language speakers are bilingual, mainly knowing Afrikaans and English in contrast to African Home Language citizens who generally know three or four languages.

Meanwhile, participant 1246 claims that she grew up in an English house since her mother is English while her father is Afrikaans. She further justified the reason for being an English mother tongue speaker instead of an Afrikaans mother tongue speaker because she finished her matric in the English language. These two participants explained the reasons for these two languages in the multilingual classroom. This justifies why these two languages are significant in the multilingual classroom for these participants in the university environment.

The language repertoire findings in the interview data indicate that these study participants are from various mother-tongue communities like English, Afrikaans, German, Sesotho, Setswana and Zulu. Besides, the findings established that the participants do not always use their mother tongue as they mostly use English or Afrikaans as additional languages in the multilingual classroom. Hence, participants' mother tongues have limited roles in the multilingual classroom

as compared to their additional language (English) which fulfils most of the roles in the multilingual classroom.

- **Sub-Theme 7(b): Function**

The function code theme is important because it helps to understand the functions of or roles the selected mother tongue fulfils in the multilingual classroom selected by the interview participants. There are fifteen codes in this sub-theme. These codes and their frequencies

Include Function_Cognition (with 16 frequencies); Function_Communication (with 12 frequencies); Function_Identity (with 6 frequencies); Function_Expression (Easy) (with 5 frequencies); Function_School Languages (with 5 frequencies); Function_Understanding (Easy) (with 5 frequencies); Function_Confident (with 3 frequencies); Function_Understanding (Difficult) (with 2 frequencies); Function_Work (with 2 frequencies); Function_Comfortable (with 1 frequency); (Function_Integration of MT/HL as an extra subject in University learning with 1 frequency). Also, Function_Presentation (Difficult) and Function_Read (Difficult) both have 1 frequency. Lastly, Function_Socialisation and Function_Studying (Easy) (both with 1 frequency).

The main function of any language is communication and expression (Obojska, 2019). However, this communication function depends on the context of usage. Multilingual speakers used the languages in their repertoires for different functions. For instance, mother tongues are generally family languages which affirm identity, while the additional languages mostly function and are used for official, business and educational purposes. In the findings, the function sub-theme speaks about the various functions languages perform. Three prominent codes establish the function of language in this sub-theme, which are cognition (the most prominent code), communication and identity, while the rest of the codes achieved smaller frequencies.

The following quotations relate to the function of cognition performed by languages in the repertoires of the interview participants.

[23] *I said because I think in English. It is the language that I use the most and it's the language that I think in. Mostly because that is the language that I think in. [Participant 1472; Female; Setswana Home Language speaker]*

[24] *Uhm, at the head of my portrait I placed English. I placed it there because it's the language I think with mostly at the moment ... [Participant 672; Female; German Home Language speaker]*

As a Setswana Home Language/mother-tongue speaker, Participant 1472 affirms that she thinks using her English (her additional language). She further said that she used the English language for thinking because it is the language she always uses.

Also, Participant 672 who is a German mother tongue speaker further corroborates the position of Participant 1472. She submits that she placed her English additional language in the silhouette's head, because the head is used for thinking and that English is the language she usually thinks with presently. Consequently, the two participants justify that for their academic progress and among the languages in their language repertoires, English (and not their mother tongues) is their only cognitive language, hence the reason why the function cognition code has the highest frequencies.

It is always important to use a mixed-method design when one studies complex multilingual repertoires. In the language portrait data, references to cognition were not that prominent. It was really important to do interviews with the language portrait participants to gain a better understanding of the role that languages play in cognition.

Followed by the cognition code is the communication code which is the second most prominent code. Celce-Murcia (2001: 112) affirms that communication is an interaction channel with connections between the speakers and listeners that has specific goals whether in socialising or classroom communication. The function communication code indicates the particular language in their repertoires which the students always use for communication within the academic environment.

[25] *and it's the language (English) that's universal for communication just like your head communicates with your body. [Participant 672; Female; German Home Language speaker]*

Despite being a German mother tongue speaker, Participant 672 explains that she uses only her additional language which is English for communication because she regards it as a universal language. With this, it exclusively supports the literature that backs the importance of the English language as a global language and as a medium of instruction in South Africa (Uys, *et al.*, 2007; Beukes, 2009; Casale & Posel, 2011; Desai, 2016). Melitz (2018) further affirms that in the past and present, no other language has globally been accepted and spoken like English. This is also true in a multilingual context like South Africa where it is clear that the reason why participant 672 uses English for communication on the NWU campus, is that it is a very useful lingua franca and an important language in education. English additional language also serves as a bridge to socially and academically interact and build relationships with friends from various language-speaking backgrounds. Conclusively, this is the reason why the function

of communication code is the second most prominent because most bi/multilingual participants use the English language for communication within the academic environment because of the benefits attached to it.

Finally, the function of identity is the third most prominent function in this cluster. Participants clearly emphasised the importance of identity in any environment they find themselves in. Language and identity are difficult to separate, hence some participants have the following to say about their language and identity.

[26] *I think it's because it's the language I grew up with. It's the language that I'm always going to use no matter where I am because it's the language that I grew up with and it's the language that I mostly need. It defines me.* [Participant 1472; Female; Setswana Home Language]

[27] *Because that's where I'm rooted. It's the root of my language.* [Participant 672; Female; German Home Language speaker]

Explaining the role of language in her identity, Participant 1472 elucidated that she will always use her language irrespective of wherever she finds herself because that is the language that defines her and connotes her identity. Likewise, Participant 672 disclosed that German is her mother tongue and that is where she is rooted, hence, her identity. They are not embarrassed in speaking and relating and identifying with people from the same language background. This finding is related to Lau's (2016) and Obojska's (2019) findings that mother-tongue maintenance is important since it is an identity symbol.

In conclusion, the participants mostly use their languages for cognition, communication and identity. The role of the English language is further emphasised in the repertoires of the participants because most Africans and the only German mother tongue speaker affirm that they make use of the English language for cognition (to think) and communication in the multilingual classroom. Thus, English is the most prominent language in these contexts while the participants' mother tongue mainly performs the role of identity in their respective multilingual classrooms.

4.3.4.2 Theme 8: online class mt/hl positive experience

The interview question that related to these responses requested the participants to describe a positive experience they had when they used their mother tongue in a classroom while interacting with lecturers and peers in an online classroom. The online class MT/HL positive experience theme has five codes. These codes are Online class_MT/HL Positive Experience (Why) (with 3 frequencies); Online class_MT/HL Positive Experience while interacting with lecturers_No (with 3 frequencies); Online class_MT/HL Positive Experience while interacting

with lecturers_Yes (with 3 frequencies); Online class_MT/HL Positive Experience while interacting with peers_No (with 0 frequency); while Online class_MT/HL Positive Experience while interacting with peers_Yes (with 3 frequencies). Responses by two participants were:

[28] *Yes, I can. In the first semester of the Zoom meetings, I was too afraid to participate but in the second semester, I remember the teacher asked a question in Engineering Graphics and Design and I was the only person to express the concept of what he asked in Afrikaans. So, I felt so smart because I had the right terminology to express what he wanted. [Participant 1368; Female; Afrikaans Home Language speaker]*

[29] *It wasn't online but it was in 2020 before COVID started. We had classes and in our English class we gave examples in our mother tongue and that was very positive. [Participant 1472; Female; Setswana Home Language speaker]*

From these interview findings, it is revealed that the participants use their mother tongues in the multilingual classroom (either online or face-to-face classroom) in giving examples and making use of the right terminologies. Participant 1368 affirm that she was the only student that answered a question in her Afrikaans mother tongue using the right terminology during an online class. Hence, she felt it was a positive experience because she used the right terminology required by the lecturer in her mother tongue. Furthermore, Participant 1472 affirms that they gave examples in their mother tongues in an English classroom. Conclusively, these participants acknowledge that using their mother tongue to identify the right terminologies and by giving relevant examples to demonstrate understanding in class are the other possible roles their mother tongue fulfils in the multilingual classroom.

4.3.4.3 Theme 9: mother tongue usage in explaining difficult concepts to peers from the same mother tongue

The interview question that related to these responses asked the participants if they have to explain a difficult concept in one of their modules to a friend who shares the same mother tongue, and do they use the mother tongue to discuss the concept or not. The theme has two codes which are MT usage in explaining a difficult concept to peers from the same MT_Yes

(Why) (with 4 frequencies); and MT usage in explaining a difficult concept to peers from the same MT_No (Why) (with 1 frequency). The frequency presented established that almost all the interview participants in the multilingual classroom made use of their mother tongues to better explain English difficult concepts to peers from the same language community.

[30] *It's just easier to understand if you speak the same language and like I said if she doesn't understand it and I explain it differently in the mother tongue*

there is a possibility that she understands better than after I discussed it. [Participant 1246; Female; English Home Language speaker]

[31] *I do. I always explain in my mother tongue. Because I feel like we understand each other better or the person that's asking me something will understand me better if I put it in a way they will understand. [Participant 646; Female; Sesotho Home Language speaker]*

Although Participant 1246 is an English Home Language speaker, she supported the fact that there is every possibility of a better understanding when explanations are done in the mother tongue. Also, Participant 646 a Sesotho mother tongue speaker affirmed that she always explains the difficult concepts in her mother tongue in the English multilingual classroom. In summary, it is concluded that mother tongue usage is important in the academic progress of students. Most of the participants believe or make use of their various mother tongues in the multilingual classroom in the explanation of English difficult concepts to peers; hence, this is another role the mother tongue fulfils in multilingual classrooms.

4.4 Conclusion

The above themes established that for the participants in this study, Cummins's Developmental Interdependence Hypothesis is a lived experience. The interview data affirm the importance of the role of the mother tongue in strengthening English for Academic Purposes through the Developmental Interdependence Hypothesis. Except for the findings of the theme that a good reader in the MT/HL does not necessarily make a good reader in English (which contradicts the Developmental Interdependence Hypothesis); all other themes indicate the experiences of the participants that proficiency in the MT/HL advances proficiency in English, that they want to use the mother tongue freely in classes, that they believe that the knowledge of the mother tongue in gaining a better understanding of concepts and the acknowledgement for the place of mother tongue at the university all conforms with Cummins Developmental Interdependence Hypothesis. Conclusively, more data would be needed to confirm these findings with more confidence. In other words, the interview study would have to be expanded to transcend the limitations of this small-scale study.

Cummins's Threshold Hypothesis was comprehensively examined by analysing the relevant themes from the interview data. Few of the findings evidenced the relevance of the Threshold Hypothesis among the interviewed. This is because aside from the Afrikaans and English mother tongue participants, the African mother tongue participants mostly use their English language to strengthen their mother tongue. This finding corresponds with the view of Coetzee – Van Rooy (2010) that researchers who implemented Cummins's hypothesis in South African Higher Education are therefore implementing an unproven framework.

With the research question on what other possible roles/purposes the mother tongue fulfils in a first-year multilingual classroom, the themes of linguistic repertoire (which comprises language and function), online class mother tongue positive experience and mother tongue usage in explaining difficult concepts to peers from the same mother tongue have thoroughly explained the other roles the participants' mother tongue fulfils in the multilingual classroom. These themes have established that mother tongues are useful and play important roles in the academic progress of students. Hence, it is concluded that the mother tongue strengthens the understanding of the concepts being taught in the English language, helps the students to improve their English additional language proficiency and as well helps in achieving academic progress.

4.5 Language literacy and academic scores of participants

Academic literacy speaks to the capacity of a student to effectively comprehend, interpret and also formulate text in an academic setting. In the NWU setting, the modules in academic literacy focus on skills that concentrate on listening successfully while a lecture is attended, reading advanced academic texts, plagiarism prevention, implementing academic rules during the production of academic writings and so on (NWU, 2022). Also, according to Cliff (2015), an academic literacy test is meant to evaluate the first-year student's adaptive capacity through the medium of teaching, formal writing and the thinking challenges the students will encounter when admitted to Higher Education admission

This dataset is therefore important because it helps in assessing the participants' level of proficiency in their mother tongues through a language literacy test, the marks they obtained for their Home Language and First Additional Language in matric (Grade 12) and then comparing it to their academic results- of the two flagship modules in the Faculty of Education.

This section entails the descriptive statistics for relevant items in the questionnaire which provides an overview of data for the continuous variables (matric & flagship module results). Also, the section entails correlation findings reporting on the degree to which two variables co-vary and the statistical relationship between the two variables. The correlation of flagship modules (ENFF 111/BSTE 112), academic literacy test scores, and Matric Home Language/First Additional Language results are presented.

4.5.1 Biographical information

It is important to remember that the researcher obtained ethical clearance and gatekeeper permission to use the language portrait data of 61 respondents for the study. Subsequently,

permission was obtained to distribute the questionnaire to the same 61 language portrait respondents, and access to the marks of the same 61 respondents' flagship module results (BSTE 112 and ENFF 111), Toets van Akademiese Geletterheidsvlakke (TAG)/Test of Academic Literacy Levels (TALL) results, and their Home Language and First Additional Language matric results were obtained. It is important to note that only 9 out of the 61 (14,75%) participants returned completed questionnaires (discussed in previous sections). This is a typical response rate for social sciences research. However, one should keep in mind that with such a low number of respondents to the questionnaire, results must be interpreted with caution.

These 61 participants of male and female genders were first-year students at Potchefstroom campus of the North-West University mostly within the age bracket of 18 to 24 years. They are also from different South African demographic populations/mother tongue communities which include Black, White and Coloured. As reflected in Table 4-26 below, many of the students English and Afrikaans as their Home Languages, while participants from IsiXhosa, Siswati, Sepedi and Setswana made up a small part of the participating population. The small group of participants and the absence of a wide spread of Home Language participants would make generalizations of the findings in the study inappropriate.

Table 4-25: Biographical information

CATEGORY	COUNT	PERCENTAGE
GENDER		
Female	46	75.40
Male	14	22.95
No response	1	1.64
AGE		
18-24	58	95.08
25-30	2	3.28
No response	1	1.64
SELF-REPORTED POPULATION GROUP		
Black Africa	16	26.23
Coloured	16	26.23
White	28	45.90
Other	1	1.64

A necessary demographic of the participants relevant to this study is the mother tongue/ Home Language communities they come from. The different Home Languages represented in the two flagship modules (BSTE 112 and ENFF 111) are presented in the table below. The purpose of this table is to indicate that, even though there is a clear majority of two mother tongues among the students, there are students who come from minority mother tongue groups.

Table 4-26: Mother tongue groups

		FREQUENCY	PERCENT
Valid	Afrikaans	34	55.7
	English	20	32.8
	Sepedi	1	1.6
	Setswana	1	1.6
	SiSwati	1	1.6
	Xhosa	2	3.3
	Total	59	96.7
No		2	3.3
Total		61	100.0

Table 4-26 above affirms that Afrikaans mother tongue respondents have the highest population ($n=34$, 57.6%) followed by the English mother tongue language respondents ($n=20$, 33.9%). However, some students who indicated English as their mother tongue (because they were enrolled for English as a Home Language at school) are English First Additional Language speakers as they speak an African language at home or Afrikaans, and one of the respondents (who also completed English as a Home Language at school) indicated German as her mother tongue.

The African respondents who took an African language as Home Language at school were Xhosa ($n=2$, 3.4%), while there was 1 Sepedi, 1 Setswana and 1 SiSwati respondent ($n=1$, 1.7%).

It is important to note that the conceptualisation of the mother tongue in South Africa is complicated by the fact that learners have a choice to take English or Afrikaans at the Home Language level in the school system even if those languages are not their mother tongues. In some contexts, African languages are not offered at schools as Home Language subjects. This influences how students view the role of their actual mother tongues in the learning process.

In addition, it is important to consider the First Additional Languages (FAL) of each of the respondents as well. According to the Curriculum and Assessment Policy (DBE, 2011:8) –Home Language is the language first acquired by learners while First Additional Language is the language learnt in addition to one's Home Language. Many South African schools do not offer the Home Languages of some or all of the enrolled learners but rather have one or two languages offered at the Home Language level. As a result, the names Home Language and

First Additional Language refer to the proficiency levels at which the language is offered, and not the native (home) or acquired (as in the Additional) languages.

The table below presents the First Additional Language of the respondents of the study:

Table 4-27: First Additional Language

		FREQUENCY	PERCENT
Valid	Afrikaans	20	32.8
	English	39	63.9
	Total	59	96.7
No		2	3.3
Total		61	100.0

In Table 4- 27 above, Afrikaans and English are the languages chosen by the participants as their First Additional Language. In this case, it is revealed that the population of participants that chose English as their First Additional Language is higher than that of the participants that chose Afrikaans. Thus, the English First Additional Language participants are the majority in the group ($n=39$, 66.1%), while the Afrikaans First Additional Language participants are the second most prominent group ($n=20$, 33.9%).

This prominence of English and Afrikaans in the participating group potentially leads to Afrikaans-English and English-Afrikaans bilingual relationships (Coetzee-Van Rooy, 2021). Even if they understand the Afrikaans language, most of the African respondents in this study still prefer using the English language for academic purposes. Hence, the reason why English First Additional Language has a higher frequency than Afrikaans First Additional Language.

4.6 Academic scores in flagship modules

In 2020 and with the implementation of its revised Language Policy, the NWU encourages faculties to select flagship modules in which lecturers utilised multilingual pedagogies in their teaching. The lecturers of these flagship modules were sponsored to attend a short learning programme on multilingual pedagogies to create awareness of the language repertoires of their students and to train them in multilingual strategies to promote learning in their classes. These strategies included simplifying difficult concepts using visuals, diagrams, paraphrasing, translanguaging and translation and utilising technology (such as voice-overs for PowerPoint presentations and WhatsApp groups using different languages) (Wildsmith-Cromarty, Reyneke, Kaiser & Dlavane, 2022:246-258).

The 61 participants were enrolled in one of the two modules in the Faculty of Education that were selected for this study, namely BSTE 112 and ENFF 111. BSTE 112 is a first-year Business Studies module in the Senior and Further Education and Training Phase (teachers being trained for Grades 8-12) and it was lectured in the medium of Afrikaans while the ENFF 111 is a first-year English Home Language module in the Foundation Phase (teachers being trained for Grades 0-3) lectured through the medium of English. The enrolment of the 61 participants into the two flagship modules (BSTE 112 and ENFF 111) is presented in the table below.

Table 4-28: BSTE 112 and ENFF 111

		FREQUENCY	PERCENT
Valid	BSTE112	42	68.9
	ENFF111	19	31.1
	Total	61	100.0

Looking at Table 4-28 above, it can be seen that the majority of this study's respondents were enrolled for the BSTE 112 module ($n=42$, 68.9%). While the remainder of the respondents were enrolled for the ENFF 111 ($n=19$, 31.1%).

This simply means that the number of respondents who enrolled for the Business study module is much higher than the number of respondents who enrolled for the English Home Language module for foundation students.

The participant's scores in these two modules will be correlated with other relevant academic scores (namely their TAG/TALL test scores and their matric results in the Home Language and First Additional Language) and will be discussed in the rest of the section to explore the relationships between the scores.

4.6.1 Results of the academic literacy test

Educational advancement from the high school to the university level comes with some commitment and sacrifice. Students need to develop a higher cognitive ability to be able to successfully navigate the hurdles of university academic activities. To support South Africans students to achieve academic success in Higher Education, many South Africans university offer academic literacy module to first-year students. The aim of this module is to develop

appropriate academic literacy among students that would contribute to the academic success in all the modules they take at the university

At NWU, all first-year students write an academic literacy test known as the –Toets vir Akademiese Geletterdheid (Test of Academic Literacy in Afrikaans) (TAG) or the Test of Academic Literacy Levels (in English) (TALL). These are placement tests and not admission tests. In other words, the performance of students on these tests determines if they are placed in relevant academic literacy modules at the NWU.

Hence, against the above explanation of the meaning of the TAG/TALL results, the 61 study participants' TAG/TALL results are presented below as an indicator of the academic literacy levels of the study participants.

Table 4-29: TAG/TALL results

		FREQUENCY	PERCENT
Valid	Code 1(0-25%)	1	1.6
	Code 2 (26-45%)	11	18.0
	Code 3	6	9.8
	Code 3G (46-49%)	9	14.8
	Code 4 (50-79%)	30	49.2
	Code 5 (80-100%)	4	6.6
	Total	61	100.0

There are TALL/TAG scores available for all 61 participants in this study. The codes for the results on the TALL/TAG scores mean the following: Code 1: 0 – 25%, Code 2: 26 – 45%, Code

3/G: 46 – 49%, Code 4: 50 – 79% and Code 5: 80 – 100%.

Table 4-30: Codes used for results of the TALL/TAG Tests

Code 1	25%
Code 2	26-45%
Code 3/G	46-49%
Code 4	50-79%
Code 5	80-100%

Observing the result in Table 4-30, it is indicated that 30 of the participants fall within Code 4 (50 – 79%) followed by Code 2 (26 – 45%). With this result, it can be agreed that almost half of the study participants scored above average in the TAG/TALL result, which then denotes the students' academic cognitive readiness to navigate the advanced university education. It is not a good outcome to note that 34/61 (55,73%) of the participants achieved a score above 50% for this entry-level academic literacy test. One would expect a higher average for students admitted to Higher Education.

4.6.2 Descriptive statistic discussion (matric & flagship module marks)

MATRIC (GRADE 12) RESULTS

The table below is the presentation of the matric results of the 61 study participants for their Home Language subjects and First Additional Language (FAL) subjects. The data were requested from the university academic administration system. Note that the matric results of two of the 61 participants were not available in the university system.

Table 4-31: Descriptive statistics of HL and FAL Grade 12 marks of participants

	N	MINIMUM	MAXIMUM	MEAN	STD. DEVIATION
MarkHL	59	49	85	65.41	8.512
Mark_FAL	59	56	94	74.07	9.208

Table 4.31 depicts the minimum mark that the participating students scored for their Home Language subject in Matric (the minimum was 49% and the maximum was 85%). The average mark for the matric Home Language subject for the participants was 65.41% ($SD = 8.51$). The minimum mark that the participating students achieved for their First Additional Language subject in Matric was 56% (with a maximum of 94%). The average mark for the FAL subject achieved by the participants was 74.07% ($SD = 9.20$).

There is a body of work that criticizes the use of matric examination papers in languages as indicators of language proficiency. Some scholars (Van Rooy and Coetzee-Van Rooy, 2015) for example who criticizes these marks argue that the standard of matric language examination papers are problematic, in some cases, the home language matric marks seem to be unrealistically high. In the case of the marks reported in Table 4.3.2, this is not the case. For the participants in this study, it seems that If one takes the average marks achieved for the Home Language as a subject in matric and the FAL language as a subject, the participants performed

very well in their matric FAL subject, and those marks are much higher than the average marks scored for the academic literacy tests (TAG/TALL).

FLAGSHIP MODULE

The table below presents the flagship module (BSTE 112 and ENFF 111) results of the study respondents in both the Home Language and the First Additional Language. The discussion follows thereafter.

Table 4-32: Descriptive statistics of the flagship modules, HL and FAL

FLAGSHIP_IND		N	MINIMUM	MAXIMUM	MEAN	STD. DEVIATION
BSTE112	MarkHL	41	52	79	65.73	7.089
	Mark_FAL	41	56	84	71.78	6.912
	Module mark	42	4	85	64.88	16.392
	Valid N (listwise)	41				
ENFF111	MarkHL	18	49	85	64.67	11.319
	Mark_FAL	18	59	94	79.28	11.641
	Module mark	19	44	91	75.79	12.744
	Valid N (listwise)	18				

There is an indicator in the above data (BSTE112 or ENFF111) and this indicator was used to split the marks of HL, FAL and module mark (of the specific subjects) according to these two subjects. Thus, Table 4-32 provides the descriptive statistics of 3 data sets, namely the Grade 12 Home Language mark and the First Additional Language mark of each participant as well as the module mark of the flagship modules and these marks are separately reported on for the two flagship modules. The top half of Table 4-33 reflects the descriptive statistics of BSTE 112, while the bottom half reflects the descriptive statistics of ENFF 111. BSTE 112 is a first-year Business Studies module taught in the medium of Afrikaans.

Moreover, ENFF 111 is an English Home Language module for foundation first-year students. Table 4-33 shows that the minimum mark a student scored on their ENFF 111 Home Language was 49% and a maximum of 85%, the average mark is 64.67% ($SD = 11.31$). While the minimum mark a student scored on their ENFF 111 First Additional Language was 59% and a maximum of 94%, the average is 79.28% ($SD = 11.64$). The findings indicated that participants who are from African mother tongues performed very well in ENFF 111 when compared to the English Home Language participants. Furthermore, the minimum module mark scored

scored by a participant enrolled for ENFF 111 is 44% and a maximum of 91% was scored, which comes to an average mark of 75.79% for the module.

Conclusively, the similarities of these two flagship modules (BSTE 112 and ENFF 111) as indicated in Table 4-33 above is that for BSTE 112 and ENFF 111, the First Additional Language (FAL) participants performed very well in these modules compared to the Home Language participants of the two modules. However, the difference is that the ENFF 111 students performed very well in the English module as compared with the performance of BSTE 112 students in the Afrikaans module.

4.6.3 Correlation findings

The statistical correlation between the flagship modules (ENFF 111 / BSTE 112), TAG/TALL academic literacy module and Matric Home Language/First Additional Language results are presented and discussed in this sub-section.

Table 4-33: Correlations

FLAGSHIP _IND				MARKHL	MARK_FAL	MODULE MARK
Spearman's rho	BSTE112	MarkHL	Correlation Coefficient	1.000	.383*	.330*
			Sig. (2-tailed)		0.013	0.035
			N	41	41	41
		Mark_FAL	Correlation Coefficient	.383*	1.000	0.301
			Sig. (2-tailed)	0.013		0.056
			N	41	41	41
		Module mark	Correlation Coefficient	.330*	0.301	1.000
			Sig. (2-tailed)	0.035	0.056	
			N	41	41	42
	ENFF111	MarkHL	Correlation Coefficient	1.000	.752**	.644**
			Sig. (2-tailed)		0.000	0.004
			N	18	18	18
		Mark_FAL	Correlation Coefficient	.752**	1.000	.576*
			Sig. (2-tailed)	0.000		0.012
			N	18	18	18

FLAGSHIP _IND				MARKHL	MARK_FAL	MODULE MARK
		Module mark	Correlation Coefficient	.644**	.576*	1.000
			Sig. (2-tailed)	0.004	0.012	
			N	18	18	19
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Focusing on the BSTE112 module, the correlation between matric results for Home Language and First Additional Language ($r = 0.383$) is practically significant. The correlation between both these marks and Module Mark is also practically significant ($r = 0.330$ and $r = 0.301$ respectively). These marks co-vary in that when the BSTE 112 mark is high, the other marks are high as well.

On the other hand, the correlation between matric results for Home Language and Additional Language ($r = 0.752$) is practically significant when considering the results of the ENFF111 module. The same goes for the correlations between these marks and Module Mark ($r = 0.644$ and $r = 0.576$ respectively). These marks co-vary in that when ENFF 111 mark is high, the other marks are high as well.

Based on the reported effect sizes, there are only practically insignificant differences in the means and mean ranks of Module Marks (both modules) when comparing the TAG/TALL results groups (1-3G vs 4 & 5) with each other.

4.6.4 Conclusion of language literacy and academic scores

The data from the flagship module (which had a specific focus on developing multilingualism) reveals that more students enrolled for the Afrikaans medium of teaching (BSTE 112) while fewer students enrolled for the English Home Language module (ENFF 111). The BSTE 112 results show that the study participants who are Afrikaans First Additional Language speakers performed better in BSTE112 than the Afrikaans mother tongue participants. Also, ENFF 111 results indicated that the participants who are from African mother tongue backgrounds performed statistically significantly better than the English Home Language participants.

The similarities of the correlations of marks for these two flagship modules (BSTE 112 and ENFF 111) as indicated is that in both modules, First Additional Language (FAL) participants performed much better than the Home Language participants. However, the difference is that

the ENFF 111 students performed very well in the English module as compared with the performance of BSTE 112 students in the Afrikaans module. It is difficult to propose a cause for the results because more investigation is needed. One is tempted to argue that the findings show that the participants performed better in their FAL module than in their Home Language module. However, there could be other explanations as well (for example, a lower assessment standard in the ENFF 111 module, an invalid and unreliable assessment in BSTE 112 and many other possible reasons).

The TAG/TALL findings reveal that slightly above half of the study participants scored 50% in these academic literacy tests. This shows the majority of the student's academic cognitive readiness to navigate university education is not particularly high. However, a few of them fall below average in the TAG/TALL results, which is concerning because only 55% of them achieved above-average results in TAG/TALL.

The Grade 12 results (of the 61 study participants for Home Language and FAL) reveal that the participants performed very well in their First Additional Language Matric subject when compared to their Home Language matric subjects. This finding corroborates the findings of Van Rooy and Peters (2021) where the students performed better in their First Additional Language Matric Grade 12 results than their Home Language matric results.

In conclusion, the findings from the academic flagship module do not provide evidence of Cummins's Threshold Hypothesis. The findings showed that the participants performed better using their First Additional Language and their Home Language marks are not particularly good for matric. Consequently, there is no evidence of a necessary level of proficiency in the mother tongue that would result in improved performance in the First Additional Language.

4.7 Conclusion

Language repertoire questionnaires

Foremost, the biographical information shows that only 9 respondents out of the 61 respondents for this study voluntarily participated in answering the questionnaire. All the questionnaire respondents were females, and from the White population based on their self-report, between the ages of 19-24 years. The biographical information further depicted that most of the study respondents' parents are educated and the presence of their children at university could be an indicator that they ensured that their children are educated to enjoy the benefits of being educated.

Secondly, the data depicted the prominence of English and Afrikaans Home Language respondents and that most of the respondents are either bilingual or multilingual, and none of the 9 respondents was monolingual speakers. The data show the prominence of English and Afrikaans as languages learnt first or second by the study respondents. This emphasises the importance of either of these two languages in the participating group.

Thirdly, the data shows that the majority of the respondents perceived English and Afrikaans as their strongest and second-strongest languages. Many of the respondents affirmed they started learning their strongest language between the ages of 0 to 2 years, while they started learning their second strongest language between the ages of 7 to 13 years. The motivation for learning the strongest language by most of the respondents is because of being born to a family that uses the language. Hence, it is seen that most of the study respondents' strongest languages are perceived as their mother tongues or Home Languages. The motivation for learning their second strongest language was predominantly because it is a language used for teaching and learning at school.

Finally, most of the respondents gave opinions that South Africans need to know more than one language. Many of the respondents affirmed that South Africans should learn their Home Language and TWO additional languages because of the diversity and finding common grounds as regards language among South Africans.

Language portraits

In sum, the language portraits revealed the following about the language repertoires of the participating students.

English has the highest frequency of a language represented on the silhouettes followed by Afrikaans and then other languages. These two languages (English and Afrikaans) are important in the repertoires of the participants.

The head/brain is the most prominent place used by participants to indicate languages on the silhouette. The languages that are mostly represented in the head/brain are Sesotho, English, Japanese, Afrikaans and Zulu. This indicates that the languages represented by the participants in the head/brain indicate the languages that they use in education and sometimes their Home Languages.

Several colours were used on the silhouettes for respective languages, but the most prominent colour is blue. It is difficult to interpret the colours selected for languages because the same

colours hold different meanings for individual participants related to different languages, and the different colours sometimes hold the same meanings.

Finally, it is revealed that the additional language in the repertoires of the participants is the most prominent followed by the Home Language, then the languages that the participants hope to learn and lastly the heritage languages.

In the specific picture related to the research questions on the language portrait, the following conclusions can be drawn with caution, keeping in mind the small frequencies reported for these items.

In the co-occurrences of Home Language and proficiency, the language portrait participants said that they find their Home Language easy to speak, that is, they are all proficient in their mother tongue. In the co-occurrences of English additional language and proficiency, almost all the language portrait participants affirmed that they are proficient in their English as an additional language, except for one participant who regarded herself as an average speaker of the English language.

In the co-occurrence of functions (communication, identity and cognition) and types (additional, heritage, home/mother tongue and hope to learn) of languages; the majority of the language portrait participants attested that they use their English additional language for communication. Furthermore, most of the language portrait participants professed their Home Language as the language related to their identity, while almost all the language portrait participants confirmed using English additional language for cognition in the academic environment.

In summary, the language portrait data contributed to answering the research questions because there is evidence of ease of use of additional languages. This links to the proven benefits of multilingual people acquiring additional languages with more ease than monolingual people. Also, the additional language is most prominently connected to a cognitive function because the additional language is mostly used for academic purposes and determines the students' academic output and performances.

4.8 Interview findings

The interview themes established that Cummins's Developmental Interdependence Hypothesis is a lived experience for the participants. The interview data affirmed the importance of the role of the mother tongue in strengthening English for Academic Purposes (except for the findings of the theme that a good reader in the mother tongue does not necessarily make a good reader in English, which contradicts the Developmental Interdependence Hypothesis). Furthermore,

respondents indicated that they want to use the mother tongue freely in classes, that they believe that knowledge of the mother tongue is helpful in gaining a better understanding of difficult concepts and supported the acknowledgement of the mother tongue in university classes. All these findings conformed with Cummins's Developmental Interdependence Hypothesis. Conclusively, more data would be needed to confirm these findings with more confidence and the interview study would have to be expanded to transcend the limitations of this small-scale study.

Cummins's Threshold Hypothesis was examined by analysing the relevant themes from the interview data. Few of the findings provided evidence of the relevance of the Threshold Hypothesis. This is because, aside from the Afrikaans and English mother tongue participants, the African mother tongue participants mostly use English to strengthen their mother tongue. Furthermore, participants indicated that reading in English (an Additional Language) strengthens their Home Language and not vice versa as proposed by Cummins.

With the research question on what other possible roles/purposes the mother tongue fulfils in a first-year multilingual classroom, the participants responded on the positive use of mother tongues in online and contact classes as well as their use of the mother tongue to explain difficult concepts to peers from the same mother tongue. These themes have established that mother tongues are useful and play important roles in the academic progress of students. Hence, it is concluded that the mother tongue strengthens the understanding of the concepts being taught in the English language and helps the students to improve their English additional language proficiency.

Language literacy academic scores

The similarities of the correlations of marks for the flagship modules (BSTE 112 and ENFF 111) as indicated is that in both modules, First Additional Language (FAL) participants performed much better than the Home Language participants. It is difficult to propose a cause for the results because more investigation is needed. It might be argued that the findings show that the participants performed better in their FAL module than in their Home Language module. However, further investigation is needed to explore the differences in participants' performances in the two flagship modules and the language subjects in matric regarding the assessment standards of the modules, and the validity and reliability of different types of assessment used

Conclusively, the finding from the academic flagship module does not provide evidence of Cummins's Threshold Hypothesis. The findings showed that the participants performed better using their First Additional Language and their Home Language marks are not particularly good

for matric. Hence, there is no evidence that the participants are good at their Home Language and therefore also good at their First Additional Language.

CHAPTER 5 CONCLUSIONS

The previous chapter presented, analysed, and discussed the data findings of the study. In this chapter, the aim and objectives of the study will be reiterated, and the conclusions of the data will be related to the research questions. Finally, the study limitations will be discussed and recommendations for future research and interventions to further the role of the mother tongue in improving English for academic purposes in the diverse language context of first-year students will be made.

5.1 Aim and objectives of the study

The study aimed to examine the role of first-year students' mother tongue in acquiring English for academic literacy in the identified flagship modules in the faculty of education at North-West University.

5.1.1 Thus, the objectives of the study were:

- To consider the following hypotheses in the context of the NWU as formulated by Cummins:
 - the Developmental Interdependence Hypothesis, and
 - the Threshold Hypothesis;
- To look at other possible roles the mother tongue fulfils in a multilingual classroom;
- To provide recommendations for applying multilingual pedagogies to assist first-year students in utilising their mother tongues effectively in classrooms.

Congruous with this study's research questions in ascertaining the relevance of the Cummins theories among multilingual first-year students, the Cummins hypotheses were tested using a mixed-method research design. The instruments used were language repertoire questionnaires, individual interviews, and language portraits analysed by the researcher using Atlas.ti software and inferential statistics to correlate the relationships between language scores achieved by participants in proficiency tests for the Home Language and First Additional Language in Grade 12 and their academic scores for flagship modules.

5.2 Evidence of Cummins's Developmental Interdependence Hypothesis

Cummins's Developmental Interdependence Hypothesis states that the more grounded the participants are in their mother tongue; the easier it will be to develop their second language (Cummins, 1979b; Baker & Jones, 1998). The relevance of this theory was evident in the language portrait findings of this study. The language portrait findings indicated that the participants perceived themselves as proficient in their mother tongues and in English as an additional language. Also the portrait findings showed that the English language is mainly used for communication and cognition processes, while the mother tongue relates to the participants' identity within the academic environment.

Evidence of the Developmental Interdependence Hypothesis emerged from the interview findings via specific themes identified. Mother tongue proficiency helped in advancing their English language proficiency. Data from participants' responses showed that their mother tongues are essential because they helped strengthen English for academic purposes and gain a better understanding of complex concepts in English. It should be noted though that the participant group remains a small group and that no broader generalization of these findings could be made based on this analysis. It is also supported by Nishanthi's (2020) view that it is less challenging to learn an additional language/s when there is solid knowledge and development of the mother tongue. Furthermore, the findings affirmed that almost all the participants acknowledged that their mother tongues should play some role in learning at university. The results from the interviews further indicated that the participants would prefer to use their mother tongues in the English classroom freely. In this sense, they don't want to be only restricted to speaking English during the teaching and learning process; they want to be allowed to ask questions and give explanations in their mother tongue.

The above themes established that Cummins's Developmental Interdependence Hypothesis is a lived experience for the participants in this study. Furthermore, the interview data affirmed the importance of the role of the mother tongue in strengthening English for Academic Purposes through the Developmental Interdependence Hypothesis. Except for the findings of the theme that a good reader in the mother tongue does not necessarily make a good reader in English (which contradicts the Developmental Interdependence Hypothesis), all other themes indicated the participants' experiences that proficiency in the Home Language advances ability in English.

Conclusively, more data would be needed to confirm these findings more confidently as the interview study would have to be expanded to transcend the limitations of this small-scale study. Furthermore, when considering the poor reading literacy levels of learners and students in South Africa (as indicated in the PIRLS (2016) and studies by Weideman (2003) and Van Rooy

and Coetzee van Rooy (2015)), it seems that the fact that the importance of reading skills in the mother tongue is underestimated and even negated by participants in this study might be another topic for further exploration in research.

5.3 Evidence of Cummins's Threshold Hypothesis

Cummins's Threshold Hypothesis was examined by analysing the relevant themes from the interview data. There was insufficient evidence from the interview data to support the Threshold Hypothesis among the interviewed participants. It is logical that an awareness of the interdependence between proficiency perceived in the mother tongue would relate to proficiency in the additional language could be construed as evidence of the threshold hypothesis. However, in this data set, a direct awareness of this link did not emerge. Future studies, using additional research methods, should pay attention to explore this matter more directly. This is because aside from the Afrikaans and English mother tongue participants, the African mother tongue participants mostly used English to strengthen their mother tongue. This finding corresponds with the view of Coetzee Van Rooy (2010) that researchers who implemented Cummins's hypothesis uncritically in South African Higher Education are therefore implementing an unproven framework for this context. Pretorius and Mampuru's (2007) study also found that the Cummins hypothesis was not evidenced in their study on Grade 7 learners.

The findings from the language repertoire questionnaires revealed that the study participants are either bilingual or multilingual speakers. The results also confirmed that most Afrikaans mother tongue participants are bilingual speakers, while most African mother tongue participants are multilingual speakers. The prominence of English-Afrikaans or Afrikaans-English as the strongest and second-strongest languages was also established. This denotes that African mother tongue South Africans affirm English as their strongest or second-strongest language (that is, the most accessible language for communication) as against their mother tongues, while the Afrikaans mother tongue participants affirm their mother tongue (Afrikaans) as their strongest language. The English-Afrikaans language prominence shows that most participants are bilinguals academically. Aside from their mother tongue, English or Afrikaans is needed to progress academically.

The findings showed that several parameters were considered in knowing why the study participants chose English, followed by Afrikaans as their strongest language. Generally, it was discovered that most participants started learning their strongest language between the ages of 0 to 2 years. They confirmed that either being born into a family that uses the vocabulary or because it is the language of learning is the motivation for learning the strongest language. The

findings also established that most participants reported good listening skills, are fluent speakers and are good readers and writers in their strongest language. Furthermore, the participants agreed with the statements that they like to speak their strongest language, that they all feel confident using it and that it is essential to be good in the strongest language, and it forms part of who they are (that is, identity). Lastly, the findings also recognised the factors that contributed to the participants' current use of their strongest language are interacting with friends and family, reading, self-instruction, watching television and listening to the radio and school/education.

As reflected in the study findings, several guidelines were also considered in understanding why the participants equally chose Afrikaans and English as their second strongest language. The results indicated that the participants started learning their second-strongest language in primary school from ages 7 to 13. It is also established and confirmed that being born into a family that uses the language and because it is a language of learning is the motivation behind learning the second strongest language. The study findings further disclosed that participants have very good listening skills, are fluent speakers, are good readers, and all have good writing skills in their second strongest language. The participants attested that they strongly like to speak their second strongest language and feel confident using their second strongest language. It is important to be good in their second strongest language and that their second strongest language forms part of their identities. They also highlighted the factors that contributed to currently using their second strongest language as interaction with friends and family, reading, self-instruction, and television, while the schooling/education factor contributed much to the current usage of their second strongest language. In sum, the findings established that there are factors that helped the participants attain bilingual proficiency, which helped in their second language's cognitive development.

The findings reveal that English is used for education, and the Home Language is used to establish and confirm identity. These languages, therefore, fulfil roles of identity, communication and cognition. The cognition lies in English for the African students and not in their Home Language.

The language capabilities and performances of the participants were further established through language literacy tests and the participants' marks in the identified flagship modules, TAG/TALL test as well as their Grade 12 results in the Home Language and First Additional Language.

In summary, there is no conclusive evidence to support Cummins's Threshold Hypothesis based on using these specific research methods and this sample of participants. Future studies

focused on exploring the appropriateness of Cummins's Threshold hypothesis for this context should use additional research methods to evaluate this more directly.

5.4 Other possible roles/purposes the mother tongue fulfils in a first-year multilingual classroom

This is one of the research questions of this current study. Answers to this question were gathered from the data of the interviews with participants, which were developed thematically. The participants indicated that the establishment and confirmation of identity is an important role fulfilled by the Home Language in a multilingual classroom. The Home Language helps the participants to recognise classmates from the same cultural background and participants reported positive experiences from online and contact classes where they were allowed to use their mother tongues when grappling with difficult concepts and explaining them to peers with the same mother tongue. These themes established that the Home Language can play an important role in students' learning.

In conclusion, the findings from the study confirmed that the mother tongue strengthens the understanding of the concepts being taught in the English language, helps the students to improve their English additional language proficiency and promote academic progress. In this study, no statistical tests were done to determine the relationships between language proficiencies and academic performance. However, in the interviews, participants perceived a clear link between their language proficiencies and academic success. This perception could be explored further in future studies using correlation statistical models with appropriate data sets.

5.5 Recommendations for applying multilingual pedagogies to assist first-year students to utilise their mother tongues effectively in classrooms

This study did not focus on exploring the nature of multilingual pedagogies, other than the discussion of concepts in Chapter 2. However, the findings of the study have potential implications for the planning and implementation of multilingual pedagogies in this context.

The responses from participants highlighted three important themes that should be considered when planning multilingual pedagogies to utilise the mother tongue in classrooms better. These are identity, cognition and interaction.

In terms of identity, participants indicated that they see a place for their mother tongues in the classroom, and the few participants who were allowed to use their mother tongues in the school, reported those experiences as very positive. Pedagogically and within a constructive teaching paradigm, it would be beneficial for lecturers to be aware of the language repertoires of

their students. Also, acknowledging those in the process of creating an atmosphere conducive to learning, referred to by Cromarty *et al.* (2022:253) as the importance of creating "cross-cultural understanding" in the lecture hall. Translanguaging can very effectively be used to create this atmosphere if the lecturer is willing to learn, for example, greetings in the different mother tongues of their students as well as phrases of affirmation, correction or words (in the mother tongue) that would draw students' attention to the important subject matter.

When considering the promotion of cognition, most participants identified the Language of Learning and Teaching (LoLT), which is not necessarily their mother tongue, as playing the biggest role in promoting thinking, but some participants indicated that they utilise their mother tongue when they don't understand difficult concepts. Some of them tried to make sense of difficult concepts by watching, for example, videos in English, translating what they see into their mother tongue and then reverting back to the Language of Learning and Teaching (LoLT). This is aligned with Garcia and Otheguy's (2019: 8) explanation of translanguaging, which "incorporates an understanding of how different modes, including our bodies, our gestures, our lives etc." relate to what we are learning. The lecturer can use different modes and languages when presenting and explaining difficult concepts. These can include, for example, semantic mapping, diagrams and pictures of difficult concepts, forward and back translations of student-formulated explanations or definitions of difficult concepts and having voice-overs in several languages for a specific PowerPoint slide (as illustrated in Cromarty *et al.* 2022). In addition the lecturer can also use Cummins's four-quadrant model to ensure that enough scaffolding and cognitive challenge are provided in both the Home Language and the Language of Learning and Teaching (LoLT) to promote optimal learning.

In terms of interaction, the participants indicated that they already utilise their mother tongues in class when interacting with other students who share their mother tongues. According to Garcia & Otheguy (2019:10), this allows "students to leverage their entire semiotic repertoire and select from their full repertoire the most appropriate hints to communicate a message to listeners. In turn, by constructing a message or not, listeners contribute to developing the students' repertoire and meaning-making and learning." Another strategy that would incorporate the mother tongue effectively in learning would, therefore, involve allowing the students to form groups and utilise their linguistic repertoires to make meaning of difficult concepts through interaction using their mother tongues and the language of learning or teaching.

5.6 Limitations of the study

The intention of this section is to help both the researcher and readers to comprehend the limitation types encountered during the study process, as well as to recommend solutions to overcome similar limitations for upcoming studies in related fields (Lund, 2012).

Firstly, the small size of the current study is a limitation that restricts the generalisation of the findings. For example, out of the 61 participants that were sampled purposively, only 9 of the participants voluntarily agreed to take part in filling out the language repertoire questionnaires, while only 5 participants out of those 9 participants voluntarily agreed to take part in the follow-up individual interviews.

Furthermore, the outbreak of the Coronavirus pandemic towards the end of 2019 and the lockdown that followed in 2020 were major limitations of this study. This Covid-19 challenge is the reason for other limitations discussed below:

The outbreak of Covid-19 prevented the researcher from meeting with his promoters and co-promoters face-to-face, and everyone had to learn new skills to interact and participate in the supervision process via online platforms. This inhibited communication and affected the timelines of the study.

Internet challenges and the cost of internet subscriptions were additional limitations encountered by the researcher during the study. Much of the research of this study had to be conducted online, which was affected by interruptions in electricity provision, poor connections and costly internet service providers.

There was also a delay in obtaining ethical clearance. The 2020 total lockdown disrupted all sectors, including the Higher Education system in South Africa. The University, with its academic committees, needed to adjust and transition from the conventional methods of face-to-face meetings to online modes. This sudden development also affected and delayed the ethical clearance committees to process the application and give approval.

Lastly, one of the proposed data collection instruments of the study had to be removed as all contact classes at the University were cancelled due to Covid regulations, meaning that the researcher could not physically observe students while they were being lectured in the flagship modules and had to rely solely on their self reporting in the language portraits, language repertoire questionnaires and interviews. A follow-up study incorporating observations of students in classes would be very informative and might be able to explain some of the findings of this study better.

5.7 Final statements

The findings of this study confirmed that Cummins's Developmental Interdependence Hypothesis is part of the lived experience of the participants, which affirmed the perceived importance of the mother tongue's role in strengthening English for Academic Purposes. This has implications for teaching or lecturing as the mother tongue can be used to affirm students' identity and utilise their language repertoires in promoting cognition and effective interaction for learning among multilingual peers.

However, this study could not find sufficient evidence of Cummins's Threshold Hypothesis among the multilingual first-year students in the Faculty of Education at the NWU. The interview findings indicated that the African mother tongue participants mostly use their FAL (English) to strengthen their mother tongues, contrary to the Threshold Hypothesis where the mother tongue supports the additional language.

This was also confirmed by descriptive statistics of the student's marks in the flagship modules, their scores for academic literacy tests and the marks they obtained for their Home Language and additional language in Grade 12. For example, most participants performed better in the First Additional Language (English) than in their Home Language; most of the African participants performed better in the identified English modules than the English mother tongue participants and scored above average in the TAG/TALL results. All these academic literacy findings show the participants' readiness to study in a university environment where the Language of Teaching and Learning is more advanced and requires the participants to be cognitively developed in the English language to be academically successful, but this does not provide evidence of Cummins's Threshold Hypothesis.

The data from this study confirmed that multilingual acquisition theories from Western contexts like Canada must be critically examined before applying them to the African/ South African contexts. It is, therefore, recommended that there is a need for South African multilingual researchers to develop a theory that applies to the multilingual context. Also, African, and South African multilingual researchers need to start writing and publishing in Western journals the Western world and European multilingual researchers need to begin considering African/South African multilingual theories.

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APPENDIX 1: INTERVIEW TRANSCRIPTION333

Project: Interview Transcriptions

Report created by Emmanuel Tobi Adegoriolu on 05/05/2022

Quotation Report – Grouped by: Codes

All (362) quotations

○ Colour_Green

1 Quotations:

5:22 p 4 in Interview

green in my heart

○ Colour_Red

2 Quotations:

1:10 p 3 in Interview

colour red

5:21 p 4 in Interview

red in my head

○ Confident learning through English medium at the University_Both (Why)

1 Quotations:

1:51 p 8 in Interview

think a bit of both,

○ Confident learning through English medium at the University_Yes (Why)

8 Quotations:

2:38 p 8 in Interview

Yes.

2:39 p 8 in Interview

language from Gr R

3:35 p 7 in Interview

I feel confident

3:36 p 7 in Interview

I said before it is the language that I use a lot and the language that I think in.

4:45 p 7 in Interview

Yes

4:46 p 7 in Interview

I feel confident because since I can remember, well since Grade 3 I think it was, I was in a English class at school, so ja, it is the language which I am most comfortable after my Home Language.

5:45 p 8 in Interview

Yes,

5:46 p 8 in Interview

I do because in my first year which was in 2020, I was following the wrong timetable for the first two weeks and when I was in the wrong classes I was following the Afrikaans timetable, if I could put it that way, I didn't quite understand all the work for example, in my one Math lesson it was so confusing, I kind of just sat there because I was just too ashamed to stand up, and that was when I realized that I was in the wrong class but ja, confident by studying in English, definitely I would not change it.

○ **Connection btw language of heart and head_No**

1 Quotations:

2:12 p 4 in Interview

No,

○ **Connection btw language of heart and head_Yes**

3 Quotations:

3:20 p 4 in Interview

think there is a connection

4:24 p 3 in Interview

there is a connection b

5:19 p 4 in Interview

I definitely think that there is a connection

○ **English textbook, what do you do if you don't understand something in it_ask a peer/ study group for assistance**

2 Quotations:

2:43 p 8 in Interview

study group

3:39 p 8 in Interview

I usually ask someone

○ **English textbook, what do you do if you don't understand something in it_Email my lecturer for assistance**

1 Quotations:

2:42 p 8 in Interview

email my lecturer

○ **English textbook, what do you do if you don't understand something in it_Google / YouTube help**

4 Quotations:

4:47 p 8 in Interview

Usually I just go on to Google and I Google the terms

4:48 p 8 in Interview

YouTube videos

5:47 p 8 in Interview

Google

5:48 p 8 in Interview

Googled it.

○ **Face-to-face lectures struggle with difficult concept (ENFF 111 / BSTE 112 / MAIP 121) in 2020_No**

2 Quotations:

2:18 p 5 in Interview

none I

5:25 p 5 in Interview

I don't feel like I had a struggle with my module at all.

○ **Face-to-face lectures struggle with difficult concept (ENFF 111 / BSTE 112 / MAIP 121) in 2020_Yes**

2 Quotations:

4:27 p 4 in Interview

a few concepts that were difficult but then when exploring them deeper, like in English for example it's the language that I studied in it was easier

4:28 p 5 in Interview

Okay, so I would use English to say for example the concept was very difficult, then I would take the concept and break it down into simpler parts and smaller parts, then by using English I would then, English is my main language, I would make it easier for myself to understand and after that I would go back to my Home Language German and explain it to myself in German as well just to make sure that I understand

○ **Function_Cognition**

16 Quotations:

1:5 p 2 in Interview

Afrikaans.

1:9 p 3 in Interview

heads

1:15 p 3 in Interview

think i

1:28 p 4 in Interview

think

1:48 p 7 in Interview

think

3:9 p 3 in Interview

think i

3:11 p 3 in Interview

think

3:38 p 7 in Interview

think

3:50 p 10 in Interview

understand an English

3:51 p 10 in Interview

Home Language, my mother-tongue, and then try to understand

4:12 p 2 in Interview

think w

4:15 p 2 in Interview

understand

4:20 p 3 in Interview

understand and communicate using German.

4:42 p 7 in Interview

We use these languages because everybody could understand, communicate and like, ja, we could all communicate in those languages.

4:44 p 7 in Interview

understand

5:10 p 3 in Interview

use your mind to

○ **Function_Comfortable**

1 Quotations:

2:41 p 8 in Interview

comfortable

○ **Function_Communication**

12 Quotations:

1:57 p 8 in Interview

communicate

2:48 p 9 in Interview

communicate

4:13 p 2 in Interview

communication

4:16 p 2 in Interview

communicate

4:20 p 3 in Interview

understand and communicate using German.

4:42 p 7 in Interview

We use these languages because everybody could understand, communicate and like, ja, we could all communicate in those languages.

4:43 p 7 in Interview

communicate

4:51 p 8 in Interview

German, then I would use it to communicate

5:8 p 3 in Interview

communication language

5:14 p 3 in Interview

communication

5:38 p 7 in Interview

communicate

5:64 p 10 in Interview

communicate

○ **Function_Confident**

3 Quotations:

1:53 p 8 in Interview

confident

1:70 p 8 in Interview

confident

5:50 p 9 in Interview

confident

○ **Function_Expression (Easy)**

5 Quotations:

1:26 p 4 in Interview

express y

1:55 p 8 in Interview

express

1:61 p 9 in Interview

express

1:75 p 3 in Interview

express

4:26 p 3 in Interview

express.

○ Function_Identity

6 Quotations:

2:60 p 2 in Interview

when a child is born it automatically have to take on after your dad's culture

3:52 p 2 in Interview

grew up being taught and been sheltered in.

4:2 p 1 in Interview

root

4:18 p 3 in Interview

rooted.

5:2 p 2 in Interview

grew up in an English house

5:13 p 3 in Interview

placed in my feet to leave a mark

○ Function_Integration of MT/HL as an extra subject to the University learning

1 Quotations:

2:13 p 4 in Interview

person's mother-tongue to somehow be integrated in the university learning

○ Function_Presentation (Difficult)

1 Quotations:

1:22 p 3 in Interview

presentation

○ Function_Read (Difficult)

1 Quotations:

1:20 p 3 in Interview

read

○ **Function_School; Language/s (Why)**

5 Quotations:

1:71 p 2 in Interview

Afrikaans mostly and English. In High School I was in Boarding school so my classes were 50/50.

2:66 p 2 in Interview

I only use English as well as Afrikaans.

3:54 p 2 in Interview

At school I was taught in English and Afrikaans.

4:62 p 2 in Interview

At school I mostly used English and Afrikaans and also German.

5:66 p 2 in Interview

In Primary School I used Afrikaans and then in High School I used English

○ **Function_Socialization**

1 Quotations:

1:58 p 8 in Interview

social t

○ **Function_Studying (Easy)**

1 Quotations:

1:25 p 4 in Interview

studying

○ **Function_Understanding (Difficult)**

2 Quotations:

1:31 p 5 in Interview

hard for me to understand

1:32 p 5 in Interview

difficult to understand

○ **Function_Understanding (Easy)**

5 Quotations:

2:7 p 2 in Interview

understood

2:50 p 9 in Interview

understand

5:53 p 9 in Interview

understand everything.

5:60 p 10 in Interview

understand

5:65 p 10 in Interview

understand

○ **Function_Work**

2 Quotations:

1:7 p 3 in Interview

work

1:16 p 3 in Interview

work in

○ **Good in English makes you good in MT/HL_It depends (Why)**

2 Quotations:

5:17 p 4 in Interview

Depending on what language you have,

5:18 p 4 in Interview

so let's say a Afrikaans person, ja, the mother-tongue is Afrikaans, and the person has to read in English, it's not the same language.

○ **Good in English makes you good in MT/HL_No (Why)**

4 Quotations:

2:53 p 10 in Interview

No,

2:73 p 3 in Interview

No,

2:74 p 3 in Interview

because I am good in English but I am very bad at my mother-tongue .

4:23 p 3 in Interview

Not necessarily.

○ **Good reader in MT/HL makes a good reader in English_No (Why)**

9 Quotations:

1:65 p 10 in Interview

No,

1:76 p 3 in Interview

No, I

1:77 p 3 in Interview

I don't think that because my parents are Afrikaans speaking, my friends are Afrikaans speaking, all my social groups are Afrikaans, so it's difficult for me to speak English, or read English or do a presentation in English, because you are so used to speaking just one language which is my mother-tongue. The only exposure that I get now of English is at the University, in class, when the lecturer is having an English class. I don't think my English-speaking skills is as good as my mother tongue for the reason I don't have any exposure except at the University for this language.

2:71 p 3 in Interview

No,

2:72 p 3 in Interview

because I am not a good reader in my mother-tongue but I am a very good reader in English.

3:45 p 9 in Interview

I don't think so.

3:59 p 4 in Interview

I don't think so

3:60 p 4 in Interview

because I can't read in my mother-tongue so that doesn't influence my English.

4:22 p 3 in Interview

Not necessarily, German is different to English.

○ **Good reader in MT/HL makes a good reader in English_Yes (Why)**

4 Quotations:

4:66 p 3 in Interview

I would certainly say that my mother-tongue helped me to learn English because it gave me a basis from which to learn another language.

5:58 p 10 in Interview

Yes, I definitely believe it.

5:59 p 10 in Interview

Because my mother-tongue is English and if I can read in English, it allows me to understand, so it improves my speaking if I can put it that way.

5:71 p 3 in Interview

Yes, I agree that if you are then, yes.

○ **Language for Group Assignment (In class OR online)_Afrikaans (Why)**

8 Quotations:

1:49 p 7 in Interview

Afrikaans.

1:78 p 7 in Interview

Because I can answer the questions easier. I don't need to go search for the right terminology to express myself. As I said it is natural.

2:76 p 7 in Interview

Sometimes, Afrikaans

2:78 p 7 in Interview

because I take English as my main language and Afrikaans as a First Additional Language, so we only use those two language to discuss projects or assignments.

4:40 p 7 in Interview

Afrikaans

4:67 p 7 in Interview

We use these languages because everybody could understand, communicate and like, ja, we could all communicate in those languages. Nobody is left behind.

5:43 p 8 in Interview

Afrikaans

5:72 p 8 in Interview

because the people that I do my assignments with are both English and Afrikaans.

○ **Language for Group Assignment (In class OR online)_English (Why)**

8 Quotations:

2:75 p 7 in Interview

We use English to discuss our assignments.

2:78 p 7 in Interview

because I take English as my main language and Afrikaans as a First Additional Language, so we only use those two language to discuss projects or assignments.

3:61 p 7 in Interview

Most of the time we use English.

3:62 p 7 in Interview

Because not everyone in this group has the same mother-language/mother-tongue and not everyone understands my mother-tongue, so we have to use English so that everyone understands.

4:41 p 7 in Interview

English.

4:67 p 7 in Interview

We use these languages because everybody could understand, communicate and like, ja, we could all communicate in those languages. Nobody is left behind.

5:44 p 8 in Interview

English

5:72 p 8 in Interview

because the people that I do my assignments with are both English and Afrikaans.

○ Language mostly use at NWU_Afrikaans**3 Quotations:****1:5 p 2 in Interview**

Afrikaans.

2:61 p 2 in Interview

Afrikaans a

4:9 p 2 in Interview

Afrikaans.

○ Language mostly use at NWU_Afrikaans (Role; Additional language)**2 Quotations:****2:61 p 2 in Interview**

Afrikaans a

4:9 p 2 in Interview

Afrikaans.

○ **Language mostly use at NWU_Afrikaans (Role; MT/HL)**

1 Quotations:

1:5 p 2 in Interview

Afrikaans.

○ **Language mostly use at NWU_English**

4 Quotations:

2:62 p 2 in Interview

English.

3:6 p 2 in Interview

English.

4:63 p 2 in Interview

English

5:67 p 2 in Interview

I use English at the NWU.

○ **Language mostly use at NWU_English (Role; Additional language)**

3 Quotations:

2:62 p 2 in Interview

English.

3:6 p 2 in Interview

English.

4:63 p 2 in Interview

English

○ **Language mostly use at NWU_English (Role; MT/HL)**

1 Quotations:

5:67 p 2 in Interview

I use English at the NWU.

○ **Language_Afrikaans**

21 Quotations:

1:1 p 2 in Interview

Afrikaans.

1:3 p 2 in Interview

Afrikaans

1:5 p 2 in Interview

Afrikaans.

1:6 p 2 in Interview

Afrikaans.

1:11 p 3 in Interview

fluent.

1:12 p 3 in Interview

Afrikaans

1:17 p 3 in Interview

language.

1:24 p 4 in Interview

Afrikaans

1:27 p 4 in Interview

mother-tongue,

1:33 p 6 in Interview

Afrikaans

1:34 p 6 in Interview

Afrikaans

1:57 p 8 in Interview

communicate

2:4 p 2 in Interview

Afrikaans.

2:16 p 4 in Interview

Afrikaans

2:54 p 10 in Interview

Afrikaans

2:61 p 2 in Interview

Afrikaans a

2:64 p 9 in Interview

Afrikaans,

3:5 p 2 in Interview

Afrikaans.

4:6 p 2 in Interview

Afrikaans

4:9 p 2 in Interview

Afrikaans.

5:4 p 2 in Interview

frikaans

○ **Language_English**

39 Quotations:

1:2 p 2 in Interview

English

1:4 p 2 in Interview

English.

1:19 p 3 in Interview

English,

1:21 p 3 in Interview

English

1:23 p 3 in Interview

English,

1:35 p 6 in Interview

English

1:47 p 7 in Interview

English

2:3 p 2 in Interview

English

2:15 p 4 in Interview

good at English

2:40 p 8 in Interview

understand it

2:41 p 8 in Interview

comfortable

2:55 p 10 in Interview

English

2:62 p 2 in Interview

English.

2:63 p 9 in Interview

English

3:4 p 2 in Interview

English

3:6 p 2 in Interview

English.

3:8 p 3 in Interview

English

3:10 p 3 in Interview

English.

3:12 p 3 in Interview

most

3:13 p 3 in Interview

extremely proficient

3:21 p 4 in Interview

English

3:50 p 10 in Interview

understand an English

4:5 p 2 in Interview

English

4:8 p 2 in Interview

English

4:11 p 2 in Interview

head of my portrait I placed English.

4:12 p 2 in Interview

think w

4:13 p 2 in Interview

communication

4:14 p 2 in Interview

proficient

5:1 p 2 in Interview

English

5:5 p 2 in Interview

English.

5:12 p 3 in Interview

placed my mother-tongue

5:15 p 3 in Interview

I am quite proficient

5:38 p 7 in Interview

communicate

5:39 p 7 in Interview

quite easy

5:50 p 9 in Interview

confident

5:52 p 9 in Interview

mother-tongue

5:60 p 10 in Interview

understand

5:63 p 10 in Interview

proficient in your mother-tongue

5:68 p 2 in Interview

English

○ **Language_German**

11 Quotations:

4:1 p 1 in Interview

German.

4:4 p 1 in Interview

root

4:7 p 2 in Interview

German.

4:17 p 2 in Interview

feet.

4:18 p 3 in Interview

rooted.

4:19 p 3 in Interview

proficient

4:20 p 3 in Interview

understand and communicate using German.

4:21 p 3 in Interview

that my mother-tongue helped me to learn English

4:25 p 3 in Interview

heart which is German

4:51 p 8 in Interview - Marion Filter

German, then I would use it to communicate

4:61 p 8 in Interview

German

○ **Language_Sesotho (Southern Sesotho)**

8 Quotations:

2:1 p 1 in Interview

Sesotho, Southern Sesotho.

2:6 p 2 in Interview

Sesotho.

2:8 p 2 in Interview

average

2:14 p 2 in Interview

automatically have to take on after your dad's culture

2:17 p 4 in Interview

Sesotho I would struggle

2:50 p 9 in Interview

understand

2:57 p 10 in Interview

Sesotho,

2:70 p 3 in Interview

first language

○ **Language_Setswana**

10 Quotations:

2:65 p 9 in Interview

Setswana

3:1 p 2 in Interview

Setswana.

3:14 p 3 in Interview

heart

3:15 p 3 in Interview

grew up with

3:22 p 4 in Interview

mother-tongue

3:37 p 7 in Interview

language

3:38 p 7 in Interview

think

3:40 p 8 in Interview

mother-tongue.

3:51 p 10 in Interview

Home Language, my mother-tongue, and then try to understand

3:53 p 8 in Interview

I do,

○ **Language_Zulu**

3 Quotations:

5:7 p 2 in Interview

head I placed Zulu.

5:8 p 3 in Interview

communication language

5:11 p 3 in Interview

Not at all.

○ **Make Sense of Difficult Concept_(Lecturer help)**

5 Quotations:

1:40 p 6 in Interview

lecturer

2:19 p 5 in Interview

lecturer

4:35 p 6 in Interview

the lecturer broke down the concept into simple languages and then made lots of, attempted to make voiceover PowerPoints to help us explain the concept if we

5:26 p 5 in Interview

she explained everything thoroughly

5:27 p 6 in Interview

who didn't understand, allowed them to ask questions and then she explained it in a different way for them to understand which created a more open idea to the other learners who already understood.

○ **Make Sense of Difficult Concept_(Peers help)**

4 Quotations:

1:38 p 6 in Interview

peer

2:20 p 5 in Interview

study groups starting from 2020 until now and I think also that plays a huge role in being able to assist each other when you are struggling.

4:36 p 6 in Interview

I wouldn't say that the peers had such a great effect with me understanding the concept when it was online classes as they did during face-to-face contact classes.

5:28 p 6 in Interview

he would ask one of the peers to help explain it because sometimes we have a better understanding or a better way of explaining the work to the other peers and she allowed us to work in groups and explain it to one another and discuss it after she explained it

○ **Make Sense of Difficult Concept_(Self help) Email my lecturer**

1 Quotations:

2:21 p 5 in Interview

○ **Make Sense of Difficult Concepts_(Self-help) Further reading**
/Google Translator

8 Quotations:

1:36 p 6 in Interview

Google

1:37 p 6 in Interview

Google translate

1:39 p 6 in Interview

Google

1:41 p 6 in Interview

Google

1:44 p 6 in Interview

Google defence

1:52 p 8 in Interview

Google translate

4:37 p 6 in Interview

would first of all obviously break down the concept into a language that I Understood, then I would also do lots of research about the concept. I would go into further reading to make sure that I understood the concept.

5:29 p 6 in Interview

I would always go and do some extra research after class or sometimes even in class

○ **Module_English**

2 Quotations:

1:30 p 5 in Interview

English module

1:32 p 5 in Interview

difficult to understand

○ **Module_Psychology (the student struggle with)**

1 Quotations:

3:23 p 6 in Interview

○ **MT freely in classes**

6 Quotations:

2:45 p 8 in Interview

I would ask questions in my mother-tongue probably and I would also (pause) want to be explained in my mother-tongue.

2:46 p 8 in Interview

I would, yeah, I would want to answer in my mother-tongue, I would like to be asked in my mother-tongue questions.

2:47 p 9 in Interview

would make me feel good,

3:41 p 8 in Interview

, it would make me feel proud that I can use my mother-tongue in class and then I would use it to make the people around me understand the concepts better because sometimes language also becomes the barrier in learning,

4:49 p 8 in Interview

I could use my mother-tongue which is German, then I would use it to communicate with others and also to read my material in my mother-tongue

5:49 p 8 in Interview

I feel I really speak freely in my mother-tongue as my mother-tongue is English, so I speak freely in my mother-tongue. I don't have a problem

○ **MT gain understanding_Sometimes**

1 Quotations:

2:22 p 5 in Interview

some things

○ **MT gain understanding**

5 Quotations:

3:27 p 6 in Interview

I do.

4:33 p 6 in Interview

Yes,

4:34 p 6 in Interview

would say I use my mother tongue to gain understanding because there are some words that answer to English, not necessarily the same-same but you can make conclusions based on the language.

5:30 p 6 in Interview

Yes,

5:31 p 6 in Interview

it was ENFF 111 English, so matriculating in English allowed me to understand whenever she discussed work.

○ **MT usage in explaining difficult concept to peers from same MT_Yes (Why)**

4 Quotations:

1:59 p 9 in Interview

Yes,

2:49 p 9 in Interview

I do.

5:54 p 9 in Interview

Yes, we do use the mother-tongue.

5:55 p 9 in Interview

It's just easier to understand if you speak the same language and like I said if she doesn't understand it and I explain it in a different way in the mother-tongue there is a possibility that she understands better then after I discussed it.

○ **MT usage in explaining difficult concept to peers from the same MT_No (Why)**

1 Quotations:

4:54 p 9 in Interview

I do not have any peers who share my mother-tongue with me, so, ja.

○ **Online Class Grapple with Difficult Concept_(Ask lecturer)**

7 Quotations:

1:43 p 6 in Interview

ask the lecturer

2:23 p 6 in Interview

video call such as this one and she was able to explain the concepts to me a

2:26 p 6 in Interview

how I would help myself is I would follow the advice which she would give me and went to the sites

3:25 p 6 in Interview

ask the lecturer

4:29 p 5 in Interview

the lecturers also went and broke down the concept

5:32 p 6 in Interview

she explained as much as possible and after the first lesson with all the struggles, the second class she figured out everything and then after that she helped and recapped the work of the previous lesson just so that we can understand.

5:33 p 7 in Interview

lecturer to

○ **Online Class Grapple with Difficult Concept_(Google site / Surfing the internet)/PowerPoint/Efundi**

4 Quotations:

2:24 p 6 in Interview

Google sites

5:34 p 7 in Interview

PowerPoint

5:35 p 7 in Interview

eFundi

5:36 p 7 in Interview

PowerPoints,

○ **Online Class Grapple with Difficult Concept_(Making notes)**

2 Quotations:

1:42 p 6 in Interview

mental note

3:24 p 6 in Interview

make notes

○ **Online Class Grapple with Difficult Concept_(Peers help)**

5 Quotations:

2:25 p 6 in Interview

My peers helped through, because of the lockdown we couldn't meet, so we helped each other through our social media groups.

3:26 p 6 in Interview

had also groups where I would ask

3:29 p 6 in Interview

peers

4:30 p 5 in Interview

My peers most

4:31 p 5 in Interview

My peers mostly speak Afrikaans even though we are in the English class, so with the peers we then use Afrikaans and help each other then in that manner to explain what we had then just learned in the English class, and then after explaining it in Afrikaans we go back to English so essentially I would hear the concept in two languages then which help me to understand better what I was learning about.

○ Online Class Grapple with Difficult Concept_(Self help)

3 Quotations:

2:26 p 6 in Interview

how I would help myself is I would follow the advice which she would give me and went to the sites

4:32 p 5 in Interview

by using my English language proficiency and then making the concepts in simpler language that I understood initially and then also translating those things into German to help myself

5:37 p 7 in Interview

Being in the online class is basically the same as in class, the face-to-face. I also just went and did some extra research, worked through the textbooks, the PowerPoints, tried to gain as much knowledge about the module itself so I can just inform myself more about the work.

○ Online Class_MT/HL Negative Experience

1 Quotations:

2:27 p 7 in Interview

never had a lecture in my mother-tongue as mentioned my mother-tongue is Southern Sesotho

○ **Online Class_MT/HL Negative Experience (Why)**

1 Quotations:

2:28 p 7 in Interview

my mother-tongue is Southern Sesotho and in the English class.

○ **Online Class_MT/HL Negative Experience while interacting with lecturer**

2 Quotations:

2:33 p 7 in Interview

negative experience that happened was I asked something, we have social media groups where we are able to interact with our lecturer and the learners in our classroom, I think I asked something in my mother-tongue that I was not supposed to ask and it was very negative.

4:39 p 7 in Interview

not everybody understood what I was trying to get across because it is a language which is not spoken as much in South Africa.

○ **Online Class_MT/HL Negative Experience while interacting with lecturer_No**

1 Quotations:

5:42 p 7 in Interview

At this moment I can't think of a negative experience as one is not springing to mind as I can't think there was a negative experience.

○ **Online Class_MT/HL Negative Experience while interacting with peers_No**

1 Quotations:

5:42 p 7 in Interview

At this moment I can't think of a negative experience as one is not springing to mind as I can't think there was a negative experience.

○ **Online Class_MT/HL Positive Experience**

2 Quotations:

1:45 p 6 in Interview

Yes

2:29 p 7 in Interview

Yes,

○ **Online Class_MT/HL Positive Experience (Why)**

2 Quotations:

1:46 p 6 in Interview

I was too afraid to participate but in the second semester I remember the teacher asked a question in Engineering Graphics and Design and I was the only person to express the concept of what he asked in Afrikaans. So, I felt so smart because I had the right terminology to express what he wanted.

2:30 p 7 in Interview

nice to sometimes just to be able to talk in your mother-tongue.

○ **Online Class_MT/HL Positive Experience while interacting with lecturer_No**

3 Quotations:

2:31 p 7 in Interview

I never had a lecture in my mother-tongue as mentioned my mother-tongue is Southern Sesotho and in the English class.

3:32 p 7 in Interview

I can't think of a negative experience.

4:38 p 7 in Interview

I can't think of a situation that pops into my head.

○ **Online Class_MT/HL Positive Experience while interacting with lecturer_Yes**

3 Quotations:

3:30 p 7 in Interview

We had classes and in

3:31 p 7 in Interview

our English class we gave examples in our mother-tongue and that was very positive.

5:40 p 7 in Interview

and I felt like that was a positive experience

○ **Online Class_MT/HL Positive Experience while interacting with peers_Yes**

3 Quotations:

2:30 p 7 in Interview

nice to sometimes just to be able to talk in your mother-tongue.

2:32 p 7 in Interview

Yes,

5:41 p 7 in Interview

to communicate with other people an

○ **Place for your MT/HL at the University_No**

2 Quotations:

4:52 p 8 in Interview

I don't think that there is a space for German in South Africa

4:53 p 8 in Interview

It is not one of the official languages and there aren't many German-speaking people in South Africa. I know that it is offered as a extra language that you can take at the university but like a said it is only a specialized group of people,

○ **Place for your MT/HL at the University_Yes**

4 Quotations:

1:56 p 8 in Interview

Yes,

2:44 p 9 in Interview

I think there is.

3:42 p 8 in Interview

I do, because in the first year there was a module in my mother-tongue that I did.

5:51 p 9 in Interview

Yes, I feel there is a place for my mother-tongue at the university as it is accommodated in every aspect you ge

○ **Place_Feet (Why)**

5 Quotations:

4:3 p 1 in Interview

feet

4:17 p 2 in Interview

feet.

4:65 p 3 in Interview

Because that's where I'm rooted. It's the root of my language.

5:12 p 3 in Interview

placed my mother-tongue

5:70 p 3 in Interview

I placed my mother-tongue in my feet, and it was placed in my feet to leave a mark wherever I go because no matter where you go you have to have English as a communication language, so when I walk, I can speak to other people and I just felt English is a way to communicate by my feet if that makes sense.

○ **Place_Hand (Why)**

2 Quotations:

1:73 p 3 in Interview

hands

1:74 p 3 in Interview

Because as I explained it is easier to express yourself when you think in this language and work in this language.

○ **Place_Head (Why)**

15 Quotations:

1:11 p 3 in Interview

fluent.

1:12 p 3 in Interview

Afrikaans

1:13 p 3 in Interview

Head

1:72 p 3 in Interview

I said it was the first language that I was taught, and we work with our hands, and we think with our heads and that is why I placed the colour red there. It makes me proud and red is a powerful colour, so in conclusion I feel that you work in your Home Language, and you think mostly in your Home Language, that is why I put the colour red for Afrikaans in the head space.

1:74 p 3 in Interview

Because as I explained it is easier to express yourself when you think in this language and work in this language.

2:67 p 2 in Interview

The language that I placed was Sesotho.

2:68 p 2 in Interview

Because it was the first language that I understood as a child. I think that is why it is placed at the head. It is what I grew up with.

2:69 p 3 in Interview

As I mentioned I am placing it, no I think I am placing it in the head because that is the first language that I need to know and understand.

3:55 p 3 in Interview

I placed English at the head.

3:56 p 3 in Interview

I said because I think in English.

4:11 p 2 in Interview

head of my portrait I placed English.

4:64 p 2 in Interview

I placed it there because it's the language I think with mostly at the moment and it's the language that's universal for communication just like your head communicates with your body.

5:7 p 2 in Interview

head I placed Zulu.

5:21 p 4 in Interview

red in my head

5:69 p 3 in Interview

I just felt like it was a communication language that I would really like to learn so I placed it up there because you have to use your mind to learn a language and to communicate.

○ **Place_Heart/Stomach/Torso (Why)**

6 Quotations:

3:57 p 3 in Interview

I placed it in the heart.

3:58 p 3 in Interview

I think it's because it's the language I grew up with. It's the language that I'm always going to use no matter where I am because it's the language that I grew up with and it's the language that I mostly need. It defines me.

4:25 p 3 in Interview

heart which is German

5:22 p 4 in Interview

green in my heart

5:23 p 4 in Interview

stomach

5:24 p 4 in Interview

orso t

○ **Proficiency in MT/HL advance proficiency in English_No (Why)**

2 Quotations:

2:58 p 11 in Interview

No.

2:79 p 11 in Interview

I hardly use my mother-tongue. I hardly use it. I know it is embarrassing but I hardly use it, so no.

○ **Proficiency in MT/HL advance proficiency in English_Yes (Why)**

7 Quotations:

1:66 p 11 in Interview

Yes

1:79 p 11 in Interview

I think so for the reason being that if you travel overseas or even anywhere in South Africa and you come across someone who doesn't understand you it is difficult to communicate, so I want to say it is important that your mother-tongue should almost motivate you to learn another language even if you are English and you want to learn Afrikaans or Setswana or Zulu or whatever, I just feel that's why your mother-tongue is basically motivating you to learn another language so that you don't just explain yourself to just one group of people but you can have a discussion with more than just one person from different languages, different cultures because you will eventually understand something even though you only have mediocre English skills, you'll be fine.

3:49 p 10 in Interview

because sometimes when I don't understand an English concept it helps me to translate it to my Home Language, my mother-tongue, and then try to understand that in the language and then if I translate it back to English then I can understand it. But if I didn't have my

mother-tongue and I was faced with the same English problem, I wouldn't have any other reference besides English so I wouldn't understand the English concept, so it does help with the proficiency if I can translate it to my mother-tongue and understand it better.

3:63 p 10 in Interview

I am going to say yes

4:68 p 10 in Interview

I would say in certain aspects the more you develop your mother-tongue vocabulary the more you can develop your second language, in this case English, you can develop it more because you have already got experience in speaking and it will be easier to build up new vocabulary in the next language.

5:73 p 10 in Interview

Yes, it does, I believe it does.

5:74 p 10 in Interview

100%. Being proficient in English and being proficient in your mother-tongue which is in my case the same, definitely allows me to be able to communicate to you, allows me to be able to communicate to friends, to family and even my lecturer at university which in that case allows them to understand me and allows them, or me to understand them.

○ **Proficiency_Average**

2 Quotations:

2:8 p 2 in Interview

average

3:17 p 3 in Interview

50%

○ **Proficiency_Difficult**

2 Quotations:

1:18 p 3 in Interview

difficult

3:21 p 4 in Interview

English

○ **Proficiency_Easy**

15 Quotations:

1:11 p 3 in Interview

fluent.

1:29 p 4 in Interview

easier

1:60 p 9 in Interview

easier

2:15 p 4 in Interview

good at English

2:16 p 4 in Interview

Afrikaans

2:40 p 8 in Interview

understand it

3:12 p 3 in Interview

most

3:13 p 3 in Interview

extremely proficient

3:16 p 3 in Interview

always going to use no matter where I am because it's the language that I grew up with
and it's the language that I

3:22 p 4 in Interview

mother-tongue

4:14 p 2 in Interview

proficient

4:19 p 3 in Interview

proficient

5:15 p 3 in Interview

I am quite proficient

5:39 p 7 in Interview

quite easy

5:63 p 10 in Interview

proficient in your mother-tongue

☐ Proficiency_Poor

3 Quotations:

2:11 p 3 in Interview

bad at my mother-tongue .

2:17 p 4 in Interview

Sesotho I would struggle

5:11 p 3 in Interview

Not at all.

○ **Role_Additional language**

29 Quotations:

1:2 p 2 in Interview

English

1:4 p 2 in Interview

English.

2:3 p 2 in Interview

English

2:4 p 2 in Interview

Afrikaans.

2:15 p 4 in Interview

good at English

2:16 p 4 in Interview

Afrikaans

2:40 p 8 in Interview

understand it

2:41 p 8 in Interview

comfortable

2:61 p 2 in Interview

Afrikaans a

2:62 p 2 in Interview

English.

2:63 p 9 in Interview

English

2:64 p 9 in Interview

Afrikaans,

3:4 p 2 in Interview

English

3:5 p 2 in Interview

Afrikaans.

3:6 p 2 in Interview

English.

3:21 p 4 in Interview

English

3:50 p 10 in Interview

understand an English

4:5 p 2 in Interview

English

4:6 p 2 in Interview

Afrikaans

4:8 p 2 in Interview

English

4:9 p 2 in Interview

Afrikaans.

4:11 p 2 in Interview

head of my portrait I placed English.

4:12 p 2 in Interview

think w

4:13 p 2 in Interview

communication

4:40 p 7 in Interview

Afrikaans

4:41 p 7 in Interview

English.

5:4 p 2 in Interview

frikaans

5:7 p 2 in Interview

head I placed Zulu.

5:8 p 3 in Interview

communication language

○ **Role_Hereditary**

5 Quotations:

1:69 p 2 in Interview

Afrikaans and that was the only language that they taught me

2:14 p 2 in Interview

automatically have to take on after your dad's culture

3:2 p 2 in Interview

speak at home,

3:15 p 3 in Interview

grew up with

4:2 p 1 in Interview

root

○ **Role_Hope to learn**

2 Quotations:

5:9 p 3 in Interview

would really like to learn

5:11 p 3 in Interview

Not at all.

○ **Role_Mother tongue / Home Language**

42 Quotations:

1:1 p 2 in Interview

Afrikaans.

1:3 p 2 in Interview

Afrikaans

1:12 p 3 in Interview

Afrikaans

1:27 p 4 in Interview

mother-tongue,

1:29 p 4 in Interview

easier

1:33 p 6 in Interview

Afrikaans

1:54 p 8 in Interview

confident

1:57 p 8 in Interview

communicate

2:2 p 1 in Interview

mother-tongue

2:8 p 2 in Interview

average

2:11 p 3 in Interview

bad at my mother-tongue .

2:17 p 4 in Interview

Sesotho I would struggle

2:50 p 9 in Interview

understand

2:56 p 10 in Interview

mother-tongue

2:65 p 9 in Interview

Setswana

2:70 p 3 in Interview

first language

3:14 p 3 in Interview

heart

3:15 p 3 in Interview

grew up with

3:22 p 4 in Interview

mother-tongue

3:28 p 6 in Interview

mother-tongue

3:37 p 7 in Interview

language

3:38 p 7 in Interview

think

3:40 p 8 in Interview

mother-tongue.

3:51 p 10 in Interview

Home Language, my mother-tongue, and then try to understand

3:53 p 8 in Interview

I do,
4:1 p 1 in Interview
German.
4:7 p 2 in Interview
German.
4:17 p 2 in Interview
feet.
4:19 p 3 in Interview
proficient
4:25 p 3 in Interview
heart which is German
4:51 p 8 in Interview
German, then I would use it to communicate
4:61 p 8 in Interview
German
5:1 p 2 in Interview
English
5:5 p 2 in Interview
English.
5:6 p 2 in Interview
English at the NWU.
5:12 p 3 in Interview
placed my mother-tongue
5:15 p 3 in Interview
I am quite proficient
5:38 p 7 in Interview
communicate
5:39 p 7 in Interview
quite easy
5:50 p 9 in Interview
confident
5:60 p 10 in Interview
understand
5:63 p 10 in Interview
proficient in your mother-tongue

○ **Struggled with modules ENFF 111 / BSTE 112 / MAIP 121 IN 2020_No**

2 Quotations:

1:62 p 9 in Interview

I wouldn't say that there was anything that I struggled with in the content of the module,

5:56 p 9 in Interview

but I don't think I struggled with anything

○ **Struggled with modules ENFF 111 / BSTE 112 / MAIP 121 in 2020_Yes**

3 Quotations:

2:51 p 10 in Interview

I think pronunciation. There were this module that dealt with pronunciation

3:43 p 9 in Interview

In the first semester of ENFF, my problem was trying to break down or trying to understand the basic concept of the language because we were starting with phonics and it was very difficult for me to grasp the idea that the words were made of different sounds, and because I learnt English mostly from TV, I didn't know that.

4:55 p 9 in Interview

I would say that I struggled most with my assignment, understanding exactly what I have to do in the assignment, what is expected of me. O

○ **What worked well in the modules ENFF 111 / BSTE 112 / MAIP 121 in 2020_Lecturer's explanation**

2 Quotations:

2:52 p 10 in Interview

lecturer as I mentioned would try to explain

4:56 p 9 in Interview

e support the lecturer provided,

○ **What worked well in the modules ENFF 111 / BSTE 112 / MAIP 121 in 2020_Notes taking/PowerPoint voiceover/Zoom**

4 Quotations:

1:63 p 10 in Interview

taking note

3:44 p 9 in Interview

For ENFF it worked.

4:57 p 9 in Interview

PowerPoint voiceovers

4:58 p 9 in Interview

Zoom sessions

○ **What worked well in the modules ENFF 111 / BSTE 112 / MAIP 121 in 2020_Speaking with peers/Work and discussing in group**

3 Quotations:

1:63 p 10 in Interview

taking note

1:64 p 10 in Interview

speak to other pupils

5:57 p 10 in Interview

work in groups and discuss in groups worked

APPENDIX 2: INTERVIEW FREQUENCIES

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• Colour_Green Gr=1	0	0	0	0	1	1
• Colour_Red Gr=2	1	0	0	0	1	2
• Confident learning through English medium at the University_Both (Why) Gr=1	1	0	0	0	0	1
• Confident learning through English medium at the University_No (Why) Gr=0	0	0	0	0	0	0
• Confident learning through English medium at the University_Yes (Why) Gr=8	0	2	2	2	2	8
• Connection btw language of heart and head_No • Gr=1	0	1	0	0	0	1
• Connection btw language of heart and head_Yes Gr=3	0	0	1	1	1	3
• English textbook, what do you do if you don't understand something in it_ask a peer/ study group for assistance • Gr=2	0	1	1	0	0	2
• English textbook, what do you do if you don't understand something in it_Email my lecturer for assistance • Gr=1	0	1	0	0	0	1

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• English textbook, what do you do if you don't understand something in it_Google / YouTube help Gr=4	0	0	0	2	2	4
• Face-to-face lectures struggle with difficult concept (ENFF 111 / BSTE 112 / MAIP 121) in 2020_No Gr=2	0	1	0	0	1	2
• Face-to-face lectures struggle with difficult concept (ENFF 111 / BSTE 112 / MAIP 121) in 2020_Yes	0	0	0	2	0	2
• Gr=2						
• Function_Cognition Gr=16	5	0	5	5	1	16
• Function_Comfortable Gr=1	0	1	0	0	0	1
• Function_Communication Gr=12	1	1	0	6	4	12
• Function_Confident Gr=3	2	0	0	0	1	3
• Function_Expression (Easy)	4	0	0	1	0	5
• Gr=5						
• Function_Identity Gr=6	0	1	1	2	2	6
• Function_Integration of MT/HL as an extra subject to the University learning	0	1	0	0	0	1
• Gr=1						
• Function_Presentation (Difficult)	1	0	0	0	0	1
• Gr=1						

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• Function_Read (Difficult) Gr=1	1	0	0	0	0	1
• Function_School; Language/s (Why) Gr=5	1	1	1	1	1	5
• Function_Socialization Gr=1	1	0	0	0	0	1
• Function_Studying (Easy) Gr=1	1	0	0	0	0	1
• Function_Understanding (Difficult) • Gr=2	2	0	0	0	0	2
• Function_Understanding (Easy) • Gr=5	0	2	0	0	3	5
• Function_Work Gr=2	2	0	0	0	0	2
• Good in English makes you good in MT/HL_It depends (Why) • Gr=2	0	0	0	0	2	2
• Good in English makes you good in MT/HL_No (Why) • Gr=4	0	3	0	1	0	4
• Good in English makes • you good in MT/HL_Yes (Why) • Gr=0	0	0	0	0	0	0
• Good reader in MT/HL makes a good reader in English_No (Why) • Gr=9	3	2	3	1	0	9
• Good reader in MT/HL makes a good reader in	0	0	0	1	3	4

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
English_Yes (Why) Gr=4						
• Language for Group Assignment (In class OR online)_Afrikaans (Why) Gr=8	2	2	0	2	2	8
• Language for Group Assignment (In class OR online)_English (Why) Gr=8	0	2	2	2	2	8
• Language mostly use at NWU_Afrikaans • Gr=3	1	1	0	1	0	3
• Language mostly use at NWU_Afrikaans (Role; Additional language) • Gr=2	0	1	0	1	0	2
• Language mostly use at NWU_Afrikaans (Role; MT/HL) • Gr=1	1	0	0	0	0	1
• Language mostly use at NWU_English • Gr=4	0	1	1	1	1	4
• Language mostly use at NWU_English (Role; Additional language) Gr=3	0	1	1	1	0	3
• Language mostly use at NWU_English (Role; MT/HL) Gr=1	0	0	0	0	1	1
• Language_Afrikaans Gr=21	12	5	1	2	1	21
• Language_English Gr=39	7	7	8	6	11	39
• Language_German Gr=11	0	0	0	11	0	11

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3 Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• Language_Sesotho (Southern Sesotho) Gr=8	0	8	0	0	0	8
• Language_Setswana Gr=10	0	1	9	0	0	10
• Language_Zulu Gr=3	0	0	0	0	3	3
• Make Sense of Difficult Concept_(Lecturer help) Gr=5	1	1	0	1	2	5
• Make Sense of Difficult Concept_(Peers help) Gr=4	1	1	0	1	1	4
• Make Sense of Difficult Concept_(Self help) Email my lecturer • Gr=1	0	1	0	0	0	1
• Make Sense of Difficult Concepts_(Self-help) Further reading /Google Translator • Gr=8	6	0	0	1	1	8
• Module_English Gr=2	2	0	0	0	0	2
• Module_Psychology (the student struggle with) Gr=1	0	0	1	0	0	1
• MT freely in classes Gr=6	0	3	1	1	1	6
• MT gain understanding_No Gr=0	0	0	0	0	0	0
• MT gain understanding_Sometimes Gr=1	0	1	0	0	0	1
• MT gain understanding_Yes Gr=5	0	0	1	2	2	5
• MT usage in explaining difficult concept to peers from same MT_Yes (Why) Gr=4	1	1	0	0	2	4

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• MT usage in explaining difficult concept to peers from the same MT_No (Why) Gr=1	0	0	0	1	0	1
• Online Class Grapple with Difficult Concept_(Ask lecturer) • Gr=7	1	2	1	1	2	7
• Online Class Grapple with	0	1	0	0	3	4
• Difficult Concept_(Google site / Surfing the internet)/PowerPoint/Efundi Gr=4						
• Online Class Grapple with Difficult Concept_(Making notes) • Gr=2	1	0	1	0	0	2
• Online Class Grapple with Difficult Concept_(Peers help) • Gr=5	0	1	2	2	0	5
• Online Class Grapple with Difficult Concept_(Self help) Gr=3	0	1	0	1	1	3
• Online Class_MT/HL Negative Experience Gr=1	0	1	0	0	0	1
• Online Class_MT/HL Negative Experience (Why) Gr=1	0	1	0	0	0	1
• Online Class_MT/HL Negative Experience while interacting with lecturer Gr=2	0	1	0	1	0	2
• Online Class_MT/HL Negative Experience while interacting with lecturer_No Gr=1	0	0	0	0	1	1

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• Online Class_MT/HL Negative Experience while interacting with peers_No Gr=1	0	0	0	0	1	1
• Online Class_MT/HL Positive Experience Gr=2	1	1	0	0	0	2
• Online Class_MT/HL Positive Experience (Why) Gr=2	1	1	0	0	0	2
• Online Class_MT/HL Positive Experience while interacting with lecturer_No Gr=3	0	1	1	1	0	3
• Online Class_MT/HL Positive Experience while interacting with lecturer_Yes Gr=3	0	0	2	0	1	3
• Online Class_MT/HL Positive Experience while interacting with peers_No	0	0	0	0	0	0
• Gr=0						
• Online Class_MT/HL Positive Experience while interacting with peers_Yes Gr=3	0	2	0	0	1	3
• Place for your MT/HL at the University_No • Gr=2	0	0	0	2	0	2
• Place for your MT/HL at the University_Yes • Gr=4	1	1	1	0	1	4
• Place_Feet (Why) Gr=5	0	0	0	3	2	5
• Place_Hand (Why) Gr=2	2	0	0	0	0	2
• Place_Head (Why) Gr=15	5	3	2	2	3	15

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3 Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• Place_Heart/Stomach/Torso (Why)	0	0	2	1	3	6
• Gr=6						
• Proficiency in MT/HL advance proficiency in English_No (Why)	0	2	0	0	0	2
• Gr=2						
• Proficiency in MT/HL advance proficiency in English_Yes (Why) Gr=7	2	0	2	1	2	7
• Proficiency in MT/HL advances proficiency in English_To certain aspects (Why)	0	0	0	0	0	0
• Gr=0						
• Proficiency_Average Gr=2	0	1	1	0	0	2
• Proficiency_Difficult Gr=2	1	0	1	0	0	2
• Proficiency_Easy Gr=15	3	3	4	2	3	15
• Proficiency_Poor Gr=3	0	2	0	0	1	3
• Role_Additional language Gr=29	2	10	5	9	3	29
• Role_Hereditary Gr=5	1	1	2	1	0	5
• Role_Hope to learn	0	0	0	0	2	2
• Gr=2						
• Role_Mother tongue / Home Language	8	8	9	7	10	42
• Gr=42						
• Struggled with modules ENFF 111 / BSTE 112	1	0	0	0	1	2

	Interview – Participant 1 Gr=79	Interview – Participant 2 Gr=79	Interview – Participant 3 Gr=63	Interview – Participant 3 Gr=68	Interview – Participant 4 Gr=73	Totals
• / MAIP 121 IN 2020_No Gr=2						
• Struggled with modules ENFF 111 / BSTE 112 / MAIP • 121 in 2020_Yes Gr=3	0	1	1	1	0	3
• What worked well in the modules ENFF 111 / BSTE 112 / MAIP 121 in • 2020_Lecturer's explanation Gr=2	0	1	0	1	0	2
• What worked well in the modules ENFF 111 / BSTE 112 / MAIP 121 in • 2020_Notes taking/PowerPoint voiceover/Zoom Gr=4	1	0	1	2	0	4
• What worked well in the	2	0	0	0	1	3
• modules ENFF 111 / BSTE 112 / MAIP 121 in • 2020_Speaking with peers/Work and discussing in group • Gr=3						
Totals	93	101	77	97	97	465

APPENDIX 3: LANGUAGE PORTRAIT BIOGRAPHICAL DATA

61 participants all from the NWU Potchefstroom Campus					
61 participants all from the faculty of education					
Gender					
Category	Frequency table: 3. Gender (Language Portraits Participants Emmanuel)				
	Count	Cumulative	Percent	Cumulative	
Female	46	46	75.40984	75.4098	
Male	14	60	22.95082	98.3607	
No response	1	61	1.63934	100.0000	
Age					
Category	Frequency table: 4. Age (Language Portraits Participants Emmanuel)				
	Count	Cumulative	Percent	Cumulative	
18-24 years	58	58	95.08197	95.0820	
25-30 years	2	60	3.27869	98.3607	
No response	1	61	1.63934	100.0000	
Self-reported population group					
Category	Frequency table: 5. Population (Language Portraits Participants Emmanuel)				
	Count	Cumulative	Percent	Cumulative	
Black African	16	16	26.22951	26.2295	
Coloured	16	32	26.22951	52.4590	
White	28	60	45.90164	98.3607	
Other	1	61	1.63934	100.0000	
Missing	0	61	0.00000	100.0000	
Self-reported Home Languages					
Category	Frequency table: 6. Home Language (Language Portraits Participants Emmanuel)				
	Count	Cumulative	Percent	Cumulative	
Afrikaans	38	38	62.29508	62.2951	
English	9	47	14.75410	77.0492	

German	1	48	1.63934	78.6885		
Northern Sotho	4	52	6.55738	85.2459		
Southern Sotho	2	54	3.27869	88.5246		
Swati	1	55	1.63934	90.1639		
Tswana	3	58	4.91803	95.0820		
Xhosa	2	60	3.27869	98.3607		
Zulu	1	61	1.63934	100.0000		
Missing	0	61	0.00000	100.0000		
Self-reported number of languages in the repertoires of the participants						
Category	Frequency table: 8. Nr of languages (Language Portraits Participants Emmanuel)					
	Count	Cumulative	Percent	Cumulative		
1	3	3	4.91803	4.9180		
2	36	39	59.01639	63.9344		
3	7	46	11.47541	75.4098		
4	5	51	8.19672	83.6066		
5	4	55	6.55738	90.1639		
6	3	58	4.91803	95.0820		
7	2	60	3.27869	98.3607		
10	1	61	1.63934	100.0000		
Missing	0	61	0.00000	100.0000		

APPENDIX 4: LANGUAGE PORTRAIT DATA

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
646	1	1	1	13	5	Sesotho	Head	Purple	Because it was the first language I understood as a child, it is my mother tongue and I guess I coloured the head because I want my language understood.	Purple is my favourite color so I thought favourite color and favourite language should go well together.	Identity; communication (J) (K)- I don't understand the	
646	1	1	1	13	5	English	Hands	brown	English is a language where different cultures can meet each other half way and have discussions. It brings people together, in a way it embraces a person.	Brown because everyone can understand this language.	Cultural identity and communication (J); (K) Communication	
646	1	1	1	13	5	Afrikaans	Upper body	yellow	I guess because every Afrikaner I have came across has embraced me, I thought it would be suitable.	Yellow is everyone's favourite colour I guess.	Identity and communication	
646	1	1	1	13	5	Zulu	Legs	Red	Zulu is a beautiful fast language to learn, just like legs are fast to walk.	Because every zulu individual like red.	Communication	
582	2	1	2	1	2	English	Head	Yellow	Because it is a language always in my head, to use when talking to other people's	I like yellow, and it's also my hostels colour.	Communication and identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									language.			
582	2	1	2	1	2	Afrikaans	Whole Body	brown	I use the language a lot with my whole body.	It's almost my skin colour.	Communication, identity, cognition and proficiency.	
582	2	1	2	1	2	Xhosa	right leg	red	I would like to learn a new language.	Because Xhosa is a difficult language to learn.	Bilingual. Proficiency (difficult)	
1320	1	1	4	1	2	Afrikaans	Arms + head	Purple	Because I think and write in Afrikaans. I am more dominant in Afrikaans.	Because it's a bold colour and I think it makes a statement, that I am Afrikaans inside and outside.	Cognition, identity, communication, Proficiency.	
1320	1	1	4	1	2	English	Legs	Orange	Because I colour my arms purple and would like to say that I know Afrikaans and English at about the same level. And arms and legs take up the same amount of off the body.	Because it is my favourite colour and I think that it is just as bold as the purple.	Bilingual. Proficiency, Communication. I don't understand.	
672	1	1	4	5	4	German	Feet	Red	I placed German at the feet because that is where I am 'planted'. The feet symolize the roots of home and because I am Geraam this is where I am planted.	I chose the colour red for German to represent the blood that flows through me, which I am proud to say is German.	Identity and communication.	
672	1	1	4	5	4	English	Head	Blue	I placed English at the head because it is the language	I chose blue to represent English because blue for me	Communication, cognition.	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									most communicated with, just as you use your head to 'communicate' almost all processes to your body.	is the most universal colour with many different shades just as there are many different accents of English.		
672	1	1	4	5	4	Afrikaans	Right arm	Green	The right side is my dominant side and although Afrikaans isn't my dominant language it is the language I learnt 3rd so had to use determination to succeed just as I use my right arm to continue and push on.	I choose the colour Green for Afrikaans because just like green is a refreshing colour so is Afrikaans a refreshing colour.	Multilingual; Cognition; Communication; Proficiency (difficult).	
672	1	1	4	5	4	Zulu	Hands	Brown	Zulu is the language that I mostly used with the workers when working on the farm thus I put it on the hands because they are mostly associated with hard work.	I choose brown to represent Zulu as this colour also represents the farm life the best and often represents hard work.	Bilingual; Communication.	
613	2	1	2	1	2	Afrikaans	upper-body	light orange	Afrikaans is my Home Language, I was raised in a afrikaans house hold, which is where my heart lies.	It is neutral colour and represents light.	Cultural identity; (K) I don't understand the code.	
613	2	1	2	1	2	Japanese	Head	Red	I only know a few Japanese frases	Because Japanes is a	Proficiency (Difficult);	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									and I intend to learn more.	strong language.	cognition	
613	2	1	2	1	2	Xhosa/Sesotho	Hands	Black	It symbolize power.	It represents my roots.	Identity	
613	2	1	2	1	2	English	Bottom half	Blue				
663	1	1	1	10	6	English	Head	blue (light)	I choose blue for english due to light that is having and because it is a language mostly used for communication for most people.	I choose light blue for the face to show how english makes your face representable if you speak it.	Communication; I don't understand the code.	
663	1	1	1	10	6	Nothern Sotho	shoulders	Dark blue	Because of wearing a blanket on their shoulders.	I choose the dark blue colour for Nothern Sotho because we wear blankets over through it is hot.	(J) I don't understand the code	
663	1	1	1	10	6	Tswana	legs	brown	Because Tswana is my third language I consider that is why its on my third part of my body I consider.	Because tswana body used to where (tshega) the cows [?]	Multilingual.	
1472	1	1	1	17	5	English	The head	Blue	English is my knowledge language, I think in English and was taught in English for 12 years and blue seems like a peaceful colour, so peace of mind.		Cognition.	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
1472	1	1	1	17	5	Tswana	Heart	Red	Tswana is in my heart because it's my mother tongue.	Red is the love colour and I love my mother tongue.	Identity; Communication.	
1472	1	1	1	17	5	Afrikaans	Legs	Purple	I was forced to learn Afrikaans and it makes my legs weak.	Afrikaans is a purpleish language.	Proficiency (weak); Bilingual.	
1472	1	1	1	17	5	Sotho	Neck, Arms, legs	Brown	Sotho is my Home Language, it's who I am.	The colour of my skin is brown it relates to sotho cause it's who I am.	Cultural identity	
1472	1	1	1	17	5	Xhosa	Pants	yellow	I want to learn Xhosa, because a lot of people around be are Xhosax.		Communication	
1472	1	1	1	17	5	Xhosa	Pants	yellow	I want to learn Xhosa, because a lot of people around be are Xhosax.		Communication	
1545	1	1	4	1	2	English	Head	Red	The head is the main part of communication in the body, it's where from one thinks, speak, listens and make eye contact from. English is one of the vital communication languages.	Personally I think English is one of the most important languages for communication , to find middle ground between different languages. Red is the colour I think of for importance.	Communication; Cognition	
1545	1	1	4	1	2	Afrikaans	Legs/ feet	Purple	Afrikaans is the foundation of my	I associate purple with Afrikaans, as	Bilingual; Identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									language/verbal journey, as it was the first language I was taught. The feet/legs are the foundation on which the rest of my body connects to.	Potch is a very Afrikaans place and the dominant colour of NWU Potch is purple.		
1545	1	1	4	1	2	French	Heart	Blue	I have always had a special place in my heart for France, as it is my heritage.	Blue are one of the colours from the French flag.	Cultural identity.	
1464	1	2	1	20	6	Zulu	Low body & feet	Zulu	Its my Home Language and it has been deeply rooted within me and runs through my veins and totally in love with it.	Shows the love, and the blood (zulu) that's running through me as an african woman.	Identity; Communication; Proficiency.	
1464	1	2	1	20	6	English	Hands & Arms	Yellow	This is my driver of the world controller of my communication and that's the first place one is shown warmth and respect (handshake).	It lights up and joins me together with different people my communication light.	Communication;	
1464	1	2	1	20	6	Afrikaans	Head	Green	It's a language that's growing within mind and the adaption of it.	Like the grass its slowly growing within me.	Cognition; Communication.	
1464	1	2	1	20	6	Swati	Upper body	Blue	Near my heart brings peace and flows within my body as	Like the sea it flows with my Home Language and it eases my soul and	Identity; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
										it brings together (connects) with different people of the world.		
1368	1	1	4	1	2	Afrikaans	Head, hands (upper body)	Red	Afrikaans is my Home Language. It is the first language that I was taught. We work with our hands, that is why I placed the colour there as well.	It makes me proud, red is a powerful colour. Afr is also the most romantic language.	Bilingual; Communication.	
1368	1	1	4	1	2	English	Mid-part, abdo men	Blue	It is the only other language I know. English is a "core" language.	Because I can speak it but it is not my first language.	Bilingual; Communication.	
1368	1	1	4	1	2	Tswana	upper thigh	Green	Tswana is a strong language, like the legs of a human.	Green makes me think of culture and traditions.	Proficiency (Difficult); Cultural identity	
1368	1	1	4	1	2	German	Legs & feet	Yellow	Germany is my mother land. Like feet on the ground the culture is part of me.	Yellow is in their national flag.	Cultural identity	
1407	1	1	1	1	1	Afrikaans	Head	blue	It is my Home Language. It is in my head because it comes easier.	Just like the ocean is naturally blue afrikaans comes naturally to me.	Proficiency (Easy); Identity	
1407	1	1	1	1	1	Portugese	mouth	Purple	It is a language I really want to learn to speak that is why is on my mouth.	purple is a beautiful colour just like the language.	Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
1407	1	1	1	1	1	Tswana	neck/ ears	red	Because I hear it a lot I only know enough to get by I would like know more.	It is my mother tongue in my blood.	Proficiency; Identity	
1407	1	1	1	1	1	Spanish	hands	green	I love spanish music I just makes me want to dance and move.	Because it is a language that spread worldwide how and they are getting recognise for its beauty.	Communication	
1407	1	1	1	1	1	English	body	light purple	It is my language of instruction and my favourite to speak.	My favourite colour for my favourite language.	Cognition; Proficiency	
1407	1	1	1	1	1	French	feet	orange	It's a place I would like to go.	It a bright colour symbolize a morning in a new place.	I do not understand the coding.	
1407	1	1	1	1	1	Khoisan-Griqua	feet	brown	Its on my foot because it is the language of the native people of Africa the foot we walk on.	brown to show they are indegiounous like sand.	Identity	
1407	1	1	1	1	1	Xhosa	lower body	black	It is a language I would like to like the back of my thigh.	Black is a colour that symbolises power and strength that's why I choose this colour for Xhosa.	Identity and Proficiency	
684	1	1	1	10	4	English	Head & shoul ders	Purple	English is the language I normally communicate in and is also the language I speak with myself in my	Purple is one of my most favourite colours and English is one of my most favourite colours.	Communication; Cognition; Proficiency	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									head, hence I put it on the section of the head on the picture.			
684	1	1	1	10	4	Nothern Sotho	Area below shoul ders to stoma ch	Red	Because this place is where the heart is situated, because Nothern Sotho is my Home Language.	Red in my books repesent love, so I love my Home Language.	Identity; Cognition	
684	1	1	1	10	4	Setswana	Arms & hands	Green	This is the language I grew up speaking setswana communicating with my friends from the black race the same way I use my hands to do a lot.	Green symbolises growth, so I used green because I grew up speaking Setswana with my friends.	Haso I used green because I grew up speaking Setswana with my is trew up speaking setswana communicating with my friends from the black race the same way I use my hands to do a loteanathdss the language I grew up speaking setswana communicating with my friends	Communic ation; Identity
684	1	1	1	10	4	Afrikaans	Legs	Peach	I aspire to be fluent in Afrikaans so when one aspire they must walk the journey to achieve it. So I'm going to use my legs to walk the journey to learning	Peach is similar to the skin colour of the race that speaks Afrikaans hence I used peach.	Communication; Identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									Afrikaans.			
589	1	2	4	1	2	English	head & half body	Blue	It is the language I use the most, I am able to describe myself better in english.	Blue is one of my favourite colours, if I have a choice I would always choose blue first. English is my preferred language and therefor it is blue.	Proficiency; Bilingual; cognition	
589	1	2	4	1	2	Afrikaans	half body	Purple	Afrikaans is my Home Language, it is part of me. I may not prefer Afrikaans as a communication tool but it is still a large part of me.	The choice of colour is similar to English, purple is one of my favourite colours. If I cant choose blue then my next choice would be purple.	Identity; Communication; (K), I don't understand the code.	
589	1	2	4	1	2	Japanese	hands	Red	It is on the hands because I am only just starting to learn the language.	I chose red because the Japanese flag is white and red. Red being the centre colour.	Proficiency (Difficult); Bilingual; (K) I don't understand the code.	
656	1	1	4	1	2	Afrikaans	upper-body	Yellow	It is a big area on the body because it is a big part of my life and I really love to talk to everybody and reach out to people in Afrikaans.	Yellow is such a happy and cheerful colour and Afrikaans is my favourite colour.	Communication; Identity	
656	1	1	4	1	2	English	Heart	Red	It is in my heart because I love English so much and it is in my	Red is the language that symbolises love and therefore I chose red because I	Proficiency; Communication;	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									heart. It is great to communicate with everybody with English therefore I love English.	love English the most out of all the languages because it is an international language.		
656	1	1	4	1	2	Zulu	Legs	Green	I would like to walk in my local town and great the people in their language.	It is a lively colour that means new life and new opportunities.	Cultural identity; Communication	
1547	1	1	4	3	3	English	Hart	Red	English is my Home Language, I grew up with it.	Red emphasises the colour of the heart, and I used red because English is the language I grew up with, it is my identity.	Identity; Communication	
1547	1	1	4	3	3	Afrikaans	Head	Yellow	Afrikaans is in my head because it is always a language that will be used to communicate with other that you don't feel excluded.	I chose yellow because it symbolises the sun that will always be there and afrikaans is also a language that will always be used.	Aaafrikaansafrikaansuage that will be used to communicate with other that you don't feel sun THE SUN THAT WILL ALWAYS BE THERdon'tis in my head because it is always a language that will be used lis in my head because it is always a language that will be used atld	Identity; Communication; Cognition
1547	1	1	4	3	3	Swiss German	Finger s	Blue	I chose the fingers because it is a language that I understand, but	Blue symbolises clear, and swiss German is a language that I	Cognition; Proficiency; Bilingual	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									want to learn how to speak it.	really want to speak.		
1323	1	1	4	3	2	English	Head	Blue	English is the future and takes over your whole mind, when talking it.	Blue is a primary colour, just like english is a worldwide/primary language. Blue is also seen to mean superior.	Communication	
1323	1	1	4	3	2	Afrikaans	Hands	green	You work with your hands and in the history of Afrikaans, they used to work very hard during the wars.	Green is very lively, just like Afrikaans should be spoken.	Identity; Communication	
1323	1	1	4	3	2	French	Heart	Red	You speak the language with a lot of emotion and heart.	It's the language of love.	Communication	
1259	1	1	4	1	2	Afrikaans	Core + half of body	Yellow	Afrikaans is my Home Language, yellow is a warm colour. Core represents my heart and half of my body because I'm half Afrikaans.	Yellow is a warm colour.	Proficiency (Difficult); Cultural identity	
1259	1	1	4	1	2	Portugese	half of body	Red	I'm half portugese. My father is portugese.	Red represents hot. Portugese love chilli food, I love it too.	Identity; Bilingual	
1259	1	1	4	1	2	English	right arm	Green	English is my right hand. Can't go into the world without English. It's universal.	Green symbolizes harmony and fertility. Green has strong emotional correspondenc	Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
										e with safety.		
1259	1	1	4	1	2	French	Feet	Purple	On the feet because I want to travel and you travel with your feet.	purple is associated with ambition and power. Means wisdom.	I don't understand the code	
661	1	1	2	1	2	Afrikaans	Kop en bors	Oranje	Afrikaans is my huistaal en dit is al in my kop en ken dit baie goed. Dit is my huistaal en dit is ook in my hart, so die huis is waar die hart is en Afrikaans is my hart en huis.	Oranje is 'n baie mooi kleur en dit sluit almal in. dit lyk liefde en voel verstaanbaar.		
661	1	1	2	1	2	English	Bene	Rooi	Engels is een taal waarop almal kan staatmaak want almal verstaan dit en saam met die taal engels kan jy saam almal praat.	Rooi simboliseer liefde, 'n eenheid en almal wat engels verstaan vorm deel van daardie eenheid.		
601	1	1	4	1	2	Afrikaans	Bors	geel	Ek het grootgeword met afrikaans. Dit is my huistaal en die taal wat ek die beste ken. Die taal wat ek elkedag praat. Afrikaans is in my hart.	Geel beskryf Afrikaans so mooi. Dit is 'n sonskyn taal en die kleur geel laat my dink aan sag en gelukkig en die taal Afrikaans is sag en mooi.		
601	1	1	4	1	2	Engels	Kop	Blou	Dit is 'n taal wat almal ken en verstaan. Taal waarmee almal met mekaar kommunikeer.	Blou verteenwoordig die lig en ons almal kan die lig sien net soos wat ons almal engels verstaan en kan praat.		

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
601	1	1	4	1	2	Zulu	Wys vinger	Bruin	Omrede ek net 'n paar woorde van die taal ken en dit verstaan.	Bruin verteenwoordig die Zulu ornamente van die Zulu kultuur.		
601	1	1	4	1	2	French	Linker hand	pers	Dit is 'n taal wat ek glad nie kan praat nie maar wat ek wel wil leer om te praat.	Dit is net 'n mooi kleur wat ek gekies het.		
630	1	1	4	1	2	Afrikaans	Head	Pink	The first language that comes to mind (Home Language)	Pink = favourite colour	Identity, Communication	
630	1	1	4	1	2	English	Right arm	Blue	right hand language (second lang) comes to mind next	I understand Eng clearly		
630	1	1	4	1	2	sotho	left arm	green	really want to learn it	green remind of SA	I don't understand the code	
630	1	1	4	1	2	Tswana	chest	red	Lies close to my heart to learn	Very important	I don't understand the code	
630	1	1	4	1	2	French	Torso	Purple	gives me butterflies when spoken	Purple = freedom = opens up world	I don't understand the code	
630	1	1	4	1	2	Spanish	right leg	Orange	gives you a leg to stand on in the world	Happy cultured colour	Communication	
630	1	1	4	1	2	Xhosa	left leg	blue	standpunt in wereld	Calm colour learning this lang makes me calm	I don't understand the code	
574	2	1	4	1	2	Afrikaans	Bo lyf	Rooi	grootste gedeelte van my lewe.	selfde kleur as bloed en my bloed is afrikaans.		
574	2	1	4	1	2	Eng	Broek	oranje	Altyd in jou broek jy kan dit praat as	Omdat dit hoop simboliseer sodat	dit jy kan dit praatit praat as jy	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									jy moet.	eng en Afr wel kan saamstaan.	Eomdat kEjy kan dit praatgninekanjy kan dit praat ekgu simbolijy kan dit praatg en.	
574	2	1	4	1	2	Spaans	Skoen e	groen	ken baie min van dit.	groen selfde as plante groei sal wil groei in die taal.		
641		1	4	1	2	Afrikaans	Kop	Oranje				
641		1	4	1	2	Engels	Arms en bene	Blou	It is my second language.	It is my favourite language and colour.	Bilingual	
641		1	4	1	2	Tswana		Blue				
1301	1	1	4	1	2	Afrikaans	Hart	Blou	Because it's my Home Language and a language I'm very proud of, it's in my heart.	Because it's my favourite colour.	Identity; Communication	
1301	1	1	4	1	2	Engels	Head	green	Because it's basically the language of the world and it's always in my head. (used to understand other people).	It makes me think of the future.	Communication; Cognition	
1301	1	1	4	1	2	French	Stoma ch + arms	Purple	It's the language of love. (people hold each other close to their bodies and use their arms to hug each other).	purple makes me think of love and comfort.	Communication	
1301	1	1	4	1	2	Setswana	legs	red	legs represent travel, I want to travel to different places where there are different	Red symbolises importance, and I feel it's important to learn this language because	Proficiency; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									languages.	more and more people speak it.		
591	1	1	4	3	2	English	Head	Orange	English allows a broad understanding of what is happening in the world and connects the world intellectually.	Orange because it is a bright colour which sparks action such as intellectual action and communication .	Communication; Cognition	
591	1	1	4	3	2	Zulu	arm	light blue	It is in the arm because being able to speak and understand zulu offers me an opportunity to stretch out to a wider community.	Blue is a unifying colour to me which is why I chose it; it reminds me that a language can unite people and allow for better co-operation.	Communication; Proficiency	
591	1	1	4	3	2	Afrikaans	Torso	Dark blue	I placed Afrikaans here because it is where my heart is and to me Afrikaans is a language of love because it connects me to my mother.	This colour reminds me of the ocean and it reminds me that no matter how far one drifts there will always be a connection. In the same way that Afrikaans will always connect me to SA and my family.	Afrikaans is a language of love because it connects me to my and OCEAN	Identity; Communication; Cognition
591	1	1	4	3	2	Tswana	Arm	Purple (Light)	The use of this language will allow me to stretch out and touch the lives of people around me and in different spheres.	Light purple reminds me of kindness and the language offers the ability to show love and kindness to more people.	Communication; Proficiency	
591	1	1	4	3	2	Dutch	leg	Light green	This offers me the opportunity to travel and get to	Green is a new beginning so this language offer a	Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									know people overseas and connect with my family overseas.	chance for a fresh start.		
591	1	1	4	3	2	Spanish	leg	Yellow	offers me the opportunity to impact a wide foreign community.	Reminds me of hope and I can bring hope by speaking and working in this language.	Communication; Proficiency	
1466	2	1	4	1	3	Xhosa, English, Afrikaans	over all	Blou, rooi, geel	In die wereld is almal een en almal se bloed is rooi so hoekom diskrimineer teen die wat anders lyk of anders praat? #Saam bereik ons meer.			
1528	2	1	4	1	2	Afrikaans	Face, Arms, feet	yellow	It is the language I use to communicate.	I	Communication	
1528	2	1	4	1	2	English	Torso	Red	It is a language for the head.	It can be a language of love.	Cognition	
1528	2	1	4	1	2	German	legs	Black	For working hard.	It is a serious language.	Communication	
680	1	1	2	1	2	Afrikaans	Heart	Red	It's my Home Language and I'll always be proud of it.	Red describes how much I love my language.	Identity; Proficiency	
680	1	1	2	1	2	English	Head	brown	It always comes to my head and this is normally how I communicate with people.	Brown reminds me of England the place where English is their Home Language.	Cognition; Communication; Cultural identity	
680	1	1	2	1	2	Spanish	Body	Orange	I'm really	Orange attracts my	Bilingual	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									interesting in this language and I wanna learn it with my whole body.	attention just like the language does.		
680	1	1	2	1	2	German	Belt/w aist	Blue	It's my sisters third language so I just know a little of it, like the size of my waist.	Blue reminds me of the sea of German.	Multilingual; Proficiency (Difficult)	
680	1	1	2	1	2	Zulu	Legs	Black	It is a popular language in our country so you have to know it like the way you walk.	Black; because it reminds me of the word diversity; the best way to describe Africa.	Identity; Communication	
680	1	1	2	1	2	Italian	Feet	Green	I really wanna go visit the colluseum In Rome and walk with my feet till their.	Green reminds me of the trees in Italy.	I don't understand the code.	
680	1	1	2	1	2	Hindu	Arms	Camel	My father's family can speak this language and I only know a few words, like the size of my palm.	This colour reminds me of their land.	Identity; Proficiency (Difficult); Bilingual	
1246	1	1	4	3	2	Afrikaans	hands	Blue	Reach out to people with your hands.	N/A	Communication	
1246	1	1	4	3	2	English	Feet	purple	leave a mark of wherever you go.	N/A	I don't understand the code	
1246	1	1	4	3	2	Dutch	Right + left leg	Yellow	Connection between places.	N/A	Communication	
1246	1	1	4	3	2	German	Stoma ch	Green	My favourite language my core.	N/A	Identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
1246	1	1	4	3	2	French	R + left arm	Red	They dislike english people so it's part of communication.	N/A	Communication	
1246	1	1	4	3	2	Zulu	head	flesh colour	Communication.	N/A	Communication	
1447	2	1	2	1	2	Afrikaans	head, hands, feet, chest	green	language I use the most to communicate.	Afrikaans is my Home Language.	Communication; Identity	
1447	2	1	2	1	2	English	arms, legs	blue	English is as big as the sky. Everyone speaks mostly English.	Most people talk English.	Communication	
1461	1	1	1	17	6	English	Hands	Purple	A person comes in contact with many people which is why I chose English because it is a universal language.	Purple is a very "inviting colour" which is why I chose it for the hands. (You use your hands to greet people).	Communication;	
1461	1	1	1	17	6	Afrikaans	Head	Green	Afrikaans is the language that I usually learn at school with. All my subjects were in Afrikaans.		Bilingual; Cognition; Proficiency (Difficult)	
1461	1	1	1	17	6	Tswana	Arms, abdo men	red	The heart is in the chest area. So the language is close to the heart because Tswana is my Home Language.	Red represents love which is why I chose this colour because it represents my love for the language.	Identity;	
1461	1	1	1	17	6	Sotho	Left leg	Yellow	I feel like if a person knows this language you can communicate to a	The more you can communicate with different languages the more stress	Communication; Multilingual	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									lot of African people. It gives you a foundation.	free your life will be. Yellow a is happy colour.		
1461	1	1	1	17	6	Zulu	Right leg	Blue	This language lays a foundation so you can communicate with a lot of African people.		Identity; Communication	
1474	2	1	2	1	3	Afrikaans	out line	Black	I know it the best and speak it a lot and black is my favourite colour.	It's my favourite colour.	Communication; Proficiency	
1474	2	1	2	1	3	English	The out line of afrika ans and colour ing	Purple	It has the biggest population world wide.	It represents richness.	Communication	
1474	2	1	2	1	3	Tswana	middl e	Red	It's the one I know less.	I struggle the most with it.	Proficiency (Difficult)	
1242	1	1	1	13	2	English	on the head	purple	because it is the language that I know best.	purple is my favourite colour and english is a beautiful language.	Proficiency (Easy)	
1242	1	1	1	13	2	Sesotho	on the chest	blue	because it is my Home Language.	I love blue just like I love that my Home Language is blue.	Identity	
1242	1	1	1	13	2	Afrikaans	The legs	Red	legs are an important part of the body so this means that learning language is just as important if we could compare the two.	Red is seen as a colour used for urgency or importance and Afrikaans is as important as the other languages so we should all strive to know it.	Cognition; Multilingual; Communication	
1242	1	1	1	13	2	Tswana	hands	Yellow	because of the	yellow is a vibrant	Cognition;	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									importance of the language in the North West.	colour and so is the language.	Communication	
1242	1	1	1	13	2	Pedi	arms	green	We use our arms everyday and the same can be described for sepedi. As I am a sotho speaker but I can speak sepedi as well.	Green is as vibrant as the language is.	Bilingual; Communication	
1388	1	1	1	15	4	Swati	Heart	Orange	Because this is my Home Language and it's the language I know, and I understand the most.	Because this colour is lighter and easy to spot.	Identity; Proficiency	
1388	1	1	1	15	4	Afrikaans	Legs and body	red	Because this language I find it more difficult to learn that why I put it in my body so it can go straight to my heart.	It my favourite colour and because it colourful.	Proficiency (Difficult);	
1388	1	1	1	15	4	English	Hands	Green	Because that where I can reach out for people who needs help, and in this varsity im in people feel good when you communicate in english.		Communication	
619	1	1	4	1	2	English	Head	Green	I grew up in an English school, from pre-primary	The colour at our school, Eunice high school and primary	Communication; Cognition	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									to high school. So my vocabulary is wider.	was green.		
619	1	1	4	1	2	Afrikaans	Heart	Red	My Home Language is Afrikaans and my whole family, which is the centre of my heart.	Red is the colour of love, which symbolises my love for Afrikaans.	Identity	
619	1	1	4	1	2	Sotho	feet & legs	blue	I chose the legs and feet, because it takes small steps and time to learn a new language.	Blue symbolises intellegence and stability, which indicates the sustainable unity of Sotho- speaking people.	Bilingual; Proficiency (Difficult); Identity	
619	1	1	4	1	2	Italian	Arms	Purple	Arms are associated with power and strength, and I believe by learning Italian I can become powerful and strong.	Purple is associated with ambition and power and I would like to feel powerful when learning Italian.	Cognition; Bilingual	
682	1	1	1	10	4	English	Heaa d	Purple	English is a medium language easy and mostly used to understand if we speak any other language. Better communication.	Purple is my favourite colour so I prosper it. I prefer speaking English to meet new people and to be diverse.	Proficiency (Easy); Communication; Bilingual	
682	1	1	1	10	4	Nothern Sotho	Heart	Red	Whatever comes from the heart is pure so, I really love mt roots and their close to my	Red for love so I love my language.	Identity; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									heart.			
682	1	1	1	10	4	Sesotho	right leg	light green	Most of my friends are sotho speaking, legs for locomotion and I am available to engage with them.	I know very little about this language has a light colour.	Bilingual; Communication	
682	1	1	1	10	4	Setswana	left arm	Light blue	Hands work a lot so having many people who speak Setswana knowing it is helpful.	I know how to speak but lightly not too deep.	Communication; Proficiency (difficult)	
682	1	1	1	10	4	Afrikaans	Left leg	Dark blue	This campus has a lot of students communicating in Afrikaans. I need to move around.	Its urgent to know it, dark blue, dark sky means rain is approaching so knowing it is going to be difficult and hectic.	Communication; Bilingual; Proficiency (difficult)	
682	1	1	1	10	4	Zulu	Right arm	Orange	frequently used like arms.	Honestly I have no rason, but orange is mostly a friednly colour.	I don't understand the code	
682	1	1	1	10	4	isiSwati	chest	Peach	Sensitive place, so very softly spoken language.	Very soft colour, the people are very soft and approachable.	Proficiency; Communication.	
1268	2	1	2	1	10	Afrikaans	Chest	Red	Warm and fire in me for my language.	Afr is a warm language. It is in my blood and in my heart.	Communication; Identity	
1268	2	1	2	1	10	English	head	Green	Eng is to be open minded and inclusive as a citizen.	Green means to grow and to break language barriers.	Communication	
1268	2	1	2	1	10	Xhosa	Arm and	Yellow	To reach out with my hands and	It means sunshine and I want to be a	Bilingual; Communication;	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
							legs		legs to learn Xhosa and celebrate diversity.	pinior in Xhosa and speak it. Also to understand my Xhosa friends.	Proficiency	
1268	2	1	2	1	10	Zulu	stoma ch	Blue	To absorb Zulu as a 4th language in the spirit of ubuntu.	I really don't know.	Multilingual	
1251	1	1	4	1	2	Afrikaans	head + chest	Blue	Afrikaans is my Home Language it's placed there because I'll always think and feel in Afrikaans.	Blue reminds me of the sky and because of it, it represents freedom.	Identity; Cognition	
1251	1	1	4	1	2	German	eyes	Yellow	Because I want to travel to Germany so I see it as a lot.	It makes me happy to think of travelling so that's why.	I don't understand the code	
1251	1	1	4	1	2	English	neck	Red	Because I speak it the most.	Because if you don't then your taking a big risk.	Bilingual; Communication; Proficiency	
1251	1	1	4	1	2	French	Arm	Purple	Because I can reach out to a lot of people with it.	No specific reason.	Communication; Bilingual;	
1251	1	1	4	1	2	Spanish	Arm	orange	Same as with french.	It's a fiery colour just like their culture.	Communication	
1334	1	1	2	1	2	Afrikaans	Bo lyf/up per body	Oranje/ orange	My hart klop Afrikaans. Afrikaans is my moedertaal en ek is baie trots op my taal "Afrikaans".	Dit is 'n helder kleur en dit beeld my liefde en vreugde uit vir hierdie taal.		
1334	1	1	2	1	2	English	head	Yellow	Ek het engels aangeleer. Dit is my tweede taal. Ek moet altyd	Dit beeld hoe mooi engels is. Geel word baie gebruik om hoop uit te beeld.		

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									eers dink voor ek praat.			
1279	1	1	4	1	2	Afrikaans	Hart	geel	Want Afrikaans is my moedertaal.	Geel is my favourite kleur.		
1279	1	1	4	1	2	Engels	Brein	Rooi	Want ek dink dis slim om Engels te kan praat omdat dit die bekendste taal is.	Want dit is in Britanje se vlag.		
614	2	1	4	1	2	Afrikaans	Top half of body	Blue	Because Afrikaans is my Home Language where my heart is.	My favourite colour for my favourite language.	Identity; Cognition	
614	2	1	4	1	2	English	bottom half of body	Green	Second language for the bottom half, less important half of the body.	I choose a dark colour because it is international and known well.	Bilingual	
1326	1	1	1	1	4	Afrikaans	Head	red	Die mees algemene taal wat ek gebruik, en mee kommunikeer. En rooi stel belangrikheid voor en Afrikaans is vir my belangrik.	Red seems always important, and personally for me the head is important at the body. That's why the red is at the head.		
1326	1	1	1	1	4	Setswana	Feet	Brown	Setswana I chose for this place, because I'm a setswana person and originated from it, I feel like I'm planted.	I chose brown, because it lets me think of ground, soil, so brown by the feet feels like I'm planted.	Cultural identity; Cognition; Proficiency	
1326	1	1	1	1	4	English	Hands	Green	Because English is the most common used language to	I choose green because green means to me "Go" and english is on the	Communication;	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									communicate with people.	go because everyone uses it.		
1326	1	1	1	1	4	Zulu	Heart	Orange	Because I'm prepared to learn another African language and I'm willing put my heart in it to learn it.	At a robot orange means go, but go slow and that's my motto to learn Zulu further on.	Bilingual; Cognition	
1257	1	1	4	1	1	Afrikaans	chest	red	It is where your heart is and Afrikaans is my Home Language and therefore I have a love for it.	It is the colour of love.	Cognition; Identity	
1257	1	1	4	1	1	English	head	blue	I was taught in English at school, therefore I connect it with knowledge.	It's my favourite colour.	Cognition; Communication	
1257	1	1	4	1	1	French	Legs	Green	It will take me places, like my legs.	Colour of success.	Communication	
1257	1	1	4	1	1	German	hands	Purple	will help me reach out to more people.	compassionate colour.	Communication	
694	1	1	1	1	7	English	head	Nude	I know this language because I studied it and can use it as a tool when I need it.	I chose a nude colour because english has no border it is not restricted to a certain race and it is a language to connects people no matter what their race, gender or ethnic	Cognition; Bilingual; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
										group.		
694	1	1	1	1	7	Afrikaans	Heart and shoulders	brown	I placed Afrikaans on my heart because it is very close to my heart and it is the first language I knew from birth.	I chose brown because the colour brown represent neutral and that is what Afrikaans is a very neutral and calm language.	Cognition; Identity; Bilingual	
694	1	1	1	1	7	IsiXhosa	hand and arm	Black	IsiXhosa is the weapon or rather tool I can use to take me back to my roots and it represent me the best.	I chose black because the colour black is very bold and loud and just like that IsiXhosa is bold and stands out and grabs attention.	Identity; Communication; Proficiency	
694	1	1	1	1	7	Sesotho	Arm and hand	orange	Sesotho is a very laid back and relaxed language and I would love to learn this language.	I chose orange for sesotho because the language is very bright and shouts volume just like the colour orange.	Communication; Bilingual	
694	1	1	1	1	7	Tswana	tummy	Purple	I would love to speak Setswana and I placed it at this particular place because everytime who speak Setswana speak to me I get butterflies in my tummy.	I chose purple because the language Setswana is just as beautiful as the colour purple.	Bilingual; Communication	
694	1	1	1	1	7	Venda	Left leg	Blue	I chose blue because it reminds me of water and calm and collected the Venda people	Blue reminds me of still water and the Venda people are very calm and collected.	Identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									are.			
694	1	1	1	1	7	Zulu	Right leg	Green	I chose this place because Zulu's a language that I would just love to understand better.	Green represents unity and zulu people are very united.	Proficiency (Difficult); Bilingual	
1399	1	1	2	3	2	Afrikaans	head	red	It requires a lot of thinking because it's a complex language.	I chose red because most of the time it symbolises danger and afrikaans is actually complexed therefore tongue twisters symbolise danger.	Cognition; Proficiency (difficult); Communication	
1399	1	1	2	3	2	Tswana	Ears	Purple	Because I really aspire to speak it since I only understand it to a certain extent. Ears for hearing.	I don't really have a specific reason.	Proficiency (difficult)	
1399	1	1	2	3	2	English	Upper body (heart)	Green	I chose the upper body (heart) because English was the first language I spoke and it is a language I value a lot.	Symbolises peace.	Communication; Proficiency; Bilingual	
1399	1	1	2	3	2	French	hands	Yellow	I honestly don't know.	I chose yellow because yellow is my favourite colour and I really admire french speaking people.	I don't understand the code	
803	2	1	2	1	2	Afrikaans	Top half	Brown	It is Home Language. It is language I was	Because I compare brown with Afrikaans.	Identity; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									born with.			
803	2	1	2	1	2	English	Arms	Black	Because English let me think of diversity, most of the people speaks the language.	It is my second language.	Communication; Bilingual	
1363	1	1	1	19	5	IsiXhosa	Ears/h ead	Red	Because isiXhosa is a languages that requires you to listen very well or else you won't hear, because its hard.	I chose this colour because isiXhosa is my Home Language, and the colour red is fierce which also represents me as well.	Proficiency (difficult); Cognition	
1363	1	1	1	19	5	English	hands	Yellow	I choose this place, the hands because English helps me communicate with different people with different races.	Yellow is a bright colour, so English brings light in conversation for you guys don't understand each other speak English.	Communication;	
1363	1	1	1	19	5	Sotho	feet	Green	Because I learnt Sotho first when dancing, we were singing a Sotho song, and that's what caught my attention on the language.	Because the colour is green and I feel like Sotho people are kind and they also had "morosho" that they love cooking.	Bilingual; Communication	
1363	1	1	1	19	5	Tswana	knees	Purple	Because Tswana people love kneeling down to dance their traditional dances.	This colour is not so [?] so are the Tswanas well most of them.	I don't understand the code	
1321	1	1	4	1	2	Afrikaans	Head	Baige	It is my mother language and everything I do or	My fav colour.	Identity ; Cognition; Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									think I mostly do in			
1321	1	1	4	1	2	English	Arms	purple	English is my second language and I have to know it by the palm of my hand, because it is the language im I want to give.	My favourite colour.	Bilingual; Communication	
819	1	1	4	1	2	Afrikaans	arms/l egs	Green	can changes people love	shows our SA green land	I don't understand the code	
626	1		1	19	5	Xhosa	Head	Black	Because my skin colour is black and I believe that wherever I go in the university or even over seas I will always puy my language on top of everything and I love my language and colour.	Because is my top 5 languages and it contribute to the first place is the head of my journey.	Identity; Communication; Multilingual	
626	1		1	19	5	English	hand (right)	Red	Because is something that I always live with, is my favourite language ever because it leads me to better future because wherever I go I have to carry it and put next to my curve.	Red means love to me so I love the language with all my heart. Because it is the one that will open doors of success.	Communication; Proficiency	
626	1		1	19	5	IsiZulu	hand (left)	blue	Because I always put isizulu on my left wherever I go so that I could	Blue means sky to me, and the language is isizulu in english means the	Communication; Cognition	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									communicate with my peers.	sky, is the colours and language that cover my heart through black nerves and pastures.		
626	1		1	19	5	Sesotho	feet (right)	orange	Sesotho is my everyday language wherever I go I always meet sotho people and even my friends are sothos so I have to wear on feet as my socks to cover me on coldness.	Is my favourite colour so that why I put on feet because it correspond with my favourite language.	Communication; Proficiency; Bilingual	
626	1		1	19	5	Setswana	feet (left)	Purple	my favourite language I always learn because my roommate is Tswana so I have to learn so that I can communicate with him.	Is my favourite colour that I don't understand and setswana I don't understand too either so the two have common sharings.	Communication; Bilingual; Proficiency (difficult)	
575	1	1	4	1	2	Afrikaans	Heart	blue	Afrikaans is my huistaal en dit is ook my gunsteling taal.	Blou is my gunsteling kleur.		
575	1	1	4	1	2	English	Head	Purple	Al my kennis is in my kop en daarom is engels 'n taal wat ek aan geleer het.	Dit was die eerste een in die pakkie wat ek gekies het.	Proficiency (Easy); Identaany	
1469	1	1	2	3	3	English	Legs	peach	I feel like your legs allows your body to move around and move	Peach is such a light colour, so light that it actually moves through	Communication; Proficiency	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									forward just like english it is so versatile and you can communicate to people almost all around the whole world this meaning that you can travel/move around communicating to almost everybody.	different people and diverse cultures which makes it easy to communicate with people.		
1469	1	1	2	3	3	Zulu	Chest	Red	This language is with people that's got a heart as they have fought for such a long time to be heard, seen or involved in anything.	For all the blood and tears shed for fighting for equality.	Identity	
1469	1	1	2	3	3	Afrikaans	Arms	Blue	Most afrikaans people are so generous and kind and are always willing to help, reach their arms out to you and help you.	Blue to represent the sky as they will go to the sky or high measures to help someone in need.	Identity; Communication	
1391	2	1	1	17	3	English	head	Dark Blue	Most of my education is taught in english and so my thought process occurs in english.	Blue represents the big seas and english is a universal language and so the colour blue represents it is spoken far and wide.	Cognition; Communication	
1391	2	1	1	17	3	Tswana	full arm	Brown	I chose the whole arm because I use setswana the most to communicate with	Brown falls part of the traditional colours of Tswana and also represents the	Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									family and friends.	skin colour/race of Tswana people.		
1391	2	1	1	17	3	Afrikaans	half arm	Peach	I coloured it in half arm, because I can understand it but cannot fully speak it.	Peach represents the skin colour of Afrikaaners which is peach.	Proficiency (Difficult); Cultural identity; Communication	
1391	2	1	1	17	3	Southern Sotho	Chest	Blue	The chest represents pride, and the culture of Southern Sotho speakers have a lot of pride in their heritage.	Blue falls part of their traditional colours.	Cultural identity	
1456	2	1	5	3	2	English	Torso	Blue	It's my Home Language and most people don't know that about me, I feel like it's my secret.	It's my favourite colour.	Proficiency (Difficult); Cultural identity	
1456	2	1	5	3	2	Afrikaans	limbs	orange	It's what I mostly speak daily with my friends.	I feel like it's the colour of Afrikaans.	Communication	
1454	2	1	4	1	3	Afrikaans	Head	Yellow	Taal wat ek die meeste ken wat my kan kommunikeer met ander.	Geel is 'n positiewe kleur en Afrikaans maak alles meer positief.		
1454	2	1	4	1	3	Tswana	hande	Swart	Tswana is 'n taal wat ek praat wanneer ek werk en dit simboliseer hardwerkendheid.	In die werksplek waar ek werk is die meerderheid swart.		
1454	2	1	4	1	3	Engels	Bene	rooi	By my bene want ek is nie trots op die taal nie.	Engeland se kleur is rooi en dit is hulle kleur.		
1266	1	1	2	3	3	English	Head	Orange	I chose the head	Orange is such a	Proficiency;	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
							+ Hands		because it is the language I know and can speak fluently. Hands is a sign of communication.	sign of a new day (sunrise) so is English, there's more to learn each day.	Communication;	
1266	1	1	2	3	3	Zulu	Torso	Green	Torso: I chose the torso because Zulu is part of my origins as my grandmother can speak fluent Zulu.	Green is a sign of growth and being from KZN it has been a growing point to learn more.	Identity; Proficiency; Communication	
1266	1	1	2	3	3	Afrikaans	left leg	Blue	Left leg: Because I'm in a campus where Afrikaans is fluent thus walking around listening to Afrikaans being spoken.	Blue is peace. I feel there is a sense of peace in speaking Afrikaans.	Communication; Proficiency	
1266	1	1	2	3	3	French	Right leg	Black	Right leg: My mother can speak fluent French and her being my best friend, it would be great to communicate with her.	Black reminds me of the Eiffel tower so black represents the tower and became a motivation.	Proficiency; Communication	
1243	1	1	2	1	2	Afrikaans		Green	The top part of the body because we have our heart in this area and Afr is part of our heart.	This colour represents freedom and we are free to talk to people.	Cognition; Communication	
1243	1	1	2	1	2	English	Head	Yellow	We think of helping people and Eng is a well known language and you can help	Yellow represents happiness and by helping people you can become joyful	Communication	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									people.	and happy.		
1243	1	1	2	1	2	Portugese	Feet	dark green	You can show support by walking the extra mile for people.	This colour can mean that you are there for people.	Communication	
667	1	1	2	1	2	English	Head	red	I chose red as a colour because it symbolises danger for me and I coloured the head because Eng sounds nice in my head but not so much when I speak it.	Red symbolises danger and English for me is a danger with the pronunciation and spelling.	Cognition; Proficiency (Difficult)	
667	1	1	2	1	2	Afrikaans	Heart + chest	Green	I know Afrikaans by heart and it is my Home Language.	Green is very calming and I'm at peace when I can speak Afrikaans.	Cognition; Identity	
1265	1	1	2	1	2	English	Head	Purple	Because majority of South Africa's population understands english so in case you don't know a certain venacular language you can always use english.	To me purple represents diversity because if you stand in the sun purple gives off a blueish colour and in the shade a blackish colour therefore I associate the colour with diversity.	Communication; Bilingual;	
1265	1	1	2	1	2	Afrikaans	R. hand	orange	Because afrikaans is my Home Language , the language I've learnt first therefore it is my right hand which I	Because it is a vibrant language and adds a spark to my life.	Proficiency (Difficult); Cultural identity	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									associate with/refer to as my hero.			
1265	1	1	2	1	2	Zulu	torso	Yellow	Because I enjoy Zulu music and use my torso to dance to the music.	Because yellow is a bright colour it represents happiness which is how I feel when I listen to zulu music.	Communication	
1265	1	1	2	1	2	Xhosa	legs	Green	Because I'd like to reside in Eastern Cape, the only way I will get there is to use my legs.	Because I'd like to live in another province it means growth which represents the 'greenness' of trees.	I don't understand the code	
811	2	1	4	1	2	Afrikaans	Head	Red	It is most important to me, it's my Home Language.	Red is my favourite colour, Afrikaans is my favourite language.	Identity	
811	2	1	4	1	2	English	feet	Blue	Its important so you can communicate with other people.	Blue. Its nice to talk English.	Communication	
681	1	1	1	10	7	English	head	Yellow	As it is a universal language I believe it is the head of everything.	Yellow - I believe it to be the colour of the sun which is an essential part of our lives if I can put it in that way - and for me English is like the sun.	Communication;	
681	1	1	1	10	7	Afrikaans	Arms	Purple	As a sports person I've come to realise that Afrikaans is the	Because it's my favourite colour and afrikaans is my favourite language.	language I've come to realise that Afrikaans is the most spoken	Communication; Identity

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									most spoken language (well in high school sports) so the language kinda carried me through.		language (well in high school sports) so the language kinda to realise that Afrikaans is the most spoken language (well in high school sports) so the language kinda carried me iBecause nil've come to realise that Afrikaans is the most spoken language (well in high school sports) so the language kindarfasrpl've come to realise that Afrikaans is the most spoken language (well in high school sports) so the language kinda saans favourite colouri've come to realise that Afrikaans is the most spoken language (well in high school sports) so the language kindad afrikaans.	
681	1	1	1	10	7	Zulu	Feet	Orange	I am still finding my "feet" in the	Orange is a warm colour which	Prificiency (difficult); bilingual	

Part Nr	Gen	Age	Pop	HL	Nr Ls	Language	Place	Colour	Why place?	Why colour?		
									language as I still learning the language.	symbolises my 'excitedness' to learn the language.		
681	1	1	1	10	7	Tswana	left leg	red	one uses ones legs to walk right? So I believe I need to learn the language as I embark on my academic journey here in potch.	I chose red because it symbolises importance - as this language is like the most spoken language in Potch I believe that it is important to learn it so that I can communicate with the people here.	Proficiency (difficult); bilingual; Communication	
681	1	1	1	10	7	Xhosa	Right leg	green				
1300	1	1	2	3	1	English	Head	brown	Because my head/mind is English. English is my Home Language and it is the language I am the most proficient in.	It was the only colour available. I would have liked to use a primary colour to indicate that English is my primary language.	Identity; Cognition; Proficiency;	
1300	1	1	2	3	1	Afrikaans	Feet	Red	Because it is vertical to the head. I chose the feet because I can always rely on them when I am tired of sitting, same applies to English with Afrikaans.	Because red is a hot colour, it became available later on.	Communication; Proficiency	

APPENDIX 5: INFORMED CONSENT FORM



Ethics Committee for Language Matters (ECLM)

INFORMED CONSENT FORM

DATE:

ECLM Authorization

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: The role of the mother tongue in enhancing English for Academic Purposes in the linguistic diverse context of first-year students at the North-West University

University: North-West University

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Emmanuel Tobi Adegoriolu

EMAIL ADDRESS: tobiadegoriolu@gmail.com

ADDRESS: North-West University, South-Africa

UMBRELLA PROJECT LEADER AND CO-SUPERVISOR: Prof Susan Coetzee-Van Rooy

EMAIL ADDRESS: Susan.CoetzeeVanRooy@nwu.ac.za

You are being invited to take part in a research project that forms part of my PhD. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study has been approved by the **Ethics Committee for Language Matters (ECLM) of the Faculty of Humanities of the North-West University (NWU-00720-21-S7)** and will be conducted according to the ethical guidelines and principles of the international Singapore Statement on Research Integrity (2010) and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- This study will be conducted among students who were enrolled for their first year in 2020 and will involve students who attended one of the following modules in the Faculty of Education across the three campuses: ENFF 111, MAIP 121, BSTE 112 in 2020.
- Approximately 61 first-year participants will be included in this study.
- The aim of this research is to investigate the role of the mother tongue in the acquisition of English for academic literacy among first-year students in three identified modules in the Faculty of Education at North-West University.

Why have you been invited to participate?

- You have been invited to participate because you were enrolled as a first-year student in 2020 and you attended 1 of the 3 identified modules that were presented through medium of English in the Faculty of Education.
- You have also complied with the following inclusion criteria: You are bi- or multilingual with a mother tongue other than English; You provided informed consent that your Language Portrait (which you already completed during the orientation week in your first year) could be used by the project leader (Prof AS Coetzee-Van Rooy) or other researchers that she gives permission to and supervises; □ Students who are attending modules that are presented through medium of English.
- You will be excluded if: you are not bi- or multilingual and not attending one of the three identified modules that are presented through medium of English.

What will your responsibilities be?

- You will be expected to
 - complete the language history questionnaire, which will take you about 30 minutes;
 - take part in a follow-up interview which will be recorded and will focus on further information concerning the selection of colours and the placement of the languages on your language portrait as well as questions on your experiences in using your Home Language in ENFF 111/BSTE 112/MAIP 121 to learn. The interview will be online (via GoogleMeet/Zoom/Teams – according to your preference) and it will also take about 30 minutes;
 - give permission to the researcher that your module marks for ENFF 111/BSTE 112/MAIP 121 and your results for your TAG/TALL test can be accessed on the university system and used as part of the study.

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will probably be an opportunity to reflect on how you learn and how you use the languages that you know to learn. You will also be able to voice any problems/challenges that you are experiencing in learning through medium of English

Are there risks involved in your taking part in this research and how will these be managed?

- The risks in this study, and how these will be managed, are summarised in the table below:

Probable/possible risks/discomforts	Strategies to minimize risk/discomfort
Because you will spend about 30 minutes completing the questionnaires, it is possible that you will become tired	The questionnaire will be made available online via Google Forms and you will be able to complete it on your own schedule.
A 30-minute online interview might cost you some data	The researchers will use low-data options for the interview (from which you will be able to choose) and the camera functions will be disabled in order to save data.

- However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.
- Should we learn, in the course of the research, that someone is harming you, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.

Who will have access to the data?

- Anonymity (that is, in no way will your results be linked to your identity) will be assured by providing a case number for each participant as soon as the data has been recorded. Confidentiality (that is, I/we assure you that we will protect the information we have about you) will be ensured by storing the electronic data in password encrypted files and only the researcher and her team will have access to the passwords. Reporting of findings will be anonymous by referring to only case numbers in the thesis of the dissertation.
- Audio-recorded data will be sent to a transcriber who will sign a confidentiality clause (i.e., she will not be allowed to talk to anyone about any aspect of the data). As soon as data has been transcribed it will be deleted from the recorders. The transcripts will be stored on a password-protected computer. All co-coders will sign confidentiality clauses.
- Data will be stored for five years.

What will happen to the data?

The data from this study will be reported in as part of the thesis for this study and journal articles emanating from the study. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will/will not be compensated to take part in the study. There will thus be no costs involved apart from the data used to access and submit the online forms and during the online interviews.

How will you know about the findings?

- The general findings of the research will be shared with you by means of an infographic that will be available after the study has been examined.
- If you would like feedback on your personal results, then please feel free to contact the researcher for an online appointment where those can be discussed.

Is there anything else that you should know or do?

- You can contact Professor Coetzee-Van Rooy at Susan.CoetzeeVanRooy@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact the chair of the Ethics Committee for Language Matters (Prof C van Eeden) at 016 910 3442 or chrizanne.vaneeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study titled: The role of the mother tongue in enhancing English for Academic Purposes in the linguistic diverse context of first-year students at the North-West University

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/draw/produce visually) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

I therefore give permission to the researcher to:

- *Email me the language history questionnaire. I am aware it will take me about 30 minutes to complete;*
- *Invite me to be part of a follow-up interview which will be recorded (video- or audio recorded, depending on the permission of the participant) and will focus on further information concerning the selection of colours and the placement of the languages on your language portrait as well as questions on your experiences in using your Home Language in ENFF 111/BSTE 112/MAIP 121 to learn. I am aware that the interview will be online (via GoogleMeet/Zoom/Teams – according to your preference) and it will take about 30 minutes;*
- *I prefer that you contact me in the preferred way that I outline below;*
- *Send my student number to the relevant NWU administration offices to receive my module marks for ENFF 111/BSTE 112/MAIP 121 and my results for the TAG/TALL test so that the researcher can do statistical tests with this information under the supervision of an NWU statistical consultant.*

Signed at (place) on (date) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me for the interview ☐ Yes ☐ No
- I would like a summary of the findings of this research ☐ Yes ☐ No

My contact details are:

Name & Surname	
Postal Address	
Email	
Phone Number	
Cell Phone Number	

I prefer that you contact me via the following means:

Email ☐ Yes ☐ No
Cell number ☐ Yes ☐ No

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname: _____

Phone/ Cell Phone Number /Email: _____

Declaration by person obtaining consent

I (name) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) on (date) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (name) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) on (date) 20....

..... Signature of researcher

..... Signature of witness

APPENDIX 6: ETHICS APPROVAL LETTER



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>

Senate Committee for Research Ethics
Tel: 018 299-4849
Email: nkosinathi.machine@nwu.ac.za

01 July 2021

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Language Matters Research Ethics Committee (ECLM-REC)** on 18/06/2021, the ECLM-REC hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-SCRE) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: The role of the mother tongue in enhancing English for Academic Purposes in the linguistically diverse context of first-year students at the North-West University

Study Leader/Supervisor (Principal Investigator)/Researcher: Dr K Kaiser, Prof M Reyneke Dr D Dlavane, Prof AS Coetzee-Van Rooy

Student/Researcher: Adegoriolu E (33437092)

Ethics number:

N W U - 00720 - 2 1 - S 7
Institution Study Number Year Status

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type: Single Study, Sub-project of umbrella study

Risk Category: Low

Commencement date: 01/07/2021

Expiry date: 30/06/2022

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

The study is approved as a sub-project of the approved umbrella study lead by AS Coetzee-Van Rooy (NWU-00031-07-A1, Period: October 2018-October 2023). Selected Language Portrait data gathered in the umbrella project will be shared with the applicant to analyse as part of his PhD, under the supervision of the umbrella project leader.

APPENDIX 7: ETHICS CHAIRS CONSOLIDATED REPORT



To: Candidate E.T. Adegoriolu's Doctoral Proposal Supervisor/Project Promoter, Prof S.C. Van Rooy

From: Candidate E.T. Adegoriolu's Ethics Committee for Language Matters (ECLM) Ethics Review Clearance Application Chair, Prof BM Nchindila

Doctoral Proposal Candidate: E.T. Adegoriolu

Project Title: *The role of the mother tongue in enhancing English for Academic Purposes in the linguistically diverse context of first-year students at the North-West University*

Doctoral Proposal Ethics Committee for Language Matters (ECLM) Ethics Clearance Application

Reviewers: (1) Dr Johanita Kirsten (2) Prof Gustav Butler

Date: 21/05/2021

Re: A Consolidated Report of the Ethics Committee for Language Matters (ECLM)

First Round Application of Ethics Clearance Review Outcome: E.T. Adegoriolu

The first-round review of the application for ethics clearance of the doctoral proposal of candidate E.T. Adegoriolu has yielded an **acceptance** of the ethical aspects in the application of the candidate from the report of Reviewer 1. A **rejection**, with a proposal for revision and resubmission, pending the candidate addressing some ethical concerns noted in the report of Reviewer 2 has also been registered (reviewers' reports below).

Reviewer 1's report/ date of report: 14/05/2021

Evaluation criteria

1. Strengths related to ethics arrangements proposed
Thorough handling of the necessary ethics considerations.
2. Proposed ethics arrangements in the proposal that requires attention.
In the consent form (Appendix B2) the chair of the ECLM is indicated as prof. Van Eeden; this should be corrected.
The time indicated for the questionnaire is not consistent, in some places it is 30 minutes and in other places 40 minutes. Consider which is more accurate, and use it in all the documentation.
Some information in Appendix D is outdated and should be updated.
3. Ethics arrangements and other matters in the proposal that are unclear.

N/A

4. Opinion of evaluator about ethics arrangements proposed in proposal.

The application can be accepted, as the matters mentioned above are minor and can be easily addressed.

Original details: (22945830) C:\Users\22945830\Dropbox\Ethics committee\MEETINGS 2020\Letters of approval/revision/rejection.docm
30 January 2020
File reference: 9.1.5.3.1

Reviewer 2's report/ Date of report: 19/05/2021

Evaluation criteria

5. Strengths related to ethics arrangements proposed

For his PhD study, Mr Adegoriolu applied for ethics approval of a sub-project under the umbrella research project of Prof. Susan Coetzee-Van Rooy that has already received ethical clearance from the ECLM. In this regard, the important ethical matters have all been addressed satisfactorily in the umbrella project, as is evidenced by the ECLM's approval of the project. In Mr Adegoriolu's application, however, clarification is needed on a number of different issues. These matters are outlined under point 2 below.

6. Proposed ethics arrangements in the proposal that requires attention.

- The Language Portrait data have already been collected by Prof. Coetzee-Van Rooy and will be used by the applicant. However, under point 2: Language Portraits in the ethics application, it is written as if the data still need to be collected. This will have to be written more clearly in the application. The additional data that the researcher still needs to collect on his own are the questionnaire data, the interview data as well as the performance scores of students measured by a number of different instruments.
- Both the information pamphlet (Appendix B1) and the informed consent form (Appendix B2) will have to be adjusted to include the student's details as researcher. So, for example, in the information pamphlet the principal investigator is listed as Prof. Coetzee-Van Rooy (which is perfectly fine). However, the name of the actual researcher (the student doing the sub-project under the umbrella project) never features in the pamphlet or the consent form. Please also see my comments in track changes on both the information pamphlet and the informed consent form.
- Although the number of participants who will be invited to participate to complete the questionnaire as well as the interviews is mentioned as 60 in the consent form, this should also be mentioned in the actual ethics application in the section that explains the sample size.
- A demographic questionnaire that is linked to the language portrait data is also included as one of the addendums of the application (Appendix E10). Has this information already been collected and will it be used for the PhD study as well? Please also note that although the binary gender distinction (male/female) has been amended in the language repertoire questionnaire to include more options (which will be used by the student for the additional data collection), this has not been done for the demographic questionnaire.

7. Ethics arrangements and other matters in the proposal that are unclear

All aspects with regard to ethics matters that need to be clarified have been included under 2 above. In the ethics application, I have also commented (in track changes) on some additional issues with regard to the study that the supervisors may want to take into consideration (e.g. the fact that the researcher makes mention of performance results collected by some assessment instruments that are not available for use at the moment).

8. Opinion of evaluator about ethics arrangements proposed in proposal

I propose that the application be referred back for revision that addresses the issues outlined above. The applicant should please indicate in a short report how the matters have been addressed in the revised application. It would further be important for the applicant to provide the ECLM with the necessary documentation with regard to gatekeeper permission after the application has received formal approval from the ECLM.

Verdict and Candidate Ethics Chair's First Round Recommendation: Both reports indicate that important ethical matters have been dealt with satisfactorily in the doctoral proposal of candidate E.T. Adegoriolu. The candidate should be commended for fulfilling this important research ethical condition.

What remains to be done at this stage is for the candidate to smoothen out the ethical concerns raised in both reports for the overall improvement of the quality of the proposal in terms of its ethics. Reviewer 1's ethical concerns are minor and are therefore recommended for amendment at the supervisor's discretion and guidance.

The application is referred to the candidate for revision and resubmission of a **short rebuttal** showing how those matters of ethical concern raised in each of the two reviewers' reports deserving attention by the candidate have been addressed in the revised application.

APPENDIX 8: FINAL QUESTIONNAIRE



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
INSTITUTIONAL OFFICE

Student nr:

Information

This questionnaire includes questions about your language repertoire, in other words all the languages you know and use for different purposes. Please remember: it is not "good" or "bad" to know many (or few) languages. The researchers are interested in the languages you know – whether they are many or few.

The completion of the questionnaire should take about 40 minutes and your participation is voluntary. The information provided by participants will not influence their academic results in any way. The information will be used for research purposes and the data will be reported anonymously in books, academic journals and at academic conferences. Participants should not experience any discomfort while completing the questionnaire; and apart from contributing information for research purposes, there are no obvious benefits to participants.

This research project received ethics clearance from the NWU (00031-07-A1 from 19-11-2012 to 18-11-2018). If you need more information, please contact the researcher immediately via email at susan.coetzeevanrooy@nwu.ac.za.

Consent

When you agree to participate by completing this questionnaire, you give permission to the researchers to:

- (a) Access your module marks for ENFF 111/BSTE 112/MAIP 121 and your results for your TAG/TALL test;
- (b) Approach you for a follow-up interview which will focus on further information concerning the selection of colours and the placement of the languages on your language portrait as well as questions on your experiences in using your home language in ENFF 111/BSTE 112/MAIP 121 to learn. Please indicate your preferences in the table below:

Yes, I am willing to take part in an interview		No, I don't want to take part in an interview	

If your answer is 'Yes', please indicate how you would prefer to be approached and provide the necessary contact details. (You may mark more than one option.)

	Please tick (✓) all the applicable blocks	Please provide the relevant number/email address or other details that we can use to contact you
WhatsApp		
Cell phone		
Landline		
Email		
Other		

(c) Report the data gathered with this questionnaire, your module marks, the follow-up interview and the TAG/TALL tests you took at the NWU anonymously in a thesis, books, academic journals and at academic conferences.

I, (please write out your full names and surname) _____

give permission to the researcher, Prof AS Coetzee- Van Rooy and members of her research team, to report the data gathered in this questionnaire, the follow-up interview as well as data from my module marks for ENFF 111/BSTE 112/MAIP 121 and the TAG/TALL tests I took at the NWU anonymously in a thesis, books, academic journals and at academic conferences.

Signature

Date



LANGUAGE REPERTOIRE QUESTIONNAIRE

SECTION A: BIOGRAPHICAL INFORMATION

Please put tick (✓) in the block that represents the appropriate answer at the following questions, or write down an answer where requested.

1 Please write down the gender that you self-identify with.

Female/ feminine	woman/	1	Male/man/ masculine	2	Other	3	I do not want to say	4

2 Age

Age	Please tick (✓) the appropriate block	Age	Please tick (✓) the appropriate block
18-24 years	1	41-50 years	4
25-30 years	2	51-60 years	5
31-40 years	3	60+ years	6

3 Please tick (✓) the population group that you self-identify with.

Population groups in South Africa as defined by Statistics South Africa for Census ¹ purposes	Category I am most comfortable with
African	1
Black	2
Black African	3
Coloured	4
Indian	5
Asian	6
White	7
White African	8
I do not want to say	9
Other: If you select other, please write a description of your choice in the space below at A and provide a brief description of the population at B.	10
A) <u>Name</u> for population group you are most comfortable with if you selected "Other" above:	

¹ "This question may seem sensitive to some respondents but it is really important to find out the composition of the South African population" (Census, 2011) for purposes of planning and interpretation of data that reflects the different experiences of South Africans. [http://www.statssa.gov.za/Census2011/Products/Census_2011_Metadata.pdf]

B) Brief description of the population group you are most comfortable with:

4 Please tick (✓) the appropriate block to indicate the highest educational level that was completed by the main caregiver in the family that you grew up with:

I did not have a main caregiver when I grew up	1
I do not know my main caregiver's highest educational level	2
My main caregiver completed primary school (Grade 7 or the former Standard 5)	3
My main caregiver completed secondary school (Grade 12 or the former Standard 10)	4
My main caregiver completed a qualification/s at University or College	5

5 Please tick (✓) the appropriate block to indicate the highest educational level that was completed by the second caregiver in the family that you grew up with:

I did not have a second caregiver when I grew up	1
I do not know my second caregiver's highest educational level	2
My second caregiver completed primary school (Grade 7 or the former Standard 5)	3
My second caregiver completed secondary school (Grade 12 or the former Standard 10)	4
My second caregiver completed a qualification/s at University or College	5

PLEASE PROCEED TO SECTION B.

SECTION B: Language history, experience, proficiency, use

6 Please look at the following grid with languages. Please mark the ONE language you use at HOME most of the time.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the "OTHER LANGUAGE" if selected above: _____

If you use more than one language at home, please write down the name/s of the other language/s that you use at home in addition to the language indicated on the grid above: _____

7 Please mark ALL the languages you know in the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

8 Please list all the languages you know in the order that you learnt them as best as you can remember. Based on your memory, which language did you learn first, second, third etc.

Order of acquisition or learning of languages	Please write down the NUMBER for the languages you learnt as they are coded in the grid above at question 8. For example: if you learnt “Southern Sotho” first, you would write “13” next to “Language I learnt FIRST” below.
Language I learnt FIRST	
SECOND language that I learnt	
THIRD language that I learnt	
FOURTH language that I learnt	
FIFTH language that I learnt	

PLEASE PROCEED TO SECTION C.

SECTION C: Questions about the languages you know

Please remember, it is not “good” or “bad” to know many (or few) languages. The researchers are interested in the language or languages you know – whether it is one language or many languages.

In section C, you are asked the same set of questions about all the languages you know. The following explanation is used for the concept, “**knowing a language**”, in this questionnaire:

People who know more than one language do not know them all at the same level of proficiency and they use them for different communication functions. They either use the languages they know to:

- **listen** and **understand** when people use the language; and / or
- they are able to **speak** the language; and/or
- they are able to **read** the language; and / or
- they are able to **write** the language.

You are asked to answer the questions in this section in a specific order starting with your **strongest** language, then your **second strongest** language etc. until your **fifth strongest** language (if you know 5 languages).

The following explanation is used for the concept, "**strongest language**", in this questionnaire:

- Your **strongest language** is the language that is the easiest for you to use to express yourself and people who know your strongest language understand what you want to communicate with ease in this language.
- This is the language in which you are the most proficient in your opinion.

Your second strongest language is the language which you feel you can use with second most ease and it is the language you feel second most proficient in etc.

PLEASE PROCEED TO QUESTION 11.

Question 11: Questions about your **STRONGEST** language

My **STRONGEST** language is: _____. Please write in the name of your **STRONGEST** language on the line above **and** mark it on the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

11.1 As far as you can remember, **when** did you **start** to learn your strongest language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

Since my birth (0-2 years old)	As a small child (between 3-6 years old)	During primary school age (between 7-13 years)	During high school age (between 14-18 years)	After high school age (19+ years and older)
1	2	3	4	5

11.2 We learn languages for many reasons. What is the **main reason** (or motivation) you had for learning your **STRONGEST** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

I learnt my strongest language because ...	Main motivation or reason for learning your STRONGEST language
I was born into a family that use the language.	1
It was used as language of teaching and learning at school.	2
I wanted to communicate with people in my community or close environment.	3
I wanted to communicate with people in the broader South Africa.	4
I wanted to communicate with people in the world or internationally.	5
The language is important in the world of work.	6
I had another reason or motivation to learn my strongest language. The reason or motivation is ... (please write in the reason):	7

11.3 Please rate your skills for your **STRONGEST** language. Please put a tick (✓) or cross (X) in the appropriate block.

Language skills	No proficiency in this skill for this language	Very poor	Poor	Below average	Low average	Average	High average	Above average	Good	Very good
Listening	1	2	3	4	5	6	7	8	9	10
Speaking	1	2	3	4	5	6	7	8	9	10
Reading	1	2	3	4	5	6	7	8	9	10
Writing	1	2	3	4	5	6	7	8	9	10

11.4 Please rate how strongly you agree with the following statements when you think about your **STRONGEST** language. Please put a tick (✓) or cross (X) in the appropriate block.

Statements to consider	Completely disagree	Generally disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Generally agree	Completely agree
I like to speak this language	1	2	3	4	5	6	7
I feel confident using this language	1	2	3	4	5	6	7
I think it is important to be good at this language	1	2	3	4	5	6	7
This language forms part of who I am (my identity)	1	2	3	4	5	6	7

11.5 Please indicate how much the following factors contributed to you **LEARNING** your **STRONGEST** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

11.6 Please indicate how much the following factors contribute to you **CURRENTLY USING** your **STRONGEST** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

IF YOU KNOW A SECOND STRONGEST LANGUAGE, PLEASE ANSWER QUESTION 12 THAT FOLLOWS.

IF YOU DO NOT KNOW A SECOND, THIRD, FOURTH OR FIFTH STRONGEST LANGUAGE, THEN PLEASE PROCEED TO QUESTION 16 IN SECTION D.

Question 12: Questions about your **SECOND** strongest language

My **SECOND strongest** language is: _____. Please write in the name of your **SECOND strongest** language on the line above **and** mark it on the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

12.1 As far as you can remember, **when** did you **start** to learn your **SECOND** strongest language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

Since my birth (0-2 years old)	As a small child (between 3-6 years old)	During primary school age (between 7-13 years)	During high school age (between 14-18 years)	After high school age (19+ years and older)
1	2	3	4	5

12.2 We learn languages for many reasons. What is the **main reason** (or motivation) you had for learning your **SECOND strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

I learnt my SECOND strongest language because ...	Main motivation or reason for learning your SECOND STRONGEST language
I was born into a family that use the language.	1
It was used as language of teaching and learning at school.	2
I wanted to communicate with people in my community or close environment.	3
I wanted to communicate with people in the broader South Africa.	4
I wanted to communicate with people in the world or internationally.	5
The language is important in the world of work.	6
I had another reason or motivation to learn my strongest language. The reason or motivation is ... (please write in the reason):	7

12.3 Please rate your skills for your **SECOND strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Language skills	No proficiency in this skill for this language	Very poor	Poor	Below average	Low average	Average	High average	Above average	Good	Very good
Listening	1	2	3	4	5	6	7	8	9	10
Speaking	1	2	3	4	5	6	7	8	9	10
Reading	1	2	3	4	5	6	7	8	9	10
Writing	1	2	3	4	5	6	7	8	9	10

12.4 Please rate how strongly you agree with the following statements when you think about your **SECOND strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Statements to consider	Completely disagree	Generally disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Generally agree	Completely agree
I like to speak this language	1	2	3	4	5	6	7
I feel confident using this language	1	2	3	4	5	6	7
I think it is important to be good at this language	1	2	3	4	5	6	7
This language forms part of who I am (my identity)	1	2	3	4	5	6	7

12.5 Please indicate how much the following factors contributed to you **LEARNING** your **SECOND strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

12.6 Please indicate how much the following factors contribute to you **CURRENTLY USING** your **SECOND strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

IF YOU KNOW A THIRD STRONGEST LANGUAGE, PLEASE ANSWER QUESTION 13 THAT FOLLOWS.

IF YOU DO NOT KNOW A THIRD, FOURTH OR FIFTH STRONGEST LANGUAGE, THEN PLEASE PROCEED TO QUESTION 16 IN SECTION D.

Question 13: Questions about your THIRD strongest language

My **THIRD strongest** language is: _____. Please write in the name of your **THIRD strongest** language on the line above **and** mark it on the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

13.1 As far as you can remember, **when** did you **start** to learn your **THIRD strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

Since my birth (0-2 years old)	As a small child (between 3-6 years old)	During primary school age (between 7-13 years)	During high school age (between 14-18 years)	After high school age (19+ years and older)
1	2	3	4	5

13.2 We learn languages for many reasons. What is the **main reason** (or motivation) you had for learning your **THIRD strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

I learnt my THIRD strongest language because ...	Main motivation or reason for learning your THIRD STRONGEST language
I was born into a family that use the language.	1
It was used as language of teaching and learning at school.	2
I wanted to communicate with people in my community or close environment.	3
I wanted to communicate with people in the broader South Africa.	4
I wanted to communicate with people in the world or internationally.	5
The language is important in the world of work.	6
I had another reason or motivation to learn my strongest language. The reason or motivation is ... (please write in the reason):	7

13.3 Please rate your skills for your **THIRD strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Language skills	No proficiency in this skill for this language	Very poor	Poor	Below average	Low average	Average	High average	Above average	Good	Very good
Listening	1	2	3	4	5	6	7	8	9	10
Speaking	1	2	3	4	5	6	7	8	9	10
Reading	1	2	3	4	5	6	7	8	9	10
Writing	1	2	3	4	5	6	7	8	9	10

13.4 Please rate how strongly you agree with the following statements when you think about your **THIRD strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Statements to consider	Completely disagree	Generally disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Generally agree	Completely agree
I like to speak this language	1	2	3	4	5	6	7
I feel confident using this language	1	2	3	4	5	6	7
I think it is important to be good at this language	1	2	3	4	5	6	7
This language forms part of who I am (my identity)	1	2	3	4	5	6	7

13.5 Please indicate how much the following factors contributed to you **LEARNING** your **THIRD strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

13.6 Please indicate how much the following factors contribute to you **CURRENTLY USING** your **THIRD strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

IF YOU KNOW A FOURTH STRONGEST LANGUAGE, PLEASE ANSWER QUESTION 14 THAT FOLLOWS.

IF YOU DO NOT KNOW A FOURTH OR FIFTH STRONGEST LANGUAGE, THEN PLEASE PROCEED TO QUESTION 16 IN SECTION D.

Question 14: Questions about your FOURTH strongest language

My **FOURTH strongest** language is: _____. Please write in the name of your **FOURTH strongest** language on the line above **and** mark it on the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

14.1 As far as you can remember, when did you start to learn your **FOURTH strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

Since my birth (0-2 years old)	As a small child (between 3-6 years old)	During primary school age (between 7-14 years)	During high school age (between 14-18 years)	After high school age (19+ years and older)
1	2	3	4	5

14.2 We learn languages for many reasons. What is the main reason (or motivation) you had for learning your **FOURTH strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

I learnt my FOURTH strongest language because ...	Main motivation or reason for learning your FOURTH STRONGEST language
I was born into a family that use the language.	1
It was used as language of teaching and learning at school.	2
I wanted to communicate with people in my community or close environment.	3
I wanted to communicate with people in the broader South Africa.	4
I wanted to communicate with people in the world or internationally.	5
The language is important in the world of work.	6
I had another reason or motivation to learn my strongest language. The reason or motivation is ... (please write in the reason):	7

14.3 Please rate your skills for your **FOURTH strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Language skills	No proficiency in this skill for this language	Very poor	Poor	Below average	Low average	Average	High average	Above average	Good	Very good
Listening	1	2	3	4	5	6	7	8	9	10
Speaking	1	2	3	4	5	6	7	8	9	10
Reading	1	2	3	4	5	6	7	8	9	10
Writing	1	2	3	4	5	6	7	8	9	10

14.4 Please rate how strongly you agree with the following statements when you think about your **FOURTH strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Statements to consider	Completely disagree	Generally disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Generally agree	Completely agree
I like to speak this language	1	2	3	4	5	6	7
I feel confident using this language	1	2	3	4	5	6	7
I think it is important to be good at this language	1	2	3	4	5	6	7
This language forms part of who I am (my identity)	1	2	3	4	5	6	7

14.5 Please indicate how much the following factors contributed to you **LEARNING** your **FOURTH strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

14.6 Please indicate how much the following factors contribute to you **CURRENTLY USING** your **FOURTH strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

IF YOU KNOW A FIFTH STRONGEST LANGUAGE, PLEASE ANSWER QUESTION 15 THAT FOLLOWS.

IF YOU DO NOT KNOW A FIFTH STRONGEST LANGUAGE, THEN PLEASE PROCEED TO QUESTION 16 IN SECTION D.

Question 15: Questions about your FIFTH strongest language

My **FIFTH strongest** language is: _____. Please write in the name of your **FIFTH strongest** language on the line above **and** mark it on the grid below.

Afrikaans	1	isiNdebele	8	siSwati	15
Dutch	2	Ndonga	9	Tsonga / Shangaan	16
English	3	Northern Sotho	10	Setswana	17
French	4	Portuguese	11	Venda	18
German	5	Xitsonga	12	isiXhosa	19
Hebrew	6	Southern Sotho	13	isiZulu	20
Italian	7	Spanish	14	Other language	21

Please write in the name of the “OTHER LANGUAGE” if selected above: _____

15.1 As far as you can remember, **when** did you **start** to learn your **FIFTH strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

Since my birth (0-2 years old)	As a small child (between 3-6 years old)	During primary school age (between 7-13 years)	During high school age (between 14-18 years)	After high school age (19+ years and older)
1	2	3	4	5

15.2 We learn languages for many reasons. What is the **main reason** (or motivation) you had for learning your **FIFTH strongest** language? Please put a tick (✓) or cross (X) in the appropriate block below. Please select only **ONE** option.

I learnt my FIFTH strongest language because ...	Main motivation or reason for learning your FIFTH STRONGEST language
I was born into a family that use the language.	1
It was used as language of teaching and learning at school.	2
I wanted to communicate with people in my community or close environment.	3
I wanted to communicate with people in the broader South Africa.	4
I wanted to communicate with people in the world or internationally.	5
The language is important in the world of work.	6
I had another reason or motivation to learn my strongest language. The reason or motivation is ... (please write in the reason):	7

15.3 Please rate your skills for your **FIFTH strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Language skills	No proficiency in this skill for this language	Very poor	Poor	Below average	Low average	Average	High average	Above average	Good	Very good
Listening	1	2	3	4	5	6	7	8	9	10
Speaking	1	2	3	4	5	6	7	8	9	10
Reading	1	2	3	4	5	6	7	8	9	10
Writing	1	2	3	4	5	6	7	8	9	10

15.4 Please rate how strongly you agree with the following statements when you think about your **FIFTH strongest** language. Please put a tick (✓) or cross (X) in the appropriate block.

Statements to consider	Completely disagree	Generally disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Generally agree	Completely agree
I like to speak this language	1	2	3	4	5	6	7
I feel confident using this language	1	2	3	4	5	6	7
I think it is important to be good at this language	1	2	3	4	5	6	7
This language forms part of who I am (my identity)	1	2	3	4	5	6	7

15.5 Please indicate how much the following factors contributed to you **LEARNING** your **FIFTH strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

15.6 Please indicate how much the following factors contribute to you **CURRENTLY USING** your **FIFTH strongest** language. Indicate your response by putting a tick (✓) or cross (X) in the appropriate block below.

Factor to consider	Did not contribute at all	Contributed very little	Contributed to a small extent	Average contribution	Contributed to a large extent	Contributed a lot	Contributed the most
Interacting with friends	1	2	3	4	5	6	7
Interacting with family	1	2	3	4	5	6	7
Reading	1	2	3	4	5	6	7
Language tapes / self-instruction	1	2	3	4	5	6	7
Watching TV	1	2	3	4	5	6	7
Listening to the radio / music	1	2	3	4	5	6	7
Used at school / for education	1	2	3	4	5	6	7

ALL PARTICIPANTS: PLEASE PROCEED TO ANSWER THE QUESTIONS IN THE FINAL SECTION OF THE QUESTIONNAIRE (SECTION D) WHICH FOLLOWS

SECTION D

- 16 Do you think it is important to know more than one language in South Africa?
Please put a tick (✓) or cross (X) in the appropriate block below.**

Not important at all	Not very important	Slightly important	Neutral	Moderately important	Very important	Extremely important
1	2	3	4	5	6	7

- 17 In your opinion, how many languages should a South African learn?**

Options to consider	Please tick (✓) the <u>ONE</u> response that you agree with the <u>MOST</u>
South Africans should <u>ONLY</u> learn their HOME language	1
South Africans should learn their home language <u>and</u> ONE additional language	2
South Africans should learn their home language <u>and</u> TWO additional languages	3
South Africans should learn their home language <u>and</u> THREE additional languages	4
South Africans should learn their home language <u>and</u> FOUR additional languages	5

- 18 Why must South Africans learn the number of languages you propose above?**

END OF THE QUESTIONNAIRE

THANK YOU FOR YOUR TIME!

References

This questionnaire was compiled by using the following existing questionnaires in the public domain.

Coetzee-Van Rooy, Anna Susanna. 2000. The influence of cultural identity and acquisition planning for English as a second language in South Africa. Unpublished PhD thesis, former Potchefstroom University.

Coetzee-Van Rooy, A.S. 2012. Flourishing functional multilingualism: evidence from language repertoires in the Vaal Triangle region. *International Journal of the Sociology of Language*, 218: 87-119.²

² Formal reference of the format of the adapted questionnaire used by Coetzee-Van Rooy.

Gullberg, Marianne & Indefrey, Peter. 2003. Language background questionnaire. Developed in the Dynamics of Multilingual Processing. Nijmegen, Max Planck Institute for Psycholinguistics.

L2 Language History Questionnaire (Version 2.0). Richmond University, Laboratory of Language and Cognitive Science.

Marian, Blumenfeld & Kaushanskaya. 2007. The language experience and proficiency questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech, Language and Hearing Research*, 50(4): 940-967.

APPENDIX 9: INTERVIEW QUESTIONS

1

INTERVIEW QUESTIONS (March/April 2022)

THE ROLE OF THE MOTHERTONGUE IN ENHANCING ENGLISH FOR ACADEMIC PURPOSES IN THE LINGUISTIC DIVERSE CONTEXT OF FIRST-YEAR STUDENTS AT THE NORTH-WEST UNIVERSITY.

This study aims to investigate the role of the mother-tongue in the acquisition of English for academic literacy among first-year students in the identified flagship modules across eight faculties of the North-West University. During this interview, you can expect to be asked follow-up questions on the completion of your language portrait in 2020 and specifically why you chose to place certain colours and languages on the silhouette of your portrait. We are also going to ask you questions about your experiences during face-to-face and online lectures in one of the following modules: ENFF 111, MAIP 121, and BSTE 112 in 2020. The purpose of the questions would be to determine how you use the languages that you know in learning new content in the mentioned modules.

The completion of the interview should take about 40 minutes and your participation is voluntary. The information provided by participants will not influence their academic results in any way. The information will be used for research purposes and the data will be reported anonymously in books, academic journals and at academic conferences. Participants should not experience any discomfort while completing the questionnaire; and apart from contributing information for research purposes, there are no obvious benefits to participants.

This research project received ethics clearance from the NWU (NWU-00720-21-A7 from 1 July 2020 to 30 June 2022). If you need more information, please contact the researcher, Emmanuel Adegiori, immediately via email at tobiadegiori@gmail.com

Consent

When you agree to participate in this interview, you permit the researcher to:

- (a) Access your module marks for ENFF 111/BSTE 112/MAIP 121 and your results for your TAG/TALL test;
- (b) Report the data gathered with this interview, your module marks, the language repertoire questionnaire and the TAG/TALL tests you took at the NWU anonymously in a thesis, books, academic journals and at academic conferences.

I,

(please write out your full names and surname)

give permission to the researcher, Mr Emmanuel Adegoriolu and members of his research team, to report the data gathered in this interview, the language repertoire questionnaire as well as data from my module marks for ENFF 111/BSTE 112/MAIP 121 and the TAG/TALL tests I took at the NWU anonymously in a thesis, books, academic journals and at academic conferences.

Signature

Date

SECTION A: PERSONAL INFORMATION

- A1. Student number:
- A2. Participant number:
- A3. Date of interview:

SECTION B1: FOLLOW-UP QUESTIONS ON THE LANGUAGE PORTRAITS

- B (1)1. A. What would you say is your mother-tongue/home language? (Closed question)
B. Why would you say so? (Open)
- B (1)2. A. Which language/languages do you mostly use at school? (Closed)
- B (1)3. A. Which language/languages do you mostly use most at the NWU? (Closed)
- B (1)4. A question/questions to clarify participants' responses on the language portraits and specifically related to the language of cognition and the different levels of proficiency in their language repertoires. Each interviewee will receive a copy of their language portraits created in 2020 to use during the interview.

Proposed questions:

- A. Which language do you place in the head of your portrait? (Closed)
- B. Why? (Open)
- C. How proficient are you in this language (the language that you put in the head on the portrait)? (Closed)
- D. Where do you place your mother-tongue/home language on the portrait? (Closed)
- E. Why? (Open)
- F. How proficient are you in your mother-tongue/home language in your view? (Closed)
- G. Do you think being good in your mother-tongue/home language makes you good in English? E.g. if you are a good reader in your mother-tongue/home language, would it also make you a good reader in English? (Closed)

- H. Why? Why not? (Open)
- I. Do you think being good in English makes you good in your mother-tongue/home language? E.g. if you are a good reader in English, would it also make you a good reader in your mother-tongue/home language? (Closed)
- J. Why? Why not? (Open)
- K. Is there any connection between the language of your heart and the language of your head when you are challenged to engage with content during lectures or when you are studying? Please tell me about an example. (Open)
- L. Is there anything you would like to add about the language/s of teaching and learning? (Open)

**SECTION B2: QUESTIONS ON UTILISING OTHER LANGUAGES TO LEARN -
These questions are OPEN**

- B (2)1. A. Can you describe a contact (face-to-face) lecture that you had at the beginning of 2020 where you had to grapple with a difficult concept in your module (ENFF 111/BSTE 112/MAIP 121)?

**BACK-UP QUESTION IF STUDENTS CANNOT REMEMBER
INCIDENTS IN THESE SPECIFIC MODULES:**

Tell me about a time when you struggled to understand something in class at university? What module was this? Which year? What happened / which concept/tasks did you struggle with? What did you do with language/s to help you understand? What more should have been done with languages/s to help you better understand? (Open)

B. How did you make sense of the difficult concept? (How did your lecturer help in this process? How did your peers help? How did you help yourself? Could you in any way use your mother tongue to gain understanding?) Why or Why not?

Ask B(2)1B (above) for back-up questions as well.

- B (2)2. A. Can you describe an online class during the lockdown in 2020 or last year where you grappled with a difficult concept in your module (ENFF 111/BSTE 112/ MAIP 121 or another module) in online teaching during a lockdown?
- B. How did you make sense of the difficult concept? (How did your lecturer help in this process? How did your peers help? How did you help

- yourself? Could you in any way use your mother-tongue/home language to gain a better understanding? Why or Why not?
- B (2)3. A. Can you describe a positive experience that you had when you used your mother-tongue/home language in the classroom/lecture hall/while interacting with your lecturer and peers during online teaching?
B. Why do you regard this experience as positive?
- B (2)4. A. Can you describe a negative experience that you had when you used your mother-tongue/home language in the classroom/lecture hall/while interacting with your lecturer and peers during online teaching?
B. Why do you regard this experience as negative?
- B (2) 5. A. When you are performing a group assignment in class or online, what language/languages do you use to discuss the assignment?
B. Why do you use this language/these languages?
- B (2)6. A. Do you feel confident about learning through the medium of English at university? B. Why or Why not?
- B (2)7. If you do not understand something in an English textbook, what do you do?
- B (2)8. If you could use your mother-tongue/home language freely during classes, how would you do that? How would that make you feel?
- B (2)9. A. Do you think there is a place for your mother-tongue/home language at university?
B. Why or Why not?
- B (2)10. If you have to explain a difficult concept in one of your modules to a friend who shares your mother-tongue/home language, do you use this mother-tongue/home language to discuss the concept or not? Why or Why not?
- B (2)11i. What did you struggle with most in the modules ENFF 111/BSTE 112/MAIP 121 that you took in 2020?
- B (2)11ii. What worked well in the modules ENFF 111/BSTE 112/MAIP 121 that you took in 2020?
- B (2)12. A. Do you think that being a good reader in your mother-tongue/home language makes you a good reader in English?
B. Why or Why not?
- B (2)13. A. Think about your proficiency in your mother-tongue/home language. Does it help to advance your proficiency in English?
B. Why or Why not?

Thank you for your contribution to this research.

APPENDIX 10: NWU RDGC PERMISSION GRANTED



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Research Data Gatekeeper Committee

NWU RDGC PERMISSION GRANTED / DENIED LETTER

Based on the documentation provided by the researcher specified below, on 22/11/2021 the North-West University (NWU) Research Data Gatekeeper Committee (NWU-RDGC) hereby grants permission for the specific project (as indicated below) to be conducted at the NWU:

Project title: The role of the mother tongue in enhancing English for Academic Purposes in the linguistically diverse context of first-year students at the North-West University.

Project leader: Dr K Kaiser, Prof M Reyneke, Dr D Dlavane & Prof AS Coetzee-Van Rooy

Researcher/Project Team: E Adegoriolu

Ethics reference no: NWU-00720-21-S7

NWU RDGC reference no: NWU-GK-21-066

Specific Conditions:

- The researcher should ensure that all the necessary Covid-19 Protocols in line with the National Covid-19 Guidelines are followed when collecting data from the designated research participants.

Approval date: 22/11/2021

Expiry date: 22/11/2022

General Conditions of Approval:

- The NWU-RDGC will not take the responsibility to recruit research participants or to gather data on behalf of the researcher. This committee can therefore not guarantee the participation of our relevant stakeholders.
- Any changes to the research protocol within the permission period (for a maximum of 1 year) must be communicated to the NWU-RDGC. Failure to do so will lead to withdrawal of the permission.
- The NWU-RDGC should be provided with a report or document in which the results of said project are disseminated.
- Due to the COVID-19 pandemics the Committee would like to advise the researcher to practice the necessary caution and adhere to the National Covid-19 Guidelines when conducting research with participants.

Please note that under no circumstances will any personal information of possible research subjects be provided to the researcher by the NWU RDGC. The NWU complies with the Promotion of Access to Information Act 2 of 2000 (PAIA) as well as the Protection of Personal Information Act 4 of 2013 (POPI). For an application to access such information please contact Ms Annamari De Kock (018 285 2771) for the relevant enquiry form or more information on how the NWU complies with PAIA and POPI.

The NWU RDGC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the NWU RDGC for any further enquiries or requests for assistance. Yours sincerely

Prof Jeffrey Mphahlele
Chairperson NWU Research Data Gatekeeper Committee