

**Cognitive, affective, and behavioural aspects of attitude in isiZulu L1 tertiary students
towards discipline-specific terminology in isiZulu and isiZulu as an academic language**

By

Muhle Praiseworth Sibisi

205520064

Supervisor

Professor Heike M. E. Tappe

Thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy in Linguistics
School of Arts
University of KwaZulu-Natal

October 2022

Declaration of Plagiarism

I, Muhle Praiseworthy 'MaShezi' Sibisi, declare that,

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain any other persons' data, pictures, graphs or other information unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain any other persons' writing unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a. Their words have been re-written, but the general information attributed to them has been referenced.
 - b. Where their exact words have been used, their writing has been placed in italics and inside quotation marks and referenced.
5. This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and with the source being detailed in the thesis and the References section.



Date: 27 October 2022

Dedication

Kubazali bami, uBhoyi Balcon Masimini kaMgoqwane no MaMahlanza uNokulunga Francina intombi ka Solomon, Shezi. Imbewu yemfundo enayitshala iqhakazile ngalomsebenzi.

Kuye uNkulunkulu, Yena yedwa onokwazi, makube kuye inkazimulo ngoJesu Khristu kuze kube phakade. Amen. To the only wise God be glory forevermore through Jesus Christ the Anointed One! Amen ROMANS 16:27

Acknowledgements

I convey my sincere gratitude and appreciation for the successful completion of this project. I thank:

- God Almighty, He is good, His mercy and loving-kindness are everlasting, His faithfulness and truth endure to all generations. PSALM 100:5
- My supervisor, Professor Heike Tappe. Your tirelessness, passion and thoroughness are highly appreciated.
- My families, Shezi and Sibisi families, for your patience, support and understanding for the duration of this study.
- My husband, and my daughters, oMahlase! Thank you for believing in me and for giving me the space to grow in my academic endeavour. Impela, konke kusebenzelana kube ngokuhle kwababiziwe ngecebo lakhe. ROMANS 8:28
- My spiritual parents, Umfu Sihlesenkosi and MaMfu Slo (okaSthenjwa) AmaFunze amahle, and my spiritual family at Umbumbulu Congregational Church; your prayers carried me through it all. Indeed, you have yielded to Paul's call – doing what is good towards me. GALATIANS 6:10
- My colleagues at UKZN for collegiality, encouragement and support.
- My friends and relatives, far and near, for empathy, love and well-wishes.
- Students and colleagues in the following disciplines: Anatomy, Architecture, Chemistry, Community Development, Law, Management, Physiology and Physics for your time and support.
- The financial assistance provided by the UKZN's University Capacity Development Programme office.
- The financial support granted by the Deanery in the School of Arts, College of Humanities, UKZN.
- Mr Siphesihle Khumalo who gave me a precise workshop on statistical analysis. Mntungwa!
- Ms Christie Marie Kruger of Comma Chameleon for the professional service in editing this thesis.

Izandla zidlula ikhanda, God's abundant blessings to you all.

ABSTRACT

The study uses the tripartite model of attitude to interrogate students' attitudes towards isiZulu and the influence that the existence of discipline-specific terminology in isiZulu has on their attitudes towards isiZulu as an academic language. The University of KwaZulu-Natal (UKZN), in response to the constitutional directive of elevating indigenous African languages in South Africa, has developed discipline-specific terminology in isiZulu for Administration, Architecture, Anatomy, Computer Science, Environmental Science, Law, Physics, Psychology and Nursing. The attitudes of students toward the availability of terminology have not been explored. This study explores the perception of isiZulu home language (L1) students on the availability of the terminology in the disciplines of Anatomy, Architecture, Law, and Physics, as well as the lack of the terminology in the disciplines of Community Development, Management, Chemistry, and Physiology. It distinguishes between the uses of isiZulu as a form of mother tongue-based education (MTBE), that applies in the entire learning experience of students, and the use of isiZulu alongside English with discipline-specific terminology as an academic resource for isiZulu L1 students. Applying a mixed methods research methodology, data is sourced using a questionnaire survey and focus group interviews from 149 isiZulu L1 students enrolled in the eight disciplines across the four colleges of UKZN. The results indicate that the attitudes of L1 students are directly impacted by two distinct language learning experiences; those with increased exposure to L1 hold positive attitudes, while those with diminished exposure to L1 hold negative attitudes. The study discovers that the L1 students were not aware of the availability of the discipline-specific terminology in isiZulu at UKZN and that they find the terminology difficult to decipher, irrespective of their language learning experiences. For this reason, there is a preference for loanwords in addition to the terminology in proper isiZulu. The results also indicate that the attitudinal responses on the three aspects of attitude are not consistently aligned towards the attitude objects. This study postulates that discipline-specific terminology in isiZulu should be used consistently throughout the schooling years of the students. The terminology lists need to include loanwords that are accessible to students. In this way, isiZulu, and other African languages, will be activated in academic contexts, the heterogeneity of L1 students will be catered for, and the students' multilingualism will be a resource that enhances their academic performance. For language attitude studies, this study advocates for the investigation of the three aspects of attitudes individually, conducted both in the absence as well as the presence of the attitudinal objects, in order to obtain comprehensive insight into the attitude construct.

Key words: discipline-specific terminology; terminology in isiZulu; cognitive, affective, and behavioural aspects of attitude; isiZulu as an academic language; loanwords.

TABLE OF CONTENTS

Declaration of Plagiarism	i
Dedication	ii
Acknowledgements	iii
ABSTRACT.....	iv
List of Tables	xii
List of Figures	xiv
List of Abbreviations and Acronyms	xv
List of Appendices	xvii
CHAPTER 1: INTRODUCTION.....	1
1.1 Background to the study	2
1.2 Statement of the problem	4
1.3 Purpose of the study.....	4
1.3.1 The research objectives and primary research questions	4
1.4 Significance of the study.....	5
1.5 Conceptual and theoretical frameworks.....	7
1.6 Literature review	8
1.7 Research design	9
1.8 Limitations and delimitations.....	10
1.9 Structure of the thesis.....	11
CHAPTER 2: LITERATURE REVIEW.....	12
2.1 Language within the education landscape of South Africa.....	13
2.1.1 Language policy from global, African, and South African perspectives	17
2.1.1.1 Language policy from a global perspective	17
2.1.1.2 Language policy from an African perspective	21
2.1.1.3 Language policy from a South African perspective.....	27
2.1.2 The South African education crisis: language related issues	31
2.1.3 The role of languages in the education sector in South Africa	33
2.1.3.1 The hegemony of English as the primary medium of instruction	33
2.1.3.2 The role of African languages in education	36
2.1.3.3 Language as a resource	38
2.1.4 The implementation of language policy in South Africa: successes, challenges, and opportunities	39
2.1.4.1 Successes in the implementation of the language policy in South Africa.....	39

2.1.4.2 Hindrances to language policy implementation.....	41
2.1.4.3 Opportunities in the implementation of the language policy in South Africa.....	44
2.1.5 Summary	46
2.2 Attitudes and language attitudes	47
2.2.1 The attitude construct.....	48
2.2.2 The tripartite model of attitude	50
2.2.3 Attitudes towards the use of African languages in the education sector in South Africa	51
2.2.3.1 Attitudes of isiZulu L1 students towards the use of isiZulu as an academic language at UKZN	54
2.2.4 Summary	59
2.3 The advancement in the use of isiZulu at UKZN	60
2.3.1 The rationale for the development of discipline-specific terminology at UKZN	61
2.3.1.1 The concept of terminology and the terminology development process	63
2.3.2 The development of discipline-specific terminology in isiZulu at UKZN	64
2.2.3 Dissemination and accessibility of discipline-specific terminology in isiZulu at UKZN.....	68
2.3.3 Summary	68
2.4 Summary of the chapter	69
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY.....	70
3.1 Introduction.....	70
3.2 The research design.....	73
3.2.1 The research site	74
3.2.2 Population and sample	77
3.3 Methodology	79
3.3.1 Data collection	79
3.3.1.1 Ethical considerations	79
3.3.1.2 Practical considerations.....	79
3.3.2 Instrumentation	80
3.3.2.1 The questionnaire.....	80
3.3.2 The focus group interviews.....	83
3.3.3 Data analysis	85
3.3.3.1 The questionnaire.....	85
3.3.3.2 The focus group interviews.....	86
3.4 Summary of the chapter	86

CHAPTER 4: DATA DESCRIPTION AND ANALYSIS.....	87
4.1 Overview of the data collection and data analysis processes.....	88
4.1.1 The data collection and analysis processes.....	88
4.1.2 The description of the respondents and their demographic profiles	89
4.1.2.1 The questionnaire respondents.....	89
4.1.2.2 The focus group participants.....	91
4.1.3 The research instruments	92
4.2 What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?.....	93
4.2.1 The frequency of language use (isiZulu and English) across selected domains	93
4.2.1.1 Quantitative data	94
4.2.1.1.1 Target group.....	95
4.2.1.1.2 Control group.....	102
4.2.1.2 Qualitative data	111
4.2.1.2.1 Target group.....	111
4.2.1.2.2 Control group.....	114
4.2.1.3 Summary.....	117
4.2.2 The cognitive aspect of attitude towards the use of isiZulu in academic contexts	119
4.2.2.1 Quantitative data	119
4.2.2.1.1 Target group.....	119
4.2.2.1.2 Control group.....	120
4.2.2.2 Qualitative data	123
4.2.2.2.1 Target group.....	123
4.2.2.2.2 Control group.....	126
4.2.2.2.3 Summary.....	127
4.2.3 The affective aspect of attitude towards the use of isiZulu in academic contexts	127
4.2.3.1 Quantitative data	127
4.2.3.1.1 Target group.....	128
4.2.3.1.2 Control group.....	129
4.2.3.2 Qualitative Data	132
4.2.3.2.1 Target group.....	132
4.2.3.2.2 Control Group.....	134
4.2.3.2.3 Summary.....	135
4.2.4 The behavioural aspect of attitude towards the use of isiZulu in academic contexts	136

4.2.4.1 Quantitative data	136
4.2.4.1.1 Target group.....	136
4.2.4.1.2 Control group.....	139
4.2.4.2 Qualitative data	142
4.2.4.2.1 Target group.....	142
4.2.4.2.2 Control group.....	143
4.2.5 Summary of the participants' attitudes towards the use of isiZulu in academic contexts.....	144
4.2.5.1 Quantitative data	145
4.2.5.2 Qualitative data	146
4.3 The way discipline-specific terminology in isiZulu influences attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts.....	146
4.3.1 The cognitive aspect of attitude	148
4.3.1.1 Quantitative data	148
4.3.1.1.1 Target group.....	148
4.3.1.1.2 Control group.....	149
4.3.1.2 Qualitative data	152
4.3.1.2.1 Target group.....	152
4.3.1.2.2 Control group.....	155
4.3.2 The affective aspect of attitude	157
4.3.2.1 Quantitative data	158
4.3.2.1.1 Target group.....	158
4.3.2.1.2 Control group.....	159
4.3.2.2. Qualitative data	164
4.3.2.2.1 Target group.....	164
4.3.2.2.2 Control group.....	166
4.3.3 The behavioural aspect of attitude	169
4.3.3.1 Quantitative data	169
4.3.3.1.1 Target group.....	169
4.3.3.1.2 Control group.....	171
4.3.3.2 Qualitative data	174
4.3.3.2.1 Target group.....	174
4.3.3.2.2 Control group.....	177
4.3.4 Summary	180
4.3.4.1 Quantitative data	180

4.3.4.2 Qualitative data	182
4.4 Correlations among the three aspects of attitude in isiZulu L1 speakers towards the use of isiZulu in academic contexts, particularly discipline-specific terminology in isiZulu.....	183
4.4.1 Target group.....	184
4.4.2 Control group.....	187
4.4.3 Summary of the correlations among the three aspects of attitude.....	191
4.5 The extent to which isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic lives	192
4.5.1 Level of acknowledgement, as implied in the English equivalent terms given by the participants.....	193
4.5.1.1 Quantitative data	193
4.5.1.2 Qualitative data	195
4.5.1.2.1 Target group.....	195
4.5.1.2.2 Control group.....	197
4.5.2 Level of acknowledgement, as implied by how participants rated the discipline-specific terminology in isiZulu.....	199
4.5.2.1. Qualitative data	202
4.5.2.1.1 Target group.....	203
4.5.2.1.2 Control group	204
4.5.2.2 Summary	205
4.6 Summary of the chapter	205
CHAPTER 5: DATA DISCUSSION AND FINDINGS.....	207
5.1 Data discussion	207
5.1.1 The attitudes that isiZulu L1 students hold towards isiZulu as an academic language.....	207
5.1.1.1 The considerable use of and preference for isiZulu	210
5.1.1.2 The considerable use and preference for English	215
5.1.2 The extent to which the isiZulu L1 students' attitudes are influenced by the existence of discipline-specific terminology in isiZulu	216
5.1.2.1 Influence of terminology in isiZulu towards isiZulu as an academic language	216
5.1.2.2 The attitudes of isiZulu L1 students across the four colleges of UKZN.....	219
5.1.2.3 The three aspects of attitude on the existence of terminology in isiZulu.....	219
5.1.3 The correlations among the three components of attitude	221
5.1.4 The extent to which isiZulu L1 students acknowledge discipline-specific terminology as a resource in their academic lives.....	223
5.2 Summary of the chapter	227

CHAPTER 6: SUMMARY OF THE FINDINGS, IMPLICATIONS OF THE STUDY, LIMITATIONS AND DELIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS	229
6.1 Summary of the findings.....	229
6.2 Implications of the findings	231
6.2.1 Theoretical implication of the study	231
6.2.1.1 The heterogeneity among isiZulu L1 students	231
6.2.1.2 The challenge isiZulu L1 students face with discipline-specific terminology in isiZulu	232
6.2.1.3 The disparities among the three aspects of attitude.....	233
6.2.2 Practical educational implications of the findings	233
6.2.2.1 Implications for basic education and higher education levels.....	233
6.2.2.2 Implications for studies on language attitudes in education	234
6.3 Limitations and delimitations of the study.....	235
6.3.1 Limitations	235
6.3.2 Delimitations.....	235
6.4 Conclusions from the findings	236
6.5 Summary of the study and the contribution of the study	237
6.6 Recommendations for further research	238
REFERENCES	240
APPENDICES	259

List of Tables

Table 2.1: Language policy and related legislative instruments 1996-2020	28
Table 2.2: The preferences between English and isiZulu per domain of language use	58
Table 2.3: Terminology development progress 2014/2015	67
Table 2.4: Terminology development 2015/2016	67
Table 3.1: Distribution of questionnaires across the population sample	78
Table 3.2: The questionnaire and the instructions per section	81
Table 4.1: Number of questionnaires distributed, the number of questionnaires collected, and the number of interview participants	89
Table 4.2: The questionnaire respondents and their demographic profiles	89
Table 4.3: Focus group interview participants' demographic details	91
Table 4.4: Paired domains for the paired t-test analysis	95
Table 4.5: Frequency of language use per domain	96
Table 4.6: Target group: t-test results: The dominant language used between isiZulu and English	97
Table 4.7: The frequency of language use per domain	102
Table 4.8: Control group: t-test results: The dominant language used between isiZulu and English	103
Table 4.9: The frequency of language use comparison between the target and the control groups	109
Table 4.10: The three dimensions of attitude towards the use of isiZulu in academic contexts: Selected questions from sections two, three, and four of the questionnaires	118
Table 4.11: Target and control groups: The cognitive aspect of attitude towards the use of isiZulu in academic contexts	122
Table 4.12: Target and control groups: The affective aspect of attitude towards the use of isiZulu in academic contexts	131
Table 4.13: Target and control groups: The behavioural aspects of attitude towards the use of isiZulu in academic contexts	140

Table 4.14: The three dimensions of attitude on the existence of discipline-specific terminology in isiZulu: A selection of questions from sections two, three, and four of the questionnaires	147
Table 4.15: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu: The cognitive aspect of attitude.....	151
Table 4.16: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu: The affective aspect of attitude	161
Table 4.17: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu: The behavioural aspect of attitude	173
Table 4.18: The sum total of the respondents' responses: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude ...	181
Table 4.19: The terminology in isiZulu and the equivalents in English – matches from the study respondents	194
4.20: The ratings of the terms in isiZulu.....	200

List of Figures

Figure 2.1: The proposed language policy at macro level, meso level, and micro level	47
Figure 2.2: Snapshot of the term bank.....	66
Figure 2.3: Snapshot of the Zulu Lexicon	66
Figure 4.1: Target group: The cognitive aspect of attitude towards the use of isiZulu in academic contexts	119
Figure 4.2: Control group: The cognitive aspect of attitude towards the use of isiZulu in academic contexts	121
Figure 4.3: The habitual practice as a learning process for isiZulu L1 students in an English-oriented academic context	124
Figure 4.4: Target group: Affective aspect of attitude towards the use of isiZulu in academic contexts	128
Figure 4.5: Control group: Affective aspect of attitude towards the use of isiZulu in academic contexts.....	129
Figure 4.6: Target group: Behavioural aspect of attitude towards the use of isiZulu in academic contexts	137
Figure 4.7: Control group: Behavioural aspects of attitude towards the use of isiZulu in academic contexts.....	139
Figure 4.8: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude	148
Figure 4.9: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude	150
Figure 4.10: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the affective aspect of attitude	158
Figure 4.11: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the affective aspect of attitude	160
Figure 4.12: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the behavioural aspect of attitude	169
Figure 4.13: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the behavioural aspect of attitude	171

List of Abbreviations and Acronyms

ANA	Annual National Assessments
CAES	College of Agriculture and Engineering Sciences
CHS	College of Health Sciences
CHUM	College of Humanities
CLMS	College of Law and Management Sciences
DL	Dual Language
DUT	Durban University of Technology
ECD	Early Childhood Development
FAL	First Additional Language
HL	Home Language
IKS	Indigenous Knowledge Systems
L1	First language
L2	Second language
LiEP	Language-in-Education Policy
LoLT	Language of Learning and Teaching
MBChB	Bachelor of Medicine and Bachelor of Surgery
MoI	Medium of Instruction
MTBE	Mother tongue Based Education
NDP	National Development Plan
NORAD	Norwegian Agency for Development Co-operation
NSES	National Schools Effectiveness Study
OAU	Organisation for African Unity
PanSALB	Pan South African Language Board

PIRLS	Progress in International Reading Literacy Study
RSA	Republic of South Africa
SACMEQ	Southern and East African Consortium for Monitoring Education Quality
SANTED	South African Norway Tertiary Education Development
SAQA	South African Qualifications Authority
SDG	Sustainable Development Goals
STEM	Science, Technology, Engineering, and Mathematics
TB	Term bank
TBE	Transitional Bilingual Education
UKZN	University of KwaZulu-Natal
ULPDO	University Language Planning and Development Office
UMZUKAZWE	Umkhandlu Wesizulu KuZwelonke
UN	United Nations
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
USA	United States of America
ZL	Zulu Lexicon

List of Appendices

Annexure A1: College of Health Sciences – Target group	258
Annexure A1/2: College of Health Sciences – Control group.....	265
Annexure A2: College of Humanities – Target group.....	272
Annexure A2/2: College of Humanities – Control group.....	279
Annexure A3: College of Law and Management Sciences – Target group.....	286
Annexure A3/2: College of Law and Management Sciences – Control group.....	293
Annexure A4: College of Agriculture and Engineering Sciences – Target group.....	300
Annexure A4/2: College of Agriculture and Engineering Sciences – Control group.....	307
Annexure B: Interview schedule – Target group.....	314
Annexure B/2: Interview schedule – Control group.....	315
Annexure C: Information sheet and consent to participate in research.....	316

CHAPTER 1: INTRODUCTION

In 2002, at the 56th session of the United Nations (UN) General Assembly, by resolution¹ the decision to proclaim the 21st of February each year as International Mother Language Day was welcomed (United Nations 2002). As a continual commitment to this proclamation, a subsequent resolution² declared 2019 as the ‘International Year of Indigenous Languages’ aiming at drawing attention to, amongst other things, the “need to preserve, revitalize, and promote indigenous languages” (United Nations 2016). In 2019, the UN assembly declared the years 2022-2032 as the ‘International Decade of Indigenous Languages’ with the motto “Building a global community for the preservation, revitalisation, and support of indigenous languages worldwide” (United Nations 2019). These resolutions are an indication of the importance of indigenous languages, not only with regard to preservation but also in terms of promoting the use of the indigenous languages.

These resolutions by the UN are congruous with The National Development Plan (NDP) of the Republic of South Africa, vision 2030. The NDP commends the multilingual disposition of the country in the prologue to Chapter 9 (Republic of South Africa 2011: 261). The UN resolutions together with the NDP vision for the Republic of South Africa are attestations that the time has come for concrete action to be taken with regard to indigenous languages. The Republic of South Africa (RSA, hereinafter referred to as South Africa), adopted the 1996 Constitution as the first step toward multilingualism and the promotion of indigenous languages. In the Constitution, Chapter 1, §6(1), nine indigenous languages of the country (Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, isiNdebele, isiXhosa, isiZulu) are recognised, and accorded official status, in addition to English and Afrikaans (RSA 1996: 2). Subsequent to the Constitution, government policies on language matters have been promulgated (see e.g., Language-in-education policy 1997; Language Policy in Higher Education 2002; The Use of Official Languages Act 2012, and Language Policy Framework for Public Higher Education Institutions 2020). Based on language policy developments in South Africa, the University of KwaZulu-Natal (UKZN) adopted the UKZN Language Policy and Plan in 2006 and subsequently revised it in 2014³ (UKZN 2014) (see Chapter 2 – § 2.3). It is on the grounds stipulated in the UKZN Language Plan that the University Language Planning and

¹United Nations Resolution A/RES/56/262.

² United Nations Resolution A/RES/71/178.

³ UKZN is in a process of reviewing and revising the Language Policy and Plan.

Development Office (ULPDO) was instituted and has, since its inception, taken strides to develop discipline-specific terminologies in isiZulu (see Chapter 2 – § 2.2.3).

In this study, I seek to investigate the cognitive, affective, and behavioural aspects of attitude that isiZulu home language (L1) students at UKZN hold toward two attitude objects – the terminology in isiZulu and isiZulu as an academic language. I look at what isiZulu L1 students believe, how they feel, and their intended actions towards these two attitude objects. The study explores whether the existence of the terminology in isiZulu has any impact on attitudes towards the use of isiZulu in academic contexts.

In this chapter, I provide the background to the study with regard to the use of African languages in education and I present the statement of the problem. I also declare the purpose of the study, including the research questions the study seeks to address and detail the significance of the study. Further, I provide a brief synopsis of the conceptual and theoretical frameworks, highlight previous research studies around the current topic and identify the gap that the study seeks to fill. I outline the research design, highlight the limitations and delimitations of the study, and conclude by outlining the structure of the thesis.

1.1 Background to the study

In an introduction to his book, Fishman (2006: ix-x) asserts:

Languages are increasingly viewed as scarce national resources. Speech and writing communities the world over are not only expected to exert themselves on behalf of their languages but to feel amiss if they fail to do so when their language resources are threatened.

South Africa, Africa, and the world are in an era where the importance, revitalisation and development of indigenous languages are highly commended. Language, in the current study, is construed as an enabler to knowledge acquisition and knowledge dissemination. However, research studies on the use of indigenous African languages in education in South Africa, particularly in Higher Education, report that ambivalent attitudes are held by students, who are home language (L1) speakers of these languages, toward their use in academic contexts (see e.g., Alexander 2012: 5; Rudwick & Parmegiani 2013: 91; Mbatha 2016: 156). This ambivalence emanates from the political history of language-in-education in South Africa (more discussion in chapter 2, § 2.1). In this study, I relate the ambivalence to the tripartite model of the mentalist approach to attitude studies. This model distinguishes three overlapping

aspects of attitude: cognitive/knowledge-oriented, affective/emotions-oriented, and behavioural/action-oriented. In studies on indigenous African languages in education, this ambivalence is intensified by, among other factors, attitudes harboured with regard to socio-economic goods attached to acquiring education in and through English, rather than African languages (Rudwick & Parmegiani 2013: 91). The ambivalent attitudes exhibited by speakers of African indigenous languages towards the use of their languages in academic contexts in South Africa are traced back to the pre-democratic era of colonialism, which culminated in the racial segregation policy of apartheid (Hurst 2015: 222). The era of apartheid is characterised by Bantu Education wherein English emerged as a preferred language of socio-economic development (ibid.). I surmise that, as an outcome of Bantu Education, Black South Africans have linked their languages to basic education whereas, English (and Afrikaans) became linked to Higher Education.

In order to address the ramifications of Bantu Education, more value should be attached to the use of indigenous African languages in education in general, and in Higher Education particularly (Alexander 2012: 6). African languages need to be used alongside English as a realisation of multilingual education. In a study conducted on the attitudes of Setswana L1 university students towards their language, Ditsele (2016: 9) indicates that these students support the development of African languages in terms of providing support material for L1 students with a weaker competence in English, which increases prospects of academic success.

One argument raised as an obstacle to the use of indigenous African languages in education is the paucity of scientific terminology in these languages (see e.g., Mthiyane 2016: 117; Khumalo 2017: 255). Such paucity hampers optimal knowledge acquisition and knowledge dissemination since, as Alberts (2010: 599) asserts, “information is distributed, and knowledge is acquired through terminology”. UKZN has taken the initiative to overcome this obstacle. In response to the Constitutional directive stipulated in Chapter 1, §6(2), of taking “practical and positive measures to elevate the status and advance the use of these [historically diminished indigenous] languages” (RSA 1996:2), UKZN adopted its Language Policy and Plan (2006 revised in 2014). In the Language Policy, UKZN commits to the development of isiZulu as an academic language by “mobilising isiZulu fully [...]” (UKZN 2014: 3) and “[...] chooses to develop the use of isiZulu as a language of instruction and communication [...]” (UKZN 2014: 5). To this end, UKZN, through its internal structures and in collaboration with government agencies, has to date developed isiZulu discipline-specific terminology, amongst other initiatives, to operationalise the use of isiZulu (Khumalo 2017: 256).

The question I ask is whether the availability of discipline-specific terminology in isiZulu may influence the attitudes of isiZulu L1 students positively, with regard to the use of this terminology and isiZulu as an academic language.

1.2 Statement of the problem

The discipline-specific terminology in isiZulu developed by ULPDO at UKZN addresses the issue of a lack of academic vocabulary in indigenous languages. The lack of such terminology has long been put forth as a reason to exclude indigenous languages in education (Prah 2017: 218). Speakers of indigenous African languages have expressed ambivalent attitudes regarding the use of these languages in academic contexts, citing the lack of academic vocabulary as a reason (Sigudla, Mabila & Tirivangasi 2021: 143). However, Nagy and Townsend (2012: 91) assert that this lack of academic vocabulary is an obstacle to student success. It is in this light that the current study seeks to explore whether the attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts and towards discipline-specific terminology in isiZulu are influenced in any way by the availability of discipline-specific terminology in isiZulu at UKZN. The study examines the extent to which isiZulu L1 students acknowledge isiZulu and the terminology in isiZulu as resources in their studies, the extent to which they appreciate isiZulu and the terminology in isiZulu, and the extent to which they intend to use isiZulu and the terminology in isiZulu.

1.3 Purpose of the study

The study aims to explore the three aspects of attitude towards isiZulu as an academic language and towards discipline-specific terminology in isiZulu. It explores the extent of inconsistencies among the three aspects of attitude and the extent to which the students acknowledge isiZulu and the terminology in isiZulu as resources in their academic lives. The UKZN is among the first institutions of higher learning to endorse the use of an African language (Webb 2013: 173). In terms of the discipline-specific terminologies that have been developed by ULPDO, the current study investigates the reception and attitudes of first-year level students at UKZN towards these terminologies.

1.3.1 The research objectives and primary research questions

The objectives of the current study are:

1. To investigate attitudes that isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts.

2. To explore whether the existence of discipline-specific terminology has any influence on the attitudes isiZulu L1 students hold towards the use of isiZulu in academic contexts.
3. To investigate whether correlation exists among the three components of attitude that isiZulu L1 students hold towards isiZulu, particularly isiZulu discipline-specific terminology.
4. To investigate whether isiZulu L1 students acknowledge isiZulu discipline-specific terminology as a resource in their academic life.

The study seeks to respond to the following questions:

1. What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?
2. In what way does the existence of discipline-specific terminology in isiZulu influence attitudes of L1 students towards the use of isiZulu in academic contexts?
3. Is there evidence of a correlation among the three components of attitude in isiZulu L1 students towards isiZulu, particularly discipline-specific terminology in isiZulu?
4. To what extent do isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic life?

1.4 Significance of the study

Previous studies conducted in the South African context, on the attitudes of speakers of indigenous African languages towards the use of these languages, as Languages of Learning and Teaching (LoLT) in higher education, focus on attitudes related to circumstances wherein the languages are used exclusively in a holistic manner. These studies focus on the use of African languages as a vehicle for mother tongue-based education (MTBE) (see e.g., Chetty 2013: 1; Nkosi 2014: 247; Ditsele 2016: 2).

The current study fills a gap in the knowledge in two ways. Firstly, the study looks at the three aspects of the attitude construct: cognition, affect, and behaviour. The study investigates how these three aspects manifest in isiZulu L1 speaking students, at UKZN, towards the use of isiZulu generally and towards the use of isiZulu discipline-specific terminology particularly. Secondly, the study distinguishes between the use of isiZulu holistically (as a form of MTBE) and the use of isiZulu discipline-specific terminology as an academic resource for isiZulu L1

students. The study results advocate for multilingual based education wherein students can tap into their linguistic repertoires and use languages in a fluid manner instead of a prescriptive manner. It is anticipated that the outcome of the research will influence and further enhance the use of isiZulu, as well as other indigenous languages, for use in academic contexts.

The current study fills the gap in previous research in the following ways:

1. The study specifically targets isiZulu L1/English L2 bilingual students at UKZN on their attitudes towards the use of isiZulu as an academic language at UKZN. There are studies that have been conducted at UKZN on attitudes towards the use of isiZulu as an academic language or on the bilingual English/isiZulu policy of UKZN. However, these studies targeted English L2 students of African descent disregarding their L1 (see e.g., Mbatha 2016: 152; Madlala & Mkhize 2019: 95). Some studies interrogate attitudes towards the bilingual policy of UKZN among L2 speakers of isiZulu, particularly those enrolled in the compulsory Basic IsiZulu/Introduction to isiZulu non-mother tongue module (see e.g., Ndimande-Hlongwa & Ndebele 2017: 73; Mthombeni & Ogunnubi 2021: 6)
2. The study interrogates the three aspects of attitude that isiZulu L1 students hold towards isiZulu as an academic language at UKZN. Previous research in this area explored attitude construct broadly as a unitary construct without disintegrating it into three aspects (see e.g., Rudwick & Parmegiani 2013: 95; Nkosi 2014: 250; Zulu & Ndebele 2020: 19).
3. The study explores the influence that the existence of discipline-specific terminology in isiZulu has on attitudes towards the use of isiZulu in academic contexts. I have not encountered studies that explore how the existence of a learning or reference resource in isiZulu influences the attitudes of isiZulu L1 speakers towards the use of their language in academic contexts. The study I refer to in the literature review was conducted in one higher education institution in the Western Cape province of South Africa on isiXhosa L1 students' experiences with the use of multilingual glossaries (Nomlomo & Katiya 2018: 79).
4. The study investigates whether isiZulu L1 students acknowledge the availability of the terminology in isiZulu as a resource in their academic lives. A number of articles have been written on the development and the availability of the terminology in isiZulu at UKZN (see e.g., Engelbrecht, Shangase Majeke, Mthembu & Zondi 2010: 253;

Mkhize, Dumisa & Chitindingu 2014: 136; Khumalo 2017: 257). These articles do not interrogate the reception of the terminology in isiZulu and its acknowledgement as a resource by the L1 student populace.

The study recruited respondents across all four colleges of UKZN. The studies that are cited in items 1, 2, and 4 above solicited respondents in not more than two out of the four colleges.

1.5 Conceptual and theoretical frameworks

The study investigates the attitudes of isiZulu L1 students using Vygotsky's theoretical lens of social constructivism. Psychologically oriented, Vygotsky's theory is directed at maximising the potential of individual children (Vygotsky 1978: 9). One of the essential elements of social constructivism is the belief that language is an essential system through which human beings construct reality (Amineh & Asl 2015: 13). Based on this theoretical perspective, this study explores the students' attitudes towards the two attitude objects. The existence of the terminology in isiZulu mitigates the language barrier that isiZulu L1 students may experience in higher education where English is the primary medium of instruction (MoI). This terminology is a support resource which may assist in maximising the academic potential of isiZulu L1 students. The availability of terminology in isiZulu aligns with the language-as-a-resource orientation to language planning as proposed by Ruiz (1984 in Hult & Hornberger 2016: 38).

In this study, the language-as-a-resource orientation is commended over language-as-a-problem orientation and language-as-a-right orientation. According to Lee, Hamid and Hardy (2021: 6), the language-as-a-resource orientation promotes societal multilingualism in three ways, that is, the language repertoires of individuals are seen as resources; it allows for an expansion of an individual's linguistic repertoire; it creates opportunities and possibilities for multiple languages to co-exist. Language as a resource, and, by extension, multilingualism as a resource, considers the linguistic repertoires of an individual as placing that individual at an advantage rather than at a disadvantage (ibid.). Academically, Hult and Hornberger (2016: 41) contend that this orientation supports additive language learning. Thus, the use of isiZulu and the terminology in isiZulu may be advantageous and empowering for L1 students.

The use of isiZulu and the terminology in isiZulu, in the case of this study, takes place at UKZN where English is the primary and dominant MoI. The use of isiZulu (in the same way as the use of other African languages) in an English-oriented university elicits negative and ambivalent attitudes from the L1 speakers of these languages (see e.g., Ditsele 2017: 11;

Lombard 2017: 36; Madlala & Mkhize 2019: 101). This study explores the students' attitudes using the tripartite (3D) model of attitude (Jain 2014: 7). This model considers the cognitive, affective, and behavioural aspects of attitude as opposed to exploring attitude as a unitary construct (Breckler 1984: 1203). The 3D model of attitude, as proposed by Jain (2014: 7) further disintegrates the three aspects into eight triodes of either positive or negative attitudinal responses (ibid.). The eight triodes can be used to unveil inconsistencies that exist in attitudinal responses.

1.6 Literature review

The literature review in this study considers three strands of literature. First, is the use of African languages in education in South Africa. Second, is the attitude construct, including attitudes towards the use of African languages in general and the use of isiZulu specifically at UKZN. Thirdly, it considers advancement in the use of isiZulu at UKZN in an academic context.

The acceleration of the use of African languages is considered a social justice course that aims at redressing the inequalities of the past related to the use of African languages in education (see e.g., Heugh 1999: 310; Alexander 2003: 16; Hurst 2016: 233; Makhanya & Zibane 2020: 34; Van Pinxteren 2022: 4). However, the use of African languages in education is fraught with negative and ambivalent attitudes (see e.g., Rudwick & Parmegiani 2013: 101; Lombard 2017: 41; Ngcobo & Barnes 2020: 93).

The attitude construct, in this study, is viewed as a disposition to think, feel, and act in a particular manner towards an attitude object (Allport 1954 in Garret 2010: 19). To explore the three aspects of attitude, the study adopts the 3D model of attitude as proposed by Jain (2014: 7). This 3D model synthesizes the three aspects of attitude which results in eight triodes or attitudinal responses of either positive or negative responses to each of the three aspects of attitude. As a result of this synthesis, the inconsistencies that prevail among the three aspects of attitude are exposed, inconsistencies that may account for the ambivalent attitudes towards the use of African languages including isiZulu.

The promotion of the use of African languages in education in South Africa (as may be the case in other African countries) takes place amid the hegemony of English. Since the adoption of the Language Policy of the UKZN in 2006 and the subsequent revision in 2014, the university has initiated programmes that aim at promoting the use of isiZulu as an academic language alongside English. Some of these programmes activate the use of isiZulu for L1

speakers (see e.g., Chetty 2013: 10; Nkosi 2014: 249; Ndebele & Zulu 2017: 516) and some activate the use of isiZulu for non-mother tongue speakers of isiZulu (see e.g., Mathews & Gokool 2018: 150; Naidoo & Gokool 2020: 31). This study focuses on the use of isiZulu and in particular the discipline-specific terminology in isiZulu for L1 speakers.

The development of terminology in isiZulu as led by ULPDO and partner stakeholders advances the use of isiZulu as an academic language at UKZN (see chapter 2 §2.3.2 for further discussion). The availability of terminology enhances the functionality of African languages (see e.g., Alberts 2014: 2; Nhongo & Tshotsho 2020: 83). Among the disciplines for which the terminology in isiZulu has been developed at UKZN (Khumalo 2017: 256), the current study interrogates the attitudes of L1 students in the disciplines of Anatomy, Architecture, Law, and Physics. The study also interrogates the attitudes of L1 students in cognate disciplines of Physiology, Community Development, Management, and Chemistry wherein the terminology in isiZulu has not yet been developed.

1.7 Research design

The current study used a mixed methods research design (Litosseliti 2010: 57). Using a mixed method data collection technique allows for the combination and integration of quantitative and qualitative research techniques in order to understand the research problem (Creswell 2014: 565). To collect quantitative data a questionnaire was used to elicit data on the thought processes, emotional engagement, and actions and/or intended actions that L1 students at UKZN have towards the use of isiZulu in academic contexts, and towards the use of isiZulu discipline-specific terminology particularly. Quantitative data creates a picture of the patterns of attitudes towards the use of the two attitude objects identified. The questionnaire was piloted to establish clarity and to ensure instrument reliability and validity. Data elicited from the questionnaires were used to cue and probe for information in terms of the focus group semi-structured interviews, which allowed for rich qualitative data. The interviews allowed students to expand on that which the questionnaire may have not allowed them to. Merging quantitative data and qualitative data allows for a confident interpretation of the findings of the investigation (Litosseliti 2010: 34).

The respondents were enlisted purposefully (Creswell 2014: 228) from the student population in the four colleges of UKZN, Humanities, Health Sciences, Agriculture, Engineering Sciences, Law, and Management Studies. Two modules were targeted in each college. One in which the isiZulu discipline-specific terminology has been developed for use and another

cognate module wherein this initiative has not been rolled out. Respondents from the first group of modules form the target group and respondents from the second group of modules form the control group.

Rudwick and Parmegiani (2013: 92) profile two groups of isiZulu L1 students entering UKZN. The first group displays poor literacy skills in both isiZulu and English while the second group displays stronger literacy skills in English compared to isiZulu. The former group hails from rural and township schools that are categorised as quintile one up to quintile four; while the latter group hails from ex-Model C and private schools that are categorised as quintile five⁴. The levels of literacy development are influenced by schooling background and access to resources (Rudwick & Parmegiani 2013: 92). Despite this distinction in the isiZulu L1 student pool, the majority of these students received Basic Education (grade 4 – grade 12) with English as the LoLT. The statutory requirement, as per the Language in Education Policy, Section 8, of 1997, in public schools, is that the LoLT should be an official language and, by default, English is the LoLT in most public schools.

The study follows the ethical protocols as prescribed by the UKZN offices of the Registrar and the Research Ethics office. In addition, each respondent committed to participate in the study voluntarily and signed a consent form. From the total respondents who completed the questionnaires, further volunteers consented to participation in follow-up focus group interviews. The questionnaire data were analysed quantitatively using Microsoft Excel data analysis tools. The focus group interviews' data were analysed thematically using NVivo software.

1.8 Limitations and delimitations

The study targeted respondents enrolled in widely mixed modules. Firstly, students are mixed in terms of nationalities, racial groups, home language groups, and exposure to isiZulu as a home language at school. Isolating isiZulu L1/English L2 bilinguals was not a straightforward process. This group of isiZulu L1 students is not homogenous. Secondly, UKZN offers structured and unstructured degree programmes. This results in students enrolling in modules

⁴ “All public schools in South Africa are given a ranking based on the level of poverty that exists within the community within which the school is located. More specifically, this ranking is based on the average level of income, the unemployment rate and level of education within the community each of which is given a specific weighting that is determined by the Department of Education. Schools falling in the bottom 20% of this ranking (i.e., the poorest schools) are classified as being Quintile 1 schools. Schools falling within the top 20% of this ranking are said to be Quintile 5 schools” (Murray 2016: 3).

which are electives at any time during the tenure of an unstructured degree programme. Therefore, students up to their third year of study may enrol for a first-year module. Isolating first time entry students in their first year of study was challenging.

1.9 Structure of the thesis

This thesis is organised into six chapters including this introductory chapter. In Chapter Two, I review past research studies in the fields of language in education, attitude constructs, including attitudes towards African languages and particularly attitudes towards isiZulu as an academic language, and the operationalisation of discipline-specific terminology at UKZN. In Chapter Three, I present the research design, methodology, research instruments used in data collection, and the data analysis protocol. In Chapter Four, I present the data collected and the results from the analysis. In Chapter Five, I discuss the data guided by the research questions and present the findings. In Chapter Six, I summarise the findings, present the implications of the findings, discuss the limitations of the study and the delimitations, present a summary of the study, and draw conclusions from the findings. I further present recommendations for further research.

CHAPTER 2: LITERATURE REVIEW

The University of KwaZulu-Natal (UKZN) has yielded to a constitutional mandate, as stipulated in the Constitution of the Republic of South Africa, Act No 8 of 1996, regarding the use of isiZulu. Chapter 1, Section 6 (2) of the constitution states:

Recognizing the historically diminished use and status of the indigenous languages of our people, the state **must take practical and positive measures to elevate the status and advance the use of these languages** (my emphasis) (RSA 1996:2).

This subsection of the constitution refers to the responsibility of the government of South Africa and its agencies to operationalise the use of the nine indigenous South African languages. The constitution has elevated the status of these languages (Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, isiNdebele, isiXhosa, and isiZulu) to official languages, in addition to English and Afrikaans. This appears in Chapter 1, Section 6 (1) of the constitution.

UKZN, a public and state university, in line with the constitution of the country and related legislative instruments, has taken up the task to elevate the status and advance the use of isiZulu as one of the official languages of the institution. IsiZulu is the dominant language in the province of KwaZulu-Natal, South Africa, where UKZN is found. In advancing the use of isiZulu, the university has committed to activating the development and use of isiZulu as an additional medium of instruction⁵ (MoI), as well as to the development of resources that will operationalise this objective while English remains the primary MoI (Language Policy of UKZN 2014: 2). In line with these developments, UKZN has embarked and committed to the process of developing discipline-specific terminology in isiZulu, the subject of this research study.

The current study investigates the cognitive, affective, and behavioural aspects of attitude of isiZulu L1 students at UKZN towards discipline-specific terminology in isiZulu and isiZulu as an academic language. In this chapter, I first look at language within the education landscape of South Africa. In this subsection, I interrogate the language policies which are in place in South Africa and use global and African perspectives as starting points. I give a synopsis of the crisis in the education sector that emanates from language-related issues, I argue on the role

⁵ The term 'medium of instruction' (MoI) is preferred although other researchers use the term Language of Learning and Teaching (LoLT). In instances where each of these terms are used, reference is made to English in academic contexts.

of languages in education in South Africa, including African language. I review language-as-a-resource orientation to language policy and planning, and I look into the implementation of the language policies in the country. Secondly, I address the issue of attitudes and language attitudes. In this subsection, I explore the attitude construct, including the 3-D model of attitude, and I explore attitudes towards the use of African languages in the education sector in South Africa, including isiZulu. Thirdly, I investigate the advancement of the use of isiZulu at UKZN. I interrogate the process in the development of discipline-specific terminology in isiZulu and thereafter I explore past research studies on the use of isiZulu at UKZN.

2.1 Language within the education landscape of South Africa

“We are Africans ... we live the joy of speaking many languages” is a prologue to Chapter Nine of the South African National Development Plan (NDP) – vision 2030. It highlights improving education, training, and innovation (RSA 2011: 261). The prologue acknowledges and welcomes the diversity of languages of South Africa. In the NDP an assertion appears, “Languages not only carry knowledge but also create new and better knowledge” (RSA 2011: 266). This assertion, in addition to the constitutional mandate, endorses the use of the official languages of South Africa to improve the quality of life of the people of South Africa. The NDP, as linguists argue, needs to incorporate, as its integral part, the language planning of the country (Chumbow 1987 in Heugh 2002: 173). The integration between the NDP and the language policy framework of the country needs to be overt with clear directives. The education sector plays a key role in integrating the NDP and the language policy. Legislation, governing the language practices within the education sector, is guided by the Constitution of South Africa and seeks to improve the quality of life of South Africans by propagating the use of African languages.

The language in education issue in South Africa bears a history of much contestation (Janks 2014: 11). The ongoing debate concerning the use of a foreign and/or minority languages (English and/or Afrikaans⁶) and the use of indigenous languages is a result of historical developments that South Africa has undergone in the past century. South Africa has metamorphosed from the colonial era in which the official languages were English and Dutch, to the apartheid era, wherein English and Afrikaans were deemed official languages, to the

⁶ There are conflicting views on the categorisation of Afrikaans as a foreign language to South Africa. A strong argument is raised for Afrikaans as a purely South African language, developed on African soil, as opposed to being a language of Dutch descent (see e.g. *The hidden histories of Afrikaans*: Hein Willemsse (2015)).

current democratic era, wherein eleven languages are accorded official status (Heugh 2013: 217).

In the colonial era, I trace the use of official languages from 1910, when the Union of South Africa was formed, and English and Dutch were declared official languages in the four provinces of the Union (Cape Colony, Transvaal, Orange Free State, and Natal) (Heugh 2007: 201). This declaration predominantly affected school going children of English and Dutch descent. For these children, mother-tongue education was put in place for the first six to eight years of schooling. Thereafter, English and Dutch were used, either on an equitable basis (bilingual education in dual-medium schools) or as a single medium with only English or only Dutch as the MoI in single-medium schools. In 1925, Afrikaans replaced Dutch as an official language (Giliomee 2004: 39). For African children, missionaries offered limited education and generally used mother-tongue for four to six years of schooling followed by the English medium (Heugh 2007: 201).

Under the reign of the National Party from 1948, mother-tongue education was applied across all ethnolinguistic groups including Africans and was based on territorial location. With the advent of the Bantu Education Act of 1953, African students were subjected to the use of English and Afrikaans as media of instruction for non-language subjects on a 50/50 basis, a move that precipitated the 1976 Soweto uprising⁷ (Angongo 1978: 216; Heugh 2007: 202). The uprising was resistance against Afrikaans as an MoI as it was regarded as the language of the oppressor (Angongo 1978: 216). English was a preferred MoI throughout the apartheid era, as Africans regarded it as a language of liberation from Afrikaans and separatism in education, and as a gatekeeper to the global village (Angongo 1978: 216).

Among others, a goal of Bantu Education was to enforce and entrench white supremacy, particularly Afrikaner nationalism (Mhlauli, Salani & Mokededi 2015: 205). The Afrikaner government thus purposed the lifting of the Afrikaans language to the same level as English, as a language used in “higher order” social functions including education. In addition, the government aimed to keep the African ethnic groups separate from each other and sought to ensure that Africans were seen as an inferior race to their white counterparts (see e.g., Alexander 2004; Mhlauli et al. 2015). The differentiation of the indigenous ethnic languages

⁷ The 1976 Soweto uprising was an organised protest by African learners who were challenging the language policy in education. The policy obligated African learners to learn the content subject through English and Afrikaans on a 50/50% basis (see e.g., <https://www.sahistory.org.za/article/june-16-soweto-youth-uprising>)

of South Africa, which otherwise are linguistically characterised as “Ausbau languages⁸”, was intended to prohibit the convergence of mutually intelligible dialects (Nguni cluster and Sotho/Tswana cluster) thus applying a divide and rule principle (Alexander 2004: 117). Over and above this, the African linguistic communities were not to interact among themselves and with other racial groups. Through the Group Areas Act, different races and different ethnic groups were allocated separate residential areas and their movement, particularly of the African race, was restricted when crossing racial demarcations (Mhlauli et al. 2015: 216). The government put in place a form of linguisticism wherein languages were used, ideologically, to legitimise inequality in power relations and the distribution of resources (Skutnabb-Kangas 1998b: 13). The Bantu Education Act was instrumental in ensuring separateness, based on race and ethnicity, as well as inequality among the people of South Africa (Ndimande 2013:23). The distribution of resources in providing for the education of the different race groups had vast disparities. As Lafon (2008: 40) reports, “Spending on white learners per capita was several times superior to that provided for Blacks, resulting in further widening the gap already existing”. This allocation of financial resources compromised the quality of education for African children. In addition to compromised resources, inadequately qualified and poorly paid African teachers were appointed in African schools and white teachers were gradually phased out in these schools (Lafon 2008: 41).

During the apartheid era, the indigenous languages of South Africa were not accorded official status (Heugh 2013: 216). These languages were used in informal domains and in the primary levels of the education sector as MoI for up to eight years, after which dual-medium English-Afrikaans MoI was applied in secondary school (Heugh 1999: 302; Lafon 2008: 39). For African speaking parents, English and Afrikaans were the languages through which knowledge could be accessed at higher levels of education. Ironically, reports on MoI issues in education, which reported on the matriculation⁹ results of the period between 1955 and 1976, indicate a dramatic improvement in the performance of African students who were exposed to eight years of mother-tongue instruction coupled with competent teaching of English as a subject (Heugh 1999: 303; Lafon 2008: 41). These reports are in contrast with the performance rates currently, now that English is the dominant MoI in South African schools (details on the crisis in

⁸ Ausbau languages are defined as languages by effort. These languages trace back to a single language unit and are characterised as intrinsically related to each other. For in depth description see e.g., Kloss (1967); Alexander (1998).

⁹ Matriculation in South Africa is the highest grade and exit level in basic education – a minimum requirement to enter Higher Education.

education are presented in subsection 2.12 below).

However, the engineered white supremacy accounted (and still does account) for the high regard that the indigenous people of South Africa accorded to English as the “language of liberation” on the one hand, and the regard accorded to Afrikaans as the “language of the oppressor” on the other (Angongo 1978: 216; Alexander 2004: 116). Between English and Afrikaans, English remains the preferred language for high order functions in South Africa, even among speakers of the indigenous languages of the country (Coffi 2017: 50). South Africans associated (and to a considerable extent, still do) indigenous languages with a second-rate education, and as an epitome of Bantu Education (Lafon 2008: 41).

The fact that indigenous languages were systematically demoted and never developed for high-order societal functions during the apartheid era accounts for many of the negative attitudes that the indigenous people have developed towards their languages. They consider these languages as not viable for political, academic, or economic purposes (Nomlomo & Katiya 2018: 78). In addition, these negative attitudes towards indigenous languages partially explain the current literacy crisis in education and, more generally, the crisis in South African education. The global hegemony of English perpetuates the linguistic status quo, while the local hegemony of English accounts for poor academic achievement and high dropout rates among students whose indigenous languages are not used as LoLT in higher education (ibid.).

According to Heugh (2002: 172), the separationist offering of the MoI to different racial groups in South Africa accounted for the massive under-education which negatively impacted the majority of South Africans, even in the democratic era post-1994. English first language (L1) and Afrikaans L1 speakers receive their primary education in their respective home languages, in addition to learning these languages as subjects, which exposes them to opportunities to develop their academic literacy levels in these languages. This is unlike African language L1 speakers, whose home languages are treated as only subjects (Read & du Plessis 2021: xv). African language L1 speakers receive education in their home language for the first three years of primary education and learn English as a subject at a second/additional language level before transitioning to English MoI from the fourth year onwards (Heugh 2013: 218). At the end of the third year of schooling, the speakers of African languages are neither ready to transition to English MoI nor have they developed adequate academic literacy skills in their home language; skills that may aid the learning of the second language (Angongo 1978: 217; Ramoupi 2014: 59). This scenario accounts for the deficient literacy levels experienced by speakers of African

languages, among other social ills, which are remnants of the apartheid era. It is in this light that South Africa has seen the growth of ideologies and movements that call for African Renaissance, Africanisation, decolonisation, and related campaigns such as #Feesmustfall, #Rhodesmustfall, #OpenStellenbosch (see e.g., Horsthemke 2004: 577; Kamwendo 2010: 271; Oelofsen 2015: 144; Ndlovu-Gatsheni 2019: 18; Chasi 2021: 31). These movements and campaigns aim at redressing the injustices of the past including repositioning Africa, promoting African indigenous knowledge systems and languages, and decoloniality (Chasi 2021: 31). In the case of the African Renaissance, which is a source from which all the other movements emanated, mother-tongue languages are critical for the economic development of a country. This hypothesis is attested to by thriving countries such as Norway, Switzerland, and Luxembourg, which constitute small linguistic communities that speak languages (i.e., Norwegian, Swiss-German, and Luxembourgish) which are not frequently used in the global market (Kamwendo 2010: 271). According to Chasi (2021: 31), decoloniality is about dismantling the relations of power and conceptions of knowledge that reproduce racial hierarchies. Decoloniality may be actualised through the use of African languages in high order domains such as higher education. In the next subsections, I interrogate the language policy directives from a global perspective, an African perspective, and a South African perspective.

2.1.1 Language policy from global, African, and South African perspectives

Policy is supposed to drive practice and is therefore devised with an objective that policymakers aim at attaining; an objective that has targeted results for beneficiaries (Beukes 2010: 194). Language policies should promote growth with equity among citizens to achieve socio-inclusion for all citizens and thereby remove the inefficiencies brought about by the promotion of foreign language(s) as official language(s) (Alexander 2012: 4). However, the implementation of language policies globally, in Africa, and South Africa, indicate gaps between the set objectives and the desired results. Nonetheless, I look at how the language policies that are in place in South Africa aim to align with global practices and practices in Africa.

2.1.1.1 Language policy from a global perspective

On the landing page of the United Nations International Mother Language Day, the following excerpt appears:

In 2021, the observance of The International Mother Language Day (21 February) is a call on policymakers, educators and teachers, parents and families to scale up their

commitment to multilingual education, and inclusion in education to advance education recovery in the context of COVID-19. This effort also contributes to the [United Nations International Decade of Indigenous Languages](#) (2022-2032), for which UNESCO is the lead agency, and which places multilingualism at the heart of indigenous peoples' development (United Nations 2021)

The observance of International Mother Language Day on the 21st of February was approved at the United Nations Educational, Scientific, and Cultural Organisation's (UNESCO) conference in 1999 and has been observed since the year 2000, with each year featuring a different theme. This observance indicates a commitment on the global front and an ideal that all countries aspire to, to the favourable use of the languages of the people of every country. The 2021 theme calls for the stakeholders in this endeavour to increase their commitment to implementing multilingual education. The issue of multilingual education and/or inclusion of indigenous languages in mainstream education embodies, in principle, respect for the language (linguistic) rights of the people.

The linguistic rights issue (linguistic human rights), which includes language rights in education, has been a cause of disagreement for decades (Skutnabb-Kangas 1988). Language rights in education are a vital component of linguistic human rights and are central to the maintenance and development of languages (Skutnabb-Kangas 1998; 2001; Skutnabb-Kangas & May 2016). According to Skutnabb-Kangas (2001: 205), failure to implement multilingual mother-tongue education accounts for systematic linguistic genocide. Multilingual mother-tongue education, in advocating for linguistic human rights in education, upholds multilingualism that is additive as opposed to subtractive multilingualism. Additive multilingualism, in the context of mother-tongue education, provides for adding a second, and even a third, language to a student's linguistic repertoire as means of ensuring academic and linguistic success (Heugh 2002: 174). In such a context, a student strengthens competency in their mother-tongue, achieved through extended use of this language as an MoI, while an additional language is systematically added for a seamless transition to be used as an MoI at a later stage. Additive multilingualism, ideally, must accomplish for an individual both competency in their mother-tongue and the second language. Subtractive multilingualism uses the mother-tongue during a transition of learning a hegemonic language, with an aim of submersion into the target language at the expense of mother-tongue language proficiency (Gándara & Escamilla 2016: 5).

The triumph of additive bilingualism over subtractive bilingualism, as witnessed among students enrolled for a Master's program at the University of Oslo in Norway, is reported by Brock-Utne (2007). In a class comprised of Norwegian home language (L1) students and students of African descent Brock-Utne made the following observation:

The Norwegian students, who have never had English as language of instruction, either in secondary school or for their bachelor studies at the university, are normally better in both oral and written English than most of the African students who have had English as a language of instruction for ten and sometimes even 14 years. The Norwegian students seem to have learned English well as a foreign language, instructed by teachers who are experts in teaching English as a foreign language to Norwegian students. Their academic vocabulary in Norwegian has been developed up to a high level (Brock-Utne 2007: 370).

The above observation indicates, firstly, that prolonged learning in English as an MoI, where English is a second language, does not guarantee a high proficiency in English. This is attested to in the case of the African students referred to by Brock-Utne (2007: 370). Second, learning through the medium of a mother-tongue improves the chances of attaining high proficiency in the second language, in this case, English. This is demonstrated in the case of the Norwegian students.

Subtractive multilingualism or bilingualism can be argued for, using the language policy developments in the United States of America (USA). The USA is highly populated by immigrants and their languages from around the world. The language policy developments in the USA have evolved from tolerance of the immigrants' languages to repression of these languages, and to "window-dressing" bilingual policies that have aimed at transitioning the immigrants to English as soon as possible (Gándara & Escamilla 2016: 2-3). For the most part, the bilingual policy in the USA is subtractive as it promotes proficiency in English rather than in the home languages of the immigrants. This is a policy that encompasses what Gándara and Escamilla (2016: 5) term "transitional bilingual education (TBE) programs". The TBE programs initially use the learners' home languages in the teaching of the content subjects while the learners are learning English. The goal is to transition the learners fully into English either in one to three school years, that is, early-exit, or in four to five school years, that is, late-exit (Crawford 2004, in Gándara & Escamilla 2016: 3). Whether the TBE program is early-exit or late-exit, both variations are subtractive as they aim at entrenching the English language at

the expense of the home languages. In the USA, according to Van der Walt (2010: 255), any form of bilingual education is regarded with suspicion. Language policies speak to bilingualism as a vehicle toward the attainment of English proficiency.

The other, smaller, part of the USA bilingual policy is known as Dual Language (DL) program. DL programs offer an alternative to English-oriented TBE programs and to “pervasive English-only” practices (Delavan, Valdez & Freire 2017: 87). The DL programs are aimed at achieving equitable bilingualism regardless of whether the learners are English-speaking, immigrants, and/or grew up as bilinguals. The goal is for the learners to achieve competency in two languages, one of these being English. Although DL programs appear to promote authentic bilingualism, the inclination for English to dominate the partner language is always present and thus, such a program needs to be implemented with caution (Delavan et al. 2017: 88). DL programs are meant to achieve additive bilingualism and align with the language-as-a-resource orientation to language planning; an orientation that affirms heritage and minoritized languages (Ruiz 2010 in Delavan et al. 2017: 87). A minoritized language does not necessarily refer to a language spoken by a minority of speakers but may also be a language that is not recognised as an official language, and may, in some instances, be a majority spoken language that has not been given official status (Groff 2017: 136).

Progressive support for multilingualism is reported in the case of India. India has a complex linguistic landscape characterised by multiple cultures and languages including heritage and minoritized languages (Groff 2017: 135; Pandya 2021: 10). Hindi and English were declared official languages in the Constitution of India in 1950 and each state was given a choice to declare its official regional language (Groff 2017: 145). India has adopted a Three-Language Formula which stipulates guidelines for three languages to be taught as subjects and includes the duration of teaching. A mother-tongue language has a minimum teaching requirement of ten years, an official language requires six years, and another modern or foreign language can be taught for three years or more. The latest National Education Policy of 2020 reaffirmed India’s determination in promoting multilingualism, mother-tongue education, as well as national unity (Lee, Hamid & Hardy 2021: 12). The Constitution and national education policies of India place emphasis on mother-tongue-medium instruction (Groff 2017: 152). This is over and above the fact that a differentiated use of English and vernacular languages, including tribal languages, is attested to in the school system in India, a use that elevates English, as a prestigious language, above other languages (Mohanty 2017:276). The prestige accorded to English is based on the demand for social and economic advancement (Groff 2017:

153). Thus, the Constitution and the education policies are instrumental in promoting multilingualism and the use of mother-tongue languages in the education sector in India.

Multilingualism is in line with the UNESCO Sustainable Development Goal (SDG), Target 4.5 (UNESCO 2016.)

By 2030, eliminate gender disparities in education and **ensure equal access to all levels of education** and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations

4.5.1 Inclusion and equity: **All people, irrespective of sex, age, race, colour, ethnicity, language, religion, political or other opinion, national or social origin, property or birth, as well as persons with disabilities, migrants, indigenous peoples, and children and youth, especially those in vulnerable situations or other status, should have access to inclusive, equitable quality education and lifelong learning opportunities** (my emphasis) (UNESCO 2016: 21).

The inclusion of mother-tongue languages in education in different countries aligns with the endeavour to achieve SDG target 4.5. With the use of the mother-tongue, indigenous communities access education in a familiar language and have increased chances of success in education. Language needs to be instrumental in ensuring equal access to education and other learning opportunities in languages that people are familiar with, thus, shifting the focus away from foreign languages as the main/or only languages through which education is accessed. The United Nations and its agencies revere and uphold the language rights of indigenous people including the right to access education in their languages (Tollefson & Tsui 2014: 190). The language rights apply not only to the UN member states but to all countries, on all continents, including Africa.

2.1.1.2 Language policy from an African perspective

Africa is characterised by a plethora of languages across the continent and within individual countries on the continent (Wolff 2017: 6). The linguistic landscape in Africa is both multilingual and complex (Owusu, Adade-Yeboah, Dansieh & Afram Snr 2021: 233). The multiple languages within countries include the indigenous African languages and the languages of the former colonial powers, for example, English, French, and Portuguese. The elevated level of multilingualism that exists in Africa is well acknowledged and well documented. The development of Africa to its capacity, including socially, economically,

politically, intellectually, and otherwise, may be realised through operationalising multilingualism to its full potential. According to Djité (2008: 2), language education and learning in Africa are fundamental to imparting knowledge that will uplift the continent out of “socio-political doldrums and economic misery”. Such impartation is possible using African languages. Moreover, the authorities, for example the African Union, idealise that this multilingualism be upheld. The following are high level declarations in which the good intentions regarding the languages in Africa have been pronounced: The Organisation of African Unity (OAU) Language Plan for Action (1986); the Draft Charter for the Promotion of African Languages (1996); the Harare Declaration (1997); and the Asmara Declaration on African Languages and Literatures (2000). In these declarations, multilingualism is accepted as integral to empowering indigenous languages as working languages, media of instruction, and languages of the mass media, as they are the languages that Africans know best (Djité 2008: 4). In support of multilingualism and the use of indigenous languages in African countries, I refer to the OAU Language Plan for Action (1986) and the Asmara Declaration on African Languages and Literatures (2000).

One of the aims of the OAU Language Plan for Action is “to encourage the increased use of African languages as vehicles of instruction at all educational levels” (OAU 1986). As a strategy to realise this aim and other aims, and as part of the program of action, member states agreed to the following two points, among others:

- (i) Aware that African universities, research institutes and other institutions concerned with the study and promotion of African languages have a unique role to play in strengthening the role these languages play in the daily lives of the African people, the need for these institutions to strike a proper balance in future between the scientific study of the African languages and **their actual use and practical promotion** (my emphasis).
- (j) In connection with (i) above, the need for each Member State to render its national universities and other research and related institutions a primary instrument for the practical promotion of African languages, as regards such critical promotional activities, as **the compilation of technical and general dictionaries**, the writing of textbooks on useful subjects, the training of teachers of language, translators, interpreters, broadcasters and journalists, the production of useful books and other types of literature, **relevant to the lives of**

contemporary Africans and the up-dating of vocabulary in African languages. OAU Plan for Action 1986 (my emphasis).

In point (i), the use and practical promotion of African languages at African universities are foregrounded. It is not enough that students take up these languages as majors for their individual enrichment and research, but the use of African languages has to spread across a wide spectrum of the African populace in education, from primary level up to tertiary level. From a point of view expressed by Djité (2008: 7), the major learning problems experienced by African children centre around learning through a language that often neither they nor their teachers understand and use well enough.

At Asmara, Eritrea, during the Against All Odds conference ‘African Languages and Literature into the 21st century’, declaration number five states (Asmara Declaration 2000):

5. All African children have the unalienable right to attend school and learn in their mother-tongues. **Every effort should be made to develop African languages at all levels of education** (my emphasis).

In Africa, language policies in education are characterised by contestation between indigenous languages and colonial languages, the latter playing a dominant and hegemonic role (Bunyi 1999: 339).

During the colonial era, indigenous languages were used by missionaries in the education of Africans to reach the masses, for evangelical purposes (see e.g., Bamgbose 1983; Bunyi 1999). As argued, “With enforced colonial administration, particularly taking away the responsibility over education matters from the missionaries, the colonial powers adopted different language in education policies for their colonies” (Bamgbose 1983: 57). In the French and the Portuguese colonies, assimilation policies were adopted and in the British colonies, separatist language in education policies were adopted (Bunyi 1999: 341). In the German colonies, the use of indigenous languages was encouraged albeit they were regarded as inferior to the German language. The aim of their use was to keep the Africans ignorant about themselves and their affairs (Angongo 1978: 219). The case of Kiswahili in Tanzania is an example of such use (ibid.). Spain implemented a sectarian education policy where the languages of the locals were used separately in line with the dominant religions, Christian, Muslim, and Jewish (Sayahi 2015: 65). This language policy assumed that all education is religious (ibid.). In South Somali, colonised by Italy, Somali was completely ignored, and Italian was used for official and educational purposes (Abdulaziz 2003: 107).

The colonial languages have, over time, been highly valued and legitimised while the indigenous languages have been devalued and delegitimised (Bunyi 1999: 342). English, French and Portuguese became the MoI from the primary level of education in different African countries (Bunyi 1999: 339). One example of this policy is evident in Zambia with English as the MoI for the first seven years of primary education (Owusu et.al. 2021: 233). An exception to the inherited use of colonial languages in education is noted in Rwanda. Rwanda declared Kinyarwanda as the MoI for up to eight years of primary education with French and later (mid-1990s) English as subjects (Pearson 2014: 41). The homogeneity of the Rwandan population, with over 90 percent being first language speakers of Kinyarwanda¹⁰, favoured the implementation of a home language policy in this nation in central Africa (Owusu et al. 2021: 233).

Since the 1950s, indigenous languages have played a marginal and transitory role in the education system of Kenya (Bunyi 1999: 342). These languages are used as an MoI in the first three years of schooling, only in the regions which are homogenous in terms of the home languages spoken. However, this does not hold in the linguistically diverse metropolitan areas where multiple home languages co-exist. In Kenya, the transition to English medium instruction takes place in the fourth year of schooling in the former scenario, whereas in the latter scenario English is the medium from the first year of school (ibid.). Despite this being the case, it is estimated that only 15 percent of the people of Kenya know English well enough to use it across different domains (Abdullaziz 1982, in Bunyi 1999: 339). This situation is similar to other countries on the African continent. Brock-Utne (2007: 369) reports on the struggle that students at the University of Dar es Salaam (in Tanzania) encountered with English as the MoI, while their livelihoods depend on local languages and their pre-university education was administered in Kiswahili. As Brock-Utne (2007: 369) observed, “At the university, I noticed how the development of academic Kiswahili suffered. I also noticed the problems students had communicating in this foreign language (**English** – my addition). Also, in secondary school the language of instruction was English. Here the situation was even worse. Here the language of instruction was a real barrier to knowledge, preventing students from understanding what the teacher was saying”. Taking the cited cases of Kenya and Tanzania

¹⁰ In a PhD study, Ngabonziza (2020: 22) reports on the existence of other Rwandan minority languages (Ikirundi, Oluchiga, Amashi and Igihavu). However, because of the monolingual ideology of equating a language and a country and the political objective of nation-building, there are no official statistics of the number of speakers of these languages. Hence, Rwanda is known to be a homogenous linguistic nation with Kinyarwanda as a national language and lingua franca.

into consideration, it appears that the early transition to an English MoI hinders the development of proficiency, as well as the use, of English and African languages at basic and tertiary levels of education.

It is noted with concern in an evaluation by Bamgbose (1983: 61) that progress is slow, and enthusiasm is questionable, in the implementation of multilingual, mother tongue-based education policies across the African continent. In most countries, the colonial languages dominate the education sector, except in Rwanda (as noted above) and in Tanzania, where national languages are used at the primary level of education. In the other African countries, factors that hinder the implementation of multilingual mother tongue-based education policies, according to Bamgbose (1983: 61-62), include:

- Socio-historical barriers and inherited colonial policies
- Linguistic and pedagogic barriers
- Economic barriers
- Theoretical barriers
- The political attitudinal barrier
- The psychological/social barrier.

I refer to the political attitudinal barrier. Malawi exemplifies such a barrier in the realisation of multilingualism. Kamwendo (2010) recounts the language in education policy evolution from colonialism to independence in Malawi, a former British colony in south-eastern Africa. After the colonisation of Malawi in 1891 the Christian missionaries, pursuing evangelism alongside educating the locals, used two dominant indigenous languages in the primary education levels in addition to English, Chinyanja (later named Chichewa) and Chitimbuka (Kamwendo 2010: 273). The three languages were the official languages of the country. Malawi attained independence from Britain in 1964 and inherited the colonial language policy in education until 1968 when Chichewa was declared the only official indigenous language alongside English (Kamwendo 2010: 274). The elevation of Chichewa was at the expense of Chitimbuka and other Malawian indigenous languages (Mchombo 2017: 194). The Malawian president at the time promoted and developed Chichewa in speeches and in a few initiatives that were meant to move toward the realisation of it being the predominant official language. However, English remained the main official language, dominating in government and the

education sector (Kamwendo 2010: 275). This era of linguistic assimilation into English continued up until 1994 when a change in government leadership occurred. Thereafter, Malawi aimed to follow linguistic pluralism and promoted multilingualism with regard to the diverse languages of Malawi. However, the ripple effect of the hegemonic use of English, insufficient political will on the part of the government, and infrastructural deficiencies in terms of human and material resources, undermined the promotion and advancement of the use of the indigenous languages of Malawi (Kamwendo 2010: 277). In 2014, English was declared as the MoI from grade one (K-1), and in the last decade, there has been a subtle proliferation of Chinese Mandarin in the education sector (Mchombo 2017: 195). In Malawi, the advancement of multilingualism, with reference to indigenous languages, is hampered by a political attitudinal barrier that has impacted Malawians in terms of losing confidence in the capability of these languages.

Even though most of the African countries inherited the language policies of their ex-colonial masters, Tanzania took a divergent stance. After independence, Tanzania opted for a policy of subtractive bilingualism wherein Kiswahili has been gradually replacing English in different domains, including education (Ramoupi 2014: 63). Kiswahili was declared an MoI throughout the primary school years, that is, elementary and middle school years (Roy-Campbell 2006: 2). English was declared an MoI at the secondary school level, Form I to Form VI and beyond (Vuzo 2018: 806). The switch to the use of English as MoI at the secondary school level has been characterised by difficulties for students in following the curriculum and attaining expected competencies (ibid.). English poses linguistic and pedagogic barriers to Tanzanian learners. In 2014, the Tanzanian Education and Training policy promoted the use of both Kiswahili and English at all levels of education but due to a lack of implementation strategies in the policy, English remains the MoI at the secondary school level (Vuzo 2018: 807).

As Heugh (1999: 311) argues, “The functional use of African languages will never be fully realised whilst the conquered consciousness prevails and until their potential in economic terms is unmasked, possibly alongside an awareness of language rights by their users”. The argument by Heugh is in line with the call by Ngũgĩ wa Thiong’o¹¹ for the decolonisation of the mind and breaking away from foreign domination of African minds (Konaté 2021: 5). Kamwendo

¹¹ Original name **James Thiong’o Ngugi**, is a renown Kenyan writer who was considered [East Africa’s](#) leading novelist. His popular *Weep Not, Child* (1964) was the first major [novel](#) in English by an East African. As he became sensitized to the effects of colonialism in Africa, Ngugi adopted his traditional name and wrote in the Bantu language of [Kenya’s Kikuyu](#) people (<https://www.britannica.com/biography/Ngugi-wa-Thiongo>).

(2010: 279) contends that the stigmatisation of African languages as having less value and being incapable of driving the development ideals of African nations will persist for as long as indigenous African languages are kept out of the education system. This is the plight that Africa is faced with. The good intentions spelt out in the various continental declarations present an opportunity to overcome the scourge of colonialism and the denigration of African indigenous languages. The promotion of the use of African languages does not entail the exclusion of English from education but an inclusion of African languages alongside English.

2.1.1.3 Language policy from a South African perspective

South Africa is a multilingual country with eleven official languages and innumerable other active languages. However, for the purposes of this study, the focus is on the logistics around the use of isiZulu in an English-oriented university education system. With the advent of democracy in 1994, the language policy in South Africa and its related legislative instruments are promulgated and geared towards realising the ideal of multilingualism. Multilingualism, in South Africa, has been penned in the Constitution of 1996 and subsequent legislation (see Table 2.1 below). However, 26 years after the adoption of the Constitution (1996–2022), the implementation of the language policy and related legislative instruments still largely remain an ideal. As Coetzee-Van Rooy (2018: 20) argues, there is concern regarding discrepancies between the multilingual policies' ideals and the lack of practical implementation thereof. Change ought to happen, and education has a key role in effecting change, which requires implementation of the language policies. In the view expressed by Heugh (2002: 173), “The logic of the language in education policy [...] is based on the recognition that South Africa is multilingual and that the mother-tongue is the most appropriate language of learning everywhere in the world”. In South Africa, the constitution and language policy framework acknowledge the importance of mother-tongue. Table 2.1 presents excerpts from the legislation as far as the use of African Languages is concerned:

Table 2.1: Language policy and related legislative instruments 1996-2020

Legislative instrument	Excerpt on language matters
The Constitution of the RSA, Act No 8 of 1996 Chapter 1 section 6 (4)	4. The national government and provincial governments, by legislative and other measures, must regulate and monitor their use of official languages. Without detracting from the provisions of subsection (2), all official languages must enjoy parity of esteem and must be treated equitably (my emphasis).
National Education Policy Act No 27 of 1996	4. The policy contemplated in section 3 shall be directed towards: (a) the 'advancement and protection of the fundamental rights of every person guaranteed in terms of Chapter 3 of the Constitution, and in terms of international conventions ratified by Parliament, and in particular the right (v) of every student to be instructed in the language of his or her choice where this is reasonably practicable (my emphasis).
Higher Education Act No 101 of 1997	27. (2) Subject to the policy determined by the Minister, the council (Council of public higher education institution), with the concurrence of the senate, must determine the language policy of a public higher education institution and must publish and make it available on request (my emphasis).
Language Policy for Higher Education, November 2002	15. In relation to languages of instruction: 15.1 The Ministry acknowledges the current position of English and Afrikaans as the dominant languages of instruction in higher education and believes that in the light of practical and other considerations it will be necessary to work within the confines of the status quo until such time as other South African languages have been developed to a level where they may be used in all higher education functions (my emphasis).

Use of Official Languages Act No 12 of 2012	4. (3) In identifying at least three official languages as contemplated in subsection (2)(b), every national department, national public entity and national public enterprise must take into account its obligation to take practical and positive measures to elevate the status and advance the use of indigenous languages of historically diminished use and status in accordance with section 6(2) of the Constitution (my emphasis).
Revised Language Policy for Higher Education, 2017	24. This policy is embedded within the following principles: c) a recognition that languages are critical resources in the transmission of knowledge, cognitive development and effective participation in the knowledge economy (my emphasis).
Language Policy Framework for Public Higher Education Institutions, July 2020.	29. Language of Learning and Teaching (LoLT): Recognising the de facto status of English as the language of learning and teaching across South African higher education institutions, this policy calls upon universities to adopt a flexible approach in the implementation of English as the language of learning and teaching. Necessary support must be provided to students for whom English is not their first language or mother-tongue, in order to ensure academic success (my emphasis).

As Docrat and Kaschula (2015 in Mkhize & Balfour 2017: 136) argue, vague phrases in the legal frameworks allow for the perpetuation of old practices and make the legislative instruments in place appear as rhetoric. The stipulations in the Constitution and the language policy frameworks do not detail the way the policy directives are to be executed nor do they detail any stringent timeframes. The stipulations are too flexible and open-ended. I refer to three statements in the frameworks tabled above. Firstly, Section 4 (v) of the National Education Policy Act No 27 of 1996, “every student to be instructed in the language of his or her choice where this is reasonably practicable”. The statement is directly linked to the constitutional directive stipulated in Chapter 2 Section 29 (2). The ‘reasonably practicable’ phrase is left to the discretion of educational institutions and to the governing bodies that

regulate functionality in these institutions (Section 6.1 of the Language in Education Policy of 1997). However, this right to a choice of a language as MoI is subtly overlooked because of practical reasons.

Secondly, in the Language Policy for Higher Education (2002), the phrase “in the light of practical and other considerations it will be necessary to work within the confines of the status quo until such time as other South African languages have been developed to a level where they may be used in all higher education functions”, is both accommodating and inexplicit. The Ministry of Higher Education accedes to the hegemony of English and Afrikaans. The articulation “it will be necessary to work within the confines of the status quo”, allows for the perpetuation of the hegemony, particularly, the use of English as a medium of academic instruction. The phrase, “until such time” indicates vagueness in the realisation of multilingualism in South Africa. The absence of definite timeframes leaves the good intention without a desirable outcome.

Thirdly, the Language Policy Framework of 2020 mentions, “a flexible approach in the implementation of English as the language of teaching and learning” as well as “necessary support must be provided to students for whom English is not their first language or mother-tongue, in order to ensure academic success”. There is no clarity on what “a flexible approach” entails. It is also not clear what is meant by “necessary support...to ensure academic success”. By practical implication, the trend in South African universities to provide the necessary support, may refer to the academic literacy support programs in English as means of alleviating the under-preparedness of students whose home language is not English (see e.g., De Boer & van Rensburg 1997: 160; Hurst 2015: 81; Read & du Plessis 2021: xxii). This leaves African languages out of the picture; the very linguistic capital that students, whose home language is not English, should build upon.

Notwithstanding the pressure of the dominance of, and the preference for, English there are initiatives underway regarding the use of African languages that aim at exploiting the linguistic capital of African students. Read and du Plessis (2021: xv) mention a joint English/Sepedi degree at the University of Limpopo, and assessments in Sesotho at the Vaal Triangle Campus of North-West University. UKZN is also on that track with several initiatives at the degree level (dual medium Postgraduate Certificate in Education – see Mbatha 2016; Nkosi 2017), at the discipline level (Supplemental Instruction within the College of Agriculture and Engineering Sciences – see Bengesai 2011), and at module level (a pilot project with Physics

level 1 students – see Chetty 2013).

2.1.2 The South African education crisis: language related issues

There is a reported causal relationship between educational success and language medium (see e.g., Heugh 1999: 302; Lafon 2008: 36; Simkins & Patterson 2005 in Alexander 2012: 7; Stroud & Kerfoot 2021: 20) and between the use of a foreign language as MoI and the resultant low levels of literacy (Pretorius & Spaull 2016: 1450; Read & du Plessis 2021: xiii). According to Fouche (2009 in Mkhize & Balfour 2017: 135), educating students in a language that is not their home language increases the risk of failure. Such students are disadvantaged in assessments (Ramoupi 2014: 59). In South Africa, there is evidence of poor literacy performance as indicated by measurements such as the Progress in International Reading Literacy Study (PIRLS), the Southern and East African Consortium for Monitoring Education Quality (SACMEQ), and the National School Effectiveness Study (NSES), as reported in Pretorius and Spaull (2016). In addition, the Annual National Assessment (ANA) results reinforce evidence of the crisis in the education sector in South Africa (Spaull 2013: 3). PIRLS, SACMEQ, and NSES were conducted based on a national representative sample while ANA was conducted nationally on all school-going learners in the periods assessed (Spaull 2013: 14). The literacy challenge spans from the primary/elementary education level and beyond (Pretorius & Spaull 2016: 1467). According to Heugh (2013: 225), the noted literacy challenges and academic underachievement are more apparent with the early transition to English as an MoI in the fourth year of schooling for African learners. This is due partly to African languages remaining predominant in quintile one to quintile four schools in township and rural areas even though English is deemed the MoI (Read & du Plessis 2021: xv). Many learners of African descent do not experience sufficient exposure to English prior to the use of English as the MoI.

The challenges that African learners encounter are also experienced at the tertiary level, as the MoI is not the home language of the students. This is in contrast with the experiences of English, and most Afrikaans, home language speaking students who frequently learn through their home languages throughout their basic education, which positions them at an advantage to develop academic literacy in the MoI (Wildsmith-Cromarty & Balfour 2019: 299; Read & du Plessis 2021: xix). For this reason, Van der Walt (2010: 254) argues that the framework developed for language policy and practice, at primary and secondary levels of education, need to be considered for tertiary education as well. Continuity in both policy and practice is vital. African students, according to Wildsmith-Cromarty and Turner (2018: 418), need a solid

foundation in their home language to take full advantage of its use as MoI at the tertiary level. This may be achieved if the home language is used as MoI beyond the first three years of schooling.

The existence of underdeveloped literacy skills in both the students' L1 (African language) and the MoI (by default, English), inhibits epistemological access to African students in either language used (Nomlomo & Katiya 2018: 78). This under-development of literacy skills is attributed to the early-exit model that South Africa practices. South Africa offers the first three years of education through the home language as the MoI and in the fourth year, a transition to English takes place (Heugh 2013: 218). This leaves the home language underdeveloped in terms of essential academic literacy skills. One of the many factors that contribute to an under-development of literacy skills in the L2 could be the fact that many teachers speak non-native varieties of English with complex structures that deviate from the standard variety (Stroud 2016: 14). These complex structures reflect the reality that teachers of English as an additional language are, largely, non-native speakers of English (Read & du Plessis 2021: xv), and as such the teachers resort to using the home languages they share with the students (Desai 2016: 344). As a result, during the first three years of schooling in which English is offered as a subject, African language speaking students do not acquire sufficient vocabulary and academic literacy in English to adequately prepare for the use of English as MoI from the fourth year onwards. The students stumble on linguistic representations and linguistic expressions (Lafon 2008: 36). In addition, most of these students come from home backgrounds that provide little to no support resources to stimulate academic literacy in either the home language or in the MoI (Van der Walt 2010: 265). A few African language speaking students attain coordinate bilingualism by the time they reach a tertiary level of study (Mkhize & Balfour 2017: 134). Coordinate bilingualism entails that these students learn their home language and English as two distinct languages thus, they neither receive adequate academic literacy development in the L1 nor the MoI (Diller 1970: 254). In an assessment made by Heugh (2002: 186), regarding the era of Bantu Education (survey over the period 1953-1976), when African language speaking students were subjected to eight years of mother-tongue instruction and sufficient learning of English and Afrikaans, both of which additionally functioned as media of instruction, there were noted improvements in the matriculation results. However, with the change of policy and the growing preference for English as MoI, literacy and performance-related challenges have prevailed.

The literacy crisis and poor academic performance attributed to the MoI extend beyond primary

and secondary education levels to the tertiary level. It is within this context that African languages permeate into higher education in South Africa. As Gore and Walker (2020: 57) argue, universities need to create an environment in which all students develop their capabilities to achieve academically. Language is one of the key elements in optimising the students' capabilities.

2.1.3 The role of languages in the education sector in South Africa

There is evidence that the languages of the people of South Africa offer enabling opportunities to participate effectively in the development of the country socially, economically, politically, and otherwise. According to Alexander (2012: 3), “[...] being able to use the language(s) one has the best command of, in any situation, is an empowering factor and, conversely, not being able to do so is disempowering”. Thus, the use of indigenous languages in education stands a better chance of enabling and empowering the speakers of these languages, through access to knowledge, than the use of English does. According to Ramoupi (2014: 57), a language organises and conceptualises reality, and is a reservoir of memory generated by human interaction with the social environment. Indigenous languages have the potential to enable users to express themselves freely without inhibitions. The English-mainly policy in education prohibits the majority of South Africans from gaining vital information and from full participation in the democratic processes of the country (Ramoupi 2014: 55). Gore and Walker (2020: 63) report that limited proficiency in English compromises African students' academic performance and that this, in turn, affects their confidence and increases feelings of disempowerment.

In addition, Janks (2014: 12) claims that “Perpetuating the dominance of English in South Africa has consequences for children's identity formation and undermines the status of African languages”. It is in this light that I look at the effect of English as the primary language in education policy and the potential role of African languages in realising the development ideals of South Africans. I argue in favour of the languages-as-a-resource orientation to language planning.

2.1.3.1 The hegemony of English as the primary medium of instruction

The issue of the hegemony of the global North and colonial languages draws impetus from the World Systems Theory promulgated by Immanuel Wallerstein (Martínez-Vela 2001: 4). The World Systems Theory seeks to explain a social system wherein the ‘core’ and the ‘periphery’ co-exist. The core being the powerful and influential, and the periphery being the weak and the

dominated (Martínez-Vela 2001: 4). In the case of the linguistic landscape in South Africa, English is the core, and the indigenous African languages are the periphery.

The systematic distinction between the core and the periphery is a result of colonial conquest and subsequent resultant structural transformations which reinforced the hegemony of English in South Africa, and French, Italian, Spanish, and Portuguese in other parts of Africa (Alexander 2012: 3). In addition to colonial conquests, globalisation has contributed immensely to the establishment of a hierarchy of standard languages. It is a mirror of the power relations that exist, an effect of which is the extinction, stigmatisation, and marginalisation of all but the most powerful languages. This hegemony of the global North and the colonial languages is perpetual (Alexander 2003: 5). A prevailing circumstance in post-colonial Africa is the consent to the hegemony of the dominant languages by most of the people which “[...] has led to the almost complete marginalisation of the local languages of the people and the valorisation of English, French and Portuguese in the relevant African states” (Alexander 2012: 3).

In the case of South Africa, the naturalisation of English has led South Africans to self-assimilate into English due to a belief that this language is a gateway to upward social mobility and access to economic goods (Heugh 1999: 302; Lafon 2008: 47; Janks 2014: 11). This trend is not unique to South Africa, rather it has been reported on, for example, in the USA (Kaveh 2020) and India (Groff 2017). In a research study on the state of Massachusetts, which adopted an English-only policy (2002-2017), the parents of immigrant children subjected their children to English immersion education programs at the expense of maintaining their heritage languages (Kaveh 2020: 3). In South Africa, English has wielded symbolic power and material power (Glanville, Janks, Mphahlele, Reed, Watson, Joseph & Ramani 1998: 258). English has found favour among the previously disenfranchised and it continues to play a significant role in international communication, higher levels of education, and the economy (Heugh 2002: 180). However, as Heugh contends, the high regard accorded to English does not imply a disregard of, and detachment from, indigenous languages (*ibid.*).

What transpires is that South African parents opt to send their children to English medium schools in anticipation of better-quality education and better-equipped schools (Lafon 2008: 45). This dominance of English does not equal its prevalence over African languages. There is a shift from the use of African languages to the use of English both inside and outside the homes of Africans (Kamwangamalu 2003: 237). In a study on the use of English outside the

household, Posel, Hunter and Rudwick (2020: 10) conclude that there is no evidence indicating a shift to English as L1 among Africans, instead, the oral vitality of African languages is prevalent, and English shows no dominance in African people's daily conversation. Even though parents prefer to send their children to English medium schools, the reality among African people indicates that most do not achieve a level of proficiency in English that enables them to benefit socio-economically and otherwise. For the vast majority of South Africans, English is not a part of their cultural universe, hence the challenges in attaining proficiency (Ramoupi 2014: 62). In addition, limited exposure to home languages in English medium schools inhibits the acquisition of elaborate knowledge and proficiency in these languages, while proficiency and fluency in English may also not be optimally attained, resulting in what Lafon terms "bilingual illiterates" (Lafon 2008: 48).

What materialises in South Africa is, what Janks (2014: 12) terms, an "access paradox". On one hand, the open access to English as the main MoI in the education sector serves to perpetuate the dominance of English and marginalise indigenous languages. On the other hand, failure to access English by individual citizens leads to the marginalisation of the individual in the society (ibid.). However, as the World Systems Theory propagates, the core/periphery relations are continuously in tension and contested. Such is the case in South Africa between English and the indigenous languages (Mutasa 2014: 10). At university level, the inability of African students to use English fluently constrains these students in maximising opportunities and resources in English to perform optimally in their academic endeavours (Gore & Walker 2020: 68). This indicates a dire need for the operationalisation of multilingual policies in education. However, the promoted multilingual education programs are in contrast with the proposed subjection of African students to intense academic literacy courses in English (Wildsmith-Cromarty & Turner 2018: 416). The academic literacy courses aim at bridging the proficiency gap in English.

Over and above the core/periphery relations between English and indigenous languages, and the preference of English for social mobility goals, there are also hegemonic relations among the indigenous languages themselves. This adds leverage to the preference for English. The elevation of Chichewa as a national language over Chitimbuka and other indigenous languages of Malawi in 1968 exemplifies this power relation (Kamwendo 2010: 274-275). However, even after the change of government in Malawi, and the subsequent drive for the revival and use of other Malawian languages in education, the inequitable distribution of resources perpetuates the dominance of English, resulting in a widespread preference for English-only schools

(Kamwendo 2010: 277).

Movements such as the African Renaissance, Indigenous Knowledge Systems (IKS), decolonisation of the curriculum, #Fees Must Fall and the subsequent #Rhodes Must Fall place at the fore the complexities of colonial legacies, the decolonisation discourse, and the urgency for transformation (Chasi 2021: 33). The elevation and use of African languages in education are an essential part of the transformation agenda. In the case of the current study, the call to increase the use of isiZulu (and other African languages) in higher education forms part of the transformation process. The statutes and policies that are promulgated serve to advance the linguistic transformation agenda in South Africa, Africa and beyond. However, in South Africa, the language policies, and legislative frameworks in place, as Read and du Plessis (2021: xiv) contend, “[...] have in many spheres not achieved the desired protection or development of all the official languages; English and Afrikaans (to a lesser extent currently) remain the dominant languages of learning and teaching”. The policies and legislative frameworks operate at a macro level and the onus is on institutions to operationalise these policies and frameworks at a micro level. Citing the example of historical Afrikaans universities in South Africa, Van der Walt (2010: 255) highlights how dual medium instruction is operationalised by developing study materials for study support. UKZN has taken up the task and is advancing the use of isiZulu at institutional level.

2.1.3.2 The role of African languages in education

The role of language in education is critical as it impacts access and success, affirms diversity, and entrenches the linguistic right of a student (Ramoupi 2014: 77). The use of indigenous African languages in education is a manifestation of the linguistic rights of Africans. It is through a familiar language that speakers may contribute constructively, participate effectively, and benefit in social, political, and economic growth for their benefit and the benefit of their countries. Djité (2008: 3) argues that a language must be relevant to the needs of the speakers, and it must capacitate them in conducting their day-to-day activities, aid in addressing their health care needs, in alleviating hunger, and it should enable their active participation in the scientific and technological advancements of the world. In effect, denying speakers the use of their indigenous languages restricts their human rights and disempowers them.

Over and above the issue of rights, as well as individual and societal benefit and development, the active use of indigenous languages in education promotes language maintenance and preservation, thus, affirming diversity. According to Skutnabb-Kangas (1998: 6), the use of

indigenous languages in education is vital for the intergenerational transmission of these languages and their maintenance. In concurrence, Shava and Manyike (2018: 37) assert, “Indigenous languages capture and transmit the knowledge and wisdom of indigenous communities”. As observed in Tanzania, the standardisation and subsequent use of Kiswahili as the MoI in the seven years of primary education entrenched this language firmly among Tanzanians (Ngcobo 2014: 699). Tanzania exemplifies the late switch to English model in the use of languages in education. In earlier research, Heugh (2002: 187) indicated the extent to which the early switch to English as an MoI negatively impacts not only educational performance but also language preservation. In South Africa, indigenous languages are used as MoI in the first three years of education and thereafter these languages are offered as subjects. The early switch to English results in compromised academic performance. Shava and Manyike (2018: 38) assert that the way indigenous African languages were used in the past, to transmit local knowledge and practices, was instrumental in the development of local communities in terms of agriculture, medicine, crafts ware, technology, and use of natural resources and their conservation, as well as in governance. These authors state that colonialism has denigrated, devalued, and excluded indigenous languages in core social, economic, educational, and political domains (ibid.). The use of indigenous languages may thus increase the probability of educational access and success, by being used as a resource and enabler for the speakers.

The early switch to English also accounts for the compromised manner in which African indigenous language speakers identify with their languages. With the early switch to English, African language speakers are conflicted between identifying themselves as Africans and seeking acknowledgement in the English oriented world (Ngcobo 2014: 701). Hurst and Mona (2017: 130) concur and state, “Students of colour whose first language is not English, are forced through South African educational policies to divorce themselves from their home languages, and to assimilate to English for academic participation. This can undermine knowledge reproduced through African languages”. A similar reflection is made by Rudwick (2018: 264), who states that the role of English, as the MoI in South African schools, accounts for the hesitance, scepticism, and lack of confidence that speakers of indigenous languages bestow on the use of their languages in education. In addition, the globalised and instrumental value attached to English learning, as an economic necessity, appears to override the intrinsic educational value of learning other languages (Ushioda 2017: 472), particularly, African languages. In Africa, the growing preference for English is juxtaposed with the growing justification for the use of indigenous languages in education, which are resourceful and

enabling for the speakers. Research indicates that there are benefits associated with the use of indigenous languages as resources in education.

2.1.3.3 Language as a resource

Language as a resource is one of the three orientations to language planning, according to Ruiz (1984). This orientation upholds multilingualism and cultural diversity as pivotal elements to achieving national unity and considers that multilingualism and cultural diversity are deemed resources rather than problems (Hult & Hornberger 2016: 38). Citing Ruiz (1984) Hult and Hornberger (2016: 38) add that speakers of minority (minoritized) languages are considered sources of specialised linguistic expertise, which benefits themselves, their communities, and society. The speakers of these languages need to be conscious of this assertion and believe in their languages, particularly in dispelling the scourge of colonialism and the denigration of African languages by the then colonial masters. In interrogating the resource orientation, Delavan et al. (2017: 87) argue for a comprehensive perspective that acknowledges a language's social, racial, cultural, political, economic, intellectual, and identity contributions. There must be a functional reason and value attached to the use of African languages for the speakers to realise the resourcefulness of their languages (Heugh 1999: 309).

A language may have intrinsic value and extrinsic value. The intrinsic value, according to Crawford (1998 in Hult & Hornberger 2016: 39), can be in relation to cultural reproduction, community relations, inter-generational communication, identity construction, building self-esteem, and intellectual engagement. The extrinsic value may be with respect to national security, diplomacy, military action, espionage, business, media, and public relations (Ruiz 1984 in Hult & Hornberger 2016: 39). The intrinsic and extrinsic values attached to a language bear different benefits to the individual speaker. This may include identity construction, such as intergenerational communication, self-esteem, intellectual engagement, and business relationships. In terms of community this may be cultural reproduction, community relations, business, media, and public relations. The value, in terms of society, may include cultural reproduction, community relations, intellectual engagement, national security, diplomacy, military action, espionage, business, and media.

In line with the language-as-a-resource orientation, this study postulates that home languages empower users to realise their full potential. This occurs not only academically but also socially, as an integral part of wider society; economically, as a contributor to the development of the country; politically, as an active participator in governance matters; and emotionally, as

it postulates the identity of the user. Ngcobo (2014: 700) asserts that speakers of African languages accord high value to their languages and welcome their use in high status functions. Therefore, academically, as Hult and Hornberger (2016: 41) contend, the language-as-resource orientation is advanced through programs that support additive language learning. However, care needs to be applied to ensure that, at both macro and micro levels, there is a balance between achieving competency in the dominant language and developing and maintaining the minority (minoritized) languages (ibid.).

2.1 4 The implementation of language policy in South Africa: successes, challenges, and opportunities

Language policy implementation is complex, in as much as the needs of the people for whom policy is developed are complex. There is no ‘one-size-fits-all’. The speakers of African languages are exposed to two main offerings of languages as a subject at primary and secondary school levels: language at a home language level and language at an additional language level (first additional, second additional, or third additional). This differentiation in levels accounts for different proficiency levels in both the language offered at home language level and the one offered at additional language level. Students exposed to learning an African language at home language level have a high probability of proficiency in this language compared to English which, in this case, is offered at a first additional language level (Wildsmith-Cromarty & Turner 2018: 418). For such students, the use of an African language as MoI may be a welcome choice. The same may not be the case for students who have been exposed to English at a home language level and an African language at an additional language level. For these students, proficiency may be stronger in English than in an African language. Thus, for them, the use of an African language as the MoI may not be a viable option.

The constitutional directive on the elevation of the status and use of African languages, together with the legislative frameworks on the use of languages in education, serve to guide practice at an institutional level. In higher education, each institution must consider the demographics, human resources, and throughput rates as some of the factors that influence the implementation of the language policy. On this note, I look at successes, hindrances, and opportunities in language policy implementation broadly in the education domain.

2.1.4.1 Successes in the implementation of the language policy in South Africa

As noted in Connell 2013 (cited in Stroud and Kerfoot 2021: 21), universities are traditionally powerful spaces for the reproduction of colonial knowledge. Conversely, the same universities

are key to the transformation agenda regarding the promotion of multilingualism. According to Gore and Walker (2020: 57), it is mandatory for universities to create an environment conducive for students to develop their capabilities and achieve educationally. The students' capabilities may be developed maximally through optimal use of their linguistic repertoires. In this regard, Stroud and Kerfoot (2021: 27) advocate for the use of languages as instruments for linguistic citizenship. Linguistic citizenship creates conditions for transformation; it is about people using their language to grant them a voice among other peoples of the world and allowing for epistemic justice through language (ibid.). However, in South Africa, we are not completely there yet; the successes in multilingual language policy implementation are limited, sporadic and not widely reported on.

In 2002, the South African Qualifications Authority (SAQA) approved the first full dual-medium English and Sesotho sa Leboa Bachelor of Arts degree offered by the University of the North (now the University of Limpopo) (Ramani & Joseph 2002: 233). The degree, a Bachelor of Arts in Contemporary English Language and Multilingual Studies, has two programmes, the Contemporary English Language Studies, offered and assessed in English, and the Multilingual Studies, offered and assessed in Sesotho sa Leboa (Ramani & Joseph 2002: 234). The degree indicated a major stride towards the elevation and advancement of the use of African languages in education, particularly in higher education. However, there are no formal reports or evaluations in terms of the measure of success of this degree.

Success stories on further strides in the use of African languages are reported on by Nkosi (2017) in the College of Humanities, School of Education at UKZN. Nkosi (2017: 227-228) notes success in the offering of tutorials in isiZulu, three modules in Early Childhood Development (ECD), a component of the Post Graduate Certificate in Education, and four modules that are part of the Bachelor of Education Honours Degree in the Languages and Arts cluster. The three modules in ECD and the four modules at the Bachelor of Education Honours level are offered in both isiZulu and English and students can choose between the two classes (ibid.). In addition, Nkosi (2017) reports on the successful submission of the Independent Research Projects, written in isiZulu, by students in the Bachelor of Education Honours program, as well as the submission of dissertations supervised and written in isiZulu by students in the Master of Education program (ibid.). Over and above the use of isiZulu by L1 students in academic programmes, UKZN introduced a compulsory Basic isiZulu Language Studies module for non-mother tongue speakers and Basic isiZulu for medical students enrolled in the Bachelor of Medicine and Bachelor of Surgery (MBChB) programmes. It is noted that

the compulsoriness of the Basic isiZulu Language Studies module is not welcome among the non-mother tongue speakers of isiZulu (Naidoo & Gokool 2020: 37).

There are sporadic initiatives on the implementation and use of African languages reported in different South African universities, albeit, on a limited scale (see e.g., Coetzee-de Vos 2019; Dyers & Antia 2019). Coetzee-de Vos (2019: 56) reports on increased pass rates after the introduction of bilingual isiXhosa/English tutorials in 23 modules at the Nelson Mandela University. Dyers and Antia (2019: 63) report on the successful reception of Afrikaans and isiXhosa PowerPoint lecture slides in a third year Language and Communication module at the University of the Western Cape, which has been implemented since 2013. There are, however, not as many of these success stories as there are ongoing debates and motivation for the use of African languages. Hindrances that are noted and reported on are discussed in the next subsection.

2.1.4.2 Hindrances to language policy implementation

During the years of the apartheid regime, African languages were used as instruments to divide the people along ethnic lines. The result of which was the instilling of a sense of inferiority towards these languages (Heugh 2013: 217). An assertion made by Neville Alexander (2012: 2-3) stipulates that a language wields power in two ways:

1. The ability of individuals or groups to realise their intentions by means of language or, conversely, the ability of individuals or groups to impose their agenda on others. Thus, the language in which the production processes for subsistence take place become(s) the language(s) of power. A person who lacks proficiency in the language of production, exchange and distribution is automatically excluded and disempowered.
2. Language functions as a transmission mechanism of culture and/or plays a pivotal role in the formation of individual and social identities. Thus, being able to use the language(s) one has the best command of in any situation is empowering and, conversely, not being able to do so is disempowering.

The assertion made by Alexander (2012) was evident in South Africa during the apartheid regime and the ramifications are evident in the post-apartheid era. The vast majority of South Africans are compromised in the use of the language of production, in this case, English, and circumstances have limited the opportunities to use the languages they have the best command of; the indigenous African languages. Consequently, the majority of South Africans are

linguistically disempowered in two ways, they have limited opportunities to access knowledge, and limitations relating to their participation in the development of the country economically, politically, and otherwise. In Alexander's terms, which I also ascribe to, this situation is an anomaly, and it should be addressed. Alexander (2012: 4) asserts:

For, whereas in apartheid South Africa, the rulers could afford to, and did, approach African languages as though they had no economic or cultural value, in the new South Africa, this attitude is clearly self-limiting and self-defeating, if not self-destructive.

In South Africa, the constitution and the legislative framework on languages idealise the use of the eleven official languages, yet there is no mechanism in place to monitor the operationalisation of the constitutional mandate and related legislation. The nine indigenous languages had not been used in higher education before the democratic era, pre-1994, and thus, the government finds it challenging to fast-track the development of these languages and to effectively implement the multilingual policies (Ngcobo 2014: 699). As a result, the inherited practices of the past have led to the 'made-belief' that African languages are not 'capable' of use in high-status functions such as education, science, and technology (Alexander, 2003: 15). This is the perpetuation of "linguistic imperialism". For Phillipson (1997: 238), linguistic imperialism accounts for linguistic hierarchisation and addresses why some languages are used more and others less.

Coetzee-Van Rooy (2018: 21) lists four issues that contribute to hindering the implementation of meaningful multilingual language-in-education policies in South Africa. These issues are:

1. The inability to overcome the language influences of colonisation and apartheid.
2. The dominance of English that inhibits the development of African languages in high status domains.
3. Lack of political will to implement multilingual language-in-education policies.
4. A lack of specific plans.

Of the four issues that Coetzee-Van Rooy raises, point three and four are key to transforming the linguistic landscape in education in South Africa. The government has the authority to effect change using political will. The government has the capacity to put mechanisms in place to operationalise multilingualism and to devise specific plans if determined to do so. The constitution and the legislative framework, presented in Table 2.1, are instruments that exist at

a macro level of language administration (national level). These instruments need to filter down to a meso level (provincial level) and a micro level (institutional level). At all levels, the effectiveness of the constitution and the legislative frameworks hinge on political will and the instituting of specific plans, in strategic places, such as in the education sector.

The current study, alongside other studies promoting the use of African languages in education (see e.g., Kamwendo 2010; Ramoupi 2014; Wildsmith-Cromarty & Turner 2018; Stroud & Kerfoot 2021), advocates that those African languages if given a chance, have as much potential for use in education as other languages have. Qorro (2003 in Roy-Campbell 2006: 2) refers to the use of African languages in widely disseminating knowledge which is presented in English as “unlocking language forts”. Just as African languages may be used to make the knowledge that is packaged in English widely available, they may also be used to transmit indigenous knowledge from one generation to the next (Roy-Campbell 2006: 2). The use of indigenous languages in education also reinforces the learning of English. Heugh (2002: 174) dismisses the myth that the earlier and the greater the exposure to English, alongside a proportional decrease in the use of the indigenous language, results in better proficiency in English as there is significant research that links academic success and proficiency in a second language to the prolonged use of indigenous languages.

Hindrances to the implementation of a multilingual policy in education also result from a failure to distinguish between teaching and learning a language as a subject and using a language as an MoI (Ramoupi 2014: 59). According to Djité (2008:3), “Learning a language or learning through a language should enable the majority of the people to contribute to, and benefit from, economic growth”. This is not the case in South Africa with English as a default MoI from primary level to tertiary level of education. The circumstances of high failure and drop-out rates (Read & du Plessis 2021: xviii) contrast with a belief that exists, with reference to English, that one may know this language better when learning through it (Heugh 1999: 301). For many African language speakers, attaining competence in English may be hindered by disparities between the home language and English in terms of meanings, symbols, and practices (Mavuru & Ramnarain 2020: 2475). Therefore, learning through English may only provide minimal exposure if confined to the school environment and may not translate into the attainment of optimal competency in the language. Even though there is general anticipation that if English is the MoI, African speakers of other languages will attain advanced competency in English, this may not be the case for most of these speakers. In a study conducted by Ndebele and Ndimande-Hlongwa (2019: 96), the participants mention the absence of their home

language (African language) as an impeding factor to academic success. Hence, they assert, “Most of these students do not have a very good command of English, and hence the unavailability of their first language limits their participation in the learning process and their ability to fully understand and express concepts in assessments, resulting in poor performance”.

Another factor that hampers the implementation of the active use of indigenous African languages is the historical discrepancy between standard varieties and spoken varieties. According to Buijs (2013: 141), the discrepancy between standard and spoken varieties dates to the era of the missionaries in South Africa. This discrepancy is believed to emanate from conscious efforts to promote the interests of sections of society (Alexander 2012: 2). According to Alexander (ibid.), the standard varieties, “prevail as the norm because of the economic, political-military, or cultural-symbolic power of the rulers, not because they are ‘natural’ in any meaning of the term”. The assertions drawn by Buijs (2013: 141) and Alexander (2012: 2) account for the resistance that speakers of indigenous languages hold towards the use of these languages in education. The standard varieties of the African languages are incongruent with the spoken varieties, thus, making students reluctant to use African languages in education. In addition, policies in place disregard the popular varieties that students use. According to Coetzee-Van Rooy (2018: 22), language policies need to strive to match the evolving linguistic realities of South Africans and their home languages, and language preferences and practices in education need to align.

A further hindrance to the effective implementation of indigenous languages in education emanates from the speakers of these languages themselves. Speakers often hold negative attitudes toward the use of these languages in education. This factor is discussed further in §2.2.3 below. As custodians and beneficiaries of the implementation of multilingualism in education, including the active use of African languages, home language speakers need to show enthusiasm and embrace the positive developments in the use of African languages in education.

2.1.4.3 Opportunities in the implementation of the language policy in South Africa

Heugh (2002: 173) contends:

Unless **the fog of prevarication** and myths with regard to the role and nature of languages in education is lifted, **the little window we have to effect change** in education will close and the opportunity will be lost (my emphasis).

In my assumption, by ‘the fog of prevarication’ Heugh (2002: 173) refers to a direct impact of the ramifications of apartheid in relation to the use of languages in education. This includes the diminished use of indigenous languages in high status domains, as if they are unsuitable and inadequate, which both impacts the effective use of these languages as well as the level of confidence that the speakers hold toward the use of these languages. The ‘fog’ accounts for the negative attitudes towards African languages that are detailed in the next subsection. My interpretation of ‘the little window’ is the existing constitutional mandate and the supporting language policy framework as presented in subsection (2.1.1.3) above.

The language policy framework has provided a base for the use of African languages in education. Section 4 (3) in the ‘Use of Official Languages Act’ recounts the constitutional mandate, to government departments, public entities, and public enterprises, which obligates the elevation of the status and the advancement of the use of indigenous languages. The “elevation and advancement” of indigenous languages does not translate to the replacement of the language of wider communication, English. In my interpretation, “elevation” implies that English is retained as a benchmark that indigenous languages ought to emulate. The argument that Heugh (2002: 193) poses is in favour of bilingual and multilingual mother-tongue education. This, Heugh (2002: 193.) maintains, means developing the mother-tongue and adding the second language (English) in the best way that will ensure successful learning of the second language. It need not be a matter of one or the other, but a matter of both languages in a coordinated endeavour for the development and benefit of the language user.

The initiatives aimed at promoting the use of African languages, particularly in education, are a process and a movement towards the decolonisation of the mind by reclaiming the power of African languages which has been stripped away by colonialism and by globalisation. The agenda of decolonising the mind speaks to the processes of language planning, and other initiatives, which reinforce changes in the patterns of development, as well as in the dominant social relations, and drive towards social transformation (Alexander 2003: 6). The promotion of the use of African languages coincides with the widening of African student intake in South African universities; a drive towards transforming the higher education landscape (Ramrathan 2016: 205).

With nine official African languages, and with the geographic demarcation of South Africa into nine provinces, there is an opportunity for each province to develop and enhance the use of at least one dominant provincial language for education purposes. As Coetzee-Van Rooy

(2018: 23) asserts, the language-in-education policies need to take the local and real language patterns of the speakers into consideration. There is a high probability that this may be realised at the provincial level. If the implementation plan is localised, the probability of operationalisation is higher. At a local level, there also needs to be flexibility in recognising the varieties that are attached to the standardised language in use.

There are lessons that indigenous languages may gain from the functionality of English as an academic language, lessons that may promote and precipitate the “advancement” of the use of indigenous languages. The development of discipline-specific terminology is one aspect of the functionality of an academic language. It is through the opportunities that the language policy presents that the attitudes of the language users may be influenced for the better.

2.1.5 Summary

The debate on language rights, language policy and language policy implementation has been ongoing on a global, continental, and national front, and at institutional levels. The precepts are well-formulated and present good rhetoric. These precepts present an opportunity that institutions at the grassroots level need to take advantage of and actualise. The actualisation of language policy directives will encounter hindrances that include financial constraints and limitations to human and material resources. Nonetheless, as Djité (2008: 2) asserts, the language-in-education policy needs to create a learning society and ensure an education that is responsive to the immediate realities of the target society, while addressing the demands of globalisation and the changing world. Language policies need to serve the people of the country and strike a balance between the local realities and global demands. While the importance of indigenous languages has been extensively debated and is a justified course, it would be ignorant to deny the established position of English as a language of wider communication globally. Therefore, language policy needs to acknowledge and provide for linguistic rights in education on one hand and cater for the acquisition and development of proficiency in English, on the other. In this way, speakers of indigenous languages may access knowledge in their familiar language and develop a functional use of English.

The language policy in education needs to go beyond rhetoric and address the realities of the country. To this end, the policy directives at the national, provincial, and institutional levels need to be coordinated while acknowledging that these three levels are distinct. As it stands, the Constitution of the Republic of South Africa provides the benchmark upon which all language-related legislative frameworks should build. The multilingual nature, of the language

component of the constitution, is commended. At the provincial level, the KwaZulu-Natal Provincial Language Policy (2008: 3) aligns with the constitution, promotes multilingualism, and encourages the learning of the official languages of the province (isiZulu, English, isiXhosa, and Afrikaans). At an institutional level, the Language Policy of the University of KwaZulu-Natal (2014: 2) acknowledges and promotes proficiency in the languages enumerated in the constitution, as well as in the provincial language policy, and aims to achieve for isiZulu the institutional and academic status of English. Based on these three policy instruments, I propose a policy framework that responds to the needs of the people on three levels. This may require that flexibility be applied when policies are operationalised, particularly at an institutional level. This may mean supporting the students in developing proficiency in English while acknowledging the existence and use of urban varieties of the target language as a norm among students. It may also mean accommodating other (South) African official languages that are active among the students but may not be dominant at an institutional or provincial level. Figure 2.1 below illustrates the envisaged policy.



Figure 2.1: The proposed language policy at macro level, meso level, and micro level.

Operational flexibility needs to consider whether students need to engage in comprehensive research in the language, wherein the standard variety may be useful, while the same may not be said if the need is to gain an understanding of the subject content. In the latter case, the use of urban varieties including contemporary translanguaging pedagogies may be useful (Hurst & Mona 2017: 132). While the policy directives and proposals may present benefits for the users, it is imperative that the attitudes of the users be interrogated as well.

2.2 Attitudes and language attitudes

Research studies on language attitude studies have been conducted from two broad theoretical approaches: behaviourist and mentalist (Fasold 1984: 147). Behaviourists hold that attitudes

are observable in overt responses to social situations (Agheyisi & Fishman 1970: 138; McKenzie 2010: 21) and they consider that attitudes have a unitary structure, that being, behaviour towards an attitude object (Agheyisi & Fishman 1970: 138). A shortcoming in the behaviourist approach emanates from the outlook on attitudes as dependent variables (Agheyisi & Fishman 1970: 138). Mentalists, however, hold that attitudes are ‘a mental and neural state of readiness [...] not directly observable but have to be inferred from the subject’s introspection’ (Agheyisi and & Fishman 1970: 138; McKenzie 2010: 21). Mentalists consider attitudes as having a multiple componential structure encompassing cognition, affect, and behaviour (Agheyisi & Fishman 1970: 139). The cognitive component refers to the values, thoughts, and beliefs a person holds. The affective component is based on the feelings and emotions that account for a judgement of a construct as either good or bad. The behavioural component refers to action or intended action in a particular situation (Orfan 2020: 3). The mentalist approach is challenged for its uncertainty in terms of the level of precision in the measurement of an unobservable construct (Agheyisi & Fishman 1970: 138). Despite this, the mentalist approach is commendable for its outlook on attitudes as independent variables (Agheyisi & Fishman 1970: 138). In addition, the multiple componential structure of the mentalist approach accounts for ambivalence towards attitude objects, such as a language, and thus acknowledges the complexity of human nature (McKenzie 2010: 24). As Weber (2021: 249) asserts, language attitudes are complex. This study delves into the attitude construct, the three components, and highlights the ambivalence that prevails as a result of this complexity.

2.2.1 The attitude construct

I adopt the definition of attitude as proposed by Allport (1954 in Garret 2010: 19) wherein he defines attitude as, “a learned disposition to think, feel and behave towards a person (or object) in a particular way”. The definition is comprehensive as it highlights the three components of the attitude construct, cognition, affect and behaviour. The definition refers to attitude as “a learned disposition”. Learned disposition entails that people are not born with attitudes but acquire attitudes as they live, grow, experience, and are exposed to different constructs in various ways. The definition is preferred over the one proposed by Bohner and Wanke (2002 in McKenzie 2010: 19) wherein attitude is defined as a summary evaluation of an object. This definition leans more toward the judgement a person arrives at concerning a construct. The judgement may be either good or bad. This definition is concise and does not explicitly refer to the attitude components.

According to Orfan (2020: 3), language attitude is an umbrella term that includes studies on a range of areas. Baker (1992 in Orfan 2020: 3) lists eight areas:

1. attitude towards language variation, dialect, and speech style;
2. attitude towards learning a new language;
3. attitude towards a specific minority language;
4. attitude towards language groups, communities, and minorities;
5. attitude towards language lessons;
6. attitude of parents towards language lessons;
7. attitude towards the uses of a specific language; and
8. attitude towards language preference.

Thus, as Garret (2010: 20) alludes, it is imperative to establish the actual facets of the attitudes. The focus of this study is on the use of an indigenous language, isiZulu, as an academic language (to facilitate the acquisition of academic content) as well as on the use of scientific terminology in isiZulu, developed for specific academic disciplines. Researchers regard attitudes as hypothetical constructs that cannot be observed directly but may be inferred from the self-reports and behaviour of the people investigated (Schwarz & Bohner 2001: 439; McKenzie 2010: 19). Self-reports may be an expression of social identity through which people might affirm values, maintain social relations and self-esteem, reduce inner fear and/or cope with threats to self (McKenzie 2010: 25). It is due to this expression of social identity, that the issue of language and identity is foregrounded in research studies on the use of indigenous languages in higher education (see e.g., Ngcobo 2014; Rudwick 2018). In the study with tertiary level students, Ngcobo (2014: 710), observed that attitudes changed from negative to positive, towards African languages, as students identified more with their home language. Hence, the prospect of using these languages in their studies increases. Rudwick (2018: 265) points out that isiZulu is inextricably linked to Zulu ethnicity among students. The current study will not delve into the issues of language and identity. Rather, this research interrogates cognitive attitudes (thought processes), affective attitudes (feelings), as well as behavioural attitudes (actions and/or intended actions) of isiZulu L1 students. In the data analysis chapter, the three components of attitudes are examined independently and jointly. The latter analysis serves as a way of unveiling the extent of correlations among the three components.

Furthermore, the analysis will show inconsistencies among the three components of the attitude construct, where they exist.

2.2.2 The tripartite model of attitude

The current study investigates the three components of the attitude construct as may be evident in the participants' reflections on their thinking patterns, emotions, and actions and/or intended actions towards discipline-specific terminology in isiZulu and isiZulu in academic contexts. According to Roseland and Hovland (1960 in Baker 1992: 13), the tripartite structure of the attitude construct is best viewed hierarchically with the three nodes, cognition, affect, and action, as the foundation elements which merge at a higher level of abstraction as a single attitude construct. In a study on consumer preference research, Kowalczyk, Siepmann and Adler (2021: 361) consider responses in terms of the three nodes in order to constitute a comprehensive consumer response system. However, Baker points out two issues regarding this tripartite, hierarchical structure. First, “[c]ognitive and affective components may not always be in harmony” (Baker 1992: 12), hence, ambivalence in attitudes. What a person thinks about the construct may not be congruent with how a person feels about the same construct. In addition, the behavioural component, which is the preparedness to act, may or may not indicate the person’s favourable thoughts about the construct (Baker 1992: 13). In this light, Breckler (1984: 1193) asserts that the three components of the attitude construct are distinguishable in terms of their developmental processes. The affective and behavioural components, for example, may not be overtly articulated in the same way that the cognitive component may be articulated. Second, ‘[...] the relationship between attitudes and action is neither straightforward nor simple’ (Baker 1992: 13). The knowledge about a construct does not imply positive feelings and positive action on that construct. Conversely, positive action towards a construct does not imply positive feelings or positive thoughts and beliefs about the construct. Thus, attitudes are complex. There is a likelihood of inconsistencies and/or ambivalence emanating from this complexity. According to Breckler (1984: 1202), the verbal evaluations of the attitude components need to be studied together with the evaluations in the presence of the physical attitude object. Therefore, it is advisable to measure each of the three components or to focus on one component, rather than view attitude as a unitary structure Breckler (1984: 1203). In synthesising the attitude construct, Jain (2014: 7) compiled eight combinations, or triodes, of either positive or negative responses to each of the three components of the attitude construct ($2^3=8$). In this 3D model, when the three components are combined, an overall attitude to an object is constructed. The model unveils consistencies, and/or the lack thereof,

among the three components of the attitude construct (Jain 2014: 7). The eight triodes are listed in §4.4 of Chapter 4 as the 3D model is used in the analysis of the data.

2.2.3 Attitudes towards the use of African languages in the education sector in South Africa

The historic and diminished use of indigenous languages in South Africa, under the apartheid regime, accounts for the negative attitudes that speakers of these languages have incurred over time. Regarding this Makhanya and Zibane (2020: 33) contend, “Language has remained one of [these] hidden colonial and dominant practices for the exclusion of African students at university”. The speakers of African languages regarded the systematic segregated language practises, particularly in education, as a means to deprive them of socioeconomic opportunities as well as to limit their access to English proficiency (Heugh 2013: 218). According to Roy-Campbell (2006: 2), the Bantu Education policy of the apartheid government in South Africa sought to condemn Africans to a mediocre education. The government set control measures over the curriculum, administration, and funding of education for African learners (Lafon 2008: 40). The government purposed the use of the African languages to provide only the knowledge they deemed suitable for Africans. In terms of the use of African languages during the apartheid era, Mhlauli et al (2015: 205) contend that “[...] the introduction of the use of mother-tongue in schools was not basically an advantage for the Blacks since it was perceived to be myopic and **unable to capture some of the scientific concepts** as well as lacking the standard orthography. This was a **plan to subjugate the Blacks and render them inferior economically, politically, and socially through education**” (my emphasis). An alleged inability of African languages to capture scientific concepts has been cited as a pretext for the lack of use of African languages in education. The situation has been politically constructed in a way that leaves African languages underdeveloped for academic purposes (Prah 2017: 218). The subjugation of Africans, through the limited functional use of their languages in education, has resulted in speakers of South African indigenous languages associating their languages, and education through their languages, as a limiting factor (Lafon 2008: 41). This kind of thinking and the linked attitudes are so ingrained that even with the ushering in of the democratic and multilingual era in South Africa, speakers of indigenous languages do not indicate confidence in the use of these languages in high-order functions. This phenomenon is, according to Ngũgĩ wa Thiong’o, “the colonised mind” (Alexander 2004: 121). Despite many speakers of indigenous languages lacking confidence in the use of these languages in high-order functions, they generally seem to cherish the languages and are committed to using and

maintaining them at home, in the community, and at church (ibid.). The speakers of indigenous languages often display ambivalence towards their languages (Rudwick & Parmegiani 2013: 101). However, attitudes are not static, they change as circumstances change (Pillay 2017: 165).

Research on the attitudes of Africans (students specifically) on the use of African indigenous languages in education, including higher education, are underway in South Africa (see e.g., Chetty 2013; Nkosi 2014; Ditsele 2016; Mayaba, Ralarala & Angu 2018; Ngcobo & Barnes 2020). These studies focus on attitudes towards the use of African languages as a vehicle for mother tongue-based education. Findings by Ditsele (2016: 8) show overwhelming support for the promotion of Setswana at the tertiary level, even though the Setswana L1 participants note with concern the lack of technical vocabulary that would enable the use of Setswana at the higher education level as well as limited prospects for social goods in the use of Setswana in comparison to the use of English. In a study conducted by Chetty (2013: 6), the finding was that isiZulu L1 students at UKZN enrolled for a Physics module in 2011, preferred their lectures in English and their support material in isiZulu. Mayaba et al. (2018: 9) contend that the transformation of education using African languages needs to be regarded as a social justice issue and that the students' voices need to be central to transformation debates. These studies, and others, have investigated attitude as a unitary structure with a focus on the use of the language for mother tongue-based education (MTBE). This study investigates the three aspects of attitude towards isiZulu, with a particular focus on discipline-specific terminology in isiZulu as support material for learning academic concepts and/or content.

This study is conducted while aware that there are studies that explore the extent to which African students prefer the use of English over African languages in higher education (see e.g., Lombard 2017; Ngcobo & Barnes 2020) amongst others. In an investigative assessment arrived at by Lombard (2017: 41), the students (English L2) are aware of their rights to use indigenous languages in education and strongly support the development of these languages for use in higher education, but they also express high regard for English as an international language.

Ngcobo and Barnes (2020: 93) in an investigative study of students' attitudes, which they conducted at a multilingual Open Distance learning university in South Africa, found that students prefer that English remain the MoI, due to its hegemonic status and access to economic goods. However, the students also acknowledged the challenges of learning through English and indicated that they would opt for the use of African languages as ancillary languages in informal discussions (Ngcobo & Barnes 2020: 94).

Some researchers address the quandary between the use of African languages and English by promoting a translanguaging approach (see e.g., Ngcobo, Ndaba, Nyangiwe, Mpungose & Jamal 2016; MacSwan 2017; Makhanya & Zibane 2020; Nhongo & Tshotsho 2020; Nyangiwe & Tappe 2021). Ngcobo et al. (2016: 22) conclude that students welcome the flexibility that translanguaging presents as they move back and forth between their home language and English and transfer skills in a bi-directional way. Translanguaging, according to MacSwan (2017: 190), “[...] extends the metaphor of holism to the linguistic repertoire of bilingual children, noting that schools should make use of a full range of diverse linguistic talents that bilinguals bring with them to the classroom”. Makhanya and Zibane (2020: 33) encourage translanguaging to construct epistemological meaning of texts for social work students in teaching and learning, as well as the use of the students’ home language (isiZulu) in assessments. Nyangiwe and Tappe (2021: 52) recommend that students be allowed to use isiZulu as a resource in improving their business writing skills and their pragmatic competence in English. These studies on translanguaging give insight into the need for the use of African languages by African students in South African higher education.

Another dimension to the advancement of the use of African languages in education is the teaching and learning of these languages to non-mother tongue speakers. This dimension brings forth attitudes that non-mother tongue speakers hold towards African languages. According to Calvet (2006 in Pillay 2017: 166), the attitudes of non-mother tongue speakers, whether positive or negative, depends on the rewards gained in learning a new language. At UKZN, the attitudes of non-mother tongue speakers of isiZulu, towards learning isiZulu, fall into two categories. Firstly, many non-mother tongue students who are required to enrol for a Basic isiZulu module as a degree requirement hold negative attitudes towards isiZulu. The negativity emanates from the compulsoriness of the module and is not directed at the language (Naidoo & Gokool 2020: 37). Many of these students do not attach value to learning isiZulu. The rationale behind the introduction of this mandatory module was to promote multilingualism and to advance the use of isiZulu (UKZN 2014: 3). A considerable number of non-mother tongue students enrolled in the Basic isiZulu module do not see the module as adding value and assisting them in developing communicative competence in isiZulu (Naidoo & Gokool 2020: 37). Secondly, the students enrolled in professional programmes hold a different attitude. In 2010, UKZN introduced a vocation-specific module in isiZulu for non-mother tongue students, with limited isiZulu proficiency, enrolled in the MBChB programme (Matthews & Gokool 2018: 149). As reported in the study, the module is taught formally in the first year of

the students' entry, and it is reinforced using a task-based and vocation-specific approach in teaching and assessment that carries over to the second and third years of registration (Matthews & Gokool 2018: 154). As a result, non-mother tongue medical students benefit from the module by learning vocation-specific terminology and gaining better patient-oriented insights from task-based simulations (ibid.:155). Although the study did not evaluate the attitudes of the medical students towards isiZulu directly, the value and the benefits that these students gather from the module probably result in positive attitudes towards the use of isiZulu.

2.2.3.1 Attitudes of isiZulu L1 students towards the use of isiZulu as an academic language at UKZN

Bestowed with official status, isiZulu is positioned as one of the languages for use in educational contexts, including higher education. However, the political background to the use of indigenous languages accounts for the attitudes that isiZulu L1 students hold towards the use of isiZulu as an academic language. In 2006 and subsequently, in 2014, UKZN took a stance in developing and advancing the use of isiZulu alongside English.

In this study, the attitudes of isiZulu L1 students at UKZN are categorised into three streams. First, the attitudes of those students who are enrolled in isiZulu programmes and who major in isiZulu. Second, the attitudes of isiZulu L1 students who are enrolled in programmes that offer non-language modules in isiZulu and/or supplementary learning resources in isiZulu. Third, the attitudes of isiZulu L1 students who neither major in isiZulu nor are enrolled in modules where isiZulu is featured. I also look at their attitudes in general towards the use of isiZulu as an academic language.

The students who enrol and major in modules offered in isiZulu entirely, are isiZulu L1 and/or L1 speakers of other Nguni languages (Ndebele & Zulu 2017: 516). With the politically influenced use of African languages in South Africa during the apartheid era, several studies noted with concern the dwindling enrolments in African language departments in various universities in the 1990s (see e.g., Alexander 2012; Turner 2012; Heugh 2013). However, the constitutional mandate for the elevation of African languages and the subsequent legislative framework are motivating a positive change in redressing this situation. There have been noted increases in student enrolments in African language departments, particularly at UKZN following the adoption of the 2014 language policy that embraces isiZulu (Ndebele & Zulu 2017: 520; Zulu & Ndebele 2020: 13).

Zulu and Ndebele (2020:19) conducted a study among students enrolled in isiZulu modules at second and third year levels wherein they solicited the students' motivation to enrol in these modules. They found both intrinsic and extrinsic motivational factors among these students. The intrinsic factors included a better understanding of the learning content using isiZulu as an MoI for 62 percent of the respondents, affection for the language for 60 percent, and isiZulu as part of culture and identity for 59 percent. The extrinsic motivational factors included studying isiZulu for career purposes for 52 percent of the respondents, greater success in isiZulu courses for 34 percent, peer, family, or instructor pressure for 13 percent of the respondents, and a lack of a course alternative for six percent (Zulu & Ndebele 2020: 26). What transpires from the study by Zulu and Ndebele (2020) is that a better understanding of the academic content, when learning through the medium of isiZulu, rated the highest of all the factors.

In an investigation conducted by Madlala and Mkhize (2019: 101), isiZulu L1 students enrolled in a bilingual programme pointed out that they found academic content taught in isiZulu much clearer and easier to understand than content taught in English. When these students were questioned about their perspectives on the perceived socioeconomic implications of linguistic proficiencies and language use in South Africa, the students emphasised the importance of using, developing, and elevating their home language (*ibid.*). These students attached more value to learning with understanding, than to the attainment of social goods associated with learning through English. The sentiments of these students are echoed in a study conducted by Sigudla et al. (2021: 135) among pre-service teachers on their preferences between specialisation in English or African languages. In this study, most of the pre-service teachers showed interest in specialising in indigenous African languages, as these languages reflect their identity and embrace their culture. This choice of specialisation is evidence that they would prefer to teach African languages in future. These future teachers would also be promoting and therefore, improving the position of African languages particularly among the younger generation and in schools (Sigudla et al. 2021: 143).

The studies cited here are evidence of positive attitudes that isiZulu L1 students (and L1 speakers of other African languages) hold towards learning through the medium of isiZulu (African languages). This evidence does not disregard studies that report contradictory attitudes. Mashiya (2010: 102) reports on how the use of isiZulu lacked appropriate terminology and how students who attended English medium schools at basic education level were not prepared to enrol in isiZulu-medium modules. In studies conducted among students enrolled in a bilingual Postgraduate Diploma in Education, (Thamaga-Chita & Mbatha 2012:

344; Mbatha 2016: 156) students cite anxiety, fear of failure, fear of the unknown, and limited opportunities to access economic goods and social mobility as factors that influence them against choosing modules offered in isiZulu. These students imagined that learning through isiZulu was going to be difficult hence, they decided to remain in the English class as they believed that they already ‘knew enough’ isiZulu (Mbatha 2016: 156). In another investigation on the experiences of language use by pre-service teachers teaching science subjects, Mthiyane (2016: 124) reports on the preference for English medium over isiZulu. These pre-service teachers expressed the need to conceptualise scientific terms, and to cascade these terms appropriately to learners, as factors that influenced their preference for English (Mthiyane 2016: 125).

Research studies have been conducted on students’ experiences and attitudes towards the use of isiZulu in non-language modules (see e.g., Chetty 2013; Van Laren & Goba 2013; Makhanya & Zibane 2020). In 2011, the School of Education at UKZN introduced a Foundation Phase numeracy education module in isiZulu, within the Postgraduate Certificate in Education (PGCE) programme (Van Laren & Goba 2013: 1). This is a teaching qualification offered at UKZN that students (pre-service teachers) undertake following their degree qualifications. Van Laren and Goba (2013) conducted a study on the experiences and attitudes of the pre-service teachers who had enrolled in the numeracy module offered in isiZulu. In the findings, it transpired that as far as communication during lectures was concerned, the pre-service teachers commended the module in isiZulu as it allowed them to follow the lectures with ease and they enjoyed the module (Van Laren & Goba 2013: 4). They also indicated a comprehensive positive attitude towards the module in isiZulu (Kowalczyk et al. 2021: 361). However, the same pre-service teachers expressed challenges they encountered with terminology, the learning material, and assessments. The numeracy module in isiZulu lacked some terminology in isiZulu, and where the terminology was available, it was not part of the day-to-day terms that are used among L1 speakers of isiZulu. In addition, despite the lecturers providing lecture notes in isiZulu, the learning material included prescribed literature that was only available in English. The pre-service teachers further indicated that they felt disheartened when they were penalised for including some words in English during assessments instead of using isiZulu entirely (Van Laren & Goba 2013: 5). The paucity of terminology in different disciplines has been cited as a pretext against the use of isiZulu in academic contexts (Prah 2017: 218). In penalising the pre-service teachers for including words in English during assessments, the university may have been exercising its operationalisation of mother tongue-based education

and adherence to the use of standard isiZulu. This practice is not in line with the lived experiences of isiZulu L1 speakers who are part of multilingual South Africa and whose language experiences may be characterised as translingual (Posel, Hunter & Rudwick 2020: 10). Van Laren and Goba (2013: 7) conclude, based on their investigation, that isiZulu L1 pre-service teachers hold a positive attitude towards the numeracy model offered in isiZulu and express a willingness to teach young learners in isiZulu despite the technical module delivery issues encountered.

In another study conducted in 2011, among Physics first-year students at UKZN, on their attitudes towards being taught Physics in isiZulu, the students indicated ambivalent attitudes on the matter (Chetty 2013: 6). The ambivalence emanated from the lack of prescribed books in isiZulu, the lack of standardised terminology in isiZulu for Physics concepts, and the nuances in certain terms in isiZulu which inhibits the exact expression of the Physics concepts (ibid.). The last concern is illustrated in the terms 'velocity, speed and acceleration' which all have one equivalent in isiZulu '*ijubane*' (Chetty 2013: 5). In as much as the students express positive feelings toward the use of isiZulu, the technical delivery issues posed a challenge.

In an investigation involving postgraduate students who had qualified in the field of Social Work, Makhanya and Zibane (2020) solicited the students' experiences concerning the use of their language repertoires, as they transitioned from basic to higher education.

Makhanya and Zibane (2020: 28) highlight that the education system at basic (pre-university) level in South Africa is not unitary. The language offering at this level differentiates between home language and first additional language levels (for second language speakers of the language) and is evident in the students' experiences with the English MoI at university.

The students investigated by Makhanya and Zibane (2020: 28) indicated dismay at the inconsistent language practices between basic and higher education levels. At basic education level, the students who have been exposed to English as an additional language had become accustomed to moving between their home language (isiZulu) and English inside and outside classrooms; something they no longer experienced in their undergraduate learning experience (ibid.). This inflexibility in language use (fixed adherence to English as MoI), for these students, accounted for poor academic performances as they had the added pressure of having to meet the standard of English presented, and with their peers who had the advantage of receiving their basic education in English at a home language level (Makhanya & Zibane 2020:

28). Therefore, the students in Makhanya and Zibane’s study indicated a desire for the inclusion of isiZulu in their learning experiences.

In an investigation conducted by Rudwick and Parmegiani (2013) among isiZulu L1, first-year students enrolled in a four-year access programme, designed to assist non-mother tongue speakers of English to acclimatise to university culture, the students indicated a divided loyalty towards their home language. Due to the dichotomy between English and isiZulu (English being the preferred MoI over isiZulu by default) and the students’ hybrid language practices, the students preferred the use of isiZulu in non-educational, non-academic, and non-professional domains (Rudwick & Parmegiani 2013: 103). The same students indicated that they welcomed the use of isiZulu in their academic programmes if isiZulu was complementary to English (ibid.). Table 2.2 below indicates these students’ divided loyalties between English and isiZulu:

Table 2.2: The preferences between English and isiZulu per domain of language use (adapted from Rudwick & Parmegiani 2013: 98)

Domain of language use	English	English & isiZulu	IsiZulu	Either English or isiZulu (contextual use)
Writing an essay	60%	13%	11%	16%
Writing a letter to a friend	45%	39%	9%	7%
Reading a book	67%	17%	9%	7%
Having an argument	8%	25%	58%	9%
Talking about feelings	22%	33%	37%	8%
Discussing politics	31%	37%	17%	15%
Discussing what they learn	33%	45%	8%	14%

The statistics that Rudwick and Parmegiani (2013: 98) gathered indicate that the cohort of students investigated prefers English as the MoI over isiZulu, particularly in formal domains such as essay-writing and reading books. The noted high rate of mixing the languages occurs when students discuss their studies (assuming these take place informally outside formal lectures). In an evaluation of the students’ preference for English over isiZulu, Wildsmith and Turner (2018: 418) attribute this preference to the complex proficiency levels in isiZulu which they sum up as follows:

Those who have experienced it as a LoLT at school level have a far better chance of using it meaningfully as a LoLT at tertiary level. However, many children are sent to

multicultural schools that use English as de facto as a medium of instruction. In such cases the children are not exposed to the African language in the academic domain so for them, the use of the African language as a LoLT at tertiary level remains a challenge.

A comparative conclusion is drawn from a study, conducted by Thamaga-Chitja and Mbatha (2012: 342), that involved a mixed group of final-year undergraduates, Honours students, and coursework Masters students, in the Food Security Programme housed in the College of Agriculture and Engineering Science. These students indicated that while they acknowledged the challenges when learning through the medium of English, they were, however, reluctant to welcome the use of isiZulu, citing the paucity of discipline-specific terminology as an obstacle, as well as fear of losing out on the economic goods that the use of English potentially brings (Thamaga-Chitja & Mbatha 2012: 343).

The studies cited indicate that isiZulu L1 students hold varied attitudes towards the use of isiZulu in their studies. While some welcome such use as it aids them in understanding their studies better, others are sceptical. This scepticism is influenced by the hegemonic status that English holds in the education sector in South Africa. Nonetheless, the scepticism does not halt the advancement of African languages including isiZulu throughout South Africa. The inclusion of isiZulu (and other African languages) in academic contexts is a linguistic right that a speaker may or may not choose to exercise. Therefore, the advancement of the use of isiZulu at UKZN is a legitimate process.

2.2.4 Summary

In an assessment of students' linguistic repertoires, Berghoff (2021: 12) asserts:

students in South Africa exhibit functional multilingualism, where English clearly plays a role in their repertoires but is not crowding out their other languages. This would also align with national-level findings of increased multilingualism but not necessarily language shift to English among speakers of the indigenous South African languages.

This assessment indicates that non-mother tongue speakers of English use their home languages to mitigate challenges when learning through the medium of English. The speakers of African languages hold their home languages in high esteem which is an indication of positive attitudes towards these languages.

Students hold English in high regard in terms of its use as MoI, particularly in non-language modules. Acknowledging the challenges that the use of English MoI pose, in terms of academic performance, creates a space for the use of isiZulu as a support language in academic contexts.

As alluded to in §2.2.1, attitudes are learned dispositions and South African students tend to show ambivalence as a learned disposition toward their home languages. The dispositions may be traced back to the historical use of African languages in South Africa. The ambivalence is further enhanced by contemporary reasons such as aspiration for economic goods and globalisation that bolster the use of English. This ambivalence is an indication of the three-dimensional nature of the attitude construct. While some African students acknowledge the importance of their home languages as identity markers and the potential they hold for ease in academic performance, some students feel obliged to enrol in English-medium modules for access to economic goods. There is a growing promotion and preference for translanguaging approaches where the home language and the LoLT are used in a fluid manner to benefit English L2 students in English-oriented academic contexts. Translanguaging mitigates the challenges in learning through the English medium by tapping into the resourcefulness of African languages. In the light of the benefits of the use of home languages in education, I look at the advancement in the use of isiZulu at UKZN.

2.3 The advancement in the use of isiZulu at UKZN

In rationalising the advancement of the use of African languages, Maseko (2014: 81) argues that “Given the value of mother-tongue in facilitating epistemic access and success, multilingual teaching and learning models need to consider the role of African languages, while at the same time recognising the role of English as the language of academia”. In line with the constitutional directive (1996) and the Language Policy for Higher Education (2002), UKZN adopted its Language Policy in 2006 which was revised in 2014 (UKZN 2006, 2014). In operationalising its language policy, UKZN sought to intellectualise and advance the use of isiZulu as an additional medium of communication and instruction to English and as an instrumental language in advancing social cohesion., According to Kamwendo et al. (2014: 78), “The inclusion of isiZulu as an additional medium of instruction is a step in the right direction towards satisfying the aspirations of the African Renaissance i.e., to take African languages to greater heights as media of instruction”. The intellectualisation of isiZulu has included the construction of terminology in isiZulu to activate its use in various disciplines (Khumalo 2016: 254), and the development of learning support material for students who

struggle with the primary LoLT, English (Van der Walt 2010: 257; Khumalo 2016: 256; Coetzee-de Vos 2019: 56).

In terms of the advancement of the use of isiZulu, Ndebele and Zulu (2017: 516) report on a number of modules that have been offered using a bilingual teaching and learning model at UKZN since 2015. These modules are found in the disciplines of Psychology, Biblical Studies, Education, History, Philosophy, Social Work and African Music and Dance. In Psychology, an initiative to advance the use of isiZulu led to the translation of terms from English to isiZulu and a subsequent compilation of a bilingual handbook in isiZulu and English with the sole aim of facilitating epistemological access to isiZulu L1 psychology students (Mkhize, Dumisa & Chitindingu 2014: 131). In addition to bilingual modules and programmes, UKZN introduced a compulsory basic isiZulu module for all non-mother tongue students as a degree completion requirement in 2014 (Ndimande-Hlongwa & Ndebele 2017: 72). Ndimande-Hlongwa and Ndebele (2017: 79) commend the introduction of this module and UKZN for this significant stride, which is not only contributing to the promotion of multilingualism in South Africa but also significantly elevates the status and advancement of the use of indigenous languages in South Africa. This commendation is from a policy point of view, and it is contradictory to the investigations on attitudes of non-mother tongue speakers of isiZulu who are enrolled for the module (see discussion on findings by Naidoo & Gokool 2020 in 2.2.3 above).

2.3.1 The rationale for the development of discipline-specific terminology at UKZN

The endeavour to develop discipline-specific terminology at UKZN is led by the University Language Planning and Development Office (ULPDO) in collaboration with the KwaZulu-Natal Department of Arts and Culture and the National Language Board, Umkhandlu wesiZulu kuZwelonke (UMZUKAZWE), which is a subsidiary of the Pan South African Language Board¹² (PanSALB) (Khumalo 2017: 257). As Drame (2008 in Beukes 2010: 885) contends, “in order to give concrete effect to the official status of a language and operationalise a range of functions in line with its elevated status, it is widely accepted that a core ‘supply’ of standardized terminology is required for success”. The development of terminology in isiZulu at UKZN responds directly to a long-standing pretext regarding the paucity of discipline-specific terminology in indigenous languages.

¹² The Pan South African Language Board (PanSALB) was established by the Constitution of the Republic of South Africa (1996). In Chapter 1, Section 6.5 of the constitution, the PanSALB is mandated to promote and create conditions for the development and use of all official languages. It was endorsed by an act of parliament: PanSALB Act 59 of 1999.

It is on this basis that terminology development processes should serve to add value to indigenous languages and enhance their viability as academic languages. Alexander (2012: 6) advises that the general empowerment of South Africans, in a manner that will contribute to national economic development and the needs and dynamics of modern science and technology, ought to be mediated using both local [indigenous] languages and through English. The local indigenous languages, as Nhongo and Tshotsho (2020: 78) demonstrate, can meet these needs, and allow for functionality in the teaching of science, technology, engineering, and mathematics (STEM) without prescriptivism and purism. These authors advocate for the use of loanwords or transliterated terms that will enhance cognition of STEM concepts, create harmony between English and African languages and facilitate functionality in the field of STEM without being prescriptive (Nhongo & Tshotsho 2020: 83). The terminology development process must consider adding the day-to-day variants of the indigenous languages which may not be categorised as standard varieties of these languages. In addition, the use of terminology in African languages allows for the encoding of indigenous knowledge in African languages for further dissemination (Roy-Campbell 2006: 5). Therefore, the use of indigenous languages in the dissemination of knowledge, whether Western-oriented knowledge packaged in English or indigenous knowledge, will enhance the use of African languages, and influence the attitudes held by speakers towards their languages.

The development of terminology must consider the needs of the people and thus avoid prescriptivism and purism (Madiba 2001: 54). A puristic approach is language-centred, focussing on the purity of the language and overstressing its importance, which raises the risk of losing touch with linguistic realities, and the linguistic needs of the target population (Madiba 2001: 58). To circumvent this, Madiba proposes a pragmatic approach that adopts the use of loanwords, from the source language to the target language in a modified form, as part of the terminology development process (Madiba 2001: 61). According to Gumbo and Mutasa (2020: 54), loanwords become part of an indigenous language through phonological adaptation in such a way that the speakers of the language may not be aware of this adaptation as they consider the loanwords as original; the case of English to Shona in Zimbabwe illustrates this phenomenon.

Terminology development in indigenous languages is one move towards the attainment of the goal expressed in the Constitution of the RSA, being the parity of esteem for all South African official languages. According to Beukes (2010: 889), terminology development, particularly in multilingual South Africa, is indispensable for creating and sustaining a dynamic environment

for the use of indigenous languages as MoI and scientific progress. It is, as Alberts (2010: 600) contends, “[...] a vehicle appreciating the innovative skills of the language and subject-related communities within the country”. The development of terminology and the creation of dictionaries in African languages is an opportunity to facilitate the empowerment of these languages for use in education and otherwise (Roy-Campbell 2006: 7).

2.3.1.1 The concept of terminology and the terminology development process

In an assertion made by Alberts (2010: 600),

Terminology is a strategic resource and has an important role in a country regarding the functional development of languages as well as of their users. Effective economic, scientific and technological transfer and assimilation of knowledge and skills amongst subject specialists and laypeople, and the communication skills of the citizens of a country are developed through the use of correct terminology.

Terminology, in the assertion above, is referred to as a resource that facilitates the transfer and assimilation of knowledge and skills which is for the benefit of subject specialists and laypeople. As such, terminology is an agent in the interchange of knowledge between languages. According to Sager (1996 in Nkomo & Madiba 2011: 147), terminology encompasses the vocabulary of a special subject field (terms), the practices and methods used for data collection, the descriptions and presentation of terms, and the theories required for explaining the relationships between concepts and terms that are fundamental for a coherent activity.

Terminology enhances communication in various domains and assists in developing official and national languages into functional languages (Alberts 2010: 619). It plays an instrumental role in the teaching and learning of specific subject matters (Alberts 2014: 2). At the University of Cape Town, multilingual glossaries were compiled to meet the pedagogical needs of students who are non-native speakers of English. It is in this light that this study focuses on vocabulary in terms of discipline-specific terminology.

The development of terminology is a formal and systematic process that takes time and involves extensive human and financial resources (Khumalo 2017: 259). Alberts (2014: 6-7) contends that terminology uses grammar and orthography of the standard variety of the language, and terms are created following the word-forming principles of this variety. In as much as this principled procedure is acknowledged and highly valued, there are notable

challenges concerning the standard varieties of languages, including isiZulu. Nhongo and Tshotsho (2020: 78) assert that the prescriptive and puristic approaches in the development of terminology hamper the functionality of the African languages in multilingual STEM classrooms. The authors base their argument on the global status of English and argue for the inclusion and coordinated use of English and African languages and not the exclusive use of African languages in education (Nhongo & Tshotsho 2020: 87). These authors favour the use of loanwords/transliterated terms that will be user-friendly, are closely linked to the English terms, and thus, will not burden the learners' cognitive abilities (ibid.). Referring to the terminology entry that appears in Figure 2.2 below I illustrate what Nhongo and Tshotsho (2020) envisage. L1 speakers may prefer '*ikhompasi elementi*' in comparison to '*ukulawulwa kwesiqu/ukulawulwa kwento/ukulawulwa kokuphathekayo*'. The former, '*ikhompasi elementi*', closely imitates the term in English and may therefore be welcomed by the users. This loanword may enable a recall of the English term with ease and may even enable a recall of the spelling of the term. The latter, '*ukulawulwa kwesiqu/ukulawulwa kwento/ukulawulwa kokuphathekayo*', may be cognitively demanding as users match the term in isiZulu to the equivalent in English. In another investigation, Northern Sotho learners favoured the use of loanwords in Chemistry over indigenous terms (Nchabeleng 2012: 61). Considering the preferences of the terminology users (Speakers of African languages), Sibisi and Tappe (2020: 7) advocate for the use of contemporary poetry in isiZulu as an alternate strategy of meaning-making in the decoding of academic concepts, to be used in combination with translanguaging, without dismissing the use of English. Based on these cited studies, it may be worthwhile for isiZulu and other languages to ascribe to terminological modernisations, which Phaka and Ovid (2022: 104) describe as the "regular development of new terminology in order for a language to be capable of being expressive in every domain". However, this development must be exercised with caution as Mphahlele (2004: 340) warns that borrowing words in the form of transliteration, which is prevalent in translanguaging, hampers the transmission of essential semantic information from the source language to the target language (in the current case – English is the source language and isiZulu is the target language).

2.3.2 The development of discipline-specific terminology in isiZulu at UKZN

"In the higher education context of multilingual South Africa terminology development is indispensable for creating and sustaining a dynamic environment for the use of indigenous languages as MoI and ultimately for scientific progress" (Beukes 2010: 889). In addition, the development of discipline-specific terminology is vital to the intellectualisation of a language,

Phaka and Ovid (2022: 104). UKZN has committed to fulfilling the constitutional mandate by intellectualising and operationalising the use of isiZulu. The two major instances that UKZN has embarked on, in realising this commitment, are through participation in the South African-Norway Tertiary Education Development (SANTED) multilingual project and, internally, through the work of the ULPDO (see §2.3.1 above).

UKZN, through participation in the SANTED multilingual project, has expedited the advancement of the use of isiZulu (Kamwendo et.al. 2014: 76). The project, funded by the Norwegian Agency for Development Co-operation (NORAD), involved a collaboration between UKZN and the Durban University of Technology (DUT). One of its primary objectives was the development of discipline-specific terminology and teaching material in isiZulu (Mkhize et.al. 2014: 136). During the tenure of the SANTED II multilingual project (2007-2010), UKZN and DUT developed English-isiZulu terminology lists and glossaries in the following disciplines: Education, Nursing and Midwifery (Engelbrecht et al. 2010: 253), Psychology, and Dental Assisting (Mawonga, Maseko & Nkomo 2014: 66).

In keeping with the objective of becoming “a national hub in the development of isiZulu national corpus and the development and standardization of isiZulu technical terminology and its dissemination” (UKZN 2014: 2), the ULPDO at UKZN has developed discipline-specific terminology in isiZulu for the following disciplines and units: Administration, Architecture, Anatomy, Computer Science, Environmental Science, Law, Physics, Psychology and Nursing (Khumalo 2017: 256). Discipline-specific terminology in isiZulu is accessible from two platforms: UKZN weblink – <https://ukzntermbank.ukzn.ac.za/PublicSearch.aspx> and the mobile application, ‘Zulu Lexicon’, which is downloadable from the Google Play Store. Figures 2.2 and 2.3 below are snapshots of the two platforms:

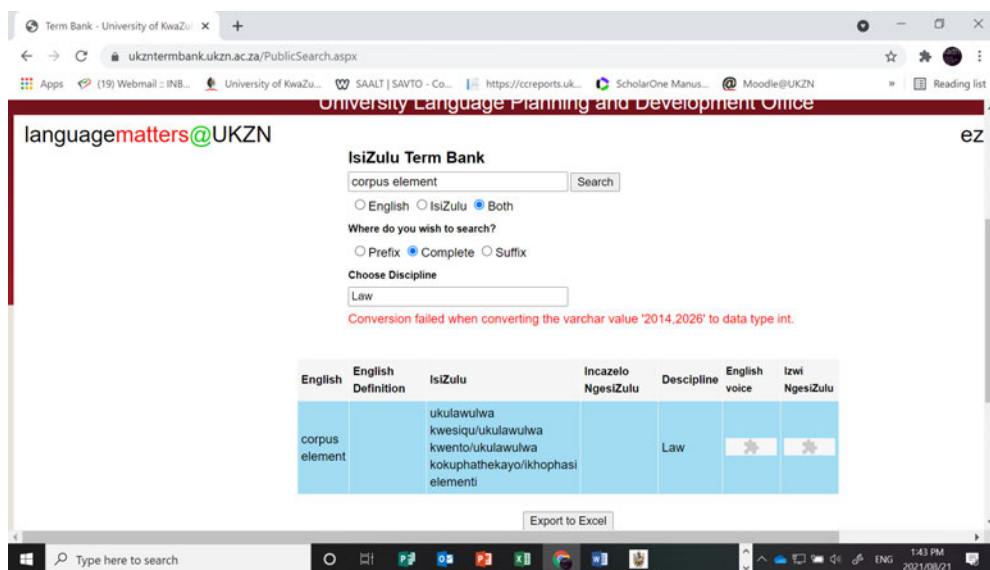


Figure 2.2: Snapshot of the term bank

The term bank is searchable in either isiZulu or English. For each entry in English, the result gives the entry in isiZulu and the discipline in which the term is housed. The entry in isiZulu may be in the form of a direct translation, a loanword or transliterated term, or an indigenous term if this is available.



Figure 2.3: Snapshot of the Zulu Lexicon

In the Zulu Lexicon, the search for each entry in English provides the term in isiZulu in the form of a direct translation, a loanword, a transliterated term, and an indigenous term if this is available, and also provides an associated term to the current search.

Over and above the two platforms mentioned above, academics in the Architecture discipline at UKZN published a bilingual English-isiZulu glossary (*Illustrated Glossary of Southern*

African Architectural Terms written by Professor Franco Frescura and Joyce Myeza), in 2016. The advanced strides that Architecture as a discipline has achieved has motivated the inclusion of the discipline as a focus area in the current study. Anatomy as a discipline offers modules to students in medicine and allied health professional qualifications. In the fourth Senate Report 2014/2015 (see table below), it is stated that Anatomy had 834 terms in isiZulu which had been standardised (Vithal & Khumalo 2015:7). This is the highest number of terms, among all disciplines and units, which have gone through four out of the five steps in terminology development at UKZN (Khumalo 2017: 257).

Table 2.3: Terminology development progress 2014/2015 (Vithal & Khumalo 2015: 7)

Number	Discipline	Terms developed	Terms verified	Terms standardised
1	Anatomy	673	834	834
2	Literature & Onomastic Research	271	0	0
3	Architecture	210	222	224
4	Computer Science	145	146	0
5	Corporate Relations	192	192	0
6	Law	748	256	256
7	Environmental Studies	513	513	0
8	Nursing	549	549	549

Law as a discipline was, in 2015, the third-highest discipline bearing standardised terminology in isiZulu. The 2015/2016 Senate reported that the Law discipline had 496 standardised terms, second to Physics with 606 terms (Vithal & Khumalo 2016: 8). In 2018, a bilingual English-isiZulu glossary of law terms was compiled and authored by Khulekani Zondi, a UKZN alumnus and lecturer. The strides in terminology development in the Law and Physics disciplines motivated the selection of the disciplines for this study (see table below).

Table 2.4: Terminology development progress 2015/2016 (Vithal & Khumalo 2016: 8)

Number	Discipline	Terms developed	Terms verified	Terms standardised	Terms remaining
1	Environment	486	486	486	0
2	Law	496+468	496	496	468
3	Linguistics	516	0	0	516
4	Physics	606	606	606	0
5	Psychology	500	500	0	0

6	Research	500	0	0	500
---	----------	-----	---	---	-----

2.2.3 Dissemination and accessibility of discipline-specific terminology in isiZulu at UKZN

UKZN designed a five-stage terminology development process that incorporates the statutory processes facilitated by the KwaZulu-Natal office of PanSALB (Khumalo 2017: 257). The five stages are:

1. harvesting of existing usage terms;
2. description and translation of terminology that has been harvested or created;
3. consultation and verification with end-users about terminology proposed;
4. authentication and standardization through official national structures; and
5. listing of these terms on the terminology databases for wider institutional and national usage.

In commending the strides that UKZN has attained in the development of discipline-specific terminology, Phaka and Ovid (2022: 107) comment, “With continued corpus development, currently lead by the University of KwaZulu-Natal, IsiZulu may soon be developed enough to not require use of borrowed technical terms from other lexica”. It is admirable that the five-stage process includes consultation and verification with end-users, the beneficiaries of the entire process.

2.3.3 Summary

The advancement of the use of isiZulu and the terminology development process at UKZN are tactics, in part, to ascribe to the ideologies of the African Renaissance and the decolonisation of the mind, as well as a direct response to the constitutional mandate of elevating the status of African languages. The strides achieved in developing discipline-specific terminology enhance the functionality of isiZulu and addresses the concern over the paucity of terminology in African languages. Entering partnerships, for example, through participation in the SANTED multilingual project and working closely with PanSALB, enhances the credibility of the UKZN terminology development process. In addition, the availability of the terminology in public domains adds integrity to the process and makes the terminology trustworthy.

2.4 Summary of the chapter

In this chapter, I looked at the language in education landscape in South Africa, the issues related to attitudes, including attitudes towards African languages generally and attitudes towards isiZulu, specifically, as well as at the advancement in the use of isiZulu at UKZN. The chapter reflects the developmental stages and evolution in the history of educational policies of the country. South Africa has come a long way from segregation policies to embracing multilingualism in education. Research indicates that African languages play an essential role in the education of Africans. The inclusion of African languages is enacted with clear insight into the instrumental role that English plays as a global language. In addition, the inclusion of African languages contributes to influencing changes in attitudes, from the past denigration of African languages to acknowledging the vital role that these languages play in education. Thus, the strides that UKZN has attained in operationalising multilingualism, ascribes to policy directives at global, continental, national and institutional levels (UN SDG 4.5, OAU Language Plan for Action, Asmara Declaration, RSA Constitution §6 (4), Language Policy Framework for Public Higher Education Institutions §29, and UKZN Language Policy). In the next chapter, I shall look at the research design and methodology used in realising the objectives of this study.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The study is designed within the parameters of the social constructivism theory (Vygotsky 1978) in parallel with the interpretivist research paradigm (see e.g., Bogdan & Biklen 1998 in Kivunja & Kuyini 2017: 33). These are the philosophical orientations of the study (Khatri 2020: 1436); the underlying perspectives on the current quest for truth and knowledge (Muchanga 2020: 209). The social constructivism theory and the interpretivist paradigm may be looked at interchangeably or as separate but related entities. They are both balanced on understanding the individual and the environment within which the individual operates (Kivunja & Kuyini 2017). Pertinent to the social constructivism theory, as proposed by Vygotsky (1978 in Amineh & Asl 2015: 13), is the dialectical relation between an individual undergoing a learning experience and the social context within which the individual operates. This assertion supports the conclusion drawn by Lui and Matthews (2005: 388) on social constructivism that:

Learners are believed to be enculturated into their learning community and appropriate knowledge, based on their existent understanding, through their interaction with the immediate environment.

Based on the interplay between an individual and the social context that manifests in a learning environment; the current study explores and describes the attitudes that isiZulu L1 students hold towards discipline-specific terminology in isiZulu and isiZulu as an academic language. The objective of the study relates to the social constructivism theory which, according to Vygotsky (1987 in Lui & Matthews 2005: 393), places language at the foundation of verbal and higher mental thinking, that is, language as required by situational and communicative demands. The link between the social constructivism theory and the interpretivist paradigm shows in the three perspectives of a research paradigm: ontology; epistemology and methodology. For the social constructivism theory: the reality is socially constructed, the knowledge is transactional and subjective, and data is treated hermeneutically. The three elements of the social constructivism theory align with the three perspectives of the interpretivism paradigm. The social construction of reality aligns with the ontological perspective, the nature of knowledge aligns with the epistemological perspective, and data is treated in a manner which aligns with the methodological perspective (Guba & Lincoln 1994: 110-111). In the current study, the respondents construct the reality through self-reflection of their attitudes to language use in the questionnaires (the ontology). What they know about the

languages they use is negotiated through open discussions in the interviews, and in the open questions in the questionnaires (the epistemology). The data collected in the questionnaires and through interviews are analysed and interpreted in order to formulate findings and conclusions on the students' attitudes towards the languages they use (the methodology).

Alongside social constructivism, the interpretivist paradigm seeks to understand a specific context. That being, teaching and learning in the environment within which these activities take place, without attempting to generalise (McKenna 2003: 218). The current study aligns with the key tenet of the interpretivist paradigm, which proclaims reality as socially constructed (see e.g., Rehman & Alharthi 2016: 55; Bogdan & Biklen 1998 in Kivunja & Kuyini 2017: 33) as it investigates the attitudes of isiZulu L1 students in the context of the University of KwaZulu-Natal (UKZN). The intention is to understand the phenomenon under investigation in situ with no intention to generalise the findings to other environments even though the findings may prompt related investigations.

In sum, the interpretivist paradigm in the context of the current study has three aims. Firstly, to understand the research participants in the context within which they interact with the phenomenon under investigation, specifically, the attitudes towards discipline-specific terminology in isiZulu and isiZulu in academic contexts. Secondly, to understand how the research participants make meaning of their contexts, that being, having two languages in their repertoire yet using only one of those languages predominantly. Thirdly, to draw conclusions from the data collected, as findings, in interpreting the interplay between attitudes and the discipline-specific terminology in isiZulu in particular, and isiZulu in academic contexts, in general.

The interpretivist paradigm is preferred over the positivist, post-positivist, and critical research paradigms. The positivist paradigm proclaims that reality exists independently of humans, that it is not mediated by our senses, and is governed by immutable laws (see e.g., Rehman & Alharthi 2016: 53; Muchanga 2020: 209). Positivism, according to Kivunja and Kuyini (2017: 30), aims to provide explanations of cause-effect relations and to make predictions based on measurable outcomes, therefore, it relies on deductive logic to make conclusions. Positivism is quantitative in nature, practices objective epistemology, and uses empirical experimentation to discover the "true nature of reality and how reality works (Muchanga 2020: 209)". The positivist paradigm, therefore, as Rehman and Alharthi (2016: 55) assert, may be inadequate when individuals, and a social phenomenon such as attitudes, are under scrutiny.

The post-positivist paradigm deviates from positivism in that, the former acknowledges the habitus of the researcher, being, theories, background, knowledge, and values, as influential on what is observed. It also acknowledges that reality is based on human construction (Muchanga 2020: 209). The post-positivism paradigm bases its principle on the idea that knowledge is not neutral but is socially constructed (Kankam 2019: 87). For post-positivism, reality and knowledge are centred on a person, it is multi-dimensional and subjective.

The critical theory research paradigm deviates from the interpretivist, positivist, and post-positivist research paradigms in that it aims not just to explain and/or understand society but to challenge and transform social power relations using dialogic and dialectical methodologies (see McKenna 2003: 219; Rehman & Alharthi 2016: 57). The critical paradigm has a social justice agenda; it has an interest in empowerment initiatives and the removal of oppressive social structures using methods such as action research (Kivunja & Kuyini 2017: 38).

Having considered the above-mentioned research paradigms, the current study aligns more with the interpretivist paradigm. The study aims to understand the respondents' attitudes towards discipline-specific terminology in isiZulu, and the use of isiZulu language in academic contexts. In an assertion made by Kivunja and Kuyini (2017: 33), the interpretivist paradigm:

[...] makes an effort to 'get into the head of the subjects being studied' so to speak, and to understand and interpret what the subject is thinking or the meaning s/he is making of the context.

It is because of this aim that the interpretivist research paradigm is chosen. Within the ambit of the interpretivist paradigm, the study uses a mixed methods research design to conduct the investigation into the attitudes of isiZulu L1 students at UKZN. The investigation aims to respond to the research questions:

1. What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?
2. In what way does the existence of discipline-specific terminology in isiZulu influence attitudes of L1 students towards the use of isiZulu in academic contexts?
3. Is there evidence of correlations among the three components of attitude held by isiZulu L1 students towards isiZulu as an academic language generally and, particularly towards discipline-specific terminology in isiZulu?

4. To what extent do isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic life?

In the subsections that follow, I provide a discussion on the research design and the methodology applied in the current study.

3.2 The research design

The current study is a mixed method research study. The study is an attempt to understand the attitudes of isiZulu L1 speaking students at the University of KwaZulu-Natal (UKZN) towards discipline-specific terminology in isiZulu and isiZulu as an academic language. The study places under scrutiny the tripartite model of attitudes which consists of cognition, affect and behaviour (Breckler 1984: 257). To investigate the three components, I applied quantitative and qualitative methods during both the data collection and the data analysis to address the research questions. Research in language attitude studies has been conducted using either quantitative methodology, qualitative methodology or mixed methods (Agheyisi & Fishman 1970). The differences between quantitative and qualitative research methodologies emanate from the assumptions about the world, the research purpose, the research methods, the role of the researcher, and the importance of context in the study (Denzin & Lincoln 2000 in McMillan & Schumacher 2010: 12). A single evaluative measure may not capture the complexity of the attitude construct (Ajzen & Fishbein 2005: 177). The mixed methods research methodology combines the characteristics and strengths of both quantitative and qualitative methodologies in a structured, systematic manner thus contributing to a better understanding of the phenomenon under investigation thereby increasing the validity of the research findings (Creswell 2009: 104; Litosseliti 2010: 33; McKim 2017: 203). Consequently, the mixed methods research design is the preferred option for the current study as it responds to the mentalist approach to attitude studies which views attitude as a multi-componential, three-dimensional construct, consisting of cognitive, affective, and behavioural components (Agheyisi & Fishman 1970: 138).

The combination, or integration, of qualitative and quantitative elements, affects research in one or more of the following ways (Tashakkori & Creswell 2007: 4 in Litosseliti 2010: 33):

- Types of research questions (with qualitative and quantitative approaches)
- The manner in which the research questions are developed (participatory versus purposive)

- Two types of sampling procedures (e.g., probability and purposive)
- Two types of data collection procedures (e.g., focus groups and surveys)
- Two types of data (e.g., numerical and textual)
- Two types of data analysis (statistical and thematic) and
- Two types of conclusions (emic and etic representations, ‘objective’ and ‘subjective’, among others)

The disadvantages of utilising a mixed methods research methodology are the additional time and resources required to source and analyse data (McKim 2017: 202). However, the value attached to integrated data surpasses the drawbacks. In the current study, the mixed method approach involved the use of a questionnaire that gathered quantitative data, which was statistically analysed, and the use of open questions and focus group interviews, gathering qualitative data, which involved thematic analysis.

I shall now describe the research site and the population amongst whom the respondents are sampled.

3.2.1 The research site

The University of KwaZulu-Natal (UKZN), one of 26 universities in South Africa, is situated in the province of KwaZulu-Natal on the east coast of South Africa. It consists of five campuses: Howard College campus, Westville campus, Edgewood campus, Pietermaritzburg campus and the Nelson Mandela School of Medicine campus. The study is conducted at three campuses of UKZN, namely, Howard College, Westville, and Pietermaritzburg. The Howard College and Westville campuses are in the Durban metropolitan area, merely 16 kilometres apart. The Pietermaritzburg campus is in the KwaZulu-Natal Midlands, 73 kilometres away from Howard College (the researcher’s domicile campus).

UKZN uses a college model in the organisation of academic programmes. There are four colleges making up UKZN namely: College of Humanities (CHUM), College of Health Sciences (CHS), College of Law and Management Sciences (CLMS), and College of Agriculture and Engineering Sciences (CAES). Each college has a few schools, within which related disciplines form clusters. The researcher identified two modules in two of the disciplines in each school and/or college (as far as this was possible as the School of Law in CLMS has only one discipline). In each pair of modules, one is the target module, and the other

is the control module. The target module in each college has discipline-specific terminology in isiZulu, which has been developed and is publicly available. The control module has not yet developed discipline-specific terminology in isiZulu. The intention of conducting a university-wide study is to establish a holistic view of the attitude patterns of isiZulu L1 speaking students towards discipline-specific terminology in isiZulu and the use of isiZulu in academic contexts.

The development of discipline-specific terminology in isiZulu by UKZN primarily aligns with the Constitution of the Republic of South Africa (RSA 1996). Chapter 1, Section 6.2 of the Constitution declares:

Recognising the historically diminished use and status of the indigenous languages of our people, the state must take practical and positive measures to elevate the status and advance the use of these languages.

In response to the constitutional directive, subsequent legislation has been passed at a national and institutional level. The legislation mandates the elevation of the status and the use of the indigenous languages of South Africa; this includes isiZulu the subject of this investigation. At the national level, UKZN is guided by the Language Policy for Higher Education (2002) and the Use of Official Languages Act (2012). At the institutional level, UKZN is guided by the Language Policy of UKZN (2006, revised in 2014). Two of the aims of the UKZN Language Policy (2014: 2) are to:

- achieve for isiZulu the institutional and academic status of English.
- provide facilities to enable the use of isiZulu as a language of learning, instruction, research, and administration.

Therefore, the development of the discipline-specific terminology in isiZulu, together with the building of an isiZulu National Corpus, are flagship initiatives that UKZN has taken pride in implementing, as strides in the intellectualisation of isiZulu (see e.g., UKZN Teaching & Learning Report 2014/2015: 53; Khumalo 2017: 256). Secondly, the development of discipline-specific terminology in isiZulu aligns with the vision, mission statement, and goals of UKZN as presented on the university website (<https://ukzn.ac.za/about-ukzn/vision-and-mission/>). The vision of the university is to be the Premier University of African Scholarship. The mission statement states that the university aspires to be a South African University of Choice that is academically excellent, innovative in research, entrepreneurial, and critically

engaged with society. One of the goals the university has set is to be an institution of choice for learners. In achieving this goal, the university aims to be an institution:

[...] that values students in all their diversity and has a student-centred ethos, providing students with curricula, teachers, infrastructure and support services designed around their needs and producing well-educated, competent, sought-after graduates (<https://ukzn.ac.za/about-ukzn/vision-and-mission/>).

In one of the myriads of initiatives providing students with support services designed around their needs, UKZN embarked on the development of discipline-specific terminology in isiZulu.

Discipline-specific terminology in isiZulu at UKZN is developed by the University Language Planning and Development Office (ULPDO), in collaboration with the KwaZulu-Natal Department of Arts and Culture and UMZUKAZWE (the isiZulu National Language Board). UMZUKAZWE is a subsidiary of the Pan South African Language Board (PanSALB) (Khumalo 2017: 257). To date, ULPDO has developed discipline-specific terminology in isiZulu for the following disciplines and units: Administration, Architecture, Anatomy, Computer Science, Environmental Science, Law, Physics, Psychology and Nursing (Khumalo 2017: 256). Discipline-specific terminology in isiZulu is accessible on two platforms: the UKZN weblink – <https://ukzntermbank.ukzn.ac.za/PublicSearch.aspx> and the mobile application, ‘Zulu Lexicon’, which is downloadable from Google Play Store. The details on the disciplines chosen for the current study are presented below.

Target and control disciplines

The disciplines chosen as target disciplines were Architecture (CHUM, School of Built Environment and Development Studies); Anatomy (CHS, School of Laboratory Medicine and Medical Sciences); Law (CLMS, School of Law); and Physics (CAES, School of Chemistry and Physics). Architecture and Law are offered at the Howard College campus, Anatomy is offered at the Westville campus, and Physics is offered at both the Pietermaritzburg and Westville campuses, however, respondents were only recruited at the Pietermaritzburg campus. The disciplines were selected using nonprobability convenience sampling, in order to access respondents who are relevant to the phenomenon under investigation (Creswell 2014: 163).

Snowballing was applied in the selection of the control disciplines (Creswell 2014: 164). The researcher relied on referrals, from academic leaders in the Teaching and Learning Portfolio in each school, to identify disciplines cognate with those in the target group. In CHUM,

Community Development was selected. Community Development is offered as a major and an elective in the College of Humanities at the Howard College campus. In CHS, School of Laboratory Medicine and Medical Sciences, Physiology was selected. Physiology is offered as a major and an elective module across all four schools in the CHS. It is offered at the Westville campus. In CLMS, School of Law, no other comparative discipline could be chosen since the Law discipline is the only discipline in the School of Law. Consequently, Management, offered in the School of Management, Information Technology and Governance within the CLMS, was selected. The two disciplines, Law and Management, are the flagship disciplines in the CLMS. Management is offered as a major as well as an elective across all colleges in the university where it is deemed fit to satisfy the requirements of an undergraduate degree. In CAES, School of Physics and Chemistry, Chemistry was selected. Chemistry is offered at the Westville campus and the Pietermaritzburg campus. The respondents were recruited at the Westville campus. It was a deliberate decision to recruit respondents enrolled in Chemistry at the Westville campus and not at the Pietermaritzburg campus, where the respondents enrolled for Physics were recruited. In this way, double-recruiting respondents enrolled in the same degree qualification, was avoided. The researcher targeted thirty respondents in each discipline, a total of 240 respondents.

3.2.2 Population and sample

The research uses two research instruments, those being, a questionnaire and focus group interviews. The participants in the focus group interviews are a subset of the participants who take part in the questionnaire study. When completing the questionnaire, participants were provided with an option to volunteer to be part of a focus group interview.

The target population for the study were students whose home language is isiZulu and who were registered in a first-year module. First-year modules have the largest enrolment numbers compared to modules in the second and third years. A sizeable number of the students enrolled in the first-year modules are first time entrants into the university. There are, however, students enrolled in the first-year modules who are not in their first year of registration in the university. These students are taking the first-year module as an elective rather than a major module.

For practical reasons, I did not restrict the recruitment of respondents to students who are enrolled in a first-year module as part of their major and students who are enrolled in a first-year module as an elective. Furthermore, I did not exclude students who were registered in a first-year module but were already in their second or third year of study (see Table 3.2 below).

The respondents for the questionnaire study were recruited from all four colleges as described in the preceding section. The intention was to administer questionnaires to a representative sample for each college. The data collection process aimed at a maximum of 60 respondents from each college; 30 respondents from the target discipline and 30 respondents from the cognate discipline. Hence the desired number of respondents was 240. Convenience non-probability sampling was applied to access willing, available, and information-rich respondents (Creswell 2014: 163). The questionnaires were distributed to more students than the desired number of respondents, where possible. Table 3.1 below shows the distribution of the questionnaires across the population sample.

Table 3.1: Distribution of questionnaires across the population sample

COLLEGE	Target group	Control group
College of Agriculture and Engineering Sciences (CAES)	36	30
College of Health Sciences (CHS)	31	40
College of Humanities (CHUM)	29	35
College of Law and Management Sciences (CLMS)	35	36
TOTAL	131	141

The researcher purposefully aimed to collect data from respondents in a first-year module, in the second semester of the year. This was done purposely, in that, by the second semester of their first year, most students have acclimatised to university life. The researcher anticipated that the respondents would be able to show whether the presence of discipline-specific terminology in isiZulu or the absence thereof (in the case of control disciplines) aids in accessing academic concepts presented in English.

A total of eight focus group interviews were planned, four with the target groups, Physics, Anatomy, Architecture, and Law, and four with the control groups, Chemistry, Physiology, Community Development, and Management. Each interview session was set to follow a protocol of six baseline questions (see Annexure B and Annexure B/2), and to last from forty-five minutes to an hour.

I shall now describe the methodology used in data collection, describe the instrumentation and the data analysis process.

3.3 Methodology

As mentioned in section 3.1, the study uses mixed methods, by combining the use of a questionnaire survey and focus group interviews, for data collection and data analysis. I shall now give an elaborate description of the data collection process. The description involves details on ethical and practical considerations that have been undertaken.

3.3.1 Data collection

Data collection took place during semester two of 2019. The process included observing the ethical protocols prescribed by UKZN.

3.3.1.1 Ethical considerations

The current study adhered to ethical protocols and procedures as prescribed by UKZN. First, the researcher prepared and presented a research proposal outlining the research objectives, research questions, motivation, and background to the study as well as the research design. The proposal was presented before the structures of the Higher Degrees Committee in the School of Arts at UKZN for a review and appraisal. Upon approval, the researcher sought gatekeeper permission from the office of the Registrar at UKZN, in order to conduct the study among the students. The office of the Registrar granted gatekeeper permission, and the researcher submitted the research proposal together with the participatory consent form and proposed research instruments templates to the UKZN Research Ethics Office for approval. Ethical clearance was granted, and the study was registered with UKZN under ethical clearance number HSS/0755/018D. The consent form was a prerequisite for each respondent to sign as a commitment to participate in the study (refer to Annexure C). The consent form allowed for respondents to indicate their willingness to be part of the focus group interviews in addition to filling in the questionnaire. Respondents who chose to participate in the interviews were informed that the interviews would be recorded, and consent was to be considered on agreement thereto. The research instrument templates are attached (refer to Annexure A-A4/1 and Annexure B-B/2). All the respondents' contributions were coded for anonymity purposes.

3.3.1.2 Practical considerations

Even though the study had been ethically cleared by the authorities at the university; the recruitment of the respondents proved to be a challenging process. Upon obtaining permission from the UKZN Research office, further permission had to be obtained firstly from the Dean of the school targeted, secondly, from the Cluster Leader in the discipline concerned, thirdly

from the coordinator of the module concerned, and lastly, from the lecturer overseeing students at the time of data collection. Once an agreement was reached with each module coordinator and the lecturer concerned, an arrangement to see the students was undertaken. The challenge encountered here was that most of the modules are taken as electives for unstructured degree purposes. This meant that the students registered in such modules were from different degree programmes. Therefore, the only time that could be arranged to see and enlist students was during lecture times. Lecture time in any semester programme is extremely limited. Against this background, I had to negotiate for time to address the students and explain the details of the study, enlist the volunteers, and distribute the consent forms and questionnaires. Within the same negotiated time, records had to be kept regarding the distributed consent forms and questionnaires, and arrangements had to be made for the collection of the questionnaires. Unfortunately, it was not possible to administer the questionnaires on-site due to lecture time constraints. The time allocated to address the students was limited to approximately 30 minutes. The potential respondents took the questionnaires away and collection times were arranged with the help of the lecturer supervising the students at the time.

3.3.2 Instrumentation

Two instruments were used, a questionnaire and focus group interviews.

3.3.2.1 The questionnaire

The researcher piloted the questionnaire with a cohort of twenty-three respondents. Of the twenty-three, thirteen respondents were recruited from the discipline of Anatomy, a target group for the study, eleven were recruited from the discipline of Physiology, a control group for the study. The questionnaire was piloted to assess the clarity of the questions and identify any other weaknesses in the questionnaire (Kothari 2004: 101). Subsequent to piloting the questionnaire, I modified the questionnaire and clarified section five, which appeared to have not been particularly clear for the pilot respondents.

For the main study questionnaire, each respondent provided the last five digits of their student number. This number was required for tracking purposes by the researcher only. Tracking was done by sending reminder emails to the students who did not return the questionnaires at the appointed time. To maintain anonymity, the researcher assigned a unique code to each questionnaire returned, for example, A1-A13 (Architecture), L1-L18 (Law), PL1-PL7 (Physiology), and so forth. The questionnaire consisted of both closed and open questions. Each questionnaire had six sections as indicated in Table 3.2 below:

Table 3.2: The questionnaire and the instructions per section

Section instruction	Responses:
SECTION 1: Please specify the dominant (exceeding 60% of your language use) in each of the specified domains of language use as well as people you use the language with	IsiZulu English Both Neither/Does not apply to me
SECTION 2: Please indicate your beliefs, knowledge & perceptual responses towards language use, isiZulu language and discipline-specific terminology in isiZulu	Strongly disagree Disagree Neutral Agree Strongly agree
SECTION 3: Please indicate how you feel, your emotions and mood towards isiZulu language and discipline-specific terminology in isiZulu	Pessimistic Negative Neutral Positive Optimistic
SECTION 4: Indicate the chances that you use or might use/intend to use isiZulu language and discipline-specific terminology in isiZulu	Never: 0-19% Rarely: 20-39% Occasionally: 40-59% Regularly: 60-79% Always: 80-100%
SECTION 5A: Refer to the list of terms extracted from the Zulu Lexicon. For each term, give an English equivalent/translation	Open responses
SECTION 5B: For each feature in the following table, evaluate the isiZulu terminology using the following scale: 1=very low; 2=low; 3=mediocre; 4=high; 5=extremely high	Level of clarity Level of understanding Level of acceptability Chances of using the term Need for the isiZulu term Term in English
SECTION 6: Please provide your personal biographic details for statistical analysis	Age Gender Level of study at High school level Year of UKZN registration May I contact you for interview purposes Email address/cell phone number

Section one of the questionnaire has identical items for both the target group and the control group. In section two, the wording of the items in the questionnaire differs between the two groups. For the target group, the items are declarative, for the control group, the items are hypothetical. For example, for the target group, item 2.8 reads thus, *The use of isiZulu will equip me to perform better in my chosen career.* For the control group, item 2.8 reads thus, *The use of isiZulu could equip me to perform better in my chosen career.* Respondents had to choose from five options on a Likert scale; strongly disagree, disagree, neutral, agree and strongly agree, in that order. The ordering of the options from negative to positive was purposeful to deter the respondents from a halo effect of choosing positive options. The researcher hoped

that the ordering would increase the validity of the responses. At the end of section two, the respondents were required to provide an elaborate response on the reason(s) they had for their beliefs and perceptual responses.

In section three, the wording of the items differs between the two groups. Items for the target group are definite, whereas items for the control group are hypothetical. For example, for the target group, items are preceded by the phrase, *My feelings towards...* For the control group, items are preceded by the phrase, *My feeling towards the possibility of...* The rating scale consists of five options: pessimistic, negative, neutral, positive, and optimistic, in that order. The ordering of the options from negative to positive was purposeful in order to deter the respondents from a halo effect of choosing the positive options, with the hope that this would increase the validity of the responses. At the end of section three, the respondents were invited to elaborate on the feelings and emotional responses they valued with regard to the use of, or the possibility of the use of, (target group/control group), isiZulu and discipline-specific terminology in isiZulu in academic contexts.

In section four, the rating scale has five options with approximate usage quantified in percentages: never (0-19%); rarely (20-39%); occasionally (40-59%); regularly (60-79%); and always (80-100%). The researcher ordered the options from negative to positive in order not to influence the ratings and, in that way, aim to increase the validity of the responses. At the end of section four, the respondents were invited to elaborate on the frequency of use (target group), and the possibility of use (control group), of isiZulu and/or discipline-specific terminology in isiZulu in their studies.

Section five of the questionnaire is divided into two subsections. This sub-division was made following an indication from the pilot study regarding lack of clarity. Following the amendment of section five, two isiZulu L1 speaking research assistants were called in to verify the clarity of the section. Subsection 5A consists of a list of ten discipline-specific terms in isiZulu extracted from the Zulu Lexicon. The terms are the same for both the target group and the control group. The respondents were asked to provide the equivalents in English of the terms presented in the questionnaire in isiZulu. The rationale behind the exercise was to engage the respondents with the terminology in isiZulu, to assess their familiarity with the terms provided. The researcher anticipated that the engagement, as well as a display of familiarity or lack thereof, would shed light on the attitudes (particularly the behaviour component) that respondents hold towards the terminology. Subsection 5B requires the respondents to rate each

term in isiZulu on a scale of 1-5, 1 representing ‘least favourable’ and 5 representing ‘most favourable’, on the features given. The researcher anticipated that each rating would give an indication of cognitive, affect and behavioural aspects of the attitudes that the respondents hold towards the terminology.

Section six of the questionnaire invited the respondents to provide personal biographic details: age, gender, level of study of English and isiZulu at high school (matric level/school-leaving certification level), and year of registration at the university. The information was gathered to establish the profile of the respondents engaged in the study.

The final question in section six asked the respondents to indicate whether they were willing to be interviewed as a follow-up to the questionnaire data collection session. Respondents who indicated their willingness to be part of the interview session assisted in providing a pool of respondents from which focus groups for the interview session were sourced. The researcher gave tokens of appreciation to those respondents who returned the questionnaires¹³.

In addition to the closed questions, in which the respondents used Likert scales, I developed open questions in three sections of the questionnaire pertaining to the cognitive, affective, and behavioural aspects of attitude, those were, sections two, three and four. In those sections, at the end of the closed questions, space was provided for the respondents to elaborate on their beliefs, feelings, and intentions pertaining to the use of discipline-specific terminology and isiZulu in academic contexts. The open questions allowed the participant to state the reasons for, and elaborate on, the choices they made in the closed question items (Creswell 2014: 242). However, responses to open questionnaire items may vary in terms of depth and may not always represent the rich data sought to understand the research problem (ibid.), hence, the focus group interviews were organised as a follow-up data collection instrument to substantiate the questionnaire data.

3.3.2 The focus group interviews

A semi-structured interview protocol was drawn up based on the first five sections of the questionnaire (see Annexure B and Annexure B/2). Focus group interviews were used as a data collection instrument to access rich data concerning the respondents’ perceptions, feelings, and intentions regarding discipline-specific terminology in isiZulu and isiZulu in academic

¹³ Micro USB 1metre braided cables were given as tokens of appreciations to each responded upon return of the questionnaire. The researcher is grateful to the UKZN University Capacity Development Grant for funding assistance.

contexts (Dilshad & Latif 2013: 192). The researcher formulated six baseline questions in order to validate questionnaire data and to gain a deeper insight into the research phenomenon (Creswell 2014: 177). Additional follow-up questions developed out of the responses that each participant gave during the interviews. Focus group interviews are commended for gathering multifaceted, shared information from a group of respondents who are able to expand on each other's responses (McKim 2017: 209). Focus group interviews were opted for in the current study as the researcher anticipated that the respondents, as second language speakers of English, would share characteristics that would allow them to provide relevant information on the research problem (Creswell 2014: 240). The interviews were video recorded with the consent of the respondents. Code names were assigned to each participant to protect their identity while still being able to identify different individuals. The researcher had met the participants when the questionnaire data collection took place. During this second meeting, the researcher was neither a total stranger nor a close associate, but an acquaintance. For this reason, the researcher hoped that the interview participants would open up and participate in the interviews the best way they could.

Eight focus group interview sessions were set up, four constituted by the respondents in the target groups, and the other four constituted by respondents in the control groups. Similar baseline questions were used across all eight focus groups. The purpose of using similar questions was an attempt at reaching data saturation (Fusch & Ness 2015: 1409). The researcher systematically sampled the respondents (Kothari 2004: 15).

The researcher first piloted the focus group interviews. Participants in the pilot focus groups were recruited from the pilot study groups (Anatomy and Physiology groups from semester two in 2018) who piloted the questionnaire study. There were six respondents in the target pilot group and five respondents were in the pilot control group. The interview protocol was tested on these two groups. There were no identified issues with the interview questions, therefore, the interview protocol remained unchanged for the main data collection session.

In the main data collection session, I aimed at recruiting a maximum of 48 participants to take part in eight focus group interview sessions, four to six members per group for four target group sessions, and four control group sessions. The intention of selecting one group per module was to establish whether attitudes towards discipline-specific terminology in isiZulu and isiZulu as an academic language differed from discipline to discipline. The participants were invited to

the interview session using the contact details they had supplied in the questionnaire. Eight interviews were organised and held.

At the beginning of each interview session, the participants were invited to share a light lunch. In this way, the researcher anticipated that the participants would relax and participate freely during the interviews. A small, free-standing video recording device was used and placed on the side of the room in an unobstructed manner to ensure that respondents did not feel intimidated by the recording device (Dilshad & Latif 2013: 196). Each participant was assured of the confidentiality of the data collected (Kaiser 2009: 9). To ensure anonymity, each participant was given a code number for reference purposes. The researcher initiated the discussion by asking a baseline question. Questions were elicited in isiZulu, a language shared by the respondents and the researcher. Each question was repeated in English. In this way, the respondents were free to respond in either of the two languages. Each participant in the group was given a chance to respond to the question. The researcher allowed for the discussion on each question to be exhaustive, with a few probing questions from the researcher for clarity purposes. Each interview session lasted between 45 minutes and an hour. In the interview room were the respondents and the researcher.

I shall now elaborate on the data analysis process.

3.3.3 Data analysis

In the two subsections hereunder, I describe the process of data analysis I conducted for each of the research instruments I used, those being, the questionnaire and focus group interviews.

3.3.3.1 The questionnaire

The initial plan was to analyse data from each of the eight groups separately. It would have been interesting to establish whether the discipline they are enrolled in is a variable influencing their attitudes. However, this plan could not materialise due to low response rates in all disciplines. I, therefore, conflated the target groups from all four colleges into a single target group and conflated the control groups from all four colleges into a single control group. The study continued with two groups.

Responses from the questionnaires were analysed using a Microsoft Office Excel 365 spreadsheet (version Professional Plus 2016). I first collated all the responses into the spreadsheet. Data collection questions were grouped per research question they attempted to answer. The details on the analysis process, per question, are given in Chapter Four.

Quantitative data in the questionnaire data were substantiated by the qualitative data collated from the focus group interviews and the open questions in sections two, three and four of the questionnaire data.

3.3.3.2 The focus group interviews

Qualitative data was collected from two sources. The first source was the open-ended questions in sections two, three and four of the questionnaires. In section two, the respondents were requested to elaborate on the reason(s) for the beliefs they hold about the language used in academic contexts, beliefs on the use of isiZulu language in academic contexts, and the use of isiZulu discipline-specific terminology. In section three, the respondents were asked to elaborate on the feelings they have towards the use of isiZulu language in academic contexts, and their feelings towards the use of discipline-specific terminology in isiZulu. In section four, the respondents were asked to elaborate on the frequency, or possibility, of the use of the isiZulu language and/or discipline-specific terminology in isiZulu in their studies. The qualitative data from the questionnaires was added to the data collected through focus group interviews. Data were prepared and organised into themes and sub-themes using the NVivo software. The actual analysis is detailed in the next chapter.

3.4 Summary of the chapter

In this chapter, I have discussed the research approach the current study undertakes. The study is aligned with the social constructivism theory, and the interpretivist research paradigm. Within the ambit of this research approach, the study is a mixed method study that involves the use of a questionnaire and focus group interviews to collect both quantitative and qualitative data. I have provided a discussion of the research design, the research site, instrumentation, and data analysis. In the next chapter, I describe the data analysis process further, as well as presenting and describing the data collected.

CHAPTER 4: DATA DESCRIPTION AND ANALYSIS

In this chapter, I present and interrogate data in accordance with the research questions that guide the study.

1. What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?
2. In what way does the existence of discipline-specific terminology in isiZulu influence attitudes of L1 students towards the use of isiZulu in academic contexts?
3. Is there evidence of a correlation among the three components of attitude in isiZulu L1 students towards isiZulu, particularly discipline-specific terminology in isiZulu?
4. To what extent do isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic life?

Respondents were enlisted across eight disciplines in four colleges at UKZN. In the sections that follow I provide an overview of the data collection and analysis processes. The overview includes mitigation strategies I had to apply due to a low response rate to the questionnaire survey. Subsequently, I provide a detailed description of the respondents, their demographic profiles, and a description of the research instruments. The section thereafter provides a detailed analysis of the data. For each research question, I present the outcomes of the quantitative analysis of the questionnaire survey (closed questions), followed by the qualitative analysis of both the open-ended questions in the questionnaires and the qualitative analysis of the focus group interviews. The subsections per research question differentiate between the responses of the target and control groups. At the end of each subsection, I discuss to what extent the data addresses the research question under consideration. The chapter concludes with a synopsis of all analysis steps. Here I summarise the chapter and place the research findings into the bigger context of existing research on language attitudes, and the intellectualisation of African languages through terminology development. Finally, I conclude with a summary of the chapter and an outlook on the following chapter.

4.1 Overview of the data collection and data analysis processes

As outlined in Chapter Three, the researcher targeted 30 respondents in each of the selected disciplines. A total of 240 respondents to the questionnaire was anticipated, from which I planned to recruit a maximum of 48 participants for the subsequent focus group interviews. Due to operational challenges outside of the researcher's control, the response rate to the questionnaire survey was low (55%). Consequently, it was impossible to recruit as many participants for the focus group interviews as anticipated. The Covid19 crisis furthermore made it impossible to conduct a second round of data collection.

A total number of 149 students responded to the questionnaire survey, of which 28 volunteered to be part of the focus group interviews. The low response and recruitment rates are discussed in the limitations section in Chapter Six of the thesis. The terms 'respondents' is used to refer to the students who responded to the questionnaire survey, and the term 'participants' is used to refer to the students who participated in the focus group interviews.

4.1.1 The data collection and analysis processes

As discussed in Chapter Three, the original eight groups were conflated into two groups right from the beginning of the analysis process. Hence, I have one target group which includes respondents from the four disciplines (Physics, Anatomy, Architecture, Law) $n=68$; and one control group constituted by respondents from the four control disciplines (Chemistry, Physiology, Community Development, Management) $n=81$.

The two groups meet the standard quantitative analysis criteria of the law of large numbers in terms of the sample size. This law is defined as $n \geq 30$ otherwise inferential statistical analysis may not be valid with small sample sizes $n \leq 30$ (Mascha & Vetter 2018: 692).

For comparative purposes between quantitative and qualitative data, I followed the same logic for the qualitative analysis and conflated the eight focus groups' interview data sets into two sets. One data set for the target groups, with a total of $n=17$ participants; and one data set for the control groups, with a total of $n=11$ participants.

Table 4.1 shows the number of questionnaires distributed, the number of questionnaire respondents, and the number of interview participants. The numbers are presented per college.

Table 4.1: Numbers of questionnaires distributed, the number of questionnaires collected and the number of interview participants.

COLLEGE	Target group: questionnaires distributed	Target group: questionnaires collected	Target group: interview participants	Control group: questionnaires distributed	Control group: questionnaires collected	Control group: interview participants
CAES	36	20	6	30	20	2
CHS	31	17	4	40	7	2
CHUM	29	13	2	35	35	5
CLMS	35	18	5	36	19	2
TOTAL	131	68	17	141	81	11

4.1.2 The description of the respondents and their demographic profiles

As indicated above, 149 respondents returned the questionnaires.

4.1.2.1 The questionnaire respondents

It is worth mentioning that there were respondents who did not respond to all the questions, therefore, there are sections where the responses do not add up to a total of 149, including section six, demographic details. Section six appeared as the last section of the questionnaire; hence, respondents may have failed to answer questions due to time constraints. Another possibility is that divulging personal information may have inhibited the respondents from filling in all the information. Table 4.2 below summarises the demographics of the respondents. The calculations are based on the total number of questionnaire respondents $n=149$.

Table 4.2: The questionnaire respondents and their demographic profiles

	CAES		CHUM		CLMS		CHS			TOTAL
	Target	Control	Target	Control	Target	Control	Target	Control		
Demographic characteristics										
Age										
18-21	20	19	9	23	14	15	15		7	122
22-25	0	1	4	6	1	2	2		0	16
26-29	0	0	0	2	0	2	0		0	4
30-33	0	0	0	0	0	0	0		0	0
34+	0	0	0	0	0	0	0		0	0
										142
Gender										
Male	17	1	10	15	5	14	1		5	68
Female	3	19	3	19	10	5	16		2	77
										145
Level of language study at High School level										

isiZulu Home Language/English First Additional Language	13	9	3	13	9	9	12	5	73
English Home Language/IsiZulu First Additional Language	6	11	10	3	6	8	5	1	50
									123
Year of UKZN registration									
1st year	19	16	4	24	15	13	9	6	106
2nd year	1	4	7	7	1	2	6	1	29
3rd year	0	0	2	1	0	4	2	0	9
4th year	0	0	0	0	0	0	0	0	0
									144

The first selection criterion was “isiZulu as home language at high school level”. The questionnaire responses reveal that $n=73$ (49%) of the respondents had taken up isiZulu at a home language level and English at a first additional language level in high school. However, many students consider their home language to be isiZulu and still chose to take English as a home language at school, and isiZulu as their first additional language $n=50$ (33.5%). The remainder of the respondents did not share this crucial detail, $n=26$ (17.4%). All questionnaire respondents $n=149$ identify themselves as isiZulu L1 speakers.

The choice of the level of language study, that is, “home language” versus “additional language”, at the primary to secondary school levels in South Africa, is primarily influenced by attitudes towards indigenous languages of South Africa, as discussed in Chapter Two.

My second selection criterion was that the respondents are in their first year of registration and enrolled in first-year level modules. Most of the respondents meet this criterion, $n=106$ (71.1%). Respondents who omitted this detail were $n=5$ (3.3%). However, as Table 4.2 above shows, not all respondents were in their first year of registration at UKZN, $n=29$ respondents (19.4%) were in their second year of registration, and $n=9$ respondents (6%) were in their third year of registration.

The data on age coincides with the observation that most of the respondents are in their first year of registration, falling into the range of 18-21 years of age, $n=122$ (81.8%). The remainder of the respondents fall into the categories of 22-25 years old ($n=16$ (10.7%)) and 26-29 years old, $n=4$ (2.6%). The number of respondents who omitted this detail was $n=7$ (4.6%).

In total, female respondents are in the majority at $n=77$ (51.6%), and males are in the minority at $n=68$ (45.6%). The number of respondents who did not declare their gender was $n=4$ (2.6%).

However, in a few disciplines, Physics, Architecture, Management and Physiology, males are in the majority. The gender distribution, per discipline of the respondents, impacts the gender of the volunteers for the focus group interviews. The disciplines with a high number of female respondents in the questionnaire survey also had a high number of female interview participants. These disciplines are Chemistry, Anatomy, Community Development and Law. The exception is the discipline of Physiology which has a gender balance for the interviews, despite the majority of the respondents to the questionnaire being male. I shall now describe the focus group interview participants in detail.

4.1.2.2 The focus group participants

On completing the questionnaire, each respondent indicated whether they would like to volunteer for a focus group interview. The target group of participants for the focus group interviews were enlisted from those respondents to the questionnaire survey who are enrolled in disciplines wherein discipline-specific terminology in isiZulu already had been developed in each of the four colleges of UKZN ($n = 68$). Of these 68 respondents, $n=17$ agreed to take part in four focus group interviews. I subsequently arranged four focus group interviews per discipline of the four target groups.

The control group of participants for the focus group interviews were enlisted from those respondents to the questionnaire survey who are enrolled in cognate disciplines in the four colleges at UKZN, wherein discipline-specific terminology had not been developed yet ($n = 81$). Of the 81 respondents, $n=11$ agreed to take part as participants in four focus group interviews. To match the target group, I also arranged four focus group interviews per discipline of the four control groups. The total number of interview participants is 28. Table 4.3 below illustrates the demographic details of the focus groups' interview participants per discipline in each college.

Table 4.3: Focus group interview participants' demographic details

	CAES		CHUM		CLMS		CHS		
	Target	Control	Target	Control	Target	Control	Target	Control	
Demographic characteristics									
Age									TOTAL
18-21	6	2	2	3	5	2	4	2	26
22-25				1					1
Gender									
Male	5	0	2	2	2	2	0	1	14
Female	1	2	0	3	3	0	4	1	14

Level of language study at High School level									
isiZulu Home Language/English First Additional Language	5	0	1	2	2	2	2	1	15
English Home Language/IsiZulu First Additional Language	1	2	1	1	3	0	2	1	11
Year of UKZN registration									
1st year	5	1	0	5	5	1	1	2	20
2nd year	1	1	2			1	0		5
3rd year							3		3

A total of 71.4% of the focus group participants are in their first year of registration, 17.8% are in their second year of registration, and 10.7% are in their third year of registration. Of the 28 focus group participants, 92.8% fall into the age range of 18-21 years old, 3.5% fall into the range of 22-25 years old, and 3.5% did not indicate their age. Regarding the level of language study at high school level, 54% studied isiZulu at home language level and English at first additional language level, 39% learnt English at home language level and isiZulu at first additional language level, and 7% of the participants did not indicate their language level. The majority of the participants meet the essential criteria as the target population for the study, that is, they are in their first year of registration at UKZN (71.4%) and studied isiZulu at home language level at high school (54%). The remainder of the participants meet the basic criteria for participation in the study and are enrolled in a first-year module and identify themselves as home language speakers of isiZulu. The overall gender representation is balanced (50%) for the entire group but not within disciplines. No male participants volunteered in the discipline of Chemistry. No female participants volunteered in the disciplines of Architecture and Management. Only the discipline of Physiology maintained the gender balance with one female participant and one male participant.

Each focus group comprised the number of participants in parenthesis. The target groups: Physics (6), Anatomy (4); Architecture (2), and Law (5). The control groups: Chemistry (2), Physiology (2), Community Development (5), and Management (2). Each interview session followed a protocol of six baseline questions (see Annexure B; Annexure B/20) and lasted from 45 minutes to an hour.

4.1.3 The research instruments

The questionnaires were organised into six sections. The instructions for each section are described in Chapter Three and illustrated in Table 3.2. Responses from the questionnaires

were collated and analysed on a Microsoft Office Excel 365 spreadsheet (version Professional Plus 2016).

The focus group interviews followed a protocol of six baseline questions (refer to Annexure B and B/2). The interviews were recorded (with the consent of the participants), transcribed and coded by the researcher. The transcripts were verified by two independent research assistants. The transcript data were added to the qualitative data collated from the open questions in sections two, three and four of the questionnaires. All qualitative data were analysed according to themes using NVivo 12 Pro software.

In the sections that follow, I shall address each of the research questions in different subsections.

I now address research question 1.

4.2 What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?

I first looked at how frequently the languages are used across different domains by the respondents in isiZulu and English (4.2.1). Following the tripartite model of attitudes as outlined in the literature review chapter (§2.2.2), I then looked at the cognitive (4.2.2), the affective (4.2.3), and the behavioural (4.2.4) aspects of attitude held by the respondents towards the use of isiZulu in academic contexts.

4.2.1 The frequency of language use (isiZulu and English) across selected domains

The assumption I started with is that the language that is more frequently used by the respondents, whether isiZulu or English, impacts either positively or negatively on attitudes towards the use of isiZulu in academic contexts. For instance, should the respondents show a propensity towards isiZulu, they may be more open to the use of isiZulu in academic contexts, thereby holding a positive attitude. Conversely, should the respondents show a propensity towards English, they may not be open to the use of isiZulu in academic contexts, thereby holding a negative attitude.

I begin by presenting the quantitative data for the target and control groups. Thereafter I present the qualitative data for each of the two groups.

4.2.1.1 Quantitative data

In section one of the questionnaire, each respondent had to refer to a domain of language use and indicate whether isiZulu, English, both, or neither, is used per domain (refer to Annexure A1-A4/2). The options were scored as 4-3-2-1 respectively. A 0-score was given where there was no response.

The rationale is to deduce the attitudes that respondents hold with respect to their primary language(s) based on how frequently they use the language(s) in different domains. Importantly, all selected domain descriptions entailed that the respondents are isiZulu speaking individuals and the interlocutors are receptive to the use of isiZulu in varying degrees. The interlocutors include isiZulu L1 speakers and non-isiZulu L1 speakers. The selected domains broadly fall into two categories, informal and formal domains.

The informal domains include domains wherein the respondents use the preferred language with close acquaintances, to socialise, as well as use for recreation and/or enrichment purposes. The selected domains in this category include the use of the language with family elders, younger family members, friends from their home area, friends from university, other isiZulu L1 speakers when discussing non-academic matters, the newspapers they read, the books they read and the language they use in prayer and/or rituals.

The formal domains include domains in which language is used for academic and academic-related matters. The selected domains in this category include the use of the language with isiZulu-speaking and non-isiZulu-speaking lecturers, tutors, librarians, and academic staff, as well as during lectures to other isiZulu speakers when discussing lecture content, and outside of lectures to other isiZulu L1 speakers when discussing academic or module content.

Domains were paired with respect to language functionality. I calculated the frequency of the responses per 'domain of language use' using the 'countif' formula on the MS Excel spreadsheet. Subsequently, the numerical frequencies were converted into percentages. The percentages in the use of either isiZulu, English or both languages in each pair are contrasted to determine the dominant language in each domain of language use.

The calculation of the percentages was complemented by a paired t-test analysis that was conducted using the data analysis tools on MS Excel. This analysis aimed at establishing whether the mean of a dependent variable is the same in two related domains. In the current context, the dependent variable is the frequency of language use.

The t-test analysis yields result in ‘p-value’ form. A p-value of less than 0.05 ($p < 0.05$) is statistically significant, thus a null hypothesis (a hypothesis that says there is no statistical significance between the two variables) is rejected and the alternative hypothesis (a hypothesis that says there is a statistical significance between two variables) may be accepted. On the converse, if the p-value is greater than 0.05 ($p > 0.05$), there is no statistical significance between the two variables, and the null hypothesis is accepted (Fraser 2019: 135). Should the p-value result be less than 0.05, that is, statistically significant, this implies that the frequency of language is not likely to occur randomly but may be attributed to a cause. For example, circumstances for the choice of a language may depend on the domain of language use. Should the p-value result be more than 0.05, indicating no statistical significance, this implies that the frequency of language use occurs randomly as per the circumstances surrounding the domain of language use (McLean & Ernest 1998:20). For the t-test analysis, the domains were paired as shown in Table 4.4:

Table 4.4: Paired domains for the paired t-test analysis

Domain descriptor (1)	Paired domain descriptor (2)
1.1 Family elders	1.2 Family young members
1.3 Friends from my home area	1.4 Friends from university (isiZulu-speaking)
1.5 Lecturers (isiZulu-speaking)	1.6 Lecturers (non-isiZulu-speaking)
1.7 Tutors (isiZulu-speaking)	1.8 Tutors (non-isiZulu-speaking)
1.9 Librarian(s) isiZulu-speaking	1.10 Librarian(s) non-isiZulu-speaking
1.11 Non-academic staff members (isiZulu-speaking)	1.12 Non-academic staff members (non-isiZulu-speaking)
1.13 During lectures to other isiZulu L1 speakers when discussing module content	1.14 Outside lectures to other isiZulu L1 speakers when discussing module content
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters	1.16 Newspapers I read
1.17 Books I read (e.g., novels)	1.18 Language I pray/do rituals in

The domains of language use were paired based on the comparative nature of the functionality of the language in the domain pairs. In pairing the domains, one may gather insight into the pattern of language use by the respondents. From the pattern, one may deduce the nature of the attitudes that the respondents hold towards the use of isiZulu. From the deduction, one may infer whether the pattern of language use and the attitudes that the respondents hold, impact the use of isiZulu in academic contexts.

4.2.1.1.1 Target group

Data was collated from $n=68$ respondents. The frequency of language use was calculated and presented in percentages per domain of language use. The results are in Table 4.5 hereunder:

Table 4.5: Frequency of language use per domain

Target group	IsiZulu	English	Both	Neither/does not apply	No response
Family elders	94%	0%	4%	1%	0%
Family young members	65%	9%	25%	1%	0%
Friends – home area	76%	7%	16%	0%	0%
Friends – university	43%	4%	53%	0%	0%
Lecturers – IsiZulu L1	10%	51%	31%	4%	3%
Lecturers – non-isiZulu L1	0%	94%	4%	0%	1%
Tutors – isiZulu L1	10%	46%	40%	4%	0%
Tutors – non-isiZulu L1	1%	91%	4%	3%	0%
Librarians – isiZulu L1	34%	26%	38%	1%	0%
Librarians – non-isiZulu L1	3%	85%	9%	1%	0%
Non-academic staff – isiZulu L1	59%	12%	26%	3%	0%
Non-academic staff – non-isiZulu L1	6%	76%	12%	6%	0%
During lectures to isiZulu L1 – module content	28%	34%	25%	12%	1%
Outside lectures to isiZulu L1 – module content	28%	24%	35%	12%	1%
Outside lectures to isiZulu L1 – non-academic matters	28%	22%	35%	13%	1%
Newspapers I read	13%	38%	46%	3%	0%
Books I read	1%	59%	35%	4%	0%
Language I pray/do rituals in	59%	10%	25%	6%	0%

The frequency of language use results in Table 4.5 show that IsiZulu dominates in the following domains: with family elders, with younger family members, with friends from the home area and with friends from university. IsiZulu also dominates in its use with the non-academic staff who are isiZulu L1 speakers and when praying and/or reciting rituals. The use of English dominates with both isiZulu L1 and non-isiZulu L1-speaking lecturers, tutors, librarians, and non-academic staff. It also dominates during lectures to other isiZulu L1 speakers when discussing module content, in the newspapers the respondents read, as well as in the books they read. There are instances where the respondents attest to the use of both isiZulu and English to a substantial extent. This is evident when interacting with friends from university, with isiZulu L1-speaking tutors and librarians, and in the language choice of the newspapers they read. The frequency of language use results is juxtaposed with the t-test analysis results.

Table 4.6 below presents the results of the t-test analysis conducted when two related domains are paired (see Table 4.4 above). The p-value results indicate whether there is statistical significance or lack thereof in the use of either isiZulu or English in each pair of related domains. These statistics are referred to hereunder.

Table 4.6: Target group: t-test results: the dominant language used between isiZulu and English

TARGET GROUP	Domain descriptors: Dominant language used	p-value
1.1 and 1.2	Family – elders and family young members	9.517E-05
1.3 and 1.4	Friends – home area and university	8.196E-07
1.5 and 1.6	Lecturers – isiZulu L1 and non-isiZulu L1	0.00501
1.7 and 1.8	Tutors – isiZulu L1 and non-isiZulu L1	0.000412
1.9 and 1.10	Librarians – isiZulu L1 and non-isiZulu L1	0.323
1.11 and 1.12	Non-academic staff – isiZulu L1 and non-isiZulu L1	0.000744
1.13 and 1.14	During lectures and outside lectures – to isiZulu L1	0.191
1.15 and 1.16	Outside lectures on non-academic content and newspapers one reads	0.5
1.17 and 1.18	Books one reads and language for prayers or rituals	1.309E-05

The t-test result, when comparing the dominant language used with family elder members and with younger family members, shows no statistical significance in the use of the dominant language. The respondents use isiZulu with both family elders and younger members randomly. The t-test result complements the frequency of language use percentage results, with 94% of respondents using isiZulu with family elder members, and 65% of respondents using isiZulu with younger members. In the two domains, English is used the least with 0% towards elders and 9% towards the younger members. There are respondents who attest to mixing isiZulu and English at 4% with the elders, and 25% with the younger members. Therefore, one concludes that for the respondents in the target group of the current study, isiZulu dominates in communicating with family, both elders and younger family members.

When comparing the dominant language used with friends from the home area and with friends from university (isiZulu-speaking) the p-value indicates that there is no statistical significance in the use of the dominant language between these two domains; the use of isiZulu is likely to occur randomly. The respondents attest to the use of isiZulu to a substantial extent with their friends, irrespective of the environment; home area (76%) and university friends (43%). English is used the least in both domains, at 7% with friends from the home area and 4% with friends from university. There are respondents who attest to using both isiZulu and English at 6% in the home area, and 53% at university. In combination with this result, the high rate at which isiZulu and English are mixed when interacting with friends from university (53%) leads one to consider isiZulu to be the dominant language in this domain. IsiZulu dominates in the paired domains, hence, no statistical significance in the t-test analysis results.

The t-test result, when comparing the dominant language used with lecturers who are isiZulu L1-speaking and with those who are not isiZulu L1 speakers, yields a result indicating that

there is a statistical significance in the dominant language used. The use of either isiZulu or English with lecturers, both isiZulu L1-speaking and non-isiZulu L1-speaking, does not occur randomly. The frequency of the use of isiZulu results indicate that the respondents use isiZulu at 10%, English at 51%, and both languages at 31% when interacting with isiZulu-L1-speaking lecturers. There are respondents who claim that they do not converse with isiZulu L1-speaking lecturers; the frequency for this cohort is at 4% while a further 3% of the respondents did not respond to this item on the questionnaire. The wide distribution of the frequency of use of isiZulu with isiZulu L1-speaking lecturers influenced the t-test analysis results when compared with the frequency of the use of English, hence the statistical significance. The respondents indicate that they use English at 94% frequency with lecturers who are non-isiZulu-L1 speaking, while 4% attest to the use of both isiZulu and English with these lecturers. Therefore, isiZulu is not the dominant language in the academic domain. Taking into consideration that English is currently still the primary language of instruction at UKZN, one assumes that the lecturers, including isiZulu-L1-speaking lecturers, address the students in English when discussing academic matters or lecture content. However, the respondents do use isiZulu with the lecturers, particularly isiZulu L1-speaking lecturers to a considerable extent, hence the statistical significance in the t-test analysis results.

The p-value recorded when comparing the dominant language used with tutors whose L1 is isiZulu and with tutors who are non-isiZulu L1 speakers indicates a statistical significance in the use of language. The pattern of language use with lecturers and with tutors is comparable. Tutors assist the students with academic matters, the primary language of instruction being English. English is used to a significant extent, 46% with isiZulu-L1-speaking tutors and 91% with non-isiZulu-speaking tutors. There is considerable use of isiZulu, 10% with isiZulu-L1-speaking tutors, 1% with non-isiZulu-L1-speaking tutors, while 40% of the respondents attest to using both isiZulu and English with isiZulu-L1-speaking tutors, and 4% with non-isiZulu-L1-speaking tutors. The degree of variation in the use of isiZulu accounts for the statistical significance in the t-test analysis when compared to the use of English.

When comparing the dominant language used with librarians who are isiZulu L1 speakers and with librarians who are non-isiZulu L1 speakers, the t-test indicates no statistical significance in the use of either isiZulu or English. The frequency of language use results indicates that 34% of the respondents use isiZulu with isiZulu L1-speaking librarians, 26% use English with isiZulu-L1-speaking librarians, and 38% use both isiZulu and English. The distribution of the frequency of use of isiZulu indicates that isiZulu dominates when the respondents interact with

isiZulu-L1-speaking librarians. On the converse, the respondents use English at 85% with non-isiZulu-L1-speaking librarians, while 3% use isiZulu, and 9% use both isiZulu and English.

In terms of the dominant language used with the non-academic staff who are isiZulu L1 speakers and non-isiZulu L1 speakers, the t-test result yields a value indicating statistical significance in the use of the two languages. The frequency of language use indicates that although isiZulu dominates when interacting with the isiZulu L1-speaking non-academic staff, and English dominates when interacting with non-isiZulu L1-speaking non-academic staff, the use of both isiZulu and English is spread out between these two domains. The respondents use isiZulu with the isiZulu L1-speaking non-academic staff at 59%, English at 12%, both isiZulu and English at 26%, and those indicating no interaction are at 3%. Towards the staff who are non-isiZulu L1-speaking, the respondents use isiZulu at 6%, English at 76%, both isiZulu and English at 12%, and the respondents who do not interact with non-isiZulu L1-speaking staff are at 6%. The spread of the use of both isiZulu and English accounts for statistical significance in the t-test analysis results. On aggregate, isiZulu is used more with the isiZulu L1-speaking non-academic staff, and English is used more with the non-isiZulu-L1-speaking non-academic staff. It appears that the respondents may be addressing the non-academic staff in the language they find most suitable in a given situation.

When comparing the dominant language used during lectures to other isiZulu L1 speakers and the language used outside lectures to other isiZulu L1 speakers the t-test result indicates no statistical significance in the use of a dominant language in the two domains. The frequency of language use indicates an even spread of language use for both isiZulu and English in the paired domains. The respondents indicating that they use isiZulu when interacting with other L1 speakers during lectures are at 28%, and those that use English are at 34%. Those that use both languages are at 25%, and those that claim not to discuss module content with other isiZulu L1 speakers during lectures are at 12%. The rates of language use are comparable to the use of either language outside of lectures to other isiZulu L1 speakers when discussing module content. In this domain, the respondents who use isiZulu are at 28%, those who use English are at 24%, and those who use both languages are at 35%. Those who do not discuss module content with other L1 speakers outside of lectures are at 12%. For both domains, 1% of the respondents did not indicate language use. The rate of the use of isiZulu is the same during lectures as well as outside of lectures when discussing module content, at 28%. However, there is consistent use of both isiZulu and English between the two domains, hence no statistical significance in the t-test analysis results.

Comparing the dominant language used outside of lectures when discussing non-academic content and the language used in the newspapers that the respondents read, the t-test yields no statistical significance in the use of a dominant language. The frequency of language use results indicates a fair spread of the use of both isiZulu and English in the two domains. Outside of lectures, when discussing non-academic matters with other isiZulu L1 speakers, 28% use isiZulu and 22% use English. Those who attest to the use of both isiZulu and English are at 35%, while 13% indicate that they do not discuss module content with other isiZulu L1 speakers outside of lectures. One percent of the respondents did not respond. Therefore, in this domain of language use, isiZulu dominates. There is, however, a marginal difference when compared to the use of English. When assessing the newspapers read by respondents, 13% attest to the use of isiZulu, 38% read English newspapers and the use of both isiZulu and English is at 46%. Three percent claim not to read newspapers. Even though English dominates in this domain, isiZulu is featured to a considerable extent. In the two domains, the interactions are not related to academic matters. Therefore, one deduces that when discussing general matters with other isiZulu L1 speakers, the interactions are in isiZulu. The reading of newspapers is in English. This may be attributed to most electronic newspapers' availability in English. Therefore, with isiZulu dominating the discussions outside lectures when interacting with other isiZulu L1 speakers, and with English dominating the newspapers read, and with the spread of the use of both languages in the two domains; the frequency of language use tallies with the t-test result which shows no statistical significance in the use of language when the two domains are compared. The choice of the language occurs randomly.

When comparing the dominant language used in book reading and the language in which the respondents pray or recite rituals, the t-test indicates no statistical significance in the use of a dominant language between the two domains. The habit of reading books is generally a recreational activity that the respondents may choose to do, however, it may also be academically required. The frequency of language use indicates that only 1% of respondents attest to the use of isiZulu when reading books, 59% of the respondents attest to the use of English, 35% of the respondents attest to the use of both languages, and 4% claim not to be reading books in either language. On the frequency rating in the reading of books, English is dominant. This use of English may be influenced by the abundant availability of books in English, which is not comparable to the availability of books in isiZulu. Over and above this, the books that the respondents are required to read for their studies are in English, except where the respondents are registered for a module in isiZulu. The practice of praying and conducting

rituals is a choice that the respondents may decide to engage in for spiritual enhancement. As such, the respondents may want to engage in such practices through a language they are comfortable with. The frequency of language use indicates that the respondents attest to the use of isiZulu at 59%, the use of English at 10%, the use of both languages at 25%, and 6% state that they do not engage with spiritual practices. The dominant language is isiZulu. Thus, in the two domains, English dominates with regard to book reading, and isiZulu dominates in spiritual practices. However, there is a remarkable presence of both languages in both domains hence there is no statistical significance in the t-test analysis results.

In sum, for the target group, $n=68$, the domains in which there is no statistical significance are the following:

- family elders and younger members,
- friends from the home area and university,
- isiZulu L1-speaking and non-isiZulu L1-speaking librarians,
- during, and outside of lectures to other isiZulu L1 students when discussing module content,
- outside of lectures to other isiZulu L1 students when discussing non-academic matters and the language of the newspapers they read, and
- the language of the books they read and the language in which they pray and/or do rituals.

The three paired domains in which the p-value results indicate a statistical significance are when the respondents use the language with:

- lecturers who are isiZulu L1-speaking and who are non-isiZulu L1-speaking,
- tutors who are isiZulu L1-speaking and who are non-isiZulu L1-speaking, and
- isiZulu L1-speaking and non-isiZulu L1-speaking non-academic staff.

One notes that in the domains where the t-test results indicate no statistical significance, there is a clear dominance of either isiZulu in both domains that are compared or, either isiZulu dominates in one domain and English dominates the other. In the domains where the t-test results indicate a statistical significance, English is the dominant language by a large margin between the two domains.

In addition, the paired domains where the p-value shows no statistical significance appear to be the social domains (family members, friends, librarians, when interacting with other isiZulu L1 speakers on academic and non-academic matters, and in praying and/or practising rituals). In these domains, one deduces that the respondents are at liberty to freely engage in the language they choose and are comfortable with. There is an exception when the respondents are interacting with the librarians. The respondents use isiZulu with isiZulu L1-speaking librarians and English with non-isiZulu L1-speaking librarians.

Conversely, the paired domains where the p-value indicates a statistical significance appear to be official domains (when interacting with lecturers, tutors, and non-academic staff). In these domains, one deduces that the respondents may be bound by the protocol and nature of the interaction. Consequently, the respondents may not be using the language they choose and are comfortable with, but they may be using the primary language of instruction at UKZN, English.

4.2.1.1.2 Control group

Data was collated from $n=81$ respondents. The frequency of language use is calculated and presented in percentages. The percentages per domain of language use are presented for each language in Table 4.7 below:

Table 4.7: The frequency of language use per domain

Control group	IsiZulu	English	Both	Neither/does not apply	No response
Family elders	90%	0%	6%	4%	0%
Family young members	60%	4%	33%	2%	0%
Friends – home area	70%	0%	26%	2%	1%
Friends – university	31%	10%	58%	0%	1%
Lecturers – IsiZulu L1	23%	35%	40%	2%	0%
Lecturers – non-isiZulu L1	4%	75%	17%	4%	0%
Tutors – isiZulu L1	32%	22%	44%	1%	0%
Tutors – non-isiZulu L1	4%	73%	16%	6%	1%
Librarians – isiZulu L1	41%	20%	37%	2%	0%
Librarians – non-isiZulu L1	5%	74%	14%	7%	0%
Non-academic staff – isiZulu L1	65%	7%	19%	9%	0%
Non-academic staff – non-isiZulu L1	5%	64%	20%	11%	0%
During lectures to isiZulu L1 – module content	42%	16%	32%	9%	1%
Outside lectures to isiZulu L1 – module content	38%	14%	41%	6%	1%
Outside lectures to isiZulu L1 – non-academic matters	33%	16%	42%	6%	2%
Newspapers I read	20%	23%	49%	7%	0%
Books I read	6%	58%	33%	2%	0%
Language I pray/do rituals in	60%	4%	32%	4%	0%

The respondents in the control group attest to the use of isiZulu dominantly when interacting with family elders and younger members, when interacting with friends from home and university, and when interacting with isiZulu L1-speaking tutors, librarians, and non-academic staff. IsiZulu also dominates with other L1-speaking students both during and outside of lectures when discussing module content, with other isiZulu L1-speaking students outside of lectures when discussing non-academic matters, and when praying and/or practising rituals

The respondents attest to the use of English dominantly when interacting with isiZulu L1 and non-isiZulu L1-speaking lecturers, tutors, librarians, non-academic staff, and when reading newspapers and books. There are instances where the respondents attest to the use of both languages to a substantial extent. These are instances where the respondents interact with friends from university, isiZulu L1-speaking lecturers and tutors, and students outside of lectures when discussing both module content and non-academic matters. The frequency of language use results is juxtaposed with the t-test analysis results presented in Table 4.8 hereunder.

A t-test analysis was conducted on two related domain pairs of language use (see Table 4.4 above). These statistics are presented in Table 4.8 below.

Table 4.8: Control group: t-test results: the dominant language used between isiZulu and English

CONTROL GROUP	Domain descriptors: Dominant language used	p-value
1.1 and 1.2	Family – elders and family young members	2,59871E-06
1.3 and 1.4	Friends – home area and university	1,4963E-06
1.5 and 1.6	Lecturers – isiZulu L1 and non-isiZulu L1	0,5
1.7 and 1.8	Tutors – isiZulu L1 and non-isiZulu L1	0,12826524
1.9 and 1.10	Librarians – isiZulu L1 and non-isiZulu L1	0,014066441
1.11 and 1.12	Non-academic staff – isiZulu L1 and non-isiZulu L1	3,81426E-07
1.13 and 1.14	During lectures and outside lectures – to isiZulu L1	0,1898196
1.15 and 1.16	Outside lectures on non-academic content and newspapers one reads	0,146458133
1.17 and 1.18	Books one reads and language for prayers or rituals	0,000153152

The results indicate the patterns in the dominant language used between isiZulu and English by the control group respondents.

The t-test result, when comparing the dominant language used when interacting with elder and younger family members, indicates no statistical significance, the choice of the language occurs indiscriminately. The respondents use isiZulu without discriminating whether interacting with family elders or younger members. The frequency of language use indicates that the

respondents use isiZulu with family elders at 90% and with young family members at 60%. There is no use of English with family elders (0%) while with younger members it is at 4%. The respondents who claim to use both isiZulu and English report such use to be at 6% towards elders and 33% with younger family members. The respondents who claim not to interact with elder family members are at 4% and those who claim not to interact with younger members are at 2%. Overall, the respondents are comfortable with the use of isiZulu, which is their home language. Thus, this language dominates in the family environment, hence no statistical significance in the t-test results.

When comparing the dominant language that the respondents use when interacting with friends in their home areas and when interacting with friends at university, the t-test result indicates that there is no statistical significance in the dominant language used. The choice of language occurs randomly. The respondents report that they use isiZulu largely when interacting with friends in their domestic locality (70%) as well as with friends in the university environment (31%). Even though the use of isiZulu with friends from university is at 31%, the rate is higher when compared to the use of English in this domain (10%). English is not used with friends from the home area (0%). There are respondents who attest to the use of both isiZulu and English in the two domains, with friends from the home area (26%) and with friends from university (58%). Two percent selected a neither/does not apply response with regard to interacting with friends from the home area, and none of the respondents indicated a neither/does not apply response concerning interacting with friends from university. In the two domains, 1% did not respond to this in the questionnaire. IsiZulu may be a common language that the respondents share with their friends irrespective of the locality. Thus, isiZulu is the dominant language used amongst friends and is chosen at random, hence no statistical difference in the t-test analysis.

The result when comparing the dominant language used when interacting with lecturers who are isiZulu L1 speakers and when interacting with lecturers who are non-isiZulu L1 speakers shows no statistical significance in the dominant language used. The respondents claim to be using English in the two domains, though isiZulu is also used to a lesser extent. Towards isiZulu L1-speaking lecturers, the respondents claim to be using isiZulu at 23%, and English at 35%. The respondents who use both languages towards isiZulu L1-speaking lecturers are at 40%. Only 2% of the respondents claim not to be interacting with isiZulu L1-speaking lecturers. In terms of non-isiZulu L1-speaking lecturers, the respondents claim to use isiZulu at 4%, and English at 75%, while the use of both languages is at 17%. The respondents who claim not to

interact with non-isiZulu L1-speaking lecturers are at 4%. Respondents may be using English, with lecturers who are both L1 speakers and non-L1 speakers, because English is the primary language of academic instruction at UKZN. It is highly unlikely that isiZulu may be used indiscriminately in this domain. The interactions between the respondents and the lecturers are formal and concerned with academic matters. It is thus highly probable that the respondents use English irrespective of the language background of the lecturers. The dominance of English tallies with the t-test result that there is no statistical significance. The choice of a language is likely to occur randomly.

When interacting with tutors who are isiZulu L1 speakers and with tutors who are non-isiZulu L1 speakers the p-value indicates that there is no statistical significance in the dominant language used. The frequency of language use results indicates that when the respondents interact with isiZulu L1-speaking tutors, the use of isiZulu is at 32%, and the use of English is at 22%, while the use of both isiZulu and English is at 44%. One percent claim not to interact with isiZulu L1-speaking tutors. When interacting with non-isiZulu L1-speaking tutors, the frequency results indicate that the use of isiZulu is at 4%, and English is at 73%, while the use of both languages is at 16%. The respondents who claim not to interact with non-isiZulu L1-speaking tutors are at 6%, and 1% refrained from responding. When one considers that the respondents interact with tutors on academic matters, it is highly probable that English dominates and is used indiscriminately.

The t-test result with regards to interaction with librarians who are isiZulu L1 speakers and librarians who are non-isiZulu L1 speakers yields a p-value indicating statistical significance. The choice of language is not likely to occur randomly. The librarians offer academic-related support when students access resources for research purposes. The frequency results indicate that respondents use isiZulu at 41% with isiZulu L1-speaking librarians, and 5% with non-isiZulu L1-speaking librarians. The respondents use English at 20% and 74% when interacting with isiZulu L1 and non-isiZulu L1-speaking librarians, respectively. Thus, isiZulu dominates when interacting with isiZulu L1 librarians while English dominates when interacting with non-isiZulu L1 librarians. However, the use of both languages is substantial when interacting with isiZulu L1-speaking librarians (37%) and with non-isiZulu L1-speaking librarians (14%). Respondents who do claim not to interact with isiZulu L1-speaking librarians are at 2%, while those who claim not to interact with non-isiZulu L1-speaking librarians are at 7%. The choice of language used is influenced by the L1 spoken by the librarians, hence the statistical difference in the t-test results analysis.

The dominant language used when interacting with non-academic staff, both isiZulu L1 and non-isiZulu L1, is shown by the t-test to have no statistical significance. The choice of language is likely to occur as is convenient. The frequency result indicates that in these two domains, the use of isiZulu with isiZulu L1-speaking staff and the use of English with non-isiZulu L1-speaking staff are closely matched at 65% and 64%, respectively. Similarly, the rate at which the respondents claim to use both languages with both isiZulu L1, and non-isiZulu L1-speaking staff is closely matched at 19% and 20%. When interacting with isiZulu L1-speaking staff, English is at 7%. The use of isiZulu when interacting with non-isiZulu L1-speaking staff is at 5%. Those who claim not to interact with isiZulu L1-speaking non-academic staff are at 9%, and 11% claim not to interact with non-isiZulu L1-speaking staff. In the two domains of language use, the use of both isiZulu and English are closely matched in all categories hence no statistical significance.

The result when comparing the dominant language used during lectures and outside of lectures, with other isiZulu L1 speakers, indicates no statistical significance in the dominant language used; the choice of a language is likely to occur randomly. The frequency of language use results indicate that the use of isiZulu and English are closely matched for all categories in the domains. When respondents interact with other L1 students during lectures, the use of isiZulu is at 42%, the use of English is at 16% and the use of both languages is at 32%. Of the total respondents, 9% claim not to interact with other isiZulu L1 students during lectures. When the respondents interact with other L1 students outside of lectures, the use of isiZulu is at 38%, the use of English is at 14%, and the use of both is at 41%. The respondents who claim not to interact with other L1 students outside lectures are at 6%. The rate of no response is at 1% for both domains. Even though the use of both isiZulu and English is substantial in both domains (32% and 41%), isiZulu is the dominant language hence no statistical significance in the t-test result analysis.

The t-test indicates a result of no statistical difference when comparing the dominant language used outside of lectures when engaged in non-academic matters and the dominant language of the newspapers respondents read. The frequency of language use indicates a fair spread in the use of both isiZulu and English. When the respondents interact with other isiZulu L1 speakers on non-academic matters outside of lectures, the use of isiZulu is at 33%, English is at 16%, and the use of both is 42%. Only 6% of the respondents claim not to interact with other isiZulu L1 speakers on non-academic matters outside lectures, and 2% of the respondents did not respond to this item on the questionnaire. With regard to the language of the newspapers read,

respondents claim the use of isiZulu at 20%, English at 23%, and the use of both at 49%. Seven percent claim not to read newspapers. IsiZulu dominates when the respondents interact with other isiZulu L1 speakers outside of lectures on non-academic matters (33%). English is the dominant language of the newspapers they read (23%). However, there is a substantial rate of the use of both isiZulu and English in the two domains, 42% and 49%, respectively. The respondents may use isiZulu when engaged in non-academic matters outside lectures although there is a notable use of English in this domain as well. With regard to the language of the newspapers the respondents read, although they may prefer to read newspapers written in English, there is also notable interest in newspapers written in isiZulu. The paired domains are casual-oriented, and as such, the respondents may prefer to use the language that they are more comfortable with, that being isiZulu when interacting outside lectures on non-academic matters, and English when reading newspapers. The notable presence of either language in the two domains accounts for the no statistical significance result in the t-test analysis.

The t-test result, when comparing the dominant language used by respondents for reading books and the language through which they pray and/or recite rituals shows that there is a statistical significance in the use of the dominant language. The choice of language is attributed to a cause and is not likely to occur randomly. The frequency results indicate that English dominates in the books read (58%), while isiZulu dominates as the language respondents use to pray and/or recite rituals (60%). The use of isiZulu, in the books they read, is at 6%, and the use of both languages is at 33%. Two percent of the respondents claim not to read books in either language. The use of English in prayer or rituals is 4%, and the use of both isiZulu and English is 32%. Four percent of the respondents claim not to pray and/or recite rituals. The dominance of English in the books read may be attributed to the rate of availability of books in English which is higher than books available in isiZulu. Books, in this case, may include books read for leisure and academic purposes. This may explain the dominance of English in this domain. The dominance of isiZulu in praying and/or reciting rituals may be attributed to the nature of the domain, spiritual upliftment, and may explain the dominance of isiZulu, a home language. The dominance of each language in both domains and the relatively low use of one of the two languages in the domains may account for the t-test result indicating a statistical significance.

In sum, the statistical analysis results presented in Table 4.8 show the p-value of the t-test analysis when two domains of language use are compared.

For the control group, $n=81$, the domains in which there is no statistical significance are the following:

- family elders and young members,
- friends from the home area and university,
- isiZulu L1-speaking and non-isiZulu L1-speaking lecturers,
- isiZulu L1-speaking and non-isiZulu L1-speaking tutors,
- isiZulu L1-speaking and non-isiZulu L1-speaking non-academic staff,
- during lectures and outside of lectures when interacting with other L1-speaking students discussing module content, and
- outside lectures when interacting with other isiZulu L1-speaking students discussing non-academic matters and the language of the newspapers they read.

The two domain pairs in which the p-value results indicate a statistical significance are when the respondents use the language with:

- isiZulu L1-speaking and non-isiZulu L1-speaking librarians, and
- the language of the books they read and the language they use to pray and/or do rituals.

In the domains where the t-test results indicate no statistical significance, the respondents may be choosing the language indiscriminately. In these instances, there are domains in which isiZulu dominates in the paired domains. These are; family elders and younger members, friends from home and university, isiZulu L1-speaking tutors and non-academic staff, and other isiZulu L1 speakers during and outside of lectures when discussing module content. Additionally, with other L1 speakers outside of lectures, informally, and when praying and/or reciting rituals. The respondents may be comfortable using isiZulu as a language that they share with their interlocutors. The other domain pair in which the t-test result indicates no statistical difference is when the respondents interact with the lecturers. English dominates when they interact with both isiZulu L1-speaking and non-isiZulu L1-speaking lecturers. Even though the respondents may use English largely when interacting with non-isiZulu L1-speaking tutors, non-academic staff, and in the newspapers they read, there is a notable use of isiZulu in these domains as well.

In the domains where the t-test results indicate a statistical significance, the respondents may be bound by circumstances and the nature of the interaction in terms of the language they use. In these domains, the respondents use isiZulu more to interact with isiZulu L1-speaking librarians while they use English largely when they interact with non-isiZulu L1-speaking librarians, and the books they read are written in English.

Overall, in both the target group and the control group, there is a notable use of isiZulu in more domains compared to the use of English. Table 4.9 below presents the frequency rates of the use of both isiZulu and English in all the selected domains for both the target group and the control group. The results are in percentages.

Table 4.9: The frequency of language use comparison between the target and the control groups

Domains of language use	IsiZulu: Target group	IsiZulu: Control group	English: Target group	English: Control group	Both isiZulu & English: Target group	Both isiZulu & English: Control group
Family elders	94	90	0	0	4	6
Family young members	65	60	9	4	25	33
Friends – home area	76	70	7	0	16	26
Friends – university	43	31	4	10	53	58
Lecturers – isiZulu L1	10	23	51	35	31	40
Lecturers – non-isiZulu L1	0	4	94	75	4	17
Tutors – isiZulu L1	10	32	46	22	40	44
Tutors – non-isiZulu L1	1	4	91	73	4	16
Librarians – isiZulu L1	34	41	26	20	38	37
Librarians – non-isiZulu L1	3	5	85	74	9	14
Non-academic staff – isiZulu L1	59	65	12	7	26	19
Non-academic staff – non-isiZulu L1	6	5	76	64	12	20
During lectures to isiZulu L1 on module content	28	42	34	16	25	32
Outside lectures to isiZulu L1 on module content	28	38	24	14	35	41
Outside lectures to isiZulu L1 on non-academic matters	28	33	22	16	35	42
Newspapers I read	13	20	38	23	46	49
Books I read	1	6	59	58	35	33
Language I pray/do rituals in	59	60	10	4	25	32

Table 4.9 above indicates that there are domains in which isiZulu dominates, there are domains in which English dominates, and there are domains with a notable frequency in the use of both

languages. For both the target group and the control group, isiZulu dominates in domains when the respondents interact with:

- family elders
- family young members,
- friends from the home area,
- friends from university,
- isiZulu L1-speaking librarians,
- isiZulu L1-speaking non-academic staff,
- other L1-speaking students when discussing module content outside lectures,
- other L1-speaking students when discussing non-academic matters outside lectures,
- when praying and/or reciting rituals.

Amongst the domains in which isiZulu dominates, there are domains with a high frequency of use of both isiZulu and English, for both the target and control group respondents. The respondents claim to mix the two languages to a substantial extent when they interact with friends from university, isiZulu L1-speaking librarians, and other isiZulu L1 speaking students discussing non-academic matters outside of lectures

The domains in which English dominates are:

- when the respondents interact with isiZulu L1-speaking lecturers,
- when the respondents interact with non-isiZulu L1-speaking lecturers,
- when the respondents interact with non-isiZulu L1-speaking tutors,
- when the respondents interact with non-isiZulu L1-speaking librarians,
- when the respondents interact with non-isiZulu L1-speaking non-academic staff,
- when the respondents read newspapers, and
- when the respondents read books.

Amongst these domains wherein English dominates, there is a notable high frequency of the use of both isiZulu and English when the respondents choose the language of the newspapers they read.

There are domains where English dominates in the target group and isiZulu dominates in the control group. When the respondents interact with isiZulu L1-speaking tutors, English dominates in the target group (46%) and isiZulu dominates in the control group (32%). The same pattern is observed when the respondents interact with other isiZulu L1-speaking students when discussing module content outside of lectures, English dominates in the target group (34%) and isiZulu dominates in the control group (42%).

Overall, for both the target and the control groups, isiZulu dominates in the domains that are socially oriented. The exceptions in this category are the domains where the respondents interact with isiZulu L1-speaking librarians and non-academic staff, and other isiZulu L1-speaking students discussing module content outside of lectures. For both the target group and the control group, English dominates in the domains that are academic-oriented. The exceptions in this category are the domains where respondents read newspapers and when they read books. It is noticeable that the respondents lean towards the use of English in academic-oriented domains irrespective of whether their interlocutors are isiZulu L1 speakers or not.

I shall now present and interrogate qualitative data on the dominant language that the participants use between isiZulu and English.

4.2.1.2 Qualitative data

The qualitative data merge data from the open questions in the questionnaires and data from the focus group interview transcripts. The data excerpts are numbered consecutively. The participants were required to identify and elaborate on the reason for the dominant language used.

4.2.1.2.1 Target group

The participants indicated the use of isiZulu as the main medium of communication among family relations and other acquaintances. For some participants, it transpired during the interviews that isiZulu, by default, is the language of communication at home and beyond, thus a dominant language. Excerpts (1-5) below are evidence of this:

- (1) **AT3:** At home, I use isiZulu all the time and as a result, I am more comfortable using isiZulu compared to English.
- (2) **L1:** For me it is isiZulu. I grew up using isiZulu back home; even at school, I converse in isiZulu except during lessons. I can read and write isiZulu perfectly; so, I understand it clearly.
- (3) **P12:** For me it is isiZulu; I love it. I love my language such that even here on campus I do not converse with people who use English all the time, seriously.
- (4) **P11:** For me, it is isiZulu because with isiZulu I can express all my feelings and thoughts without any reservations of being shy.
- (5) **A2:** I use isiZulu mostly, even here at varsity because I hardly interact with people who do not speak isiZulu. Even when I speak to a person who does not understand isiZulu; it just comes out subconsciously.

For these participants, there is an intense sense of association with isiZulu. They use isiZulu with ease. It comes naturally. As the primary language of communication, the participants do not limit the use of isiZulu to the home environment but extend it to the formal school environment. IsiZulu is, therefore, a language of choice and a preferred language over English. The participants may, thus, be using isiZulu with their friends and other members of the university community who are isiZulu L1 speakers, including lecturers, tutors, librarians, and the non-academic staff.

Some participants attested to the use of isiZulu while engaged in academic activities. Excerpts (6-7) below are from such participants:

- (6) **P2:** I am going to refer to my own experience. For instance, during lectures, I sometimes have a lot of questions. When I think of asking; I also think of the English language that I am supposed to use. But not with isiZulu which I grew up using. Even at my previous school (mentions the school's name), I am used to using isiZulu mostly ... So, it is isiZulu.
- (7) **L9:** Yes, English is the Language of Learning and Teaching (LoLT), but when I am studying on my own, I use isiZulu to understand the content better.

These participants attested to the use of isiZulu in academic settings, during lecture time and while studying. Excerpt (6) revealed that isiZulu was used while the participant engaged in academic activities in the previous school he attended. English does not come as naturally to this participant compared to isiZulu. In excerpt (7), an awareness of the role that English plays in academic contexts is expressed, however, the participant used isiZulu when studying to understand the content better.

There were also participants who attested to the use of English more than isiZulu. Excerpts (8-10) below give evidence of this:

- (8) **AT4:** For me ahh I use English mostly. This is because from my primary school years, I attended school where English was the medium of communication. Thus, there was a sporadic use of isiZulu.
- (9) **P4:** But for me, English is the language I use mostly. I understand it better and I love it. So, I use English most of the time.
- (10) **L2:** For me it is English. Since I started school I attended English medium schools. I do understand isiZulu; the challenge I face is reading it and writing it.

The participants recorded here are evidence of the diverse nature of the schooling system in South Africa regarding the use of the eleven official languages as Home Languages (HL) and as First Additional Languages (FAL). In excerpts (8) and (10), the participants disclosed that they attended schools where English is studied at HL level and African languages are offered at Additional Language level. Over and above choosing the levels of language offerings from primary school level to the secondary school level, English is, by default, the MoI in the South African schooling system. Consequently, for such learners, English becomes the dominant language that they use either predominantly, or solely, compared to the use of an African Language.

There are participants who attested to the use of both isiZulu and English on an equal basis. Excerpts (11-13) below give a record of this attestation:

- (11) **AT6:** For me, it is a mix of the two. If I write, I use English but in speech I use isiZulu. At school, we were taught in English but at home and with my friends I use isiZulu.
- (12) **AT5:** I can say that I use both isiZulu and English comfortably on equal basis.

- (13) **A1:** For me, it is both isiZulu and English. I use isiZulu mostly when I am out of campus while I use English mostly on campus because we have a mix of language/racial groups.

These participants displayed competence, comfort, and ease in using both isiZulu and English. They use IsiZulu at home and with friends and use English at university. There seems to be a conscious decision on the choice of a language to use, depending on the circumstances. In excerpt (13) it appeared that English is used to accommodate the non-isiZulu L1 speakers. The participants who attested to using English on the university campus may, possibly, be using this language with the non-isiZulu lecturers, tutors, librarians, and non-academic staff in addition to engaging in academic activities using English.

In sum, the participants in the target group attested to the use of isiZulu at home and with friends since it is the language that they grew up using. The participants expressed ease at processing information and expressing themselves in isiZulu. This is notable in both communicating with other isiZulu L1 speakers and, at times, with non-isiZulu L1 speakers. One other participant mentioned that isiZulu assists when engaged in studying even in a situation where English is the MoI. For some of the participants, it seems that there is a separation of roles in the use of languages. English is used for academic activities and isiZulu for social activities.

I shall now look at the evidence provided by the participants in the control group.

4.2.1.2.2 Control group

The participants in the control group ($n=11$) attested to the use of isiZulu, the use of English, and for others, the choice of the language is determined by the circumstances at a given time. Some participants indicated the use of isiZulu more than the use of English. Excerpts (14-17) give evidence to this claim:

- (14) **CD4:** For me I prefer isiZulu. I grew up using it at home – I could never use English at home. I only use English here at varsity, but I cannot say that it is a favourite language for me. I use English only when it is compulsory, like when I am talking to a lecturer or a tutor.
- (15) **CD9:** In most cases, I engage with people that I share isiZulu with. It also happens that there might be another person that does not share

isiZulu within the group, but I continue and prefer to use isiZulu.

- (16) **PL1:** For me, isiZulu is the language I use the most – at home, even at high school [...] Even when I study, I read in English then translate to isiZulu to understand the content better and to show my understanding.
- (17) **M4:** It is easier to use isiZulu for us as students after we have learnt something in class, it makes things easier when we discuss on our own.

For these participants, isiZulu is the dominant language that they use. It is their home language and a preferred language. However, the use of isiZulu transcends the home environment and filters into the academic space. Here, the participants used isiZulu when they study, when they discussed the module content among themselves, and they translated the module content from English to isiZulu for better understanding. The participants used English only when the circumstances compelled them to do so.

There are participants within the control group who attested to the use of English more than isiZulu. Excerpts (18-20) below are evidence of this.

- (18) **C2:** I am comfortable with English; I am so used to it. I use isiZulu at home but together with a lot of English. Expression-wise I use English mostly because I struggle with some words in isiZulu.
- (19) **CD6:** Personally, I prefer to use English (it may sound bad to people that I use English but that is how it is). I have had an extensive exposure to English from my primary school years. Even at home, they encouraged me to practice English; it grew into me.
- (20) **PL2:** English is an extremely comfortable language to use since it is the main medium of instruction. As much as English is the dominant language, I can converse freely in isiZulu.

The participants above indicate a strong preference for English even though isiZulu is used in their home environments. The preference of these participants is because of the hegemony of English in South Africa, even among African communities. Parents encourage their children to practice English and expose the children to a schooling experience in English medium schools. In excerpts (19) and (20), the two participants are among the African learners who

took English at a Home Language level and an African language at an Additional Language level for their primary and secondary education. However, the use of isiZulu still features in their lives, albeit to a lesser extent. As a result, as the participant in excerpt (18) admitted, the use of English dominates, and she struggles with some isiZulu words. For all three participants, isiZulu is featured at a minimal level compared to English.

Some participants attested to the use of both isiZulu and English on an equal basis. Excerpts (21-22) are evidence of this:

(21) **CD2:** Not all people would want to engage in English; the same applies with isiZulu. So, I always consider the company that surrounds me in choosing a language to use.

(22) **M6:** On how I use the language, what I can say is that it depends on the circumstances. For example, at home I use isiZulu because everybody else uses it, especially the elders may not understand English that much. But when it comes to academic activities and in studying, I do not see how I could use isiZulu because it is a challenging language on its own.

For these participants, the choice of language is dependent on the domain of language use. They make a conscious decision on which language to use depending on the interlocutors at a given time. In excerpt (22), the participant views isiZulu as well suited for the family environment while English is well suited for the academic environment. There is a concern that isiZulu may be challenging for use in academic activities.

In sum, a portion of the participants in the control group uses isiZulu in their home settings and among interlocutors that share isiZulu as a home language. There are instances where some participants use isiZulu even with interlocutors who are non-isiZulu L1-speaking. The participants claimed to be more familiar with isiZulu compared to English. Some participants claimed to use more English than isiZulu. For these participants, the familiarity with English is attributed to their primary and secondary school experience. Consequently, these participants are more confident in the use of English compared to the use of isiZulu and even at home English is used to a certain extent. There are participants who consider circumstances and settings in their choice of language. For these participants, the use of isiZulu prevails in the home settings while the use of English prevails in the academic spaces.

Overall, the qualitative data from both the target group and the control group indicates that participants use isiZulu and English to a considerable extent. IsiZulu is used in the home settings, among friends and with other speakers of isiZulu as L1. There is, however, sporadic use of isiZulu with non-isiZulu L1 speakers. The participants also indicated the use of isiZulu when studying module content outside of formal academic settings. This happened when participants either study as individuals or when they discussed the module content with other students who also speak isiZulu as L1. These participants claimed that isiZulu assists them in understanding the module content (presented in English) better, as they translated between English and isiZulu for and among themselves. The claim that these participants make shows a shift in the perception of isiZulu as an academic language (details on the perceptions of isiZulu and other African Languages as academic languages are discussed in Chapter Two §2.2.3).

The use of English is prevalent among those participants who attended schools wherein English is offered at a Home Language level and an African Language is offered at an Additional Language level. For these participants, English is the dominant language used at home and school. The participants have become so accustomed to the use of English that it is subconsciously activated as a first choice in their interactions.

Furthermore, there are participants in both groups who are competent in both isiZulu and English. These participants consciously consider the circumstances that prevail when they decide on which language to use.

4.2.1.3 Summary

Data presented from the questionnaire survey and the interview transcripts indicate two patterns in the use of isiZulu and English.

Pattern one is shown by the participants who use isiZulu among acquaintances and beyond. In these instances, the use of isiZulu permeates the academic space. For these participants, English is used under obligatory formal circumstances, especially when interacting with non-isiZulu L1 speakers.

Pattern two is shown by the participants who prefer the use of English over the use of isiZulu. These participants attribute their preference to their experience within the education system. These participants are so accustomed to the use of English that they cannot perceive using an African Language in the academic context.

The data on the dominant language used, presented in this section, indicates that the attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts might be changing. The students who show a preference towards the use of isiZulu are those students that have been exposed to the offering of isiZulu at a Home Language level in their primary and secondary education levels. For these students, the use of isiZulu in academic contexts assists them when they articulate their thoughts, as well as when they scaffold the academic content in the modules they are registered for. This indicates a shift of attitudes from negative and ambivalent to positive attitudes.

The attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts are further addressed in the subsequent subsections below (subsection 4.2.2: the cognitive aspect of attitude; subsection 4.2.3: the affective aspect of attitude; subsection 4.2.4: the behavioural aspect of attitude). I drew data to address these three aspects from a selection of questions in sections two, three, and four of the questionnaires. The questionnaire questions that address these three aspects are presented in the Table 4.10 below:

Table 4.10: The three dimensions of attitude towards the use of isiZulu in academic contexts: selected questions from sections two, three and four of the questionnaires

Research question 1: What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?		
Cognitive aspect OPTIONS: Strongly disagree/ Disagree/Neutral/Agree/Strongly agree.	Affective aspect OPTIONS: Pessimistic/Negative/Neutral/ Positive/Optimistic My feelings towards:	Behavioural aspect OPTIONS: Never (0-19%)/Rarely (20-39%)/Occasionally (40-59%)/Regularly (60-79%)/Always (80-100%)
2.6 IsiZulu may be used in academic contexts.	3.1 using isiZulu as an academic language for all students (100%)	4.1 I use/might use isiZulu to understand course material better.
2.7 IsiZulu may enhance academic performance for L1 speakers.	3.2 using isiZulu as an academic language alongside English (dual medium instruction)	4.2 I use/might use isiZulu to discuss course material.
2.8 The use of isiZulu will equip me to perform better in my chosen career.	3.3 using isiZulu as an alternative academic language for L1 students (choose between English and isiZulu)	4.3 I prefer/might prefer to receive explanations in isiZulu before the English explanations.
2.9 IsiZulu facilitates a better understanding of the academic terms.	3.4 using isiZulu to supplement English academic instruction – e.g., in course outlines, academic terms and tutorials.	4.4 I prefer/might prefer to receive explanations in English before isiZulu explanations.
2.15 IsiZulu supports academic performance in English-oriented academic contexts.	3.11 using isiZulu as an academic language generally in Higher Education	4.5 I prefer/might prefer explanations of the course material in English only.
2.16 IsiZulu has an important role to play in academic contexts.		4.6 I prefer/might prefer explanations of the course material in isiZulu only.
		4.7 I prefer/might prefer explanations of the course

		material in both isiZulu and English.
--	--	---------------------------------------

4.2.2 The cognitive aspect of attitude towards the use of isiZulu in academic contexts

Dimension two of research question 1 solicits information on the knowledge that the respondents have on the use of isiZulu in academic contexts; knowledge that may result in either positive or negative attitudes towards the use of isiZulu in academic contexts. The deductions I arrive at are based on the responses to six of the questions in section two of the questionnaire (see Table 4.10 above). Below I present the quantitative data per group and thereafter the qualitative data per group.

4.2.2.1 Quantitative data

The respondents were required to respond to section two of the questionnaire using a 5-point Likert scale. The options were: strongly disagree; disagree; neutral; agree; strongly agree. The responses ‘strongly disagree’ and ‘disagree’ indicate a negative attitude, the neutral response indicates an ambivalent attitude, and the responses ‘agree’ and ‘strongly agree’ indicate a positive attitude.

4.2.1.1.1 Target group

Data was collated from $n=68$ respondents. The responses to the cognitive aspect of attitude are calculated and presented using percentages in figure 4.1 below:

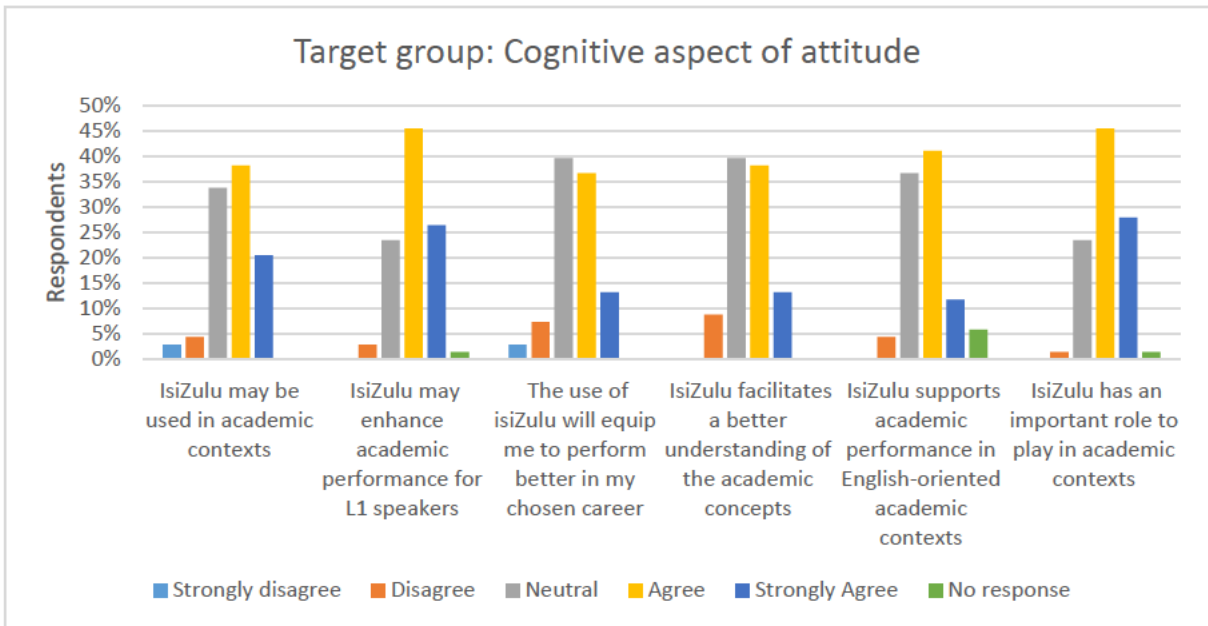


Figure 4.1: Target group: The cognitive aspect of attitude towards the use of isiZulu in academic contexts

When asked whether isiZulu may be used in academic contexts, the respondents who indicate a negative attitude towards the use of isiZulu in academic contexts total 7%. The respondents who indicate a positive attitude towards the use of isiZulu in academic contexts total 59%.

Concerning whether isiZulu may enhance academic performance for L1 speakers, 3% of the respondents indicate a negative attitude and thus, say that the use of isiZulu may not enhance the academic performance of L1 speakers. Seventy-two percent indicate a positive attitude, indicating that the use of isiZulu may enhance the academic performance of L1 speakers.

In response to the question relating to whether the use of isiZulu will equip the respondent to perform better in a chosen career, 10% of the respondents indicate a negative attitude and do not think that isiZulu will equip them to perform better in their chosen careers. Fifty percent of the respondents showed a positive attitude.

When asked whether isiZulu facilitates a better understanding of the academic terms, 9% of the respondents indicated a negative attitude. The respondents who indicated a positive attitude towards the use of isiZulu totalled 51%.

The question about whether isiZulu supports performance in English-oriented academic contexts had a negative attitude response rate of 4% with 53% indicating a positive attitude towards the use of isiZulu.

The respondents who disagree that isiZulu has an important role to play in academic contexts, thus, showing a negative attitude towards the use of isiZulu, are only 1% of the target group. Respondents indicating a positive attitude total 74%.

For all the questions on the cognitive aspect of attitude, most of the respondents in the target group show a positive attitude toward the use of isiZulu in academic contexts.

Neutral responses were recorded in all six questions. These response rates range from 24 to 40%.

I now present the responses from the control group.

4.2.1.1.2 Control group

Data was collated from $n=81$ respondents. The responses to the cognitive aspect of attitude are calculated and presented as percentages in figure 4.2 below:

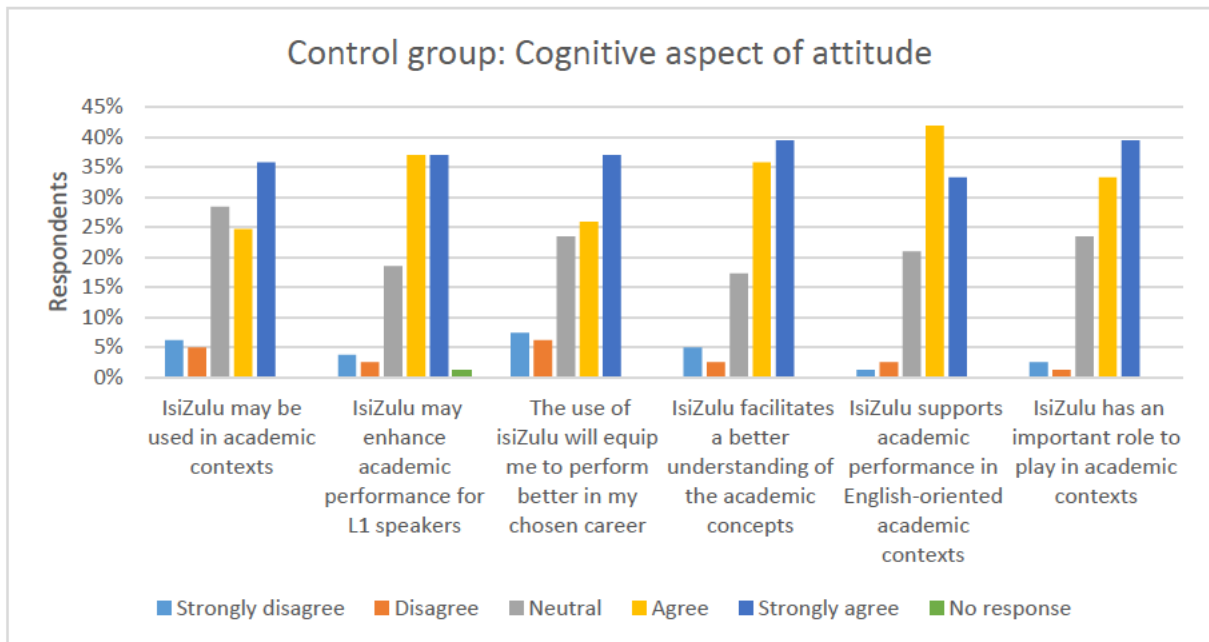


Figure 4.2: Control group: The cognitive aspect of attitude towards the use of isiZulu in academic contexts

The responses solicited from the control group, in respect of the cognitive aspect of attitude towards the use of isiZulu in academic contexts, indicate that 11% of the control group respondents have a negative attitude and 61% show a positive attitude towards the use of isiZulu.

When asked whether isiZulu may enhance academic performance for L1 speakers; 6% said that isiZulu may not enhance the academic performance, indicating a negative attitude and 74% indicate a positive attitude.

Thirteen percent of the control group respondents showed a negative attitude with regard to whether the use of isiZulu would equip them to perform better in a chosen career, while 63% indicated a positive attitude.

Responses regarding whether isiZulu facilitates a better understanding of academic terms show that 7% of the control group respondents indicate a negative attitude. The respondents indicating a positive attitude towards the use of isiZulu in this context totalled 76%.

In response to the question as to whether isiZulu supports academic performance in English-oriented academic contexts, 3% of the respondents indicate a negative attitude. The respondents who indicate a positive attitude total 75%.

When asked whether isiZulu has an important role to play in academic contexts, the responses indicating a negative attitude total 3%, while results indicating a positive attitude came to a total of 73%.

For all the six questions that solicit the cognitive aspect of attitude towards the use of isiZulu in academic contexts, most of the respondents indicate a positive attitude.

Some respondents gave neutral responses, to all six questions. The neutral responses range from 17 to 28%. These results indicate an ambivalence towards the use of isiZulu in academic contexts.

For both the target and the control group, responses on the cognitive attitude towards the use of isiZulu in academic contexts are comparable. Table 4.11 hereunder presents the percentages on the cognitive aspect of attitude for both groups.

Table 4.11: Target and control groups: The cognitive aspect of attitude towards the use of isiZulu in academic contexts

Question	Groups	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	No response
IsiZulu may be used in academic contexts	Target group	3%	4%	34%	38%	21%	0%
	Control group	6%	5%	28%	25%	36%	0%
IsiZulu may enhance academic performance for L1 speakers	Target group	0%	3%	24%	46%	26%	1%
	Control group	4%	2%	19%	37%	37%	1%
The use of isiZulu will equip me to perform better in my chosen career	Target group	3%	7%	40%	37%	13%	0%
	Control group	7%	6%	23%	26%	37%	0%
IsiZulu facilitates a better understanding of the academic terms	Target group	0%	9%	40%	38%	13%	0%
	Control group	5%	2%	17%	36%	40%	0%
IsiZulu supports academic performance in English-oriented academic contexts	Target group	0%	4%	37%	41%	12%	6%
	Control group	1%	2%	21%	42%	33%	0%
IsiZulu has an important role to play in academic contexts	Target group	0%	1%	24%	46%	28%	1%
	Control group	2%	1%	23%	33%	40%	0%

For both groups, there are a high number of respondents who indicate a positive attitude towards the use of isiZulu in academic contexts compared to those who indicate a negative attitude. There are, however, a substantial number of respondents in both groups who indicate ambivalent attitudes towards the use of isiZulu. Even though the rate of ambivalence is notable in both groups, the percentages for the ambivalent attitudes are higher in the target group.

I now present the qualitative data for both the target group and the control group on the cognitive aspect of attitude towards the use of isiZulu in academic contexts.

4.2.2.2 Qualitative data

The excerpts below are taken from the two focus groups' interview data: target group data ($n=17$) and control group data ($n=11$).

4.2.2.2.1 Target group

The participants in the target group, in general, were in favour of the use of isiZulu in academic contexts. However, there are also concerns that the participants raised. The participants who are in favour of the use of isiZulu cited how isiZulu helps in gaining a clearer understanding of the module content. Excerpts (23-26) are evidence of these claims:

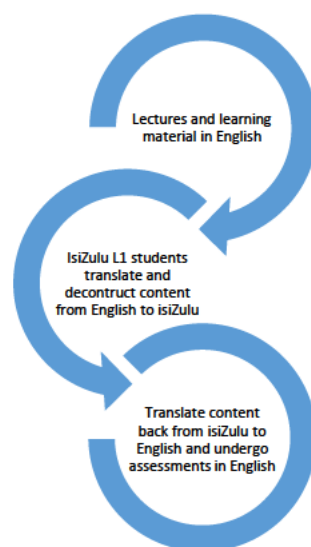
- (23) **L2:** This is because of how I interpret the content into isiZulu and the terms that I use in isiZulu make it easy for me to understand and recall the information. Once I recall the information it becomes a matter of translating it back to English, so it is easier for me to remember with isiZulu.
- (24) **P11:** Yes, it helps me. IsiZulu helps me to understand certain things, for instance, when I study the notes – the use of isiZulu words helps me to understand what I read better. However, we cannot dismiss the fact that exams are written in English. This makes things exceedingly difficult.
- (25) **AT3:** As much as we write up in English even during assessments; the way you have understood the content when you were studying individually helps – there are times when you need someone to explain the content in isiZulu to you (e.g., nervous system). So, when I write during assessments, I will recall the explanation in isiZulu and then translate it to English. If we were to get explanations in

isiZulu, I for one could easily understand a topic like ‘blood circulation’. But studying in English really takes a whole lot of time. What has helped me is to ask assistance from my older sister who would go through the lecture slides and then explain to me in isiZulu. So, I believe adding isiZulu in our academic activities will indeed be of immense help to some of us.

(26) A2: At first, I was excited that I have a tutor who speaks isiZulu, so I was looking forward to getting better clarity on the module. I would prefer that there be at least one of our lecturers or tutors who speaks isiZulu so that I can speak to that person in isiZulu and get better clarity on the module.

The participants whose excerpts are used above favour the use of isiZulu in academic contexts. The participants interpret (*or translate* – my addition) the content (*from English* – my addition) into isiZulu for better recall when the need arises. While the participants acknowledge the role that English plays as a primary MoI, they also raise that it is a challenge that assessments are in English. The participants learn and are taught in English, they then deconstruct the module content into isiZulu to gain a better understanding, and then translate the module content back into English for assessments. This habitual practice is illustrated in Figure 4.3 below.

Figure 4.3: The habitual practice as a learning process for isiZulu L1 students in an English-oriented academic context



While the process illustrated in Figure 4.3 may be helpful, it is cumbersome. In this instance, isiZulu plays a significant role in clarifying module content, thereby assisting L1 students when they need to recall what they have studied. There is, however, a concern raised regarding the inconsistent roles of the two languages; with English as a primary MoI and assessment language, and isiZulu as a language that helps in deconstructing the module content. It transpires that while isiZulu does not serve as the MoI it does support the students in an English-oriented academic context. There is an expressed preference that isiZulu assumes the role of MoI for the benefit of isiZulu L1-speaking students. The role may be assumed with the use of isiZulu prominently and/or that the lecturers and tutors facilitate the modules in isiZulu.

The concern that isiZulu does not serve as the MoI in its entirety may be the causal factor for the ambivalent attitudes towards the use of isiZulu in academic contexts. The ambivalence might also emanate from the back-and-forth translation that students must engage in. Excerpts (27-29) express these concerns:

- (27) **L9:** Moving between isiZulu and English is also hectic.
- (28) **P4:** The use of isiZulu to understand module terms is well supported to a lesser extent as course terms internationally are in English and to compete globally one must be well versed with the medium of the English language.
- (29) **A2:** But for a large majority of speakers of African languages, the use of African languages as languages of learning and teaching would assist them in becoming more proficient. Yes, we may be using English now, particularly for assessments but in the future, this may change, and the next generation will have a choice of using isiZulu as a language of learning and teaching.

The participants cited above welcome the use of isiZulu while acknowledging the limitations of its use. Moving to-and-fro between isiZulu and English is strenuous and time-consuming. The participant (like other students engaged in this process of translating) more than likely reads in English after the lecture(s), translates the lecture content into isiZulu, deconstructs the lecture content in isiZulu for conceptual understanding, reconstructs the lecture content, and translates their understanding back into English. This process would be less cumbersome if the translation between the two languages was not required. The status of English, as an international language, accounts for the reluctance to fully support the use of isiZulu as an

academic language. The importance of African languages as enablers for access and success in academia to the L1 speakers of these languages is acknowledged. However, in the projection in excerpt (29), it may take a generation before African languages are immersed into full functionality as languages of learning, teaching, and assessment. The use of isiZulu is not an option for the L1 speakers of isiZulu currently but is a long-term aspiration.

I now present data from the control group.

4.2.2.2.2 Control group

The participants in the control group expressed varied attitudes on the use of isiZulu. In excerpts (30-32) below, the participants attested to the use of isiZulu when they study as individuals or in groups.

- (30) **CD9:** We explain to each other the content in isiZulu and even have key phrases in isiZulu to help us remember when we must write in English during assessments.
- (31) **C1:** When you come across a challenging section; it is better to translate it into a language you will understand like isiZulu.
- (32) **M4:** Since isiZulu is our Home Language; it makes things easier for us to understand certain terms. It is difficult to learn in English when we study our books but after we have discussed amongst ourselves in our Home Language, it becomes easier to study further in English.

These participants cite the need to remember and understand what they have learned as the main reason that they favour the use of isiZulu in academic contexts. All three of these participants indicated that there are challenges in the use of English, however, the use of their L1 in discussing, explaining, and translating content, alleviates this challenge and enables the participants to study and carry out the assessments in English.

Even though the participants cited above favour the use of isiZulu, other participants do not think the use of isiZulu may be helpful. Excerpts (33-34) express this concern:

- (33) **M6:** Yes, this (use of isiZulu) may assist them although not to a significant extent since English is still the main language of learning and teaching and assessment/examination. For instance, in an exam situation, one would not have time to find out what ‘hovering’ means in isiZulu anyway.

- (34) **PL2:** The challenge we could face here is that some of us have gone to English medium schools from the onset; so, if we were now going to use isiZulu at tertiary level – we would have a challenge.

The participants cited above refer to English being the main MoI, including in assessments. For this reason, translating from English to isiZulu and back may not be entirely helpful. The phrases that the participants use “them” and “some of us” indicate distinct separatism within the education system in South Africa. The use of isiZulu may be a barrier for those who went to schools where isiZulu is offered at first or second and even third additional language level, that is, in the English-medium ex-model C schools, while it may be helpful to those who went to schools where isiZulu is offered at home language level, that is, schools in African residential areas.

4.2.2.2.3 Summary

In sum, the participants in the current study acknowledge the role of isiZulu to enhance their understanding of module content presented in English. They also acknowledge the role of English as a medium of instruction and assessment, and as an international language. The participants who favour the use of isiZulu do not regard the prominence of English as a challenge and welcome the use of isiZulu as an enabling language. However, the participants who are resistant to the use of isiZulu do not foresee benefits in its use.

I now address dimension three of research question 1.

4.2.3 The affective aspect of attitude towards the use of isiZulu in academic contexts

Dimension three of research question 1 solicits information on the emotions and feelings that the respondents have towards the use of isiZulu in academic contexts. The conclusions I draw are based on responses to five of the questions in section three of the questionnaire (see Table 4.10 above).

4.2.3.1 Quantitative data

Section three of the questionnaire consisted of a 5-point Likert scale. The options were: pessimistic; negative; neutral; positive; optimistic. The ‘pessimistic’ and the ‘negative’ responses indicate a negative attitude, the neutral responses indicate an ambivalent attitude, and the ‘positive’ and ‘optimistic’ responses indicate a positive attitude.

4.2.3.1.1 Target group

Data collated from $n=68$ respondents is calculated and presented in percentages in figure 4.4 below.

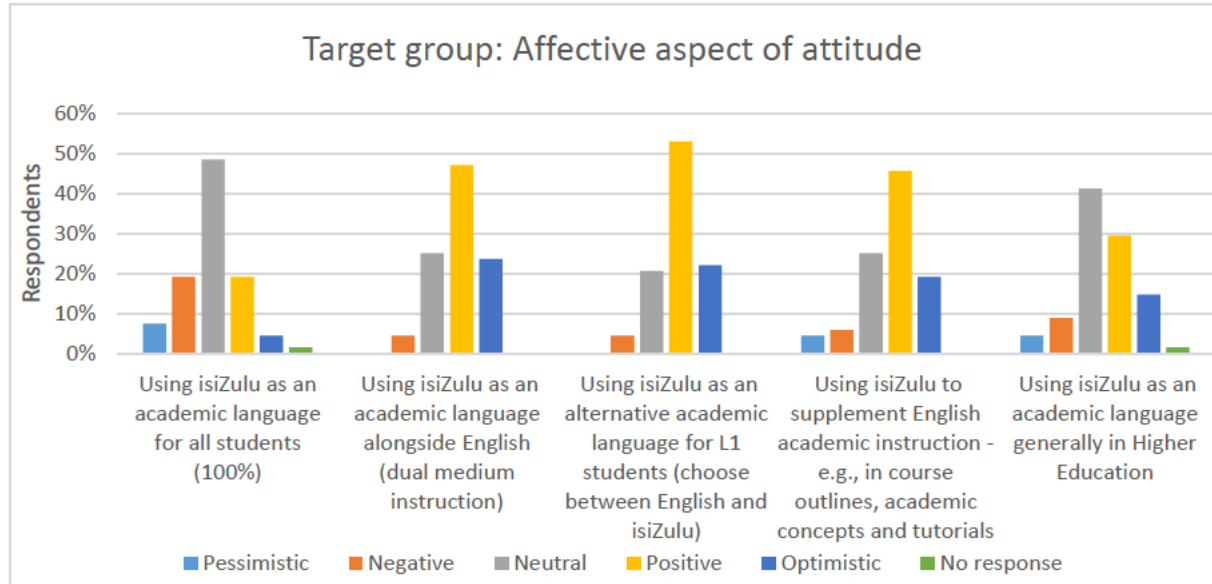


Figure 4.4: Target group: Affective aspect of attitude towards the use of isiZulu in academic contexts

Regarding the question on how the respondents feel towards using isiZulu as an academic language for all students, on a 100% basis, 26% of the respondents indicated a negative attitude, and 23% of the respondents indicated a positive attitude. More respondents have a negative attitude compared to those with a positive attitude in this regard. A substantial number of respondents are neutral (49%), indicating ambivalence on this issue.

In questioning the respondents' feelings towards using isiZulu as an academic language alongside English, as dual-medium instruction, 4% of the respondents indicated negative feelings and 71% indicated positive feelings. Twenty-five percent provided a neutral or ambivalent response.

In terms of the respondents' feelings toward using isiZulu as an alternative academic language for L1 isiZulu students, with a choice between English and isiZulu, 4% indicated a negative attitude, 21% are neutral indicating an ambivalent attitude, and 75% indicated a positive attitude. Most of the respondents favour the use of isiZulu as an alternative MoI to English.

The responses, concerning using isiZulu to supplement English academic instruction, indicate that 10% show a negative attitude and 65% show a positive attitude. The respondents who selected neutral are recorded at 25%, indicating ambivalence.

When asked how they feel towards using isiZulu as an academic language generally in Higher Education, 13% indicated a negative attitude, 44% indicated a positive attitude and 41% indicated ambivalence. There is a high rate of uncertainty with the use of isiZulu as an academic language in Higher Education.

The respondents in the target group indicate a propensity for positive attitudes towards the use of isiZulu in academic contexts. The positive feelings and thoughts are more prevalent with respect to the use of isiZulu alongside English, the use of isiZulu as an alternative academic language, the use of isiZulu to supplement English academic instruction, and the use of isiZulu as an academic language generally in Higher Education. In contrast, the idea that isiZulu could be used as an academic language for all students at 100%, elicits more negative feelings than positive. Almost half of the respondents indicate that they are ambivalent about this issue. The other factor wherein the rate of ambivalence is high is the widespread use of isiZulu as an academic language throughout Higher Education.

I now present quantitative data from the control group.

4.2.3.1.2 Control group

Data collated from $n=81$ respondents is calculated and presented in percentages in Figure 4.5 below.

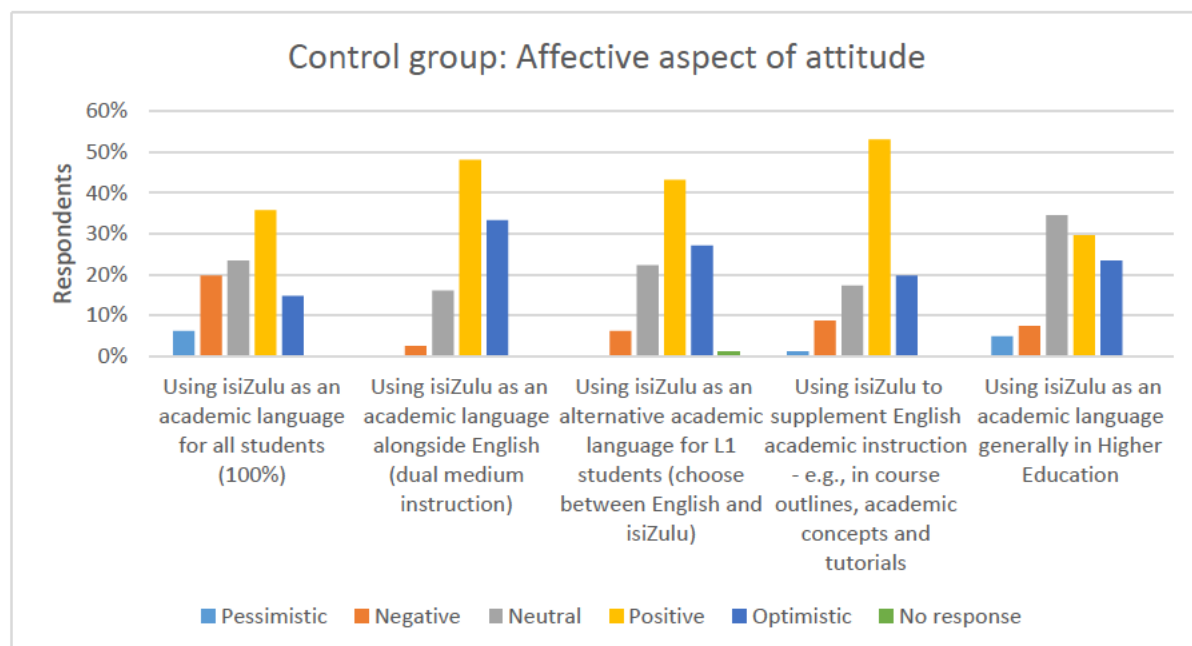


Figure 4.5: Control group: Affective aspect of attitude towards the use of isiZulu in academic contexts

Responses concerning the use of isiZulu as an academic language for all students on a 100% basis show that 26% have a negative attitude, 51% show positive attitudes, and 23% indicate ambivalence in this regard.

When asked how they feel towards using isiZulu as an academic language alongside English, as dual-medium instruction, only 2% show a negative attitude, while a large majority, at 81%, indicate a positive attitude. The neutral respondents (16%) indicate ambivalent attitudes.

With regards to how the respondents feel towards using isiZulu as an alternative academic language for L1 students, that is, choosing between English and isiZulu, 6% indicated a negative attitude, 70% showed a positive attitude, and 22% are neutral. Given a choice, the respondents may choose isiZulu as a medium of academic instruction.

In responding to the question on how they feel towards using isiZulu to supplement English academic instruction, 10% of the control group indicated negative attitudes, 73% indicated positive attitudes, and 17% indicated ambivalence.

The question related to how the respondents feel towards using isiZulu as an academic language generally in Higher Education resulted in 12% of the respondents indicating a negative attitude and 53% indicating positive attitudes. Thirty-five percent indicated ambivalence.

The respondents in the control group indicated a propensity for positive feelings and thoughts towards the use of isiZulu in academic contexts. Just over half indicated a positive attitude toward isiZulu as an academic language for all students and generally in Higher Education. A majority indicated positive attitudes regarding isiZulu's use alongside, as an alternative, and as a supplement to English instruction.

The rate indicating ambivalent attitudes is higher only on the use of isiZulu as an academic language generally in Higher Education (35%).

The respondents in both the target group and the control group indicated positive feelings and attitudes towards the use of isiZulu in academic contexts. Table 4.12 below illustrates.

Table 4.12: Target and control groups: The affective aspect of attitude towards the use of isiZulu in academic contexts

Questions Feelings towards:	Groups	Pessimistic	Negative	Neutral	Positive	Optimistic	No response
Using isiZulu as an academic language for all students (100%)	Target group	7%	19%	49%	19%	4%	1%
	Control group	6%	20%	23%	36%	15%	0%
Using isiZulu as an academic language alongside English (dual-medium instruction)	Target group	0%	4%	25%	47%	24%	0%
	Control group	0%	2%	16%	48%	33%	0%
Using isiZulu as an alternative academic language for L1 students (choose between English and isiZulu)	Target group	4%	6%	25%	46%	19%	0%
	Control group	1%	9%	17%	53%	20%	0%
Using isiZulu to supplement English academic instruction (e.g., in course outlines, academic terms and tutorials)	Target group	4%	6%	25%	46%	19%	0%
	Control group	1%	9%	17%	53%	20%	0%
Using isiZulu as an academic language generally in Higher Education	Target group	4%	9%	41%	29%	15%	1%
	Control group	5%	7%	35%	30%	23%	0%

In both groups, respondents indicated a propensity for positive feelings and emotions on the use of isiZulu in academic contexts, particularly for the benefit of isiZulu L1-speaking students and not for the entire student fraternity. There is noted ambivalence towards the use of isiZulu as an academic language for all students on a 100% basis, particularly for the target group.

In the three questions relating directly to the use of isiZulu by L1-speaking students, the respondents in both the target and the control groups indicated a positive attitude. These

questions look into the use of isiZulu as an academic language alongside English as dual-medium instruction, as an alternative academic language, and the use of isiZulu to supplement English academic instruction.

In the analysis of the question regarding feelings towards the use of isiZulu as an academic language generally in Higher Education, the respondents do not show high optimism compared to the previous three questions.

I now present the qualitative data for both the target group and the control group on the affective aspect of attitude towards the use of isiZulu in academic contexts.

4.2.3.2 Qualitative Data

Data from the focus group interviews is presented below.

4.2.3.2.1 Target group

There are participants in the target group who expressed positive feelings and thoughts on the use of isiZulu in academic contexts and there are participants who expressed uncertainty. Excerpts (35-38) below express the positive feelings and thoughts:

- (35) **AT3:** If one understands the lecturer, it then becomes easy when you do a self-study afterwards. It would be much better if isiZulu were to be included somehow in explaining content; we would understand even better.
- (36) **A2:** I think there are better chances for one to understand if taught in his/her home language and that increases the proficiency of the person.
- (37) **P7:** I would love that my children find things right and be able to use and understand a language that I love and which I hope they would love, i.e., an African language.
- (38) **L3:** I honestly think it is much easier to understand when something is translated to isiZulu because in that way it is much easier to identify with something because at times it is hard to express myself in English and you end up not getting what I am trying to say.

These participants expressed a positive attitude, as well as preferences and aspirations for the future. They hope that isiZulu will be included in academic contexts, particularly in explaining

the module content, which would (which I understand to be a conditional use) allow the isiZulu L1 students to understand the module content better. The use of isiZulu will assist students in identifying with the content, thereby understanding it better (my assumption). It transpires that the current situation in the academic context that these participants experience is not yet what they aspire for. The participants indicated an aspiration for a better academic experience.

In as much as there is support for the use of isiZulu, there are participants who feel and think that the use of isiZulu may not be as helpful as it is 'supposed to be' (my assumption). I draw this assumption from excerpts (39-42) below:

- (39) **AT4:** If isiZulu were reinforced just as English was from grade 1 level, I feel I would be able to use isiZulu the same way I use English.
- (40) **P4:** I understand that for some people the concern is clarity especially when it comes to vocabulary. But try to look at it this way – the reason we come to school is to be competitive internationally/globally. If we change as we say, we learn subjects/modules e.g., Physics in isiZulu; we could end up with repercussions...we are regressing.
- (41) **L8:** How does it help to use both languages and you get an understanding in isiZulu yet fail to write in English which remains the language of assessment? So how does this help?
- (42) **L6:** IsiZulu is a great language but not if it is used 100%. It is of great appreciation if it is used together with English.

The participants cited above are not entirely against the use of isiZulu but express concern about its use in academic contexts. They consider that, if implemented, the use of isiZulu would be coming in at a late period in their academic experience, and that it may not enable isiZulu L1-speaking students to be part of the global village. This is because English is considered to be an international language of wider communication. The use of isiZulu may not help isiZulu L1-speaking students with assessments conducted in English and further, the use of isiZulu may disadvantage students should it impair their ability to articulate themselves during assessments. On this note, in excerpt (42), the participant felt that isiZulu need not be used on a 100% basis but may be used alongside English.

I now present data from the control group.

4.2.3.2.2 Control Group

Some participants expressed positive feelings and thoughts on the use of isiZulu in academic contexts and some participants do not think that the use of isiZulu may assist. Excerpts (43-46) below express the positive feelings and thoughts:

- (43) **C2:** I think it will be fair if people were to learn through a language of their choice as that will yield better understanding for that person.
- (44) **CD4:** Such provisions as the use of isiZulu will benefit a lot of students – the use of English throughout is a major disadvantage to most students who are challenged by the language. So, a person who lacks proficiency in English is left out by the system.
- (45) **PL2:** If we were to learn through a language that we are familiar with and that we use at home, we could also perform better.
- (46) **M4:** In this system of education, you need to understand the question first before responding to it. So, the one who uses English all the time easily adapts to research and investigations and easily understands terms because he/she is used to the English language. The one who uses isiZulu as a home language must first investigate further if there is an unfamiliar term. It becomes harder due to less exposure to the English language.

The participants whose excerpts appear above expressed positive feelings and thoughts. The use of isiZulu makes the education system fair for the speakers of isiZulu as a home language and, as such, may help them reap benefits from the education system. In addition, English poses a challenge to speakers of other languages (including isiZulu). The issue of academic performance is the reason behind the support for the use of isiZulu.

There are participants who are not in support of the use of isiZulu in the academic context. Their feelings and thoughts are expressed in excerpts (47-49) hereunder:

- (47) **M6:** For me to clearly understand something I do not rely on isiZulu. To me, isiZulu does not make things clearer. I find English easy and simple.
- (48) **C2:** When it comes to implementation, to some – those who need it, it is ok. If it were to affect everyone then we may struggle. Even for me,

although I grew up using isiZulu, but I sometimes have difficulties with it.

- (49) C9: I prefer using English because it is clear and understandable. It will be particularly challenging for me to start using isiZulu for studying since I have been using English for a long time.

The participants above expressed their strong feelings against the use of isiZulu. It appears that these participants, and others who may share the same feelings, have been exposed to English at HL level from primary through to secondary education. For this reason, the use of isiZulu in any manner in their tertiary education level experience will not be of any help. The excerpts from these participants expose the divide that exists among isiZulu speaking students within the education system of South Africa.

In sum, the participants in the control group attest to two patterns of feelings and thoughts on the use of isiZulu in academic contexts. The participants who feel strongly in favour of the use of isiZulu, have isiZulu as a stronger, more dominant language in their linguistic repertoire. These students attest to having taken isiZulu at HL level from primary through to secondary school. Thus, they find it challenging that isiZulu does not feature in their tertiary education experience. The participants who are strongly or partially against the use of isiZulu have English as a stronger language in their linguistic repertoire. These participants have been exposed to English at a HL level from primary through to secondary school and thus feel that featuring isiZulu at the tertiary level will not be of additional help to them.

4.2.3.2.3 Summary

While there is evidence for positive feelings and thoughts from both the quantitative and qualitative data towards the use of isiZulu in academic contexts, there are notable concerns that indicate negative feelings as well. On one hand, the results from the questionnaire survey in both the target and the control groups indicate a positive propensity towards the use of isiZulu. On the other hand, the results from the focus group interviews indicate a fair distribution of feelings and thoughts from both the target and the control groups. Those in support of the use of isiZulu expressed the need to understand and gain clarity on content better, and to perform better academically, as the reasons behind their feelings and thoughts. Those who oppose or have reservations about the use of isiZulu indicated that the move may have come too late in their academic careers and thus, may not be of any help. In addition, this group of respondents

indicated that they favour the use of English as MoI due to consistent exposure to English, throughout their schooling.

I now address dimension four of research question 1.

4.2.4 The behavioural aspect of attitude towards the use of isiZulu in academic contexts

Dimension four of research question 1 solicits information on the behaviour the respondents show, or intend to show, towards the use of isiZulu in academic contexts. The deductions I make are based on the responses to seven questions in section four of the questionnaire (see Table 4.10 above). Below I present the quantitative data per group and thereafter I present qualitative data.

4.2.4.1 Quantitative data

The respondents were required to respond to section four of the questionnaire using a 5-point Likert scale. The options were: never (0-19%); rarely (20-39%); occasionally (40-59%); regularly (60-79%); and always (80-100%). The percentages in brackets are given as estimates of the rate of use or likelihood of the rate of use for each question. The options 'never' and 'rarely' are interpreted as an indication of a negative attitude, the option 'occasionally' as an indication of ambivalence, and the options 'regularly' and 'always' as an indication of a positive attitude.

4.2.4.1.1 Target group

Data was collated from all $n=68$ respondents. The responses to the behavioural aspect of attitude are calculated and presented using percentages in Figure 4.6 below:

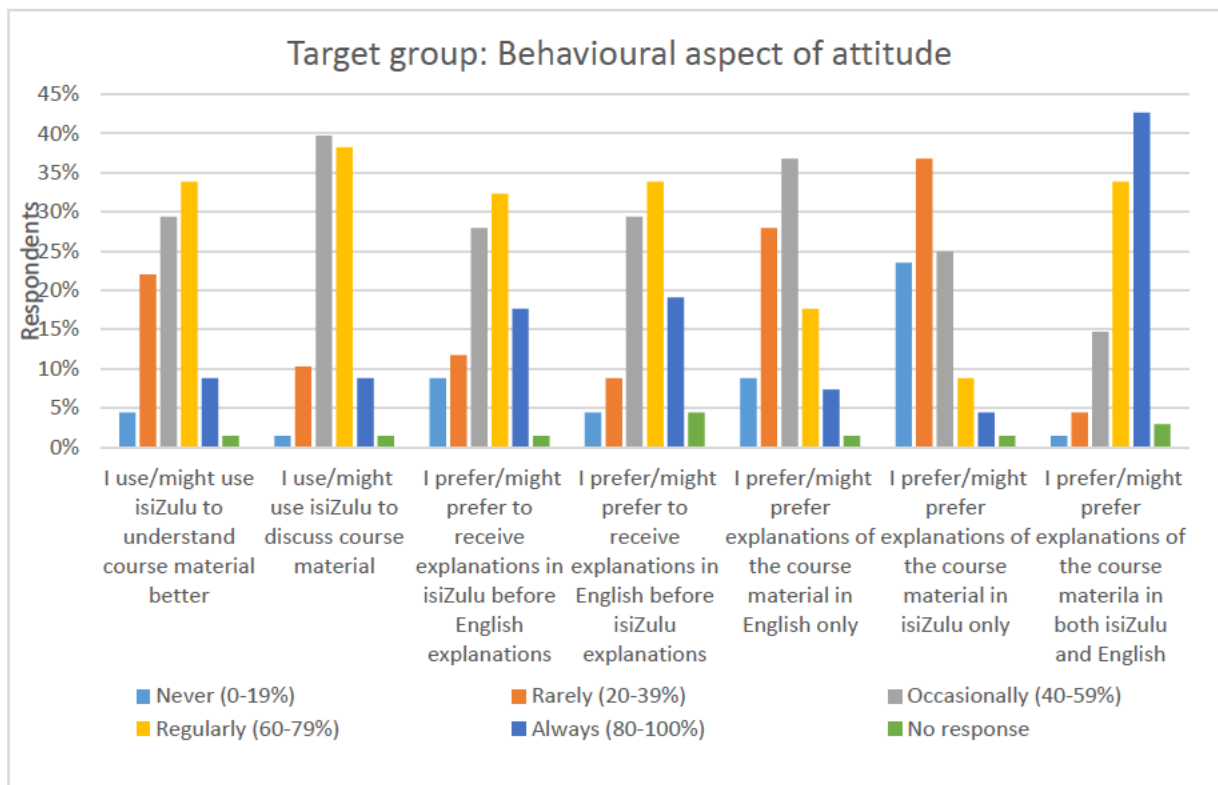


Figure 4.6: Target group: Behavioural aspect of attitude towards the use of isiZulu in academic contexts

Data presented in Figure 4.6 illustrates the responses on the chances that the respondents in the target group use or might use isiZulu in academic contexts.

Concerning the question related to how the respondents use or might use isiZulu to understand course material better, 26% of the respondents indicated a negative attitude, 29% indicated ambivalence, and 43% indicate a positive attitude. One percent of the respondents did not answer this question. The respondents who indicate ambivalence acknowledge that there is a need that isiZulu addresses, but it does not meet their academic needs entirely.

In terms of whether the respondents use or might use isiZulu to discuss course material, the respondents who indicated a negative attitude are at 11%, those who indicated ambivalence are at 40% and the respondents who indicated a positive attitude total 47%. The responses indicate that the respondents are inclined towards the use of isiZulu in their studies.

In terms of whether the respondents prefer or might prefer to receive the explanations in isiZulu before explanations in English, responses indicating a negative attitude are at 21%, those indicating ambivalence are at 28%, and those indicating a positive attitude are at 50%. The

positive responses show the extent to which the respondents favour the use of isiZulu in academic contexts.

Whether the respondents prefer or might prefer to receive explanations in English before receiving explanations in isiZulu, responses show that 13% indicated a positive attitude, 29% indicated ambivalence, and 53% indicated a negative attitude. From this question, it appears that even though the respondents favour the use of isiZulu in academic contexts, such use may be complementary to the use of English. IsiZulu may not be the only academic language they have access to.

Responses related to whether respondents prefer or might prefer the explanations of the course material in English show that 37% indicated a positive attitude, 37% indicated ambivalent attitudes, and 25% indicated a negative attitude. One percent of the respondents did not answer this question.

When respondents were asked whether they prefer or might prefer explanations of the course material in isiZulu only, a negative attitude towards isiZulu in an academic context is seen in 61% of the respondents. Twenty-five percent of the respondents indicated ambivalence, and 13% indicated a positive attitude. One percent of the respondents did not answer this question. These responses show that isiZulu may not be welcome as the only language in academic contexts at this point.

With regards to whether respondents prefer or might prefer explanations of the course material in both isiZulu and English, respondents who indicated a negative attitude are at 5%, those who indicated ambivalence are at 15%, and those indicating a positive attitude are at 77%. The responses indicate overwhelming support for the use of isiZulu alongside English in academic contexts.

I now present data from the control group.

4.2.4.1.2 Control group

Data collated from $n=81$ respondents is calculated and presented in percentages in Figure 4.7 below:

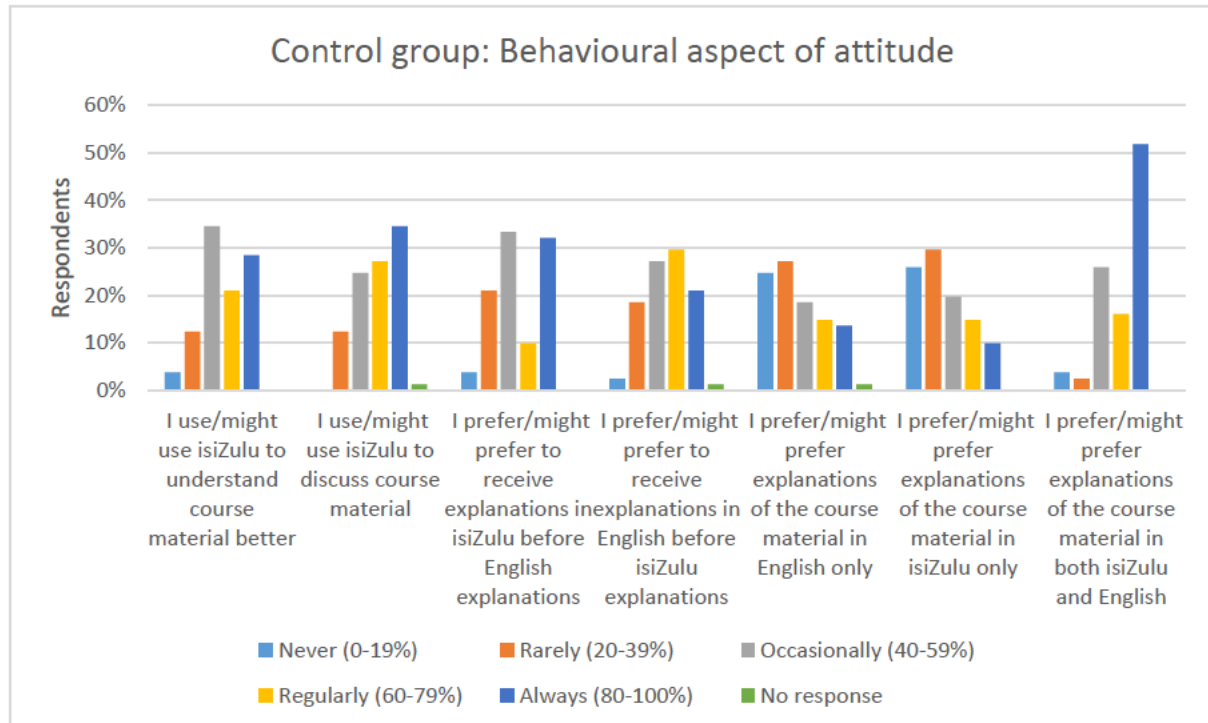


Figure 4.7: Control group: Behavioural aspect of attitude towards the use of isiZulu in academic contexts

In terms of whether respondents might use isiZulu to understand course material better, 16% indicated a negative attitude, 35% indicated an ambivalent attitude, and 49% of the respondents indicated a positive attitude. The respondents consider isiZulu as a language that may supplement English as an academic language.

Whether respondents might use isiZulu to discuss the course material, 12% had a negative attitude, 25% were ambivalent, and 62% indicated a positive attitude. The responses indicate that there is a high probability that the respondents may use isiZulu for academic purposes together with other speakers of isiZulu.

When asked if they might prefer to receive explanations in isiZulu before explanations in English, 25% indicated a negative attitude, 33% indicated an ambivalent attitude, and 42% indicated a positive attitude. The respondents acknowledge that isiZulu may play a role in academic contexts.

When asked if they might prefer to receive explanations in English before explanations in isiZulu, 21% indicated a positive attitude towards isiZulu, 27% indicated an ambivalent attitude, and 51% indicated a negative attitude. Even though there is support for the use of isiZulu, this support is not directed at replacing the role that English plays in the academic context.

In the question wherein respondents indicated whether they might prefer explanations of the course material in English only, 52% indicated a positive attitude towards isiZulu, 19% indicated ambivalence, and 29% indicated a negative attitude. One percent did not answer this question. The responses indicate that there is a need for isiZulu to be used in academic contexts.

With regards to whether they might prefer explanations of the course material in isiZulu only, 56% of the respondents indicated a negative attitude, 20% of respondents indicated ambivalence, and 25% of the respondents indicated a positive attitude. Even though there is some support for the use of isiZulu in academic contexts, the respondents are sceptical about its exclusive use in the academic contexts.

In response to whether the respondents might prefer explanations of the course material in both English and isiZulu, 6% indicated a negative attitude, 26% indicated ambivalence, and 68% indicated a positive attitude. The positive attitude responses indicate that the respondents may welcome the use of isiZulu as an academic language alongside the use of English.

The respondents in both the target group and the control group indicate a positive inclination to use isiZulu in academic contexts, see Table 4.13.

Table 4.13: Target and control groups: The behavioural aspect of attitude towards the use of isiZulu in academic contexts

Questions	Groups	Never	Rarely	Occasionally	Regularly	Always	No response
I use/might use isiZulu to understand course material better	Target	4%	22%	29%	34%	9%	1%
	Control	4%	12%	35%	21%	28%	0%
I use/might use isiZulu to discuss course material	Target	1%	10%	40%	38%	9%	1%
	Control	0%	12%	25%	27%	35%	1%
I prefer/might prefer to receive explanations in isiZulu before explanations in English	Target	9%	12%	28%	32%	18%	1%
	Control	4%	21%	33%	10%	32%	0%

I prefer/might prefer to receive explanations in English before explanations in isiZulu	Target	4%	9%	29%	34%	19%	4%
	Control	2%	19%	27%	30%	21%	1%
I prefer/might prefer explanations of the course material in English only	Target	9%	28%	37%	18%	7%	1%
	Control	25%	27%	19%	15%	14%	1%
I prefer/might prefer explanations of the course material in isiZulu only	Target	24%	37%	25%	9%	4%	1%
	Control	26%	30%	20%	15%	10%	0%
I prefer/might prefer explanations of the course material in both English and isiZulu	Target	1%	4%	15%	34%	43%	3%
	Control	4%	2%	26%	16%	52%	0%

In Table 4.13 above, it is observed that the responses in the questions on the use of (or intention to use) isiZulu to understand the course material better, to discuss the course material, and to receive isiZulu explanations before English, are all under 10%. The exception is on the use of (or intention to use) isiZulu only to receive explanations, where the responses are 24% and 26% respectively. These responses indicate that respondents in both groups have a negative attitude towards the use of isiZulu exclusively in academic contexts. The figures also indicate that the respondents in both groups are particularly in favour of the use of isiZulu alongside English.

Regarding the questions related to whether they would prefer to receive explanations in English before explanations in isiZulu, the respondents in both the target and control groups show elements of a negative attitude but are not entirely opposed to the use of isiZulu as one of the academic languages.

When asked the preference for explanations of course material in English before explanations in isiZulu, the respondents did consent to the use of isiZulu in academic contexts on a limited scale.

In the two categories where the respondents indicated their occasional and regular preferences, the response rates are higher compared to the categories where the respondents indicated never

and rarely. By implication, the deduction I arrive at is that the respondents in both groups are not completely against the use of isiZulu in academic contexts. There are, however, a considerable number of respondents who are sceptical about the use of isiZulu as the sole MoI in academic contexts.

Concerning using isiZulu to understand the course material better, the responses indicate that respondents may welcome the use of isiZulu in academic contexts.

The last question on the behavioural aspect solicits the respondents' preference or lack of preference for explanations of the course material in both isiZulu and English. This question gives a clearer insight into the behavioural aspect of the respondents' attitudes towards the use of isiZulu in academic contexts. The respondents in both groups may welcome the use of isiZulu in addition to English as an academic language.

I now present the qualitative data for both the target group and the control group on the behavioural aspect of attitude towards the use of isiZulu in academic contexts.

4.2.4.2 Qualitative data

The qualitative data reflects positive intentions from the respondents, in both the target and the control groups, toward the use of isiZulu as one of the academic languages.

4.2.4.2.1 Target group

The participants in the target group are positive about the use of (and/or intention to use) isiZulu in academic contexts. Excerpts (50-54) attest:

- (50) **AT6:** Indeed, if isiZulu were to be included; we would have more interest on the subject matter and even pay more attention because of better understanding with the use of isiZulu. Recalling the subject matter would be easier.
- (51) **L9:** [...] then you try and find a way to understand content using isiZulu or find a word/term in isiZulu that will better clarify the content/term that is challenging.
- (52) **A1:** At times it makes you comfortable. If it happens that you wish to ask a question but have difficulty phrasing it in English, so you then ask the question in isiZulu even if the tutor responds in English, but you

have posed the question the way you wanted to. This gives us an option of using any of the two languages we know.

(53) **AT3:** It becomes easy for me because I understand the content better as explained to me in isiZulu, then I can easily write up in English. So, it helps to get information in isiZulu as well.

(54) **P11:** If as we speak, you tell me something in isiZulu or a story; there is no need to over-explain what you are saying in my language because there is no confusion. So, when you learn/study Maths and Physics if you understand something you do not need to spend countless hours at the library if you learnt in isiZulu; things will be easy, and I would spend less time studying.

There is one issue that stands out from the excerpts presented, which is the issue of better understanding.

Looking at excerpt (50), one deduces that the use of the medium of English alienates the participant, resulting in low interest, poor attention span, and a struggle in academic performance. In excerpts (51-53) the participants reflect on how isiZulu will assist in overcoming challenges where there is a lack of clarity, for example, in such instances where asking a question is easier and more comfortable in their home language rather than English. This enables a better understanding of the content. An explanation of the content in isiZulu will avoid any confusion and reduce studying time. The participants indicated a positive behavioural aspect of attitude towards the use of isiZulu in academic contexts. Having to use English may deter one from asking questions to seek clarity, therefore the option of using isiZulu mitigates this frustration. IsiZulu may be an enabler for a better understanding of content, even if it means switching back-and-forth between English and isiZulu.

I now present data from the control group.

4.2.4.2.2 Control group

The participants in the control group indicated a positive attitude toward the use and/or intention to use isiZulu in academic contexts. Excerpts (55-57) expressed this intention:

(55) **PL2:** I use it when I study with friends; we explain content to each other in isiZulu. We use examples in isiZulu to illustrate what we are explaining clearly.

- (56) **C2:** Last year we had Supplementary Instruction (SI) sessions where we had one-on-one interactions with the lecturers over and above the normal lecture sessions. These were divided into English and isiZulu sessions. The lecturers asked which sessions were better. Most students chose to attend the sessions in isiZulu and mentioned that they understood these better.
- (57) **CD9:** We have found, for us, that when we use English only to study, we tend to forget easily unlike when we have used isiZulu. With English, once you forget one term; everything is lost. So, we use isiZulu in our discussions even though we know that we will have to write in English. Using isiZulu assists us to understand the content better since we discuss (literature) casually in our HL.

The participants share positive experiences with the use of isiZulu. IsiZulu is used when discussing module content with friends and for Supplementary Instruction sessions. Most students have attended sessions in isiZulu and gave positive feedback, including that they were comfortable moving from English to isiZulu and back. This is evidence that students find the use of isiZulu beneficial to their academic experience as it can enable a better understanding of content.

In sum, the participants in both the target group and the control group find the use of isiZulu helpful. Through such use, they understand the module(s) content better. One deduces that a better understanding of content has a positive outcome on the students' academic performance.

4.2.5 Summary of the participants' attitudes towards the use of isiZulu in academic contexts

Research question 1 sought to elicit the attitudes that isiZulu L1 students at UKZN hold towards the use of isiZulu in academic contexts. Research question 1 is sub-divided into four dimensions, the frequency of the language used, the cognitive aspect of attitude, the affective aspect of attitude, and the behavioural aspect of attitude. The data collected from both the target group and the control group indicate that the attitudes are positive towards the use of isiZulu despite a few reservations. Hereunder, I present a brief review of the quantitative and qualitative data.

4.2.5.1 Quantitative data

The data on the dominant language used between isiZulu and English indicates that for both the target group and the control group isiZulu dominates in the less official domains, among acquaintances and when interacting with other isiZulu L1 speakers.

English dominates in the official domains and when interacting with both isiZulu L1 and non-isiZulu-L1 speakers.

The data on the three aspects of attitude, cognitive, affective, and behavioural, indicate that the attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts are positive.

However, this positive attitude has reservations. The respondents in both the target and control groups indicated a preference for the use of isiZulu in conjunction with English. The deduction in terms of the analysis of the cognitive aspect of attitude is that isiZulu L1 students are aware of the benefits and may welcome the use of isiZulu in academic contexts. However, there are notable high rates of neutral responses indicating ambivalence.

On the affective aspect of attitude, the respondents' rates for the responses 'positive' and 'optimistic' are high compared to the rates for the responses 'pessimistic' and 'negative'. This analysis indicates that the respondents have positive feelings toward the use of isiZulu in academic contexts. However, there are notable high rates of 'neutral' responses.

On the behavioural aspect of attitude, more respondents indicated a positive attitude towards the use of and/or intention to use, than a negative attitude. Very few respondents opted for the response 'never' on the use of isiZulu in several aspects within the academic context. This use of isiZulu is not exclusive but involves the use of English in other aspects of the module. However, the number rises on the preference for explanations of the course material in isiZulu only, that is, the exclusive use of isiZulu. The respondents are not as against the use of isiZulu as one of the academic languages as much as they express a negative attitude towards its exclusive use as an academic language. The respondents whose responses indicated ambivalence in this regard, may rarely or occasionally use isiZulu and are not completely opposed to its use, but they may not use it exclusively for academic purposes. The rates of responses for the use of isiZulu 'regularly' and 'always' range between 9% and 38%. This is an indication that the respondents have intentions to use isiZulu for academic purposes on a limited scale.

4.2.5.2 Qualitative data

The data gathered from each of the four dimensions of research question 1 indicates that the participants in the interview sessions do not hold a negative attitude towards the use of isiZulu, however, there are a few reservations. These reservations are based on limited exposure to the language in an educational context. As such, the participants think and feel that such use may not benefit them now that they are at a tertiary level of education. Participants who support the use of isiZulu have had extensive exposure to the use of isiZulu in an educational context. As a result, the participants think and feel that the use of isiZulu will be advantageous to their academic performance.

In sum, the respondents in the current study may be grouped into three categories: those that indicate negative attitudes regarding the use of isiZulu in academic contexts; those who are ambivalent; and those that indicate positive attitudes. The respondents who indicated negative attitudes towards isiZulu base their reasons on English being an international language, that English places one at an advantage in terms of a career path, and on the fact that English is well established in the educational context. For these respondents, the use of English presents benefits that isiZulu is not currently offering. For them, the use of isiZulu may lead to ‘regress’ and being left out of current societal advancements. The respondents who were ambivalent about the use of isiZulu indicate indecisiveness and uncertainty regarding the benefits of its use. These respondents may use isiZulu but not as a sole MoI in academic contexts. They prefer to maintain the use of English, acknowledging the benefits thereof, while also benefiting from the use of isiZulu. The respondents who indicated positive attitudes towards the use of isiZulu acknowledge the benefits it could provide in assisting with improving academic performance through understanding and clarity of content. Over and above this, these respondents expressed that the use of isiZulu may elevate the status of the language in academic contexts to the level at which English is used.

I now address research question 2.

4.3 The way discipline-specific terminology in isiZulu influences attitudes of isiZulu L1 students towards the use of isiZulu in academic contexts

Responses to address this research question were collated from a selection of questions in sections two, three, and four of the questionnaire. In each section, the responses address the cognitive, affective, and behavioural aspects of attitude, respectively. The questionnaire items from each of the three sections are presented in Table 4.14 below:

Table 4.14: The three dimensions of attitude on the existence of discipline-specific terminology in isiZulu: A selection of questions from sections two, three, and four of the questionnaire

Research question 2: In what way does the existence of discipline-specific terminology in isiZulu influence attitudes of L1 students towards the use of isiZulu in academic contexts?		
Cognitive aspect OPTIONS: Strongly disagree/Disagree/Neutral/Agree/Strongly agree	Affective aspect OPTIONS: Pessimistic/Negative/Neutral/Positive/Optimistic My feelings towards:	Behavioural aspect OPTIONS: Never (0-19%)/Rarely (20-39%)/Occasionally (40-59%)/Regularly (60-79%)/Always (80-100%)
2.11 The terminology list in isiZulu facilitates a clearer understanding of the academic terms	3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic terms	4.8 I prefer/might prefer to consult terminology in isiZulu when I encounter challenging terms
2.12 Translations in the terminology list in isiZulu are easy to understand	3.6 using loan words in the terminology list in isiZulu e.g., <i>ikhophasi elementi</i>	4.9 Terminology in isiZulu enhances/might enhance understanding of academic terms
2.13 Understanding of discipline-specific terminology in isiZulu will enhance academic performance	3.7 using isiZulu 'proper' words in the terminology list e.g., <i>ukulawulwa kwesiqu</i>	4.10 I consult/might consult terminology in isiZulu when I study
2.14 IsiZulu L1 students stand to benefit from the use of a discipline-specific terminology list in isiZulu	3.8 using the terminology list in isiZulu in academic contexts	4.11 I use/might use terminology in isiZulu to explain course content to other students
	3.9 consulting the terminology list in isiZulu on the terms I struggle with in my studies	4.12 I use/might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students
	3.10 improving my performance in the module by using terminology in isiZulu	4.13 I use/might use terminology in isiZulu when I talk about my studies to people outside of the university
		4.14 I support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content

The responses for each of the three aspects were populated into a spreadsheet separately. I calculated the frequencies of the responses and subsequently converted the frequencies into percentages. The results from the target and the control group are presented in the subsections (4.3.1 to 4.3.4) below.

Following the tripartite model of attitudes, I look at the way in which the cognitive (4.3.1), the affective (4.3.2), and the behavioural (4.3.3) aspects of attitude are influenced by the existence of discipline-specific terminology in isiZulu. In subsection 4.3.4, I look at the extent to which the data addresses research question 2. I draw the quantitative data from the questionnaire as reflected in Table 4.14 and I present the qualitative data from the open-ended questions as well as from the focus group interview transcripts.

4.3.1 The cognitive aspect of attitude

Dimension one of research question 2 solicits information on the cognitive aspect of attitude towards the use of isiZulu in academic contexts. The respondents share what they know and believe concerning the existence of discipline-specific terminology in isiZulu. The deductions I make are based on the responses to four of the questions in section two of the questionnaire (see Table 4.14 above). Below I present the quantitative data per group and thereafter the qualitative data per group.

4.3.1.1 Quantitative data

Data collated from the questionnaires are presented below.

4.3.1.1.1 Target group

Data is collated from $n=68$ respondents. There were five response options: strongly disagree, disagree, neutral, agree, and strongly agree. Strongly disagree and disagree denote a negative attitude, neutral denotes an ambivalent attitude, agree, and strongly agree denote a positive attitude. Figure 4.8 below presents the response on the respondents' perceived influence that the existence of discipline-specific terminology in isiZulu has on their attitude towards the use of isiZulu in academic contexts.

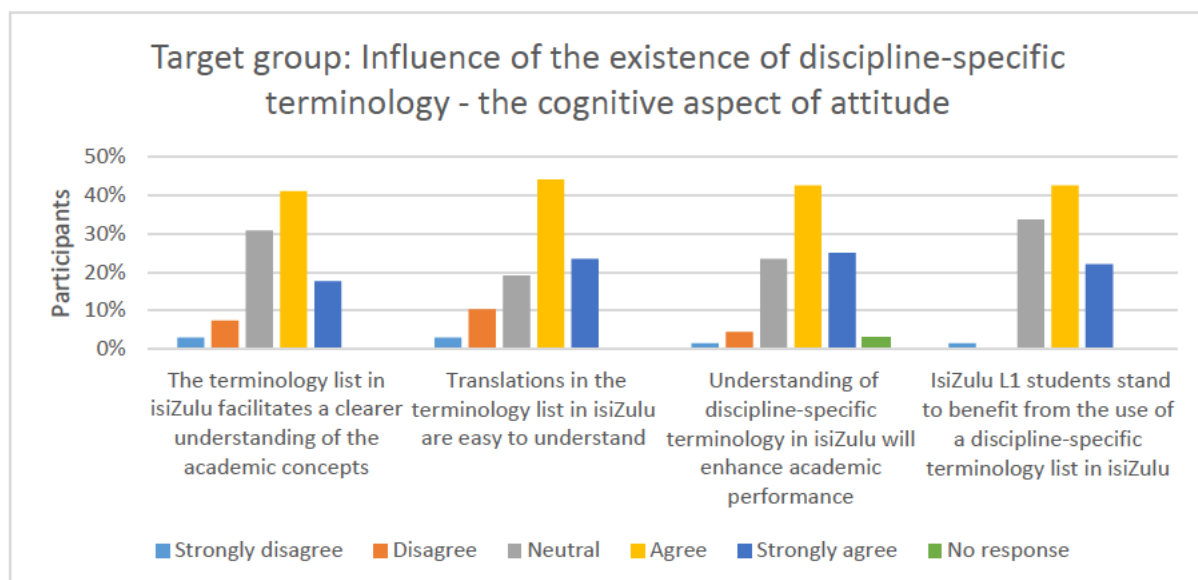


Figure 4.8: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect

The cognitive aspect seeks to unveil the respondents' knowledge and beliefs drawn from the existence of discipline-specific terminology, and how such knowledge and beliefs influence

the use of isiZulu terminology in academic contexts. On the contention that the terminology list in isiZulu facilitates a clearer understanding of the academic terms, the response rates show a negative attitude at 10%, 31% indicate an ambivalent attitude, and 59% indicate a positive attitude. The respondents indicating a negative attitude dispute the notion that the terminology list in isiZulu facilitates a clearer understanding of the academic terms. The respondents indicating ambivalence are indecisive on the matter. The respondents who indicated a positive attitude believe that the terminology list in isiZulu does facilitate a clearer understanding of the academic terms.

On the contention that the translations in the terminology list in isiZulu are easy to understand; the respondents indicating a negative attitude total 13%, those indicating ambivalence total 19%, and those indicating a positive attitude total 68%. The respondents who indicated a negative attitude reject the notion that the translations in the terminology list are easy to understand. The respondents who indicated ambivalence are indecisive on the matter. The respondents who indicated a positive attitude deem the translations as easy to understand.

In response to the statement that the understanding of discipline-specific terminology in isiZulu will enhance academic performance, 5% of the respondents indicated a negative attitude, 24% indicated ambivalence, and 68% indicated a positive attitude. The positive attitude response rate indicates that the participants require, and may welcome, the support that the discipline-specific terminology in isiZulu brings.

In terms of isiZulu L1 students standing to benefit from the use of the discipline-specific terminology list in isiZulu, 1% had a negative attitude, 34% had an ambivalent attitude, and 65% had a positive attitude. The respondents with a negative attitude do not believe that the use of the discipline-specific terminology list in isiZulu stands to benefit isiZulu L1 students. The respondents who show ambivalence are indecisive on the matter. The respondents who indicated a positive attitude believe that isiZulu L1 students stand to benefit from the use of discipline-specific terminology lists in isiZulu.

I now present data from the control group.

4.3.1.1.2 Control group

Data is collated from $n=81$ respondents. Figure 4.9 below presents the responses on the respondents' perceived influence that the existence of discipline-specific terminology in isiZulu has on the attitudes towards the use of isiZulu in academic contexts.

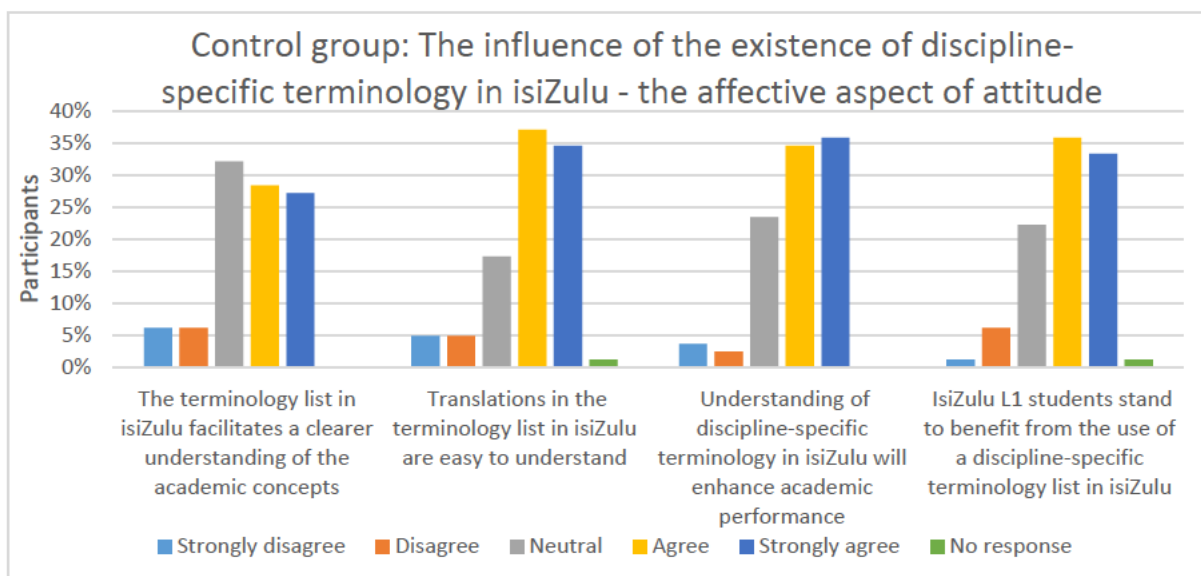


Figure 4.9: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude

On the contention that the terminology list in isiZulu could facilitate a clearer understanding of the academic terms, 12% of the respondents indicated a negative attitude, 32% indicated ambivalence, and 55% indicated a positive attitude. Most of the respondents in the control group believe that the terminology in isiZulu will assist them to understand the academic terms better.

Responding to the statement that the translations in isiZulu in the terminology list should be easy to understand, 10% of the respondents indicated a negative attitude, 17% indicated ambivalence, and 72% indicated a positive attitude. The majority of the respondents believe the translations in the terminology list should be easy to understand for the benefit of isiZulu L1 students.

In response to whether the understanding of discipline-specific terminology in isiZulu could enhance academic performance, 6% indicated a negative attitude, 23% indicated ambivalence, and 71% indicated a positive attitude. The respondents with a positive attitude believe that the understanding of discipline-specific terminology in isiZulu could be beneficial and thus, enhance academic performance for isiZulu L1 students.

On the contention that isiZulu L1 students would benefit from the use of the discipline-specific terminology list in isiZulu, 7% of the respondents indicated a negative attitude, 22% indicated ambivalence, and 69% indicated a positive attitude. The respondents with a positive attitude

believe that isiZulu L1 students would find the discipline-specific terminology list in isiZulu useful and thus benefit from its use.

For both the target and the control group, the responses on the cognitive aspect of attitude towards the use of isiZulu terminology in academic contexts, as influenced by the existence of discipline-specific terminology, do not indicate any substantial divergence. Table 4.15 below presents the percentages on the cognitive aspect of attitude for both the target group and the control group.

Table 4.15: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude

Questions	Groups	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	No response
The terminology list in isiZulu (could) facilitates a clearer understanding of the academic terms	Target	3%	7%	31%	41%	18%	0%
	Control	6%	6%	32%	28%	27%	0%
Translations in the terminology list in isiZulu (could be) are easy to understand	Target	3%	10%	19%	44%	24%	0%
	Control	5%	5%	17%	37%	36%	1%
Understanding of discipline-specific terminology in isiZulu (could) will enhance academic performance	Target	1%	4%	24%	43%	25%	3%
	Control	4%	2%	23%	35%	36%	0%
IsiZulu L1 students (would) stand to benefit from the use of discipline-specific list in isiZulu	Target	1%	0%	34%	43%	22%	0%
	Control	1%	6%	22%	36%	33%	1%

The rates of responses that indicate a negative attitude towards the use of isiZulu in academic contexts range from 0% to 10%, the average is 4%. These are the responses wherein the respondents take no cognisance of the existence of discipline-specific terminology in isiZulu. They dispute that the discipline-specific terminology in isiZulu facilitates a clearer understanding of the academic terms; that the translations in isiZulu are easy to understand; that the understanding of the terminology in isiZulu has the potential to enhance academic performance; and that the existence of the terminology in isiZulu is to the benefit of isiZulu L1 students.

Neutral responses average 25%. These ambivalent responses indicate that respondents are indifferent, uncertain, and indecisive on the use of isiZulu in academic contexts particularly with the existence of discipline-specific terminology in isiZulu.

Responses indicating a positive attitude towards the use of isiZulu in academic contexts range from 18% to 44%; the average is 33%. These respondents believe in the capacity of the discipline-specific terminology in isiZulu to facilitate a clearer understanding of the academic terms and that the translations in the terminology list in isiZulu are, and should be, easy to understand. They indicate that such understanding will and could enhance academic performance and that the existence of discipline-specific terminology in isiZulu is to the benefit of isiZulu L1 students. In sum, the respondents in both the target and the control groups indicate more of a positive attitude towards the use of isiZulu in academic contexts.

I now present qualitative data for both the target group and the control group.

4.3.1.2 Qualitative data

Data is collated from the focus group interviews conducted with the target group and the control group participants.

4.3.1.2.1 Target group

The participants in the target group ($n=17$) express beliefs indicating the extent to which their attitude towards the use of isiZulu in academic contexts is influenced by the existence of discipline-specific terminology in isiZulu. The beliefs and thoughts are varied among the participants. There are participants who indicate a positive attitude. Excerpts (58-62) below are evident to this assertion.

(58) **A1:** However, if there was a resource such as a dictionary/glossary/encyclopaedia and even on the internet in which content will be translated; I may be able to research in my language and keep up with the content.

(59) **A2:** It is a great idea that a resource in isiZulu be available, however, there is also a need for a person who will facilitate the learning process such as a tutor.

(60) **L6:** I also support the idea of having a resource in isiZulu. I could understand a lot of the terms in isiZulu in the questionnaire compared to the English version.

- (61) **P16:** Terms would be far easier to grasp if they were taught in isiZulu. The issue of not learning using your home language is that it becomes ten times harder as you first must understand what is said and then try to simplify it into your own language and this is discouraging and tedious.
- (62) **P12:** I remember once when we were writing Physics, one question worth seven (7) marks asked about ‘a hoovering helicopter’; we all got zero (0) because we did not understand what ‘hoovering’ meant. Our teacher explained in isiZulu afterwards that hoovering meant that the helicopter was not moving thus the velocity was at zero (0). We were all devastated because that would have been an easy question.

For these participants, the existence of terminology in isiZulu influences their attitude towards the use of isiZulu in a positive manner. In excerpts (58), (60) and (61), the participants expressed how a resource with terminology in their language might capacitate them in conducting research, understanding the academic terms, and keeping up with the module content. The participants attested to relating more with the terms in isiZulu than with the English versions as provided in the questionnaire. The availability of the terminology in isiZulu would make the academic journey easier to navigate, less discouraging and less tedious. The participants may avoid losing marks during assessments as a result of failure to understand the terminology in English, as shown in the example of “[sic] hoovering”. Thus, over and above the existence of discipline-specific terminology in isiZulu, there may be a need to provide an explanation of the terms in isiZulu as well. For all these participants, the existence of discipline-specific terminology in isiZulu influences their attitudes positively towards the use of isiZulu in academic contexts.

Among the participants in the target group, some believed that the terminology lists in isiZulu need to feature loanwords borrowed from English and modified into isiZulu. The participants express their reasons in excerpts (63-65) below.

- (63) **A1:** Terminology in ‘proper’ isiZulu is also challenging on its own; sometimes you do not recognise what is referred to, but you can recognise the term in the loanword from English.
- (64) **AT5:** Another instance is where we misspell words; to have terms that are loanwords will assist to remember the correct spelling – ‘fascia’ may

be translated as *'fashiya'* – exactly how you pronounce it. English spelling is at times complicated.

- (65) **A2:** I think convenience is important. It will be of no use if 'proper' words are used, and nobody understands that term. If this is done, practicality should be considered on the choice/level of words to be used and loanwords be used.

The participants indicated a preference toward loanwords over proper isiZulu terms. They expressed concern regarding the challenges that some proper isiZulu terms create, as they may not be familiar with the deep variety of isiZulu and may prefer the watered-down urban variety. English spelling being challenging is another reason for the preference of loanwords as they are useful in overcoming these challenges. Loanwords also assist in remembering the English terms. The two reasons are voiced as “practicality” and “convenience” in excerpt (65). These participants show a positive attitude towards the use of isiZulu, influenced by the existence of discipline-specific terminology in isiZulu. However, the terminology need not be limited to proper isiZulu terms only, but the lists should feature loanwords borrowed from English to be considered useful.

In addition, the lists need to add explanations of the terms in isiZulu. The participants in the excerpts (66) and (67) below raise this concern.

- (66) **AT6:** I think changing the terms and translate them, e.g., 'capsule – *ikhepsuli*' will not help. But if we were to have explanations in isiZulu of what 'capsule' means – that would be of immense help. So, have the term in English and provide the explanation in isiZulu.
- (67) **P20:** Some of the terms used in academics may not have translations to isiZulu which may be difficult for students to learn using Zulu all the time.

In excerpt (66) the participant disapproved of the use of loanwords in the terminology lists but offered constructive criticism stating that the entries should be accompanied by an explanation in isiZulu. The loanword on its own, as a derivative of the English term and without the explanation of the term in isiZulu, may not be useful. Loanwords mitigate the challenges linked with the deep variety of isiZulu. A concern is raised in terms of those instances where there may not be an isiZulu equivalent for an English term. In this case, as participants in excerpts (63-65) above mention, the loanwords may be useful.

Despite the positive attitude indicated above, there are participants who do not regard the existence of discipline-specific terminology in isiZulu as impacting their attitudes positively. The excerpt below gives evidence.

(68) **L8:** But at the same time, people need to switch to English because we are now preparing for the job market. So, continuing to use isiZulu may not be as helpful; we must change to show maturity. You may find that the work environment where one lends oneself in, particularly for us as Law students, it may happen that English is a necessity. So, being lenient to isiZulu L1 speakers and offer resources in isiZulu does not equip them for the work environment.

In excerpt (68), the attitude towards the use of isiZulu in academic contexts is not influenced by the existence of discipline-specific terminology. The participant maintains a negative attitude because she feels that such existence is a show of leniency towards isiZulu L1 students. The participant is adamant that this leniency does not assist in preparing students for the world of work.

I now present data from the control group.

4.3.1.2.2 Control group

The participants in the control group ($n=11$) expressed varied beliefs and thoughts on the influence that the existence of discipline-specific terminology in isiZulu has on their attitude toward the use of isiZulu in academic contexts. Excerpts (69-71) below express some of the positive beliefs and thoughts.

(69) **PL1:** I think it is a great idea. In Anatomy, for example, you read a term and you are clueless as to what it means. This makes it even difficult to recall the term during assessments. However, if the term is also available in isiZulu, then I would recall it faster.

(70) **CD2:** I think, yes, those students who are stronger in isiZulu will benefit from the resource. If such students had not been exposed to the terms in English, and they are given the resource in isiZulu; it may be easy for them to grasp the terms in isiZulu.

(71) **PL2:** For some terms in isiZulu – the term itself is self-explanatory. For example, the name of the pointing finger in isiZulu is based on the

function of the finger. Such self-explanatory words would make it easy for us to understand the terms used in the disciplines.

These participants indicated a positive attitude and applauded the existence of the terminology in isiZulu. This terminology would enable faster recollection of the terms in Anatomy during assessments. It will benefit the students who are proficient in isiZulu and well-versed in the deep variety of isiZulu. The resource may be introduced at a first-year level before students encounter difficulty with the academic terms. Further noted, in excerpt (70), is an implication that isiZulu L1 students are not a homogenous group in terms of their language profiles and academic language needs. The discipline-specific terminology in isiZulu is commended due to the self-explanatory characteristic of terms in isiZulu.

Over and above these positive beliefs, some beliefs indicated ambivalence which is evident in excerpts (72-74) below.

- (72) **C1:** You would need to have correct/appropriate terminologies. For example, in Biology, it would be difficult to find terms for distinct species of trees. Sometimes it could help; sometimes it could not. It may be difficult to perfectly feature isiZulu in all modules.
- (73) **C2:** There are terms in isiZulu that I have no knowledge of. I also had hoped that more of loanwords would be used in isiZulu sessions.
- (74) **M4:** We use a lot of loanwords; one is only able to use isiZulu ‘proper’ if one has done isiZulu at home language (HL) level at high school. But in everyday language use, we use a lot of loanwords and thus if isiZulu were to be used in academic contexts to assist isiZulu L1 students; loanwords would be welcomed.

It appears that in excerpt (72) the participant C1 is not fully convinced that the existence of discipline-specific terminology in isiZulu is beneficial to isiZulu L1 students. There is uncertainty as to whether isiZulu is capable of offering terminologies across a wide spectrum of disciplines. While terminologies may be available within disciplines, the participant is not sure that isiZulu has the capacity to provide all the required terminologies for all disciplines and the terminology may not be as accessible to L1 students as intended. For that reason, there is a preference for loanwords over proper isiZulu terms. The idea of loanwords is also raised in excerpt (74). A faction of isiZulu L1 students may appreciate the use of proper isiZulu terms,

while others may appreciate loanwords. Loanwords are part of everyday language use among isiZulu L1 speakers.

Within the control group of participants, there are those who expressed a lack of belief in the existence of discipline-specific terminology in isiZulu, indicating a negative attitude as seen in excerpts (75-77) below.

- (75) **CD2:** Whereas for us who have been exposed to the terms in English, we may have a challenge – it may be confusing when you are now introduced to terms in isiZulu – you may interchange the two mistakably, especially in spelling. So, some may benefit; some may not.
- (76) **C10:** The use of English (current language used in academic context) makes it easy to understand the terminology and the entire course. IsiZulu words are sometimes unclear, and this makes understanding challenging.
- (77) **C2:** When it comes to implementation; to some – those who need it, it is ok; if it were to affect everyone them, we may struggle. Even for me, although I grew up using isiZulu but sometimes, I have difficulties with it (isiZulu).

In excerpt (75), the participant pointed to a divide within the isiZulu L1 student fraternity (divide referred to in excerpt (74)). The difference in language level offerings at primary and secondary levels of education accounts for the different levels of proficiency and confidence that students attain in each language. As a result, the existence of discipline-specific terminology in isiZulu may not be of any assistance for some participants (and other students) which may lead to negative attitudes towards the use of isiZulu. Therefore, in excerpts (76 and 77), the participants advocate for the continual use of English as the medium of academic instruction.

I now present the affective aspect of attitude.

4.3.2 The affective aspect of attitude

This dimension solicits information on the affective aspect of attitude towards the use of isiZulu in academic contexts that the study respondents derive from the existence of discipline-specific terminology in isiZulu. The deductions I make are based on responses from six of the questions

in section three of the questionnaire (see Table 4.14 above). Below I present the quantitative data and thereafter the qualitative data, per group.

4.3.2.1 Quantitative data

The calculations from data sourced in the questionnaires are presented below.

4.3.2.1.1 Target group

The quantitative data is collated from $n=68$ questionnaire respondents. Figure 4.10 below presents the respondents' affective aspect of attitude towards the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu.

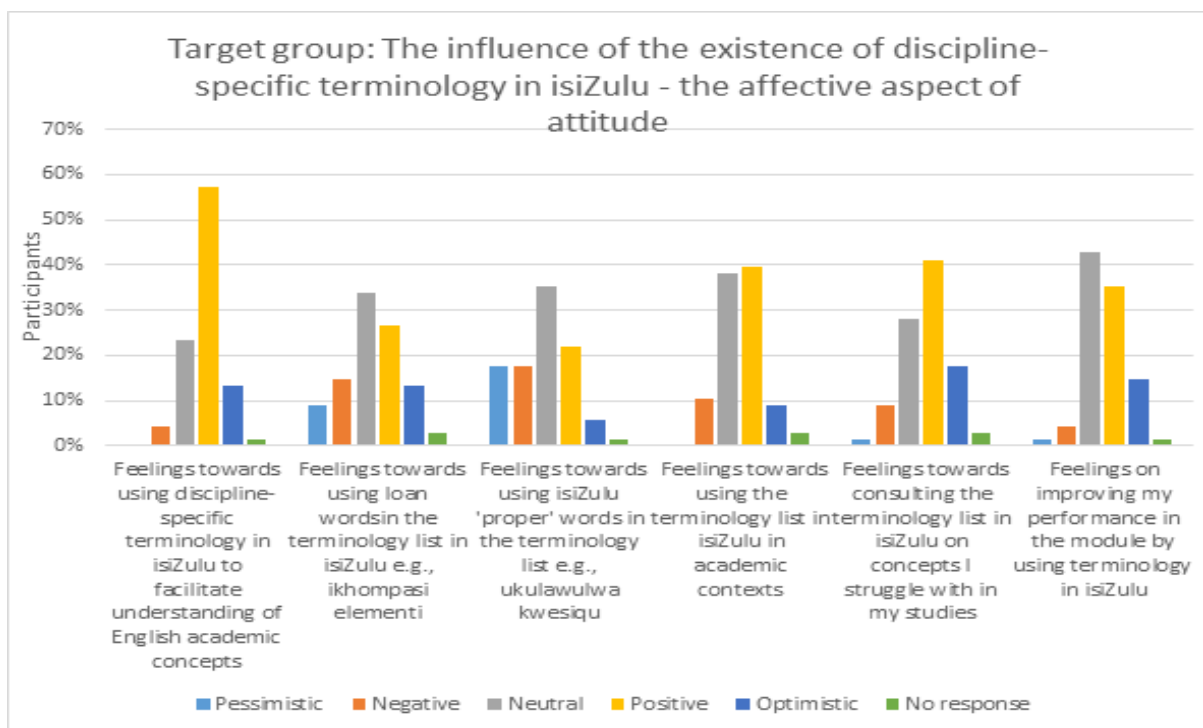


Figure 4.10: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the affective aspect of attitude

When asked about their feelings towards using discipline-specific terminology in isiZulu to facilitate an understanding of English academic terms, 4% indicate a negative attitude, ambivalent attitudes come in at 24%, a positive attitude totals 70%, and 1% gave no rating. The respondents indicating a positive attitude feel that the existence of discipline-specific terminology in isiZulu would facilitate the understanding of English academic terms.

Responses towards using loanwords in the terminology lists in isiZulu, for example, *ikhompasi elementi*, show that 24% indicate a negative attitude. These respondents do not feel that the use of loanwords in the terminology lists in isiZulu is of any benefit to isiZulu L1 students. The

respondents who gave a neutral response (34%) indicated ambivalence signifying mixed feelings on the use of loanwords. A total of 39% indicated a positive attitude and embraced the use of loanwords in the terminology lists.

Concerning using proper isiZulu words in the terminology lists, for example, *ukulawulwa kwesiqu*, a total of 36% indicate a negative attitude. The respondents who gave a neutral response (35%) indicated an ambivalent attitude. A total of 28% of the respondents gave a positive response indicating that they are receptive to the use of proper isiZulu words in the terminology lists.

When asked about their feelings towards using the terminology lists in isiZulu in academic contexts, 3% of the respondents gave no response. Ten percent indicated a negative attitude and 38% gave a neutral response. The respondents who gave positive and optimistic responses total 49%. These respondents have a positive feeling about the existence and the subsequent use of the terminology lists.

When asked about their feelings toward consulting the terminology list in isiZulu when faced with terms that they struggle with, 10% felt negative about consulting the terminology lists, and 28% provided a neutral response. Fifty-nine percent showed a positive attitude, thus indicating that they may benefit from the existence of discipline-specific terminology in isiZulu should they encounter challenging terms in their studies.

Concerning an improvement of performance in the module by using the terminology in isiZulu; 5% indicated a negative attitude, 43% indicated ambivalence, and 50% of the respondents indicated a positive attitude. Respondents with a positive attitude indicated that they are confident and optimistic that the use of discipline-specific terminology in isiZulu may improve academic performance.

I now present data from the control group.

4.3.2.1.2 Control group

The quantitative data is collated from $n=81$ questionnaire respondents in the control group. Figure 4.11 below presents the respondents' affective aspect of attitude towards the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu.

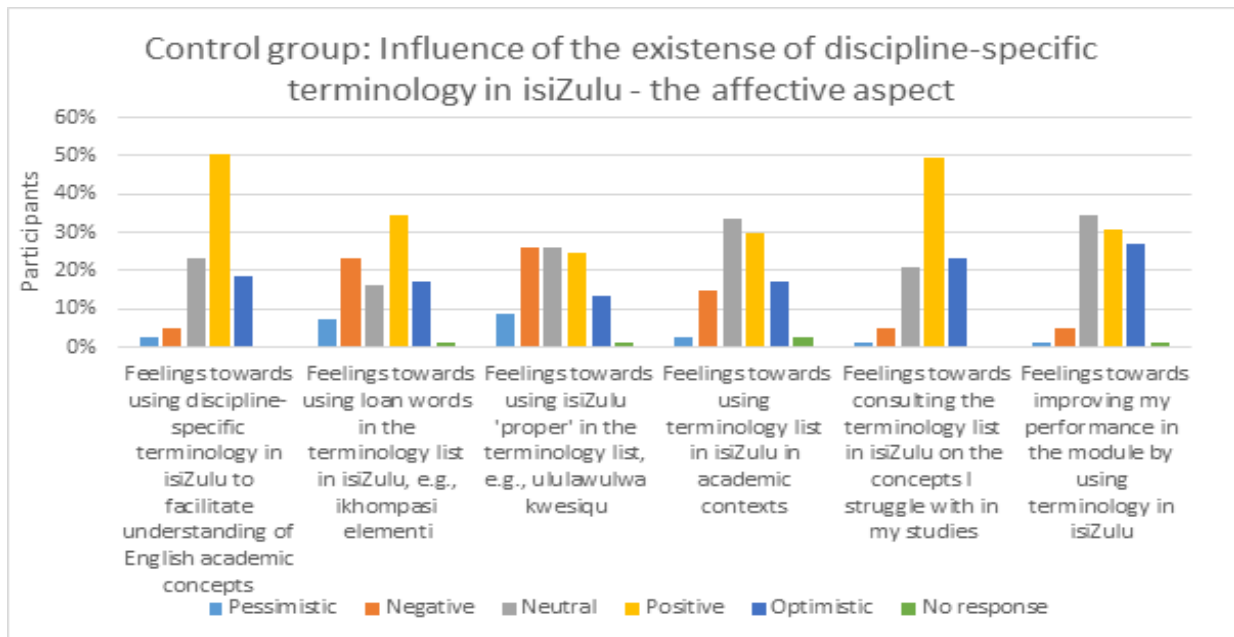


Figure 4.11: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the affective aspect of attitude

When asked about their feelings towards using discipline-specific terminology in isiZulu to facilitate an understanding of English academic terms, responses show that 7% of the respondents have a negative attitude, 23% indicated ambivalence, and 70% indicated a positive attitude. The respondents who indicated a positive attitude felt confident that the use of discipline-specific terminology in isiZulu may facilitate an understanding of the academic terms in English.

Responses towards using loanwords in the terminology list in isiZulu, for example, *ikhompasi elementi*, indicate that 30% of respondents have a negative attitude, 16% are neutral, and 1% did not respond. A total of 52% indicated a positive attitude. This positive attitude indicates a sense of confidence that using loanwords in the terminology list in isiZulu may benefit isiZulu L1 students.

Regarding their feelings towards using proper isiZulu words in the terminology list, for example, *ukulawulwa kwesiqu*, 35% have a negative attitude, 26% indicated ambivalence, and 39% indicated a positive attitude. One percent did not respond. The greater number of responses show that respondents are confident that the use of proper isiZulu words in the terminology list would be helpful.

With regard to their feelings towards using the isiZulu terminology list in academic contexts, the responses indicate that 17% have a negative attitude, 33% are ambivalent, and 47% have a

positive attitude.

In reference to consulting the terminology list in isiZulu regarding challenging terms in their studies, responses indicate that 6% of the respondents have a negative attitude, 21% indicate ambivalence, and 72% show a positive attitude. The majority of the respondents appeared to be confident that the use of discipline-specific terminology in isiZulu may benefit isiZulu L1 students when they encounter terms that they struggle with.

When asked about their feelings regarding the improvement of performance by using the terminology in isiZulu, responses show that 6% have a negative attitude, 35% indicate ambivalence, and 58% have a positive attitude.

For the target group and the control group, the responses on the affective aspect of attitude towards the use of isiZulu in academic contexts, as influenced by the existence of discipline-specific terminology, indicate some differences. Table 4.16 below presents the percentages on the affective aspect of attitude for both groups.

Table 4.16: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu – the affective aspect of attitude towards the use of isiZulu in academic contexts

Questions	Groups	Pessimistic	Negative	Neutral	Positive	Optimistic	No response
Feelings towards using discipline-specific terminology in isiZulu to facilitate understanding of English academic terms	Target group	0%	4%	24%	57%	13%	1%
	Control group	2%	5%	23%	51%	19%	0%
Feelings towards using loanwords in the terminology list in isiZulu, e.g., <i>ikhompasi elementi</i>	Target group	9%	15%	34%	26%	13%	3%
	Control group	7%	23%	16%	35%	17%	1%
Feelings towards using isiZulu ‘proper’ words in the terminology list, e.g., <i>ukulawulwa kwesiqu</i>	Target group	18%	18%	35%	22%	6%	1%
	Control group	9%	26%	26%	25%	14%	1%
Feelings towards using the terminology	Target group	0%	10%	38%	40%	9%	3%

list in isiZulu in academic contexts	Control group	2%	15%	33%	30%	17%	2%
Feelings towards consulting the terminology list in isiZulu on terms I struggle with in my studies	Target group	1%	9%	28%	41%	18%	3%
	Control group	1%	5%	21%	49%	23%	0%
Feelings on improving my performance in the module by using terminology in isiZulu	Target group	1%	4%	43%	35%	15%	1%
	Control group	1%	5%	35%	31%	27%	1%

The rates of the responses between the target group and the control group are compared. The pessimistic and negative responses indicated a negative attitude towards the use of isiZulu in academic contexts, despite the existence of discipline-specific terminology in isiZulu.

It is noted that the rates of responses indicating a negative attitude are lower than the rates of responses indicating a positive attitude. The negative rates are below the 20% mark in four out of six questions. The questions with the rates below 20% are when the respondents indicate their feelings towards the following:

- the use of discipline-specific terminology in isiZulu to facilitate understanding of academic terms,
- the use of the terminology list in isiZulu in academic contexts,
- consulting the terminology list in isiZulu on terms that they struggle with, in their studies, and
- improving the performance in the module by using the terminology in isiZulu.

In the questions referred to above, the respondents have negative feelings toward both the use of discipline-specific terminology and consulting such terminology.

The two questions with rates of responses above 20% and indicating a negative attitude are when the respondents indicated their feelings towards:

- the use of loanwords in the terminology list in isiZulu, for example, *ikhompasi elementi*, and

- the use of isiZulu ‘proper’ words in the terminology list, for example, *ukulawulwa kwesiqu*.

The target group of respondents had a negative feeling toward the use of loanwords at a rate of 24% while the control group of respondents expressed this negative feeling at a rate of 30%.

The target group of respondents had a negative feeling toward the use of proper isiZulu words at a rate of 36% while the control group of respondents expressed this negative feeling at a rate of 35%.

The rates of the responses that indicate that the existence of discipline-specific terminology in isiZulu has a positive influence are higher compared to the rates that indicate a negative influence. The positive and optimistic rates that respondents in both groups gave, when combined, are comparable in three of the six questions:

- the use of discipline-specific terminology in isiZulu to facilitate the understanding of academic terms – 70% in both groups,
- the use of the terminology list in isiZulu in academic contexts – 49% for the target group and 47% for the control group, and
- improving the performance in the module by using the terminology in isiZulu – 50% for the target group and 58% for the control group.

The three questions where there are notable differences in the ratings between the two groups are:

- the use of loanwords in the terminology list in isiZulu – 39% for the target group and 52% for the control group,
- the use of isiZulu ‘proper’ words in the terminology list – 28% for the target group and 39% for the control group, and
- consulting the terminology list in isiZulu on terms that they struggle with in their studies – 59% for the target group and 72% for the control group.

The rates of neutral responses indicating ambivalent attitudes towards the use of isiZulu in academic contexts despite the existence of discipline-specific terminology in isiZulu range between 16% and 43%. The responses indicated that the respondents are indifferent toward the existence of discipline-specific terminology in isiZulu and how this existence influences their

attitude towards the use of isiZulu in academic contexts. In all six questions, the target group of respondents indicated a higher rate of indifference compared to the control group (see Table 4.16).

In sum, both the target and control groups indicated receptive feelings on the use of discipline-specific terminology in isiZulu, in general. However, the ratings also indicated some reservations for a notable number of respondents, particularly in the target group, with regard to the use of loanwords and proper isiZulu in the terminology list. The respondents in the target group preferred the use of isiZulu “proper” words more than the use of loanwords. This difference is almost non-existent in the control group with 30% indicating a preference for loanwords and 35% indicating a preference for isiZulu “proper” words in the terminology list.

I now present qualitative data for both the target group and the control group.

4.3.2.2. Qualitative data

The excerpts that appear below are sourced from the focus group interview data.

4.3.2.2.1 Target group

The participants in the target group ($n=17$) expressed feelings indicating the extent to which their attitude towards the use of isiZulu in academic contexts is influenced by the existence of discipline-specific terminology in isiZulu. The feelings varied among the participants. Within the target group, there were participants who were receptive to the use of discipline-specific terminology in isiZulu, those who felt loanwords would be more beneficial than proper isiZulu terms, and those who felt they do not need discipline-specific terminology in isiZulu.

In excerpts (78-80) below, the participants expressed their receptive feelings towards the use of discipline-specific terminology in isiZulu.

(78) **A2:** I know that in other countries they do use their native languages to name things or to refer to certain things; that helps them to get a better understanding of what they are referring to. There is that kind of ‘poetic’ feel when native languages are used.

(79) **L2:** We get about ten unfamiliar terms daily. So, if there is no translation at all or terminologies in isiZulu that would mean doing extra research all the time in trying to understand each new term and that

will take time. If the terms are available in isiZulu as well, that would make things easier for the L1 speaking students.

- (80) **P7:** All right, now that we have the scientific terms in isiZulu now available, they will add onto the language and as a result isiZulu could be used in the world of science.

The participants whose excerpts appear above indicated a positive attitude towards the use of isiZulu in academic contexts generally and towards the use of discipline-specific terminology in particular. The participants pointed out how the use of native languages benefits the speakers of these languages, and how such use gives a good feeling and pride to the speakers. In this way, the native languages make their presence a reality in the world of science for the benefit of the speakers. These students will refer to the terminology list if they encounter terms in English that are challenging, thus, reducing research time.

There are participants in the target group who expressed a preference for loanwords instead of proper isiZulu terms. However, the participants indicated that the loanwords may be available in addition to proper isiZulu terms. The preference for loanwords is expressed in excerpts (81-83) below.

- (81) **P2:** I think the loanwords are helpful because as much as we can use isiZulu, but ‘hard core’ Zulu is incredibly challenging. Even when you explain things, we are used to English because deep Zulu is hard.
- (82) **L9:** It would help. The truth is that for some of us students, we understand content clearly if it is presented/explained in isiZulu our HL. Even as I looked at the questionnaire in the section where terms in isiZulu were; I could clearly understand most of those terms although I could not believe that I did not have a clue with a few of them. How can I not understand my own language! So, in general, isiZulu may assist some of us.
- (83) **A2:** However, even with the availability of loanwords, isiZulu ‘proper’ words should also be available to give users a choice.

In as much as the participants are receptive to the use of proper isiZulu terms, these may be inaccessible and may not be helpful for academic purposes. In these instances, the use of loanwords is preferred. In this way, the varying levels of proficiency in, and exposure to, isiZulu are catered for.

Notwithstanding the positive attitude, there are participants whose attitude is not influenced by this existence. The excerpts below are evidence of this.

- (84) **AT5:** In the terminology lists – there are terms and the translation in isiZulu; if one does not understand in isiZulu, why not go back to the English term, and try to understand it. Like AT4 says with ‘*umthambo wesihluzi*’ – and a person does not know what ‘*isihluzi*’ is, then that person must go back to English and try to understand that term in English rather than focusing on the term in isiZulu.
- (85) **A1:** It does not make so much of a difference. Sometimes isiZulu can be challenging with its bombastic words, and you just do not understand what the words mean. It would really be a problem if the terms are available in isiZulu only. For example, I do not know the term for ‘rafter’ in isiZulu, while somebody else may know the term and be comfortable with using that term.

Excerpts (84) and (85) expressed feelings of reservation about the existence of discipline-specific terminology in isiZulu. If an isiZulu speaker has limited exposure to isiZulu and does not understand the terminology in isiZulu, then the list offers no benefit. This is likely due to the terminology list providing the terms in English with isiZulu translation but without offering further explanation. The translations may be inaccessible. The two excerpts are evidence of the varying levels of exposure to isiZulu among isiZulu-speaking students.

I now present data from the control group.

4.3.2.2.2 Control group

The participants in the control group $n=11$ indicated varied feelings on the existence of discipline-specific terminology in isiZulu. The feelings ranged from support for the use of proper isiZulu terms to preference for loanwords to rejection of the use of terminology in isiZulu completely. In excerpts (86-87) below, the participants expressed their feeling of support:

- (86) **C2:** As it is, we all feel ‘forced’ to learn English, there is that pressure already. In addition, learning a content subject is like learning a new language, understanding terms, and understanding the content. Sometimes it is not really guaranteed that you will get it because not

everyone ends up understanding the terms in English. So, it is really a disadvantage. I think it will be a good thing if people can learn through their home languages.

- (87) **M4:** Well, the use of isiZulu ‘proper’ may have something to do with emotions. If we use a lot of loanwords, it may appear as if we.... We are not allowed to add isiZulu words onto English, we must keep it strictly English. Whereas in isiZulu we use a lot of loanwords from English; we do not use isiZulu ‘proper’. To me it seems like there is disrespect towards isiZulu, we do not want to know isiZulu ‘proper’ just like it happens with English.

In excerpt (86), the participant expressed the frustration encountered when learning through English and the challenge experienced in understanding the terms in English. The existence of discipline-specific terminology in isiZulu is a welcome change that mitigates this challenge. The existence of terminology and the use of terms in proper isiZulu brings honour to isiZulu as a language; a greater honour compared to the use of loanwords.

Nonetheless, there are participants who prefer the use of loanwords. This is evident in excerpts (88-90) below.

- (88) **CD6:** It is much better to use loanwords to accommodate everybody who uses the language from all backgrounds. If I recall the terms that were in the questionnaire – I could not understand a single one of them!
- (89) **CD9:** Developing or resuscitating ‘pure’ isiZulu terms will be really confusing. In as far as the terms included in the questionnaire, one was guessing the equivalent terms by drawing from the literal meanings of words; and the recall process was quite long. So, the use of loanwords would be much preferable since it will be at a level that we use on daily basis.
- (90) **PL1:** The loanwords are most welcome. If we were to use isiZulu ‘proper’; most people will be at a disadvantage – most people have lost touch of their home language already. This will make things difficult.

These participants agreed on the preference of loanwords over proper isiZulu terms. The existence of loanwords would bridge the gap across the varied levels of proficiency among isiZulu L1 speakers as they are part of everyday language use. In excerpts (88) and (89) the

participants mention how they found the terms in isiZulu in the questionnaire inaccessible. It appears as if isiZulu L1 speakers are losing touch with isiZulu as a language. For this reason, loanwords are more welcome in the terminology list.

Although there is support for the use of terminology in isiZulu either as proper isiZulu terms or as loanwords, there are participants who do not welcome the use of terminology in isiZulu at all. Excerpts (91-92) below give evidence.

(91) **CD2:** Some terms just cannot be used across languages – the grammar construction (in English) does not allow it; hence the distortion. So, it is better to stick to English. Rather think of alternative terms instead of changing the language to avoid confusion. Well, it is not easy to incorporate isiZulu. In all the subjects/courses we do; there are English terms some of which are derived from Latin, others from Greek – terms developed by early scientists who were making discoveries. If you try to incorporate isiZulu, you will lose the essence of the term and even the grammar may be distorted.

(92) **M6:** I find isiZulu on its own hard, and of course it would just be meaningless to learn in isiZulu whilst you would be examined in English because isiZulu have extraordinarily strong words sometimes not easy to translate, so let us stick to English because we are used to it now.

In these excerpts, the participants expressed how their attitude towards the use of isiZulu in academic contexts is not influenced by the existence of discipline-specific terminology in isiZulu. The terminology may lead to confusion and the terms in isiZulu may account for the distortion of English grammar. This may confuse isiZulu L1-speaking students instead of assisting them. Although in excerpt (91) the participant acknowledged that English has borrowed and developed terms from other languages, for him, this was unacceptable in the case of isiZulu. The concern is centred on the level of difficulty of isiZulu as a language. In addition, it may not be possible to find terminology in isiZulu that is equivalent in meaning to the terms in English. For these reasons, the participants felt that the status quo of English being the main MoI needs to be sustained. The two participants indicated a negative attitude towards the use of isiZulu in general and the discipline-specific terminology in isiZulu.

I shall now address the behavioural aspect of attitude as influenced by the existence of discipline-specific terminology in isiZulu.

4.3.3 The behavioural aspect of attitude

The deductions I make are based on the responses to seven questions in section four of the questionnaire (see Table 4.14 above). I present the quantitative data per group and thereafter the qualitative data per group.

4.3.3.1 Quantitative data

Data sourced from the questionnaires are presented below.

4.3.3.1.1 Target group

The quantitative data is collated from $n=68$ questionnaire respondents. The respondents were given five options to choose from: never, rarely, occasionally, regularly, and always. The responses ‘never’ and ‘rarely’ indicate a negative attitude, the response ‘occasionally’ indicates ambivalence, and the responses ‘regularly’ and ‘always’ indicate a positive attitude. Figure 4.12 below presents the respondents' behavioural aspect of attitude toward the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu.

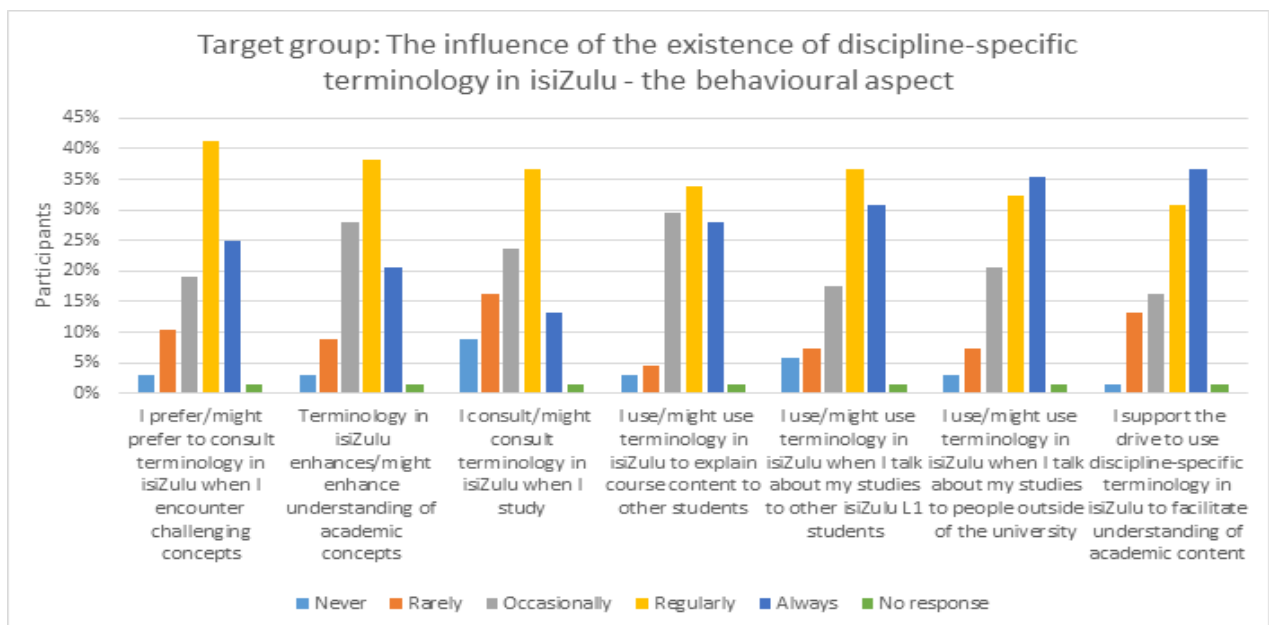


Figure 4.12: Target group: The influence of the existence of discipline-specific terminology in isiZulu – the behavioural aspect of attitude

When asked to rate the frequency at which they prefer/might prefer to consult the terminology list in isiZulu when they encounter challenging terms; the responses indicating a negative attitude total 13%, those indicating ambivalence total 19%, those indicating a positive attitude totals 66%, and 1% gave no rating. The respondents who indicated a positive attitude were determined to consult the terminology list in isiZulu if they encounter challenging terms. This behaviour indicated the level of confidence that the respondents have towards the terminology list in isiZulu.

The responses, in terms of the isiZulu terminology, enhancing or maybe enhancing, the understanding of academic terms, reveal a negative attitude of 12%, ambivalence at 28%, and those indicating a positive attitude total 59%. The positive attitude response rate shows the level of confidence that respondents have in the isiZulu terminology enabling and enhancing an understanding of the academic terms. These respondents may use the discipline-specific terminology in isiZulu on a regular or consistent basis.

When asked whether they consult or might consult the terminology in isiZulu when they study; 25% indicated a negative attitude, 24% indicated ambivalence, and 50% of the respondents indicated a positive attitude. The positive attitudinal response rate shows how much the respondents need the terminology in isiZulu.

In response to whether they use/might use the terminology in isiZulu to explain the course content to other students, responses indicating a negative attitude total 7%, 29% indicated ambivalence, and 62% indicated a positive attitude. Those respondents who indicate a positive attitude welcome the possibility of using the terminology in isiZulu when explaining module content to other students.

When asked if they use/might use the terminology in isiZulu when they talk about their studies to other isiZulu L1 students, 13% indicated a negative attitude, 18% indicated ambivalence, and 68% indicated a positive attitude. The respondents who indicate a positive attitude show confidence in the use of the terminology particularly if they talk about their studies to other isiZulu L1 students.

Concerning whether the respondents use/might use the terminology in isiZulu when they talk about their studies to people outside of the university, 10% indicated a negative attitude, 21% indicated ambivalence, and 67% indicated a positive attitude. Using the terminology in isiZulu when talking about studies to people outside of the university is an indication of confidence and pride in the availability of the terminology.

With regards to respondents supporting/possibly supporting the drive to use discipline-specific terminology in isiZulu to facilitate the understanding of academic content, 14% indicated a negative attitude and 16% indicated ambivalence. Sixty-eight percent indicated a positive attitude and therefore, enthusiasm in supporting this drive.

I now present data from the control group.

4.3.3.1.2 Control group

Data is collated from $n=81$ questionnaire respondents. Figure 4.13 below presents the responses on how the existence of discipline-specific terminology in isiZulu influences the behavioural aspect of the respondents' attitudes towards the use of isiZulu in academic contexts.

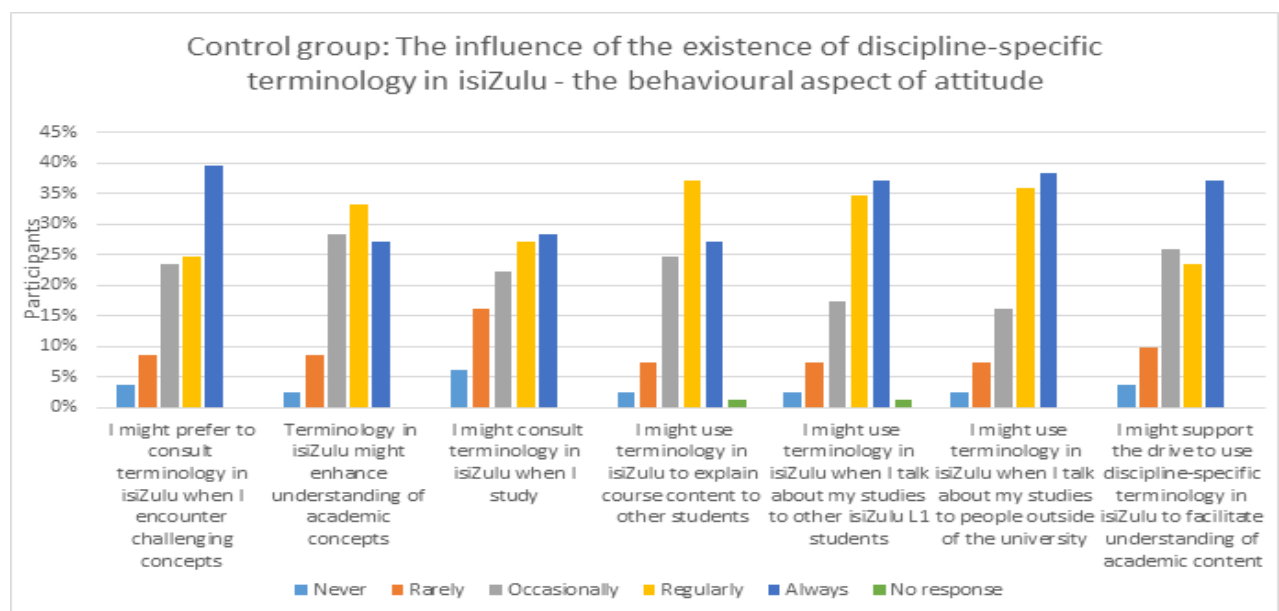


Figure 4.13: Control group: The influence of the existence of discipline-specific terminology in isiZulu – the behavioural aspect of attitude

When the respondents were asked if they might prefer to consult the terminology in isiZulu when they encounter challenging terms, 13% indicated a negative attitude and have no or minimal confidence in consulting the terminology when they encounter challenging terms. A total of 23% of the respondents indicated ambivalence in this regard. These respondents might consult the terminology in isiZulu when they encounter challenging terms but on a limited basis. Respondents who indicated a positive attitude total 65%. For these respondents, the availability of the terminology in isiZulu may mitigate challenges in understanding discipline-specific terms.

In relation to whether the terminology in isiZulu might enhance the understanding of academic terms, a total of 11% indicated a negative attitude, 28% were ambivalent, and 60% indicated a positive attitude. The respondents who indicated a positive attitude believe in the enabling capacity of the terminology in isiZulu for the understanding of academic terms.

When asked if they might consult the terminology list in isiZulu when they study, 22% of the respondents indicated a negative attitude, 22% indicated ambivalence, and 55% indicated a positive attitude. The positive attitudinal response rate indicates the respondents' confidence in consulting the terminology list.

In terms of using the terminology in isiZulu to explain the module content to other isiZulu L1 students, respondents who indicated a negative attitude total 9%, 25% indicated ambivalence, and 64% indicated a positive attitude. The respondents who indicated a positive attitude are confident in the terminology and are prepared to use it when explaining the module content to other isiZulu L1 regularly or all the time.

In response to being asked if they might use the terminology when they talk about their studies to other isiZulu L1 students, 9% indicated a negative attitude, 17% indicated ambivalence, and 72% indicated a positive attitude.

With regard to whether they might use the terminology in isiZulu when they talk about their studies to people outside of the university, 9% indicated a negative attitude, 16% indicated ambivalence, and 74% indicated a positive attitude.

When the respondents were asked if they support the drive to use discipline-specific terminology in isiZulu to facilitate the understanding of academic content, 14% indicated a negative attitude, 26% indicated ambivalence, and 60% indicated a positive attitude. Those indicating a positive attitude are confident in the use of the discipline-specific terminology in isiZulu and they support the drive for the use of this terminology.

For the target group and the control group, the responses on the behavioural aspect of attitude towards the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology, do not exhibit extensive differences. Table 4.17 below presents the percentages on the behavioural aspect of attitude on the existence of discipline-specific terminology in isiZulu for both groups.

Table 4.17: Target and control groups: The influence of the existence of discipline-specific terminology in isiZulu – the behavioural aspect of attitude towards the use of isiZulu in academic contexts

Questions	Groups	Never	Rarely	Occasionally	Regularly	Always	No response
I prefer/might prefer to consult the terminology list in isiZulu when I encounter challenging terms	Target group	3%	10%	19%	41%	25%	1%
	Control group	4%	9%	23%	25%	40%	0%
Terminology in isiZulu enhances/might enhance understanding of academic terms	Target group	3%	9%	28%	38%	21%	1%
	Control group	2%	9%	28%	33%	27%	0%
I consult/might consult the terminology list in isiZulu when I study	Target group	9%	16%	24%	37%	13%	1%
	Control group	6%	16%	22%	27%	28%	0%
I use/might use the terminology in isiZulu to explain course content to other students	Target group	3%	4%	29%	34%	28%	1%
	Control group	2%	7%	25%	37%	27%	1%
I use/might use the terminology in isiZulu when I talk about my studies to other isiZulu L1 students	Target group	6%	7%	18%	37%	31%	1%
	Control group	2%	7%	17%	35%	37%	1%
I use/might use the terminology in isiZulu when I talk about my studies to people outside of the university	Target group	3%	7%	21%	32%	35%	1%
	Control group	2%	7%	16%	36%	38%	0%
I support/might support the drive to use discipline-terminology in isiZulu to facilitate understanding of academic content	Target group	1%	13%	16%	31%	37%	1%
	Control group	4%	10%	26%	23%	37%	0%

In the three categories, negative, ambivalent, and positive attitudes, the response rates between the two groups do not exceed a 10% difference across all seven questions. It is noted that the rates of responses indicating a negative attitude towards the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu are lower when compared to the rates of responses that indicate a positive attitude.

The rates that indicate the negative attitude are evidence that the behaviour of the respondents in both groups is not influenced by the existence of discipline-specific terminology in isiZulu. These rates range from 1% to 16% across the seven questions. The question with the highest rate of negative responses required the respondents to indicate if they consult/might consult the terminology list in isiZulu when they study. The negative responses were 25% for the target group and 21% for the control group. The probability that the respondents may consult the terminology for study purposes is limited. Yet, the same respondents may consult the terminology list to fulfil other purposes, for example, when encountering challenging academic terms, for enhanced understanding, to explain course content to other students, to talk about their studies with other students and with people outside of the university, and to support the drive for the use of this terminology. In all these six other questions, the rates of the negative responses are lower compared to the question on consulting the terminology list for study purposes.

The rates of the responses that indicated a positive attitude towards the use of isiZulu, in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu, were highest when compared to rates of responses indicating a negative or ambivalent attitude. The positive attitude is constituted by the “regularly” and the “always” response rates. These two rates combined in each of the six questions range from 50% to 74%. The respondents indicated a high probability of using the discipline-specific terminology list when they encountered challenging terms, to enhance their understanding of academic terms when they study, when they explained course content to other L1 students, and when they talked about their studies to other students and outside of the university. They supported the drive to use this terminology list to facilitate the understanding of academic content. For these respondents, the existence of discipline-specific terminology in isiZulu influences their attitude positively towards the use of isiZulu in academic contexts.

I now present qualitative data for both the target group and the control group.

4.3.3.2 Qualitative data

Data sourced from the focus group interviews are presented below.

4.3.3.2.1 Target group

The participants in the target group ($n=17$) expressed feelings that indicate the extent to which their behavioural aspect of attitude, towards the use of isiZulu in academic contexts, is

influenced by the existence of discipline-specific terminology in isiZulu. The intentions and/or probabilities of using the terminology in isiZulu are varied among the participants. In excerpts (93-95) below, the participants express their intentions to use the terminology. These intentions indicate a positive attitude.

- (93) **AT3:** What can I say, it may help in other instances wherein you come across a term like ‘fascia’ which you come across often but have no understanding of its meaning. At some point, you may wish to refer to the terminology list in isiZulu to get a clear understanding of such a term. Then one may consult the terminology list.
- (94) **P2:** I had a look at the ones in the questionnaire; I saw ‘absorb’ – a common term. When I looked at the isiZulu equivalent ‘*munca*’ I could visualise the act. So, it may not be enough to look at the English term, you may need to visualise it. If you have access to an English term and an equivalent in isiZulu, once you have looked at both, particularly the term in isiZulu, there is an image of the term that is created in your mind because isiZulu is a familiar language.
- (95) **L9:** So, at the back of your mind, you are learning in English, learning terms in English; then you refer to the resource in isiZulu solely to get an understanding of a particular term.

The participants expressed how the terminology list may be of help when they encounter challenging terms. Even though English is a primary MoI, the participants may consult the isiZulu terminology list solely to enhance their understanding of academic terms. The terminology in isiZulu draws from the sense of sight to elucidate the meaning of the term. The use of the terminology thus becomes an advantage and assists the speaker of isiZulu understand the terms better. In addition to the appreciation and the expressed intention to use the terminology in isiZulu, the participant in excerpt (96) below expressed hope that the terminology list becomes more comprehensive.

- (96) **A2:** The university should indeed continue with the initiative. However, I feel that the initiative should be implemented thoroughly. It should cover all aspects – the dictionary/glossary of terms (which I first knew of when I participated in the survey), informing students about available resources, offering tutorials in isiZulu – all aimed at

bridging the gap and eradicating the language barrier. I think these other support measures will be made available as the initiative continues. If the initiative indeed continues, I wish that it be implemented more thoroughly.

The participant felt that the available terminology lists have not been promoted and publicised enough. In addition, the participant expressed a desire to have the terminology list supplemented by the offering of tutorials in isiZulu.

Despite the support for the availability of discipline-specific terminology, there are participants who expressed ambivalence towards this availability. Excerpts (97-98) below are evidence of this ambivalence.

(97) **L9:** I agree, isiZulu should be learnt and preserved, but the reality is that, as a way forward, even people who have learnt isiZulu as a home language use English most of the time. Moreover, some words/terms in isiZulu are as challenging to them as they are to all others who learnt isiZulu as an additional language.

(98) **P4:** The use of isiZulu to understand module terms is well supported to a lesser extent as course terms internationally are in English and to compete globally one must be well versed with the medium of the English language.

In excerpt (97), the participant supported the use of the terminology in isiZulu (within the ambit of academic language), however, he expressed a concern that the terminology may not be as accessible to all isiZulu L1 speaking students; those who learnt isiZulu at Home Language level (HL) and those who learnt isiZulu at First Additional Language level (FAL). If the terms in the terminology list in isiZulu are challenging to decode, they may not be as helpful as anticipated. In excerpt (98), the participant expressed concern that the terms in the isiZulu terminology list do not have international recognition in the same way that the terms in English have. For this reason, his support for the use of the terminology in isiZulu is limited. While there are participants who indicated some level of support for the use of discipline-specific terminology, there are participants who showed no support. Excerpts (99-100) are evidence of this.

(99) **AT4:** Yes, I feel this applies to a person who has no understanding of the term in English. Because if I understand what a 'hip-joint' is; and I

also know that ‘hip-joint’ is referred to as ‘inyonga’ in isiZulu – I do not see the need of going to the term list and using it.

- (100) **A2:** I think it is an innovative idea. However, this initiative is not helping/necessary in any way currently because we never use these terms in our studies. We are not taught these terms and we do not use them in writing essays or in assessments. Currently, in the industry, even on Ted Talks; nobody uses terms in isiZulu. For now, it is useless, although it is a great idea but currently it is not helping anybody.

The terminology list in isiZulu may not be of help to L1 speaking students if the student is proficient in both isiZulu and English, as then, consulting the terminology list may be deemed pointless. In excerpt (100), the participant appreciated the availability of the terminology in isiZulu, however, since this terminology is not used during lectures, during assessments, in the industry or even on widely used internet sites, its availability is purposeless.

I now present data from the control group.

4.3.3.2.2 Control group

The participants in the control group $n=11$ indicated varied intentions regarding the use of discipline-specific terminology in isiZulu. In excerpts (101-103) below, the participants expressed a positive intention to use the terminology list.

- (101) **PL2:** Yes, I would most possibly use it. As I have mentioned before, some words are self-explanatory; if you know the word you know the explanation. This will make things easy for the students.
- (102) **C2:** For me when I am in class it does happen that I do not understand an explanation given in English but when I get an explanation in isiZulu, I get an understanding; and I realise that it is a familiar term. So, it is better to jot the isiZulu version down to refer to it later and you can recall the English term because that is the language we are using.
- (103) **CD9:** Making an example of ‘global financial institutions’ he said that one has to first understand what this term means. When he asked us if we know what it means, no one answered. He then explained to us in isiZulu what it means and what it entails, then we understood. What

I am trying to say is that we do try to put effort into our work; but the effort may not be good enough. This is because of limited time – we cannot afford to disintegrate every term that challenges us in English with the huge loads of work that we have in all the modules that we are registered for. So, if there is a readily available resource in isiZulu, one would refer to the resource and immediately resume studying, a lot of time will be saved and thus we could study more effectively.

In excerpt (101), the participant's positive anticipation of using the terminology in isiZulu was based on the perceived self-explanatory nature of the terms in isiZulu. This would assist L1 students in understanding the module content. Even though English remains the primary MoI, the availability of the terminology in isiZulu to describe the discipline-specific terms would be useful in obtaining and enhancing the understanding of academic terms timeously for isiZulu L1 students.

Among the participants in the control group, the three participants in excerpts (104 -106) expressed a preference for loanwords in isiZulu over the terminology in proper isiZulu.

(104) **PL1:** English will always be there. Also, with loanwords, a bit of both English and isiZulu is kept as these words are in-between the two languages. In this way, we keep English and can communicate with other people while we also get an understanding of core terms through loanwords in isiZulu.

(105) **CD4:** Almost all materials that are used here at varsity are of Western origin and scientific materials; so, using 'pure' terms in isiZulu for these materials will be really confusing to people. Loanwords are thus more preferred as people may identify with these easily, e.g., 'book' – '*ibhuku*'

(106) **CD2:** On the same note, the use of loanwords will be a beacon of hope to those who have dropped out of the school system due to challenges with English. Such people will be encouraged to continue with education since terminology will be more accessible with loanwords.

The three participants were not against the existence of discipline-specific terminology in isiZulu; however, they expressed a preference that the terminology be in the form of loanwords.

Loanwords mediate between the two languages, assisting isiZulu L1 students in understanding the academic terms while not losing the essence of the terms in English. The use of loanwords will avoid unnecessary confusion about the terms. The students will easily associate the loanword in isiZulu with its equivalent English term. Loanwords would have assisted in the retention of students within the education system if they had been in use.

Over and above the appreciation for the existence of discipline-specific terminology in isiZulu and the preference for loanwords in isiZulu, Participant CD6 in excerpt (107) below aspires for an elaboration of the existing terminology in isiZulu.

(107) **CD6:** Even if it is not a textbook in isiZulu that will emulate the English one; even a video on YouTube in isiZulu would help. A video would even be more beneficial since students will be listening to it – which is more effective than just reading. Reading is, at most times, daunting. For me, making such a resource available will be of huge benefit to thousands of students.

The use of discipline-specific terminology should be extended beyond the available lists. The terms that are presented in isiZulu may be presented as video clips on online platforms such as YouTube. IsiZulu L1 students may benefit more from watching and listening to video clips than from reading the terminology in isiZulu.

Despite all the positive responses regarding the existence of discipline-specific terminology in isiZulu Participant M6, excerpt (108) below, expressed caution.

(108) **M6:** It is a worthy course. It will assist other students to perform better but there will be a disadvantage at the same time. These students will be in a ‘comfort zone’ and end up relaxing. If, as an individual, you know/are aware that English is not your strongpoint; having to perform in a context where other students use their home language (English); the former must work hard to bridge the gap that exists between him/herself and the counterparts (English HL). But if we let students know that they have an option of using isiZulu while they may not understand certain area of their academic work – you are placing those students in a comfort zone. The results will be disastrous. Yes, this may assist them although not to a significant

extent since English is still the main language of learning and teaching (LoLT) and assessment/examination.

The existence of discipline-specific terminology in isiZulu is an innovative idea, however, there is a concern that the benefits from the use of this terminology are short-lived. The understanding of the academic terms that the students gain may not extend into assessments in English as the resource will not be available during assessments. If English remains the primary language, particularly in assessments, the benefits from the use of the terminology list in isiZulu may not be realised in a consistent manner.

The participants in the control group show that their behaviour is influenced by the existence of discipline-specific terminology in isiZulu to varying degrees. The behaviour ranges from positive intentions to use the terminology list, to elaborate use of the terminology, and to exercising caution on the use of the terminology in isiZulu.

4.3.4 Summary

Research question 2 sought to elicit the extent to which the existence of discipline-specific terminology in isiZulu influences the attitudes isiZulu L1 students have towards the use of isiZulu in academic contexts. The research question is sub-divided into three dimensions, the cognitive, the affective and the behavioural aspects of attitude. The data collected from both the target and control groups indicate that the attitudes of isiZulu L1 students are influenced by the existence of the terminology in isiZulu to varying degrees. Below, I present a brief review of the quantitative and qualitative data.

4.3.4.1 Quantitative data

The responses from the target group closely resemble those from the control group, in all three aspects of the respondents' attitudes; cognitive, affective, and behavioural aspects (see Tables 4.15, 4.16 and 4.17 above).

In the cognitive aspect of attitude, indicating the extent to which the respondents are influenced by the existence of discipline-specific terminology in isiZulu, a total of the percentages that represent the responses are presented in Table 4.18 below. The sum totals indicate the respondents' positive attitudes, as the highest, followed by the respondents' ambivalent attitudes, and then negative attitudes with the lowest rates of the three categories across the four questions.

Table 4.18: The sum totals of the respondent’ responses: The influence of the existence of discipline-specific terminology in isiZulu – the cognitive aspect of attitude

Questions	Positive attitude	Ambivalence	Negative attitude
The terminology list in isiZulu could/facilitate(s) a clearer understanding of the academic terms	114	63	22
Translations in the terminology list in isiZulu could be/are easy to understand	114	36	23
Understanding of discipline-specific terminology in isiZulu could/will enhance academic performance	139	47	12
IsiZulu L1 students would/stand to benefit from the use of the discipline-specific list in isiZulu	134	56	8

The rate at which the respondents positively think and believe that the terminology list in isiZulu could/facilitate(s) a clearer understanding of the academic terms is highest at (114), compared to the rate for ambivalence (63), and the rate for the negative attitude (22). The rate at which the respondents think and believe that the translations in the terminology list in isiZulu could be/are easy to understand is highest for a positive attitude (114), compared to an ambivalent attitude (36), and negative attitude (23). The rate at which the study respondents think and believe that the understanding of discipline-specific terminology in isiZulu could/will enhance academic performance is highest for positive attitude (139), followed by the rate for ambivalent attitude (47), and negative attitude (12). The rate at which the respondents think and believe that isiZulu L1 students would/stand to benefit from the use of the discipline-specific terminology list in isiZulu is highest for positive attitude (134), compared to ambivalent attitude (56) and negative attitude (8).

In sum, most of the study respondents indicated a positive cognitive aspect of attitude on the influence of the existence of discipline-specific terminology in isiZulu. These respondents indicated confidence in the terminology in isiZulu and indicate that it is beneficial for isiZulu L1 students. The response rates indicating an ambivalent attitude in this regard, are substantial. These respondents showed uncertainty and were not convinced of the benefits that isiZulu L1 students may reap from the discipline-specific terminology. The response rates that indicate a negative attitude, are low. These respondents did not believe in the discipline-specific terminology in isiZulu; its existence did not influence their thinking positively.

The affective aspect of attitude, which indicates the influence of the existence of the discipline-specific terminology in isiZulu, had varied responses (see Table 4.16 above). Positive feelings and attitudes towards the use of the terminology in isiZulu are shown in terms of facilitating the understanding of English academic terms, using the terminology in academic contexts,

consulting the terminology when encountering challenging terms, and improving performance in a module using the terminology. There is also a noted preference for loanwords.

There is a higher positive response rate towards the use of loanwords compared to the use of the terminology in proper isiZulu. Likewise, there is a higher negative response rate on feelings towards the use of proper isiZulu words compared to the use of loanwords in the terminology list. The respondents indicated positive feelings towards discipline-specific terminology in isiZulu generally, but with a vested interest in the use of loanwords. The rate of ambivalence is noted, indicating that there is a level of uncertainty in the use of this terminology.

The behavioural aspect of attitude that the respondents exhibit on the existence of discipline-specific terminology in isiZulu is rated consistently across the seven questions that solicit this information. The respondents indicated a positive attitude consistently on their preference to consult the terminology when they encountered challenging terms, to enhance understanding, and when they explained the course content to other students or discussed their studies with other isiZulu L1 students and to people outside of the university. They also support the drive for the use of discipline-specific terminology in isiZulu to facilitate understanding of academic content.

Although there are respondents who indicated a negative attitude toward the use of the terminology in isiZulu, the response rates are lower compared to the positive attitude rates. The rate of ambivalence is notable across all seven questions. These responses indicate that the respondents were uncertain or indecisive concerning the use of the discipline-specific terminology in isiZulu.

I now present a brief review of the qualitative data.

4.3.4.2 Qualitative data

The data that presents the cognitive, the affective and the behavioural aspects of attitude that are influenced by the existence of discipline-specific terminology in isiZulu reflects varied thoughts, feelings, and intentions. In general, the respondents indicated a positive attitude, and they think that the terminology in isiZulu enhances the understanding of academic terms and assists them in performing better academically. Moreover, the respondents expressed positive intentions to consult the terminology when they study. There are, however, those who were ambivalent toward the use of the terminology in isiZulu. This emanated from the varied exposure to isiZulu as an academic language. For some respondents, the terminology in isiZulu

may be challenging to decode. As a result, these respondents preferred the use of loanwords over the use of terms in isiZulu ‘proper’. There are a few respondents who expressed a negative attitude towards the use of discipline-specific terminology in isiZulu. The main concern that they raised was the status of English as the primary language of learning, teaching, and assessment as well as the international recognition of English across academic fields. This, the respondents felt, was a disadvantage to the users of isiZulu for academic purposes. Therefore, they did not believe the use of discipline-specific terminology in isiZulu will be of benefit to isiZulu L1 students.

In sum, the respondents in the current study indicated a positive attitude towards the use of isiZulu in academic contexts as influenced by the existence of discipline-specific terminology in isiZulu.

I now address research question 3.

4.4 Correlations among the three aspects of attitude in isiZulu L1 speakers towards the use of isiZulu in academic contexts, particularly discipline-specific terminology in isiZulu

The data to address research question 3 is based on the qualitative data sourced from research question 1 and research question 2. Research question 3 investigates the evidence, or lack thereof, of a correlation among the three aspects of attitude in isiZulu L1 students towards isiZulu, particularly discipline-specific terminology in isiZulu. The participants share the responses to each of the three aspects of attitude: cognitive, affective, and behavioural. The three aspects are compared using the 3-D model of attitude as proposed by Jain (2014: 7) (see chapter 2, §2.2.2). According to the 3D model of attitude, eight combinations of attitudinal responses are possible across the cognitive, affective, and behavioural aspects of attitude. The eight attitudinal response combinations are:

- Positive/Positive/Positive (P/P/P)
- Positive/Positive/Negative (P/P/N)
- Positive/Negative/Positive (P/N/P)
- Positive/Negative/Negative (P/N/N)
- Negative/Negative/Negative (N/N/N)

- Negative/Positive/Positive (N/P/P)
- Negative/Negative/Positive (N/N/P)
- Negative/Positive/Negative (N/P/N)

The excerpts from the interview sessions are used in the categories of attitudinal responses. The criteria to categorise each excerpt are based on the lexical choices in the propositions expressed by the interview participants. Each categorisation was double coded for validity purposes.

Below I present data from the target and control groups.

4.4.1 Target group

The participants in the target group ($n=17$) expressed their views on what they believe, how they feel and what they intend to do, with reference to the use of isiZulu in academic contexts as well as on the existence of discipline-specific terminology in isiZulu. The responses were cross-referenced per participant that responded to all three aspects of attitude.

Out of the eight attitudinal response combinations, five are evident from the participants in the target group. Eight participants indicated a P/P/P attitudinal response, two participants indicated an N/N/N response, another two participants indicated a P/P/N response, one indicated a P/N//N response and a further participant that indicated a P/N/P attitudinal response. Three participants did not contribute across the three aspects. The cross-references of each of these five attitudinal response combinations are collated and presented below. In each entry, where it applies, the continuation of the excerpt that does not fit the category is placed within brackets and shaded in grey.

Positive/Positive/Positive (P/P/P)

Participant AT3	Cognitive aspect: The same applies in Anatomy, for instance when you use a compound term like ‘flexor carpi radialis’ – if I do not know what each of the three terms mean; once I forget one of them e.g., carpi – I forget the entire term. However, if I have an understanding and may have an equivalent term in isiZulu, I could recall the	Affective aspect: (What can I say, it may help in other instances wherein you come across a term like ‘fascia’ which you come across often but have no understanding of its meaning.) At some point you may wish to refer to the terminology list in isiZulu to get a clear	Behavioural aspect: Then one may consult the terminology list. (We would have a resource to refer to in trying to understand the terms we struggle with.) We may use this together with the lecture notes/textbooks in English.	3D outcome = P/P/P
-----------------	---	--	--	--------------------

	term with ease especially when writing.	understanding of such a term.		
--	---	-------------------------------	--	--

Participant AT3 believed that the existence of discipline-specific terminology in isiZulu may mitigate in instances where there are challenging compound terms that need decoding. She thought that it was possible to forget such terms or a part of such terms. In an instance where an equivalent of a term, such as ‘flexor carpi radialis’, is available in isiZulu, the recall process in isiZulu may be faster even if the writing remains in English. She expressed hope in the availability of this terminology in isiZulu as a reference resource. Therefore, Participant AT3 expressed the possibility of referring to a resource in isiZulu, in her studies.

Positive/Negative/Negative (P/N/N)

Participant AT4	Cognitive aspect: So, if you are able translate it into isiZulu then you will be able to understand what the text is about even though I will write in English because I have used my language to try and understand so it becomes easier to write in English using my understanding.	Affective aspect: I feel like that will be double learning. It seems like one will be starting afresh amid the massive content we have to go through in Anatomy. (So, if you consult the resource in isiZulu and find it not helpful; you then go back to the English version – a lot of time is wasted in the interim.)	Behavioural aspect: Because if I understand what a ‘hip-joint’ is; and I also know that ‘hip-joint’ is referred to as ‘inyonga’ in isiZulu – I do not see the need of going to the term list and using it.	3D outcome = P/N/N
-----------------	--	---	---	--------------------

Participant AT4 expressed a positive belief that the use of isiZulu assists in understanding the module content presented in English. Such module content may be translated into isiZulu for better clarity and translated back into English as one continues studying, for example, when writing. In as much as Participant AT4 thought that the use of isiZulu may be helpful, she did not feel the same way towards the existence of terminology in isiZulu. She felt that exposure to this terminology may be cognitively demanding, time-consuming and frustrating. The participant did not express intention to refer to the terminology, particularly if the terms in English are not challenging for her and if she knows the equivalent term in isiZulu. In such a case, the availability of the resource in isiZulu may be of no help.

Positive/Positive/Negative (P/P/N)

Participant L6	Cognitive aspect: I could understand a lot of the terms in isiZulu in the questionnaire compared to the English version. Although, as L9 said, I	Affective aspect: I also support the idea of having a resource in isiZulu.	Behavioural aspect: I try to use English and understand in English; I go over the content as many times as necessary until I understand it. I am	3D outcome = P/P/N
----------------	---	---	---	--------------------

	could not understand all of them, but it was only a few that I did not understand in isiZulu.		reluctant to use isiZulu as (I think it may confuse me), so, I do not use it.	
--	---	--	---	--

Participant L6 believed that the discipline-specific terminology, particularly, the terms that appeared in the study questionnaire were understandable. This is a positive expression of confidence in favour of the terminology in isiZulu. In the same light, Participant L6 expressed a positive feeling about the availability of the terminology, however, also expressed no intention of using isiZulu in academic contexts. The participant prefers to use English repeatedly until clarity is achieved instead of using isiZulu.

Positive/Negative/Positive (P/N/P)

Participant P11	Cognitive aspect: IsiZulu helps me to understand certain things, for instance, when I study the notes – the use of isiZulu words helps me to understand what I read better.	Affective aspect: So, if we make isiZulu a language of learning/LoLT, it will appear as if we are prioritising a certain group of people. This will lead to most people not supporting the move since it only affects a small group and prioritising isiZulu-speakers to use their language will result in negative perceptions (from other Africans).	Behavioural aspect: (So, when you learn/study Maths and Physics, if you understand something you do not need to spend countless hours at the library if you learnt in isiZulu;) things will be easy, and I would spend less time studying.	3D outcome = P/N/P
-----------------	---	---	--	--------------------

Participant P11 believed that the use of isiZulu assists in a better understanding of the module content being studied (*compared to the use of English* – my addition). However, the participant is concerned that the use of isiZulu may appear to disregard speakers of the other eight African languages that are designated as official languages in South Africa. Despite this concern, Participant P11 is optimistic that the use of isiZulu when studying may account for time efficiency in his studies.

Negative/Negative/Negative (N/N/N)

Participant A1	Cognitive aspect: Terminology in ‘proper’ isiZulu is also challenging on its own; sometimes you do not recognise what is referred to, but you can recognise the term in the loanword from English.	Affective aspect: (It does not make so much of a difference. Sometimes isiZulu can be incredibly challenging with its bombastic words, and you just do not understand what the words mean. We are used to most terms offered in English. So, it	Behavioural aspect: For me isiZulu is not featured. This is because I have been exposed to learning through English for a long time now; I can also access several support resources in English for research	3D outcome = N/N/N
----------------	--	--	--	--------------------

		would be better if the terms are offered both in isiZulu and in English so that people use whichever language, they are comfortable with.) It would really be a problem if the terms are available in isiZulu only. For example, I do not know the term for 'rafter' in isiZulu, while somebody else may know the term and be comfortable with using that term.	purposes where I need to do that like when I come across an unfamiliar/challenging term.	
--	--	---	--	--

Participant A1 did not express confidence that discipline-specific terminology in isiZulu may be of help, particularly those terms that are presented in proper isiZulu (deep variety isiZulu). As a result, this participant is indifferent to the availability of this terminology. Moreover, he expressed frustration that the terminology in isiZulu may be challenging to decode. Based on his beliefs and feelings, he expressed no intention of using isiZulu in his studies even if he encounters a challenging term. He prefers to refer to the resources available in English.

In the five instances of attitudinal response combinations referred to above, the participants in the target group indicated a mix in their attitudinal responses.

I now present data from the control group.

4.4.2 Control group

The participants in the control group ($n=11$) expressed their views on what they believe, how they feel and what they intend to do, with reference to the use of isiZulu in academic contexts as well as on the existence of discipline-specific terminology in isiZulu. The responses are cross-referenced per participant that responded to all three aspects of attitude.

Out of the eight, six attitudinal response combinations are evident in the control group. There are three participants who indicated a P/P/P attitudinal response, two who indicated a P/N/N response, and one participant per each of the following attitudinal responses: N/P/N, P/P/N, P/N/P, and N/N/N. The cross-references of each of these six attitudinal response combinations are collated and presented below.

Positive/Positive/Positive (P/P/P)

Participant PL2	Cognitive aspect: For some terms in isiZulu – the term itself is self-explanatory. For example, the name of the pointing finger in isiZulu is based on the function of the finger. Such self-explanatory words would make it easy for us to understand the concepts used in the disciplines.	Affective aspect: If we were to learn through a language that we are familiar with and that we use at home; we could also perform better.	Behavioural aspect: Yes, I would most possibly use it. As I have mentioned before, some words are self-explanatory; if you know the word you know the explanation. This will make things easy for the students.	3D outcome = /PP/P
-----------------	---	--	--	--------------------

Participant PL2 regarded most terms in isiZulu as self-explanatory, a feature that makes the terms easy to understand. As a result, she felt confident that the use of isiZulu will capacitate L1-speaking students to perform better academically. In light of the self-explanatory feature, she expressed a high probability of using the terminology in isiZulu. Participant PL2 indicated a Positive/Positive/Positive attitudinal response combination.

Positive/Negative/Negative (P/N/N)

Participant C2	Cognitive aspect: For me when I am in class it does happen that I do not understand an explanation given in English but when I get an explanation in isiZulu, I get an understanding; and I realise that it is a familiar term. So, it is better to jot the isiZulu version down to refer to it later and you can recall the English term because that is the language we are using.	Affective aspect: IsiZulu ‘proper’ is too difficult. One expects isiZulu to be easier but there are terms in isiZulu which are exceedingly difficult to understand and very deep. There are terms in isiZulu that I have no knowledge of. I also had hoped that more of loanwords would be used in isiZulu sessions.	Behavioural aspect: For some people who may need the resource; they may use it. It could be a good exercise for research. When it comes to implementation; to some – those who need it, it is ok. If it was to affect everyone, then we may struggle. Even for me, although I grew up using isiZulu but sometimes, I have difficulties with it (isiZulu).	3D outcome = P/N/N
----------------	---	---	--	--------------------

Participant C2 thought that the use of isiZulu assisted where one does not understand the explanation offered in English. An explanation in isiZulu allows one to understand the term under discussion. This explanation in isiZulu assists, even as one continues to study in English. However, she is bothered by the level of difficulty in the proper isiZulu terms. The deep variety of isiZulu is inaccessible to Participant C2, which is not what she expected. She expressed disappointment and frustration at the use of proper isiZulu terms in the sessions she attended

previously (the participant attended Supplementary Instruction sessions offered in isiZulu and English by the College of Agriculture and Engineering Sciences). Despite thinking that the use of isiZulu in academic contexts may be helpful, she felt frustrated using the terms in proper isiZulu and thus expressed no intention of using the terminology personally as this may create difficulties, rather than be helpful. The use of isiZulu should be optional. Thus, Participant C2 indicated a Positive/Negative/Negative attitudinal response combination.

Negative/Positive/Negative (N/P/N)

Participant CD2	Cognitive aspect: If you try to incorporate isiZulu you will lose the essence of the term and even the grammar may be distorted. Some terms just cannot be used across languages – the grammar construction does not allow it, hence the distortion. So, it is better to stick to English. Rather think of alternative terms instead of changing the language to avoid confusion.	Affective aspect: [...] those students who are stronger in isiZulu will benefit from the resource. If such students had not been exposed to the terms in English and they are given the resource in isiZulu; it may be easy for them to grasp the terms in isiZulu.	Behavioural aspect: Well, it is not easy to incorporate isiZulu. In all the subjects/modules we do; there are terms in English some of which are derived from Latin, others from Greek – terms developed by early scientists who were making discoveries.	3D outcome = N/P/N
-----------------	--	--	--	--------------------

Participant CD2 did not think that the use of isiZulu, and/or the terms in isiZulu, is practical. He perceived that the grammatical construction of the terms in isiZulu did not carry over well to English. He believed there will be a distortion in the grammar which may lead to confusion rather than be of help. He did, however, empathise with the students who have been exposed to the use of isiZulu as a Home Language and who may have a stronger proficiency in isiZulu compared to English. He felt that the use of isiZulu may be helpful to such students. Participant CD2 expressed no intention of using isiZulu in his studies because he thinks that the development of terms from languages such as Latin and Greek to English, and then further to isiZulu, may lead to distortions. Participant CD2 indicated a Negative/Positive/Negative attitudinal response combination.

Positive/Positive/Negative (P/P/N)

Participant CD6	Cognitive aspect: So, this helps especially if there is a section that one did not understand; they first explain in English, but they are willing to elaborate in isiZulu. Even some of our lecturers do give further	Affective aspect: I see this as an advantage. I would not say it is a disadvantage to black people and white who do not speak isiZulu. We are also met halfway with English; and to add the resource in isiZulu will	Behavioural aspect: Personally, I prefer to use English (it may sound bad to people that I use English mainly but that is how it is). I have had	3D outcome = P/P/N
-----------------	---	---	---	--------------------

	explanations in isiZulu after the initial lecture conducted in English.	benefit a lot of people. Some students are scared to consult the lecturers – lecturers require that you email them to book an appointment, while you may need clarity on the course content at that point in time.	an extensive exposure to English from my primary school years.	
--	---	--	--	--

Participant CD6 believed that the use of isiZulu helps when L1 students need an explanation of the module content. Even though the explanation is first given in English, an elaboration in isiZulu afterwards is helpful. In addition, she felt the availability of the terminology in isiZulu will be of benefit to those L1 students who may be afraid or reluctant to consult lecturers when they do not understand the terminology or parts of the module content. However, Participant CD6 expressed no intention of using isiZulu personally in her studies. This preference emanates from her extensive exposure to learning through the medium of English and learning English as a Home Language. Thus, Participant CD6 indicated a Positive/Positive/Negative attitudinal response combination.

Positive/Negative/Positive (P/N/P)

Participant M4	Cognitive aspect: However, since isiZulu is our Home Language; it may make things easier for us to understand certain terms. From my experience (in my discipline), English is still used a great deal – isiZulu has not yet been introduced.	Affective aspect: However, students who use isiZulu HL will have a comfort zone since they will have isiZulu translations at hand if they find difficulties in their academic work. With isiZulu, a person still needs to train him/herself well in it and then know it better.	Behavioural aspect: It is easier to use isiZulu for us as students after we have learnt something in class, it makes things easier when we discuss on our own. We can break something down in isiZulu. [...] It is difficult to learn in English when we study our books but after we have discussed amongst ourselves in our home language, it becomes easier to study further in English.	3D outcome = P/N/P
----------------	--	--	--	--------------------

Participant M4 believed that the use of isiZulu, their Home Language, makes understanding the academic terms easy. This is despite the fact that in the discipline where he is registered (Architecture and Town Planning), English is the dominant language used. While he believes that isiZulu may make the understanding of academic terms easier, he also expressed a concern

that the availability of terms in isiZulu may make isiZulu L1 students relax into a comfort zone. He is concerned that the use of isiZulu may still require extensive knowledge of proper isiZulu. Despite this concern, Participant M4 admitted that isiZulu L1 students use isiZulu to explain the module content to each other. Participant M4 indicated a Positive/Negative/Positive attitudinal response combination.

Negative/Negative/Negative (N/N/N)

Participant M6	Cognitive aspect: For me to clearly understand something I do not rely on isiZulu. To me isiZulu does not make things clearer.	Affective aspect: I do not even feel comfortable using it (isiZulu) for a prolonged time. I find English easy and simple.	Behavioural aspect: But when it comes to academic activities and in studying, I do not see how I could use isiZulu because it is a challenging language on its own. Let us say, for example, we learn in English, and we are examined in English while having been studying in isiZulu – translating from isiZulu to English is another challenging task on its own.	3D outcome = N/N/N
----------------	---	--	---	--------------------

Participant M6 did not believe that the use of isiZulu makes things clearer (*compared to the use of English – my addition*). The use of isiZulu did not help him to understand the module content and therefore, he did not feel comfortable using isiZulu and had no intention of using it in his studies. He finds isiZulu a challenging language and translating from English to isiZulu and back to English may prove to be a further challenging exercise. Thus, Participant M6 indicated a Negative/Negative/Negative attitudinal response combination.

The correlations in the attitudinal response combinations that the participants in both the target and control groups indicated are summed up in the subsection below.

4.4.3 Summary of the correlations among the three aspects of attitude

The 3D model of attitude (Jain 2014: 7) concludes that there are eight possible attitudinal response combinations towards any construct. The participants in the target group indicated five out of the eight response combinations. The participants in the control group indicated six out of the eight response combinations. The variations in the response combinations are evidence that correlations among the three aspects of attitude are not always possible. Between the target group and the control group, the following six attitudinal response combinations are evident with the total number of participants for each attitudinal response combination:

- Positive/Positive/Positive (P/P/P) : 11 participants
- Negative/Negative/Negative (N/N/N) : 3 participants
- Positive/Negative/Negative (P/N/N) : 3 participants
- Positive/Positive/Negative (P/P/N) : 3 participants
- Positive/Negative/Positive (P/N/P) : 2 participants
- Negative/Positive/Negative (NPN) : 1 participant

In sum, the variations in the correlations among the aspects of attitude indicate that the attitude construct is a complex phenomenon; the three aspects of attitude do not always correlate. Rather, the attitudinal response combinations in the three aspects may vary from person to person. In my data, the three attitudinal combinations give insight into the cognitive and behavioural aspects having the potential to dominate. The main issues that the study participants raise, on the cognitive and the behavioural aspects, pertain to English remaining the primary MoI. Although aware of the terminology in isiZulu, the role it plays, and the benefits they may reap from its use, isiZulu is seen as a support language to English, which inhibits their full support of isiZulu as an academic language.

I now address research question 4.

4.5 The extent to which isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic lives

Data responding to this question is collated from the two subsections of section five, in the questionnaire. Subsection 5A of the questionnaire gave the respondents a list of discipline-specific terms in isiZulu. The terms differed according to the colleges, and the respondents from both the target and the control groups in each college received a similar list. Ten terms were extracted randomly from the UKZN mobile application, the Zulu lexicon, and a cross-reference of the terms was made using the university weblink, the UKZN Term bank found on <https://ukzntermbank.ukzn.ac.za/PublicSearch.aspx>. The respondents were required to give an equivalent of the term in English. The rationale is to determine whether the respondents recognise the terminology in isiZulu. From the recognition, one makes inference to the extent to which the respondents acknowledge the terminology in isiZulu as a resource in their academic lives. I collated the equivalent terms that the respondents give in the questionnaires. From the list of each term, I compare the term in isiZulu with the equivalent term in English

that is used in the Zulu Lexicon. I make a judgement regarding the level of acknowledgement based on the number of matches that the respondents make. The data on the equivalent terms is supplemented by excerpts from the interview transcripts in which participants share views on their acknowledgement of the terminology in isiZulu.

The data collected in subsection 5A on the level of acknowledgement respondents of the current study accord to the discipline-specific terminology in isiZulu is complemented by data collected in subsection 5B of the questionnaire. In subsection 5B, the respondents were given the same terms in isiZulu as in subsection 5A. The respondents rated each term on a scale of 1-5; 1 (very low), 2 (low), 3 (mediocre), 4 (high) and 5 (extremely high). The ratings were based on the following features per term: level of clarity, level of understanding, level of acceptability, chances of using the term, need for the isiZulu term, and the equivalent term in English. I consider the level with the highest number of ratings in each term. From the highest ratings, I deduce the level of acknowledgement that isiZulu L1 students accord, to the discipline-specific terminology in isiZulu. The ratings are collated per college. A percentage is calculated on the total ratings for each term per feature.

The data on the score points is supplemented by the views that the study participants share in the interviews when referring to the discipline-specific terminology in isiZulu.

4.5.1 Level of acknowledgement, as implied in the English equivalent terms given by the participants

In this subsection, I first present the quantitative data and thereafter I present the qualitative data.

4.5.1.1 Quantitative data

The data is a presentation of the results from both the target group and the control group in the four colleges of UKZN. In each college, the respondents were given a list of discipline-specific terms in isiZulu. The terms were similar for both the target group and the control group. The respondents were required to supply an equivalent term in English. In Table 4.19 I present the total matches of each term per group. The presentation is followed by the data description per college.

Table 4.19: The terminology in isiZulu and the equivalent terms in English – matches from the study respondents

College of Law & Management Sciences (CLMS)	ENGLISH equivalent	SOURCE	Target (18)	Control (19)
isimangalo sesinxephezelo	actio legis aquilae	ZL	0	0
Thobelile	complied	ZL	1	0
inhlango yabammeli basemajajini	the bar	ZL	0	0
umyalelo wommeli basemajajini	command	ZL	0	0
ubelelesi obuthinta amazwe ngamazwe	international crime	ZL	3	3
isenzo ngokweso lomthetho	juristic act	ZL	0	0
Impikiswano	argument	ZL	8	8
dalula/veza	disclose	ZL	0	0
umthetho ongabhaliwe	common law	ZL	0	0
amacala	compound			
ahlanganisiwe/ingxubemacala	offense	ZL	0	0

College of Humanities (CHUM)	ENGLISH equivalent	SOURCE	Target (13)	Control (35)
udaka lobumba	adobe/cob	ZL/TB	0	2/0
Umhlobisonsika	architrave	TB	0	3
Igumbimkhathi	Attic	ZL/TB	0	3
Isithungo	Band	ZL/TB	0	4
Isikhocosendlu	barge	ZL/TB	0	4
ithandela/ibhathini	batten	ZL/TB	0	0
Umshayo	beam/rafter	ZL/TB	01/2	03/2
Isibopho	binder	ZL/TB	1	3
isigqokwana sensika yesibambebelelo	newel cap	ZL/TB	0	4
udonga olumahhadla	rough cast	ZL/TB	0	3

College of Health Sciences (CHS)	ENGLISH equivalent	Source	Target (17)	Control (7)
okuphathelene nokukhiqizwa kwamafutha	sebaceous	ZL	0	0
imizwa ezungelezile	cingulum	ZL	0	0
izicutshana/izinhlayiya ezihlangene	syncytium	ZL	0	0
umsipha wesihluzi	soleus	ZL	0	0
Isikhiqizambewu	gonad	ZL	0	0
Okusaphonjwana	corniculate	ZL	0	0
Umlomo	stoma	ZL	0	0
okuphathelene nenqulu/okwenqulu	sciatic	ZL	0	0
Uvulavale	sphincter	ZL	0	0
iphakathi nendawo	medius	ZL	0	0

College of Agriculture & Engineering Sciences (CAES)	ENGLISH equivalent	Source	Target (20)	Control (20)
Umsebe	ray/beam	TB/ZL	3	04/1
thathela kungqangqazela	resonate	ZL	0	0
zungeza/zongoloza/jikeleza	Gyrate	TB/ZL	0	0
umsindo ongazwakali	ultrasound	ZL	0	0
Ubungangomdlandla	potential	TB/ZL	0	0
Ukusilela	hysteresis	ZL	0	0
okucacile/okusobala	explicit/apparent	TB/ZL	0	0
Iyengelamcijo	acute angle	ZL	0	0

isifundomkhathi/isayensi yomlandomkhathi	Cosmology	ZL	0	0
okubonwa yiso	Macroscopic	TB/ZL	0	0

In CLMS, the target group respondents, $n=18$, responded to three (30%) of the ten terms and the control group respondents, $n=19$, responded to two (20%) of the ten terms in the questionnaire. Of these responses, one term got the highest matches of eight respondents (44%) in both groups: *impikiswano* with the equivalent in English ‘argument’. The responses from both the target group and the control group in CLMS do not indicate familiarity with the terms in isiZulu.

In CHUM, the target group respondents, $n=13$, responded to two (20%) of the ten terms and the control group respondents, $n=35$, responded to nine (90%) of the ten terms in the questionnaire. For each of the terms, the responses were from less than 25% of the respondents. The response rates in both groups in CHUM are low. Even though the respondents in the control group react better than the respondents in the target group, the rates of the responses indicate that the level of familiarity with the terminology in isiZulu is remarkably low.

In CHS none of the respondents in both the target group, $n=17$ and the control group, $n=7$, responded to the terms in isiZulu. The respondents in CHS indicate a complete lack of familiarity with the terminology in isiZulu.

In CAES, the respondents in both the target group, $n=20$, and the control group, $n=20$, responded to one (10%) of the ten terms that were in the questionnaire. For the responses to this one term, not more than five respondents (25%) gave the equivalents in English. The respondents in both the target and the control groups indicate a very low level of familiarity with the terms in isiZulu.

4.5.1.2 Qualitative data

The interview participants, both in the target group ($n=17$) and the control group ($n=11$), share their opinions on the extent to which the availability of the discipline-specific terminology in isiZulu is a resource in their academic lives.

4.5.1.2.1 Target group

Among the participants in the target group, there are participants who regarded the availability of the discipline-specific terminology in isiZulu as a resource, there are participants who acknowledged the terminology as a resource but prefer loanwords, and there are participants

who did not acknowledge the terminology in isiZulu as a resource. In excerpts (109-110) below, the participants acknowledged the resourcefulness of the terminology in isiZulu.

(109) **L1:** For me since I did isiZulu as a HL it is an advantage. I could understand almost all the terms that we were given in isiZulu in the questionnaire. So, I think having isiZulu for support purposes is a great idea.

(110) **L9:** I would definitely help. The truth is that for some of us students, we understand content clearly if it is presented/explained in isiZulu our HL. Even as I looked at the questionnaire in the section where terms in isiZulu were; I could clearly understand most of those terms although I couldn't believe that I didn't have a clue with a few of them. How can I not understand my own language! So, in general, isiZulu may assist some of us.

In excerpt (109), the participant mentioned her pre-tertiary education experience as the basis for her preference and acknowledgement of the discipline-specific terminology as a resource. The participant learnt isiZulu at a home language level and has therefore been exposed to the deep variety of isiZulu which is prevalent in the terminology list in isiZulu. For this participant, the terminology is accessible, and its availability is welcomed. In excerpt (110), participant L9 mentioned how “some students” may benefit from the use of isiZulu. Even though the participant admitted that he did not understand all the terms that appeared in the questionnaire, he understood most of the terms. He acknowledged the terminology in isiZulu as a resource. From the phrase “some of us students”, the heterogeneity of the isiZulu L1 student populace is clear. This heterogeneity is indicated in excerpt (111) below.

(111) **L2:** Particularly those who did isiZulu as a Home Language throughout their school years may prefer to access information in isiZulu. It would be beneficial for them to have a resource in isiZulu.

In the use of “those”, the participant excludes herself. She empathised with the students who learnt isiZulu at a home language level for their basic education. These students may benefit from the terminology in isiZulu and find it resourceful.

Due to the heterogeneity of the isiZulu L1 student populace, some participants preferred that the terminology lists in isiZulu include loanwords. Excerpts (112-113) below refer.

(112) **A1:** Terminology in isiZulu ‘proper’ is also challenging on its own; sometimes you do not recognise what is referred to, but you can recognise the term from the use of a loanword from English.

(113) **A2:** convenience is important. It will be of no use if ‘proper’ words are used, and nobody understands that term. If this is done, practicality should be considered on the choice/level of words to be used and loanwords be used. However, even with the availability of loanwords, isiZulu ‘proper’ words should also be available in order to give users a choice.

There is a challenge with the use of the deep variety of isiZulu. For this reason, preference is for the use of loanword(s). The loanwords in isiZulu may be included in the terminology list over and above the terms in the deep variety of isiZulu.

Even though the participants indicated acknowledgement of the terminology in isiZulu as a resource, Participant L8 in excerpt (114) below was adamant that the terminology in isiZulu may not be resourceful to isiZulu L1 students.

(114) **L8:** You may find that the work environment where one lends oneself in, particularly for us as Law students, it may happen that English is a necessity. So being lenient to isiZulu L1 speakers and offer resources in isiZulu does not equip them for the work environment.

In this excerpt, the participant did not acknowledge the terminology in isiZulu as a resource. The use and reliance on isiZulu terminology may have detrimental results when students venture into their chosen career field (more so for Law practitioners). Therefore, the available terminology in isiZulu may only have momentary benefits, that is, it may assist isiZulu L1 students to understand the content and not more than that.

4.5.1.2.2 Control group

In the excerpts from the control group participants that appear below, one student acknowledged the terminology in isiZulu as a resource, two participants preferred that loanwords are used, and two participants were sceptical about the use of the terminology in isiZulu. Excerpt (115) voiced an acknowledgement of the terminology in isiZulu as a resource in the academic life of students.

(115) **CD6:** We are also met halfway with English; and to add the resource in isiZulu will benefit a lot of people.

The use of English as an MoI is not sufficient to optimise the potential of the students (*isiZulu L1-speaking students*, my addition). Therefore, to supplement the instruction offered in English, the availability of a resource in isiZulu may be beneficial. There are, however, participants who viewed the terms in isiZulu as challenging. These participants did not dismiss the use of isiZulu altogether, but they preferred loanwords instead of terms in the deep variety of isiZulu. Excerpts (116) and (117) below refer.

(116) **CD6:** It is much better to use loanwords in order to accommodate everybody who uses the language from all backgrounds. If I recall the terms that were in the questionnaire – I could not understand a single one of them!

(117) **CD4:** Almost all materials that are used here at varsity are of Western origin and scientific materials; so, using “pure” terms in isiZulu for these materials will be really confusing to people. Loanwords terms are thus more preferred as people may identify with these easily, e.g., ‘book’ – ‘*ibhuku*’.

In excerpt (116), the participant considered that loanwords would better accommodate the heterogeneity of the isiZulu L1 student populace. The participant referred to the level at which isiZulu L1 students learnt isiZulu at basic education level (home language level, first additional language level, second additional language level). She expressed that she found the terms in the deep variety of isiZulu challenging. She did not dismiss the resourcefulness of the terminology, but her preference is toward loanwords in the terminology list. This sentiment is echoed in excerpt (117). IsiZulu L1 students may easily recognise the term in English if a loanword is used.

With the available terminology in isiZulu, there is a notion that the isiZulu language may not provide a full complement of the discipline-specific terminologies for the different disciplines. Excerpt 118 below refers.

(118) **C1:** In addition, you would need to have correct/appropriate terminologies. For example, in Biology, it would be difficult to find terms for different species of trees. Sometimes it could help; sometimes it

could not. It may be difficult to perfectly feature isiZulu in all modules.

In excerpt (118), the participant did not entirely dismiss the resourcefulness of the terminology in isiZulu. However, the participant was sceptical as to whether isiZulu terminologies can become available in all disciplines and modules.

Over and above the acknowledgement of the terminology in isiZulu and the recommendations for the use of loanwords, excerpt (119) below voiced a total opposition to the use of the terminology in isiZulu.

(119) **M6:** Yes, because they will not use those terms at the end of the day; each person will need to do further investigation in order to understand the English terms.

Participant M6 (119) reckoned that the terminology in isiZulu may not benefit isiZulu L1 students long-term. Previously, in excerpt (108), the same participant stated that the benefits of the terminology in isiZulu may be short-lived and limited to when students do their studies privately. The terminology may not help isiZulu L1 students during assessments as they will still need to be proficient in the use of the English terms. This is the “further investigation” he referred to in excerpt (119).

I now look at the manner in which the respondents rated the ten terms in isiZulu, to establish the extent to which they acknowledge the terminology in isiZulu as a resource.

4.5.2 Level of acknowledgement, as implied by how participants rated the discipline-specific terminology in isiZulu

This subsection presents the ratings collated from all respondents, across the four colleges, for each of the ten terms in isiZulu that appeared in their respective questionnaires. In the ratings, I looked for the feature that is highly rated in each term, per college. The features are level of clarity; level of understanding; level of acceptability; chance of using the term; the need for the term in isiZulu; and term in English. From the highest ratings in each feature of each term, I deduce the level of acknowledgement that the respondents' accord to the discipline-specific terminology in isiZulu. The ratings are presented per college in Table 4.20 below, and the highest rates in each feature per term are in bold.

Table 4.20: The ratings of the terms in isiZulu

College	Terms in isiZulu	Level of clarity	Level of understanding	Level of acceptance	Chance of using the term	Need for the term in isiZulu	Term in English
CLMS	isimangalo sesinxephezelo	34%	38%	37%	25%	29%	38%
	-thobelile	35%	36%	35%	31%	30%	33%
	inhlango yabammeli basemajajini	49%	50%	49%	45%	39%	45%
	umyalezo wommeli basemajajini	45%	46%	43%	34%	30%	42%
	ubelesesi obuthinta amazwe ngamazwe	37%	35%	34%	28%	30%	39%
	isenzo ngokweso lomthetho	46%	49%	46%	39%	39%	43%
	Impikiswano	63%	61%	58%	55%	51%	52%
	-dalula/-veza	59%	58%	55%	52%	52%	49%
	umthetho ongabhaliwe	57%	57%	49%	47%	45%	49%
amacala ahlanganisiwe/ingxubemacala	47%	45%	41%	32%	33%	45%	
CHUM	udaka lobumba	45%	44%	43%	38%	42%	33%
	Umhlobisansika	32%	28%	34%	22%	34%	26%
	Igumbimkhathi	29%	23%	30%	26%	32%	28%
	Isithungo	31%	27%	30%	23%	32%	28%
	Isikhocosendlu	33%	26%	28%	23%	34%	24%
	ithandela/ibhathini	39%	33%	32%	33%	33%	29%
	Umshayo	33%	24%	27%	28%	32%	19%
	Isibopho	36%	32%	35%	34%	36%	30%
	isigqokwana sensika yesibambelelo	31%	28%	27%	26%	29%	20%
udonga olumahhadla	38%	33%	35%	28%	37%	26%	
CHS	okuphathelene nokukhiqizwa kwamafutha	57%	59%	60%	43%	42%	46%
	imizwa ezungelezile	49%	48%	46%	40%	44%	41%
	izicutshana/izinhlayiya ezihlangene	46%	45%	47%	36%	38%	41%
	umsipha wesihluzi	53%	56%	54%	43%	47%	46%
	Isikhiqizambewu	44%	44%	45%	34%	44%	40%
	Okusaphonjwana	50%	53%	52%	48%	49%	41%
	Umlomo	89%	87%	86%	87%	81%	67%
	okuphathelene nenqulu/okwenqulu	33%	40%	41%	34%	37%	38%
	Uvulavale	42%	40%	44%	43%	45%	42%
iphakathi nendawo	84%	82%	80%	81%	79%	62%	
CAES	Umsebe	57%	59%	60%	43%	42%	46%
	thathela kungqangqazela	31%	37%	35%	29%	27%	31%
	zungeza/zongoloza/jikeleza	70%	71%	69%	65%	58%	59%
	umsindo ongazwakali	65%	65%	57%	53%	52%	48%
	Ubungangomdlandla	41%	37%	37%	33%	34%	36%

Ukusilela	38%	38%	36%	37%	36%	39%
okucacile/okusobala	75%	74%	68%	69%	60%	61%
Iyengelamcijo	28%	28%	28%	30%	29%	34%
isifundomkhathi/ isayensi yomlandomkhathi	45%	43%	40%	39%	38%	45%
okubonwa yiso	58%	59%	54%	52%	48%	49%

In CLMS, the highest ratings are in the following features: level of clarity, level of understanding, and the term in English. For level of clarity, there are four terms with the highest ratings (*impikiswano* = 63%, *-dalula/-veza* = 59%, *umthetho ongabhaliwe* = 57%, *amacala ahlanganisiwe/ingxubemacala* = 47%). Level of understanding has six terms with the highest ratings (*isimangalo seseinxephezelo* = 38%, *-thobelile* = 36%, *inhlango yabammeli basemajajini* = 50%, *umyalezo wommeli basemajajini* = 46%, *isenzo ngokwesomthetho* = 49%, *umthetho ongabhaliwe* = 57%). For the term in English, there are two terms with the highest ratings (*isimangalo sesinxephezelo* = 38%, *ubelelesi obuthinta amazwe ngamazwe* = 39%). The level of understanding has the most ratings followed by the level of clarity and then the term in English. I deduce that the respondents in CLMS understood the terms in isiZulu, and they considered some of the terms to be clear. These respondents did not indicate a familiarity with the equivalent terms in English as this level has two out of ten terms with the highest ratings.

In CHUM, the highest ratings are in the following features: level of clarity, level of acceptance, and the need for the term in isiZulu. For level of clarity, there are six out of ten terms with the highest ratings (*udaka lobumba* = 45%, *ithandela/ibhathini* = 39%, *umshayo* = 33%, *isibopho* = 36%, *isigqokwana sensika yesibambelelo* = 31%, *udonga olumahhadla* = 38%). For level of acceptance, there is one term with the highest ratings (*umhlobisansika* = 34%). The need for the term in isiZulu, has five terms with the highest ratings (*umhlobisansika* = 34%, *igumbimkhathi* = 32%, *isithungo* = 32%, *isikhocosendlu* = 34%, *isibopho* = 36%). The level of clarity has the most ratings followed by the need for the term in isiZulu and then the level of acceptance. The respondents in CHUM considered the terms in isiZulu to be clear and they indicated that there is a need for the terms in isiZulu. However, there was a low rate of acceptance of the terminology in isiZulu as only one term has the highest rating by this group.

In CHS, the highest ratings were found for level of clarity, level of understanding, level of acceptance, and the need for the term in isiZulu. Level of clarity has three terms with the highest ratings (*imizwa ezungelezile* = 49%, *umlomo* = 89%, *iphakathi nendawo* = 84%). For the level of understanding, there are two terms with the highest ratings (*umsipha wesihluzi* = 56%,

okusaphonjwana = 53%). On the level of acceptance, there are four terms with the highest ratings (*okuphathelene nokukhiqizwa kwamafutha* = 60%, *izicutshana/izinhlayiya ezihlangene* = 47%, *isikhiqizambewu* = 45%, *okuphathelene nenqulu/okwenqulu* = 41%). The need for the term in isiZulu has one term with the highest ratings (*uvulavale* = 45%). The level of acceptance has the most ratings followed by the level of clarity, the level of understanding and then the need for the term in isiZulu. The respondents in CHS indicated acceptance of the terms in isiZulu even though the high ratings are on less than 50% of the terms that appeared in the questionnaire. A few terms were considered to be clear, two were considered to be understood with ease, and there was a slim indication of the need for the terms in isiZulu (one term with the highest ratings). The respondents in CHS did not indicate a clear welcoming of the discipline-specific terminology in English. This is the deduction I make when I merge the responses from this subsection with the responses from the previous subsection (no matches of the equivalent terms in English for all the ten terms in CHS).

In CAES, the highest ratings were in the following features: level of clarity, level of understanding, level of acceptance, and the term in English. Level of clarity sees four with the highest ratings (*umsindo ongazwakali* = 65%, *ubungangomdlandla* = 41%, *okucacile/okusobala* = 75%, *isifundomkhathi/isayensi yomlandomkhathi* = 45%). Level of understanding also has four terms with the highest ratings (*thathela kungqangqazela* = 37%, *zungeza/zongolozajikeleza* = 71%, *umsindo ongazwakali* = 65%, *okubonwa yiso* = 59%). For the level of acceptance, there is only one term with the highest ratings (*umsebe* = 60%). The term in English has three terms with the highest ratings (*ukusilela* = 39%, *iyengelamcijo* = 34%, *isifundomkhathi/isayensi yomkhathi* = 45%). The respondents in CAES indicated a low inclination towards the discipline-specific terminology in isiZulu. In the levels with the highest ratings, all the ratings are on less than half of the terms given in the questionnaire.

4.5.2.1. Qualitative data

The interview participants, both in the target group ($n=17$) and in the control group ($n=11$), shared their perceptions and evaluations of the terms that appeared in the questionnaires. I regard these perceptions and evaluations as an indication of the respondents' acknowledgement of the discipline-specific terminology in isiZulu as a resource in their academic lives, or not.

4.5.2.1.1 Target group

Three participants in the target group voiced their perceptions and evaluations of the terms that appeared in the questionnaires. In different ways, all three participants pointed out challenges related to the level of difficulty of the terms in isiZulu. Excerpts (120-122) below refer.

- (120) **AT3:** What I observed in the questionnaire is that some terms were in deep isiZulu which was too complicated and deep for me to understand. So, adding an explanation in isiZulu would really help.
- (121) **AT4:** For me as well, I have difficult with the deep variety of isiZulu. There were terms that I left blank in the questionnaire because they were too deep for me. The deep variety makes things difficult even for us as isiZulu speakers; it is the same as learning the language (isiZulu) anew. For me, the terms included in the questionnaire were really challenging/too difficult for me. I did not understand what each referred to.
- (122) **L9:** I agree, isiZulu should be learnt and preserved, but the reality is that, as a way forward, even people who have learnt isiZulu as a HL use English most of the time. Moreover, some words/terms in isiZulu are as challenging to them as they are to all others who learnt isiZulu as a FAL/L2.

In excerpt (120), the participant pointed out three issues when referring to the terminology in isiZulu. The terms were in the deep variety of isiZulu, they were too complicated, and she struggled to understand them. If the terms were in the deep variety of isiZulu, the terms were not clear, they did not help in understanding the terms in English and therefore these terms were unacceptable. In excerpt (121), the participant admitted to not providing the equivalent terms in English as requested in the questionnaire because she did not understand the terms in isiZulu. This, I deduce, implies that she did not accept the terminology and the chances of her using the terminology were non-existent. She does not acknowledge the terminology in isiZulu as a resource in her academic life.

In excerpt (122), the participant acknowledged the availability of the terminology in isiZulu as beneficial for learning isiZulu and for language preservation purposes. The participant did not perceive this terminology to be of help to isiZulu L1 students who require support resources in their academic endeavour. He considered the variety of isiZulu used in the terminology to be

challenging. This challenge may be experienced by both students who learnt isiZulu at a home language level and those students who learnt isiZulu at first additional language level.

4.5.2.1.2 Control group

Three participants in the control group voiced their perceptions and evaluations of the terms that appeared in the questionnaires. In excerpts (123-125) below, the participants pointed out the level of difficulty, the possibility of confusion and the bombastic nature of some of the terms in isiZulu.

- (123) **C2:** There are terms in isiZulu that I have no knowledge of. I also had hoped that more of loanwords would be used in isiZulu sessions. IsiZulu ‘proper’ is too difficult. One expects isiZulu to be easier but there are terms in isiZulu which are very difficult to understand and very deep.
- (124) **CD10:** In my experience, I get better understanding in English. If you come across an unfamiliar term, it helps to look for synonyms which are simpler as a way of trying to understand that term. I don’t want to lie, isiZulu may create even more confusion somewhere somehow
- (125) **CD4:** Indeed, every language has its bombastic words. Learning such bombastic words in isiZulu at this age would be a challenge on its own – some are even difficult to pronounce.

In excerpt (123), the participant pointed out the level of difficulty due to the deep variety of isiZulu. Such terms do not assist the students to understand the discipline terms better which is contrary to her expectation. It seems, she does not accept the terminology in isiZulu to be of help in her studies. In excerpt (124), the participant admitted to avoiding the use of the terms in isiZulu as she believed that these terms may confuse her even more. This implies that she considered the terms in isiZulu to lack clarity and therefore did not aid in understanding the discipline terms in English. In excerpt (125), the participant mentioned that he considered some terms in isiZulu to be bombastic and difficult to pronounce. For these reasons, the terms in isiZulu lack clarity and do not aid the understanding of the discipline terms. With this kind of perception, the participant may not welcome the use of the terms in isiZulu.

The excerpts above, from both the target and the control group participants, are an indication that the extent to which the participants acknowledge the discipline-specific terminology in isiZulu is minimal. When the participants physically experienced the terms in isiZulu, their

assessments did not yield favourable results. The participants considered the terms in isiZulu to be difficult to decode and therefore will not assist them in their academic endeavour.

4.5.2.2 Summary

The respondents indicated a minimal acknowledgement of discipline-specific terminology as a resource in their academic lives. In the two subsections, there was a low response rate. In the first subsection, the respondents were requested to supply the equivalent terms in English to the terms in isiZulu. In the second subsection, the respondents were requested to give ratings of 1-5 to the terms in isiZulu based on the level of clarity, the level of understanding, the level of acceptance, the chance of using the term in isiZulu, the need for the term in isiZulu, and the term in English. The low response rate was evident in the number of terms that respondents gave the English equivalents to, the number of equivalent terms that matched, and the ratings that respondents gave for each of the features mentioned.

In the interview sessions, there were participants who claimed that isiZulu may be of help to them, however, these claims were fraught with uncertainty, hesitancy, and doubt. This emanates from the level at which isiZulu L1 students learn isiZulu at basic education level, and from the primary role that English plays in the educational arena in South Africa, and to a large extent, globally. On one hand, at basic education level, isiZulu L1 students may learn isiZulu at home language, first additional and second additional levels. As a result, isiZulu L1 students are at different levels of proficiency in isiZulu. The terminology in the deep variety of isiZulu may be a challenge to decode across the isiZulu L1 student populace. On the other hand, English is the primary MoI in South Africa, and it is a medium of communication across various career fields therefore, some participants hold the use of English as primary, and superior, to their home languages. Thus, the extent to which isiZulu L1 students acknowledge the availability of discipline-specific terminology as a resource in their lives is minimal.

4.6 Summary of the chapter

In this chapter, I have presented and described the data that aims at addressing the four research questions of this study. The chapter started with an overview of the data collection and data analysis processes, the description of the study respondents which includes the subset of interview participants, and the description of the research instruments as used in analysing the data. Subsequently, I addressed each of the four research questions consecutively by describing the data as sourced from the questionnaires and the interview sessions. In the next chapter, I

discuss the findings from the data as described in this chapter. The findings are discussed in relation to the literature that is presented in Chapter Two of this thesis.

CHAPTER 5: DATA DISCUSSION AND FINDINGS

In this chapter, I discuss the data presented in Chapter Four. The discussion is framed around the four research questions posed in this study. I juxtapose the data with previous research reviewed in Chapter Two and I end the chapter with a summary and a brief introduction to the concluding chapter of this thesis.

5.1 Data discussion

This section has four subsections presented in the order of the four research questions. Firstly, I discuss the attitudes of isiZulu L1 students towards isiZulu as an academic language. Secondly, I examine the extent to which the attitudes of isiZulu L1 students are influenced by the existence of discipline-specific terminology in isiZulu. Thirdly, I investigate the degree of correlations among the three components of attitude that isiZulu L1 students hold towards isiZulu and particularly towards discipline-specific terminology in isiZulu. Finally, I deduce the extent to which isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic lives.

5.1.1 The attitudes that isiZulu L1 students hold towards isiZulu as an academic language

The attitudes of L1 isiZulu speaking students towards isiZulu as an academic language are examined specifically in terms of the dominant language(s) they use and their linguistic background at basic education level. At UKZN isiZulu is a medium of communication and an additional MoI alongside English (UKZN 2014:2). Overall, the respondents in this study indicate a considerable use of both isiZulu and English in both informal and formal domains. In addition, the data analysis reveals two sub-groups among the respondents. The first sub-group indicates a strong preference for the use of isiZulu, over English, as a medium of teaching, learning, and communication at their tertiary institution. These are respondents who attended primary and secondary education in rural and township schools which are categorised as quintile one to quintile four, according to public school categories in South Africa. The second sub-group indicates a strong preference for the use of English, rather than isiZulu, in the same context. These are respondents who attended ex-model C schools which are categorised as quintile five schools. As part of the transformation agenda in the higher education landscape in South Africa, universities have increased the enrolments of African students from 55 percent of total enrolments in 1994 to 81percent in 2011 (Ramrathan 2016: 3). UKZN has also recorded a steady increase in the enrolment of African students from

previously disadvantaged communities where schools are generally categorised as quintile one to quintile four. Research by Ramchander and Naude (2018) into enrolment increases in the discipline of Supply Chain Management at UKZN, reflects this (Ramchander & Naude 2018: 143). The demographics of the respondents in this study indicate that 49 percent attended schools categorised as quintiles one to four (offering isiZulu at home language level) and 33.5 percent attended quintile five schools (offering English at home language level). The remainder of the respondents did not share this information. However, respondents in both sub-groups identify themselves as isiZulu home language speakers.

Both sub-groups display bilingual (and multilingual) traits that are prevalent in most students of African descent in South Africa (Owusu et al. 2021: 233). This bilingualism emanates from the implementation of the Language in Education Policy (LiEP) of 1997. The LiEP (1997: 2) promotes additive multilingualism. In §7.2 of the LiEP (ibid.), it is stated that learners shall be offered a language of learning and teaching (MoI is used in this thesis), as well as one other official language as a subject. By default, and due to the historical use of languages in education in South Africa, English is the MoI, and African indigenous languages are offered as subjects (Heugh 2013: 218). For this reason, the respondents (and most African students) are bilingual and multilingual to varying degrees.

The clear sub-grouping of isiZulu L1 speaking students that emerges in this study indicates that isiZulu L1 students are not a homogenous group. The offering of isiZulu at basic education level, at either home language level or additional language level, accounts for this heterogeneity and the resultant varying degrees of proficiency in isiZulu. This further accounts for the differing attitudes towards isiZulu as an academic language. In schools categorised quintile one to four, isiZulu is offered at home language level, while it is offered at additional language level in quintile five schools. This distinction is not explicitly reported on in previous research conducted among undergraduate students at UKZN regarding the use of isiZulu by L1 students (see e.g., Otu 2014; Zulu & Ndebele 2020) nor in research conducted across South African higher education institutions (see e.g., Ngcobo, Ndaba, Nyangiwe, Mpungose & Jamal 2016; Mbatha 2017; Ndebele 2020; Sigudla et al. 2021). At UKZN, Otu (2014: 140) investigated the perceptions of African students towards the inclusion of isiZulu as one of the languages of teaching and learning, drawing on responses from both isiZulu L1 speaking students as well as students from elsewhere in Africa who had other linguistic backgrounds. In another study, Zulu and Ndebele (2020: 11) investigated the students' motivation to study isiZulu first language modules at UKZN. In that study, the researchers solicited motivational factors from students

across the College of Humanities. In their data, the respondents do not specify the level of their isiZulu learning background; that is, whether it was at home language or additional language level.

In studies on the use of isiZulu by L1 speakers in other universities, most researchers do not divulge the level of isiZulu/African language offering that their research participants undertook at basic education level. Ngcobo et al. (2016: 13) solicited the usefulness of translanguaging by engaging isiZulu L1 students in a summary-writing exercise. Even though these researchers report on the positive perceptions that isiZulu L1 students indicate (Ngcobo et al. 2016: 23); they do not describe the language learning background of respondents in terms of isiZulu/English offerings at basic education level. In a study on the attitudes of isiZulu L1 students who major in isiZulu at a university of technology in South Africa, the researcher does not include the level of isiZulu offering at basic education among the variables tested (Mbatha 2017: 43). In a study conducted at another university of technology dominated by isiZulu L1 speaking students in KwaZulu-Natal, Ndebele (2020: 130) targeted first-year Engineering students, however, there is no delineation of the language background of the students described in the methodology section of the paper. Sigudla et al., (2021: 136) in sampling ten pre-service teachers on their preference of a teaching language, between English and African languages, indicate that most of those respondents preferred teaching in African languages with only 30 percent preferring English. The respondents' learning levels of African languages at basic education are not declared. The importance of the level of language offering at basic education level as a variable that influences attitudes is seen in the study by Nomlomo and Katiya (2018: 85). The students who were exposed to an African language offering at home language level preferred that this language be used in providing resources at university, while those who were exposed to English at home language level preferred that resources be provided in English (ibid.).

In soliciting attitudes of isiZulu/African language L1 speaking students towards the use of their home languages in academic contexts, I consider the language offering at basic education level as a crucial variable as it influences the attitudes that speakers of these languages hold. The research on attitudes towards isiZulu conducted at UKZN largely involves non-mother tongue speakers of isiZulu, who are required to complete the 'Introduction to isiZulu' module as a prerequisite to completing their degree (see e.g. Ndimande-Hlongwa & Ndebele 2017: 73; Naidoo & Gokool 2020: 31; Mthombeni & Ogunnubi 2021: 6) and research involving postgraduate students in the School of Education where isiZulu is used as one of the media of

instruction (see e.g., Mashiya 2010: 98; Nkosi 2014: 250). The study by Mashiya is a reflection on the teaching experience with isiZulu L1 postgraduate students (Mashiya 2010: 98) and the study by Nkosi (2014: 250) reports on these students' attitudes. However, in investigating the attitudes of isiZulu L1 students towards the use of isiZulu in their studies, only Nkosi (ibid.) reports on the language offering level at basic education and how it impacts attitudes towards isiZulu. The differential levels in the offering of isiZulu result in two sub-groupings of isiZulu L1-speaking students.

As a result of the sub-groupings, there are two distinct patterns of bilingualism that the respondents in this study attest to. The first is a disposition towards the use of isiZulu in academic contexts, with limited and functional use of English. The second is a disposition towards the use of English in academic contexts, with the use of isiZulu often limited to informal supplementary discussions. I first look at the considerable use of, and preference for isiZulu, thereafter the considerable use of, and preference for English.

5.1.1.1 The considerable use of and preference for isiZulu

Respondents whose home language (HL) is isiZulu, and the majority of those who had been exposed to isiZulu HL at basic education level, indicate a positive disposition towards the use of isiZulu in academic contexts.

Within this group, I detected two further sub-groups: those who welcome the use of isiZulu as part of the African Renaissance and the decolonisation movements, and those who opt for the use of isiZulu as a preferred language in an English-oriented higher education domain. For these sub-groups, the use of isiZulu transcends informal home settings and permeates the academic space. This is evident in the high rates of use of isiZulu when interacting with friends from university as well as isiZulu L1-speaking librarians and non-academic staff. There are also high rates with regard to the use of a mix of isiZulu and English. In line with the argument advanced in Posel, Hunter, and Rudwick (2020: 10), the respondents in this study are translingual. The study by Posel et al. however, does not profile the domains in which speakers of African languages use their linguistic repertoires in a translingual manner. The respondents in this study mix isiZulu and English when they interact with friends from university, with L1-speaking lecturers, tutors, and librarians, as well as outside of lectures when discussing module content and non-academic matters. They use both languages when reading newspapers, and when reading books. Figure 5.1 illustrates:

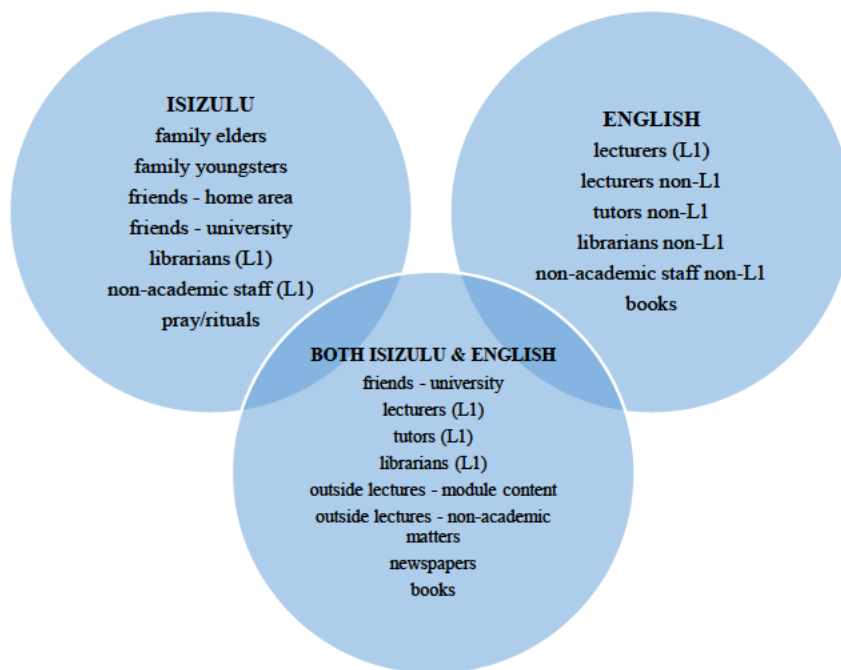


Figure 5.1: The use of isiZulu and English per domain

This group of respondents, whether driven by the African Renaissance and the decolonisation movements or due to a pure preference for the use of isiZulu over the use of English, ascribe to linguistic citizenship that is advocated in Stroud and Kerfoot (2021: 27). They believe that isiZulu as an academic language provides them with the capability to achieve their academic aspirations in the same way that English does. This belief aligns with a decoloniality move that Chasi (2021: 31) promotes, in so far as the use of African languages is concerned. The use of isiZulu, from a decoloniality perspective, includes the scaffolding of academic content that is presented in English. These respondents declare that such use of isiZulu assists them in performing better in their registered modules. They attest to translating from English to isiZulu when they study individually as well as when they discuss content among themselves, and they then translate back to English during assessments. The respondents indicate an increased reliance on isiZulu to scaffold academic content compared to previously reported uses of African languages (see, e.g., Ditsele 2016: 8; Makhanya & Zibane 2020: 28).

In Ditsele (2016: 9), respondents indicate positive attitudes towards the use of Setswana in higher education and the current study shows that respondents are positive and confident in the use of isiZulu in their studies. For them, the improved academic performance through the use of isiZulu is foregrounded. In a study by Makhanya and Zibane (2020: 33), as much as the respondents express a want to use isiZulu in their studies, they also express concerns regarding the absence of isiZulu in both their tuition and in the administration of assessments. In the

current study, the respondents welcome the initiative of using isiZulu despite the fact that it does not yet feature as a language used for assessments. The preference for the inclusion of isiZulu as an academic language has the potential to enhance the success of L1 speaking students in their academic endeavours (Heugh 2013: 225; Hurst & Mona 2017: 144).

In this study, the rates at which the respondents use isiZulu in terms of the academic contexts both formally and informally, indicate that the language plays a significant role in their lives and is the language they prefer to use despite English being the primary MoI at UKZN. IsiZulu enables a better understanding of the academic content that these respondents deal with. This outcome echoes findings by Nkosi (2014: 261) wherein students enrolled in a bilingual postgraduate programme supported the initiative of mother-tongue instruction at UKZN. In Nkosi's study, the students embraced the use of isiZulu as means of implementing the university's multilingual language policy, and as a means of decolonising the curriculum that uses English (Nkosi 2014: 254). The respondents in the current study attest to isiZulu aiding in their thinking processes and further assisting them in explaining the academic content to each other with ease. They add that when an opportunity arises, isiZulu assists in articulating questions without the inhibitions that are felt when asking in English. In the study by Makhanya and Zibane (2020: 33), respondents support the inclusion of isiZulu in higher education which in their experience is non-existent. On that basis, the authors conclude that the absence of the students' home languages accounts for the perpetuation of hidden colonial practices that exclude the African students at university (ibid.).

The respondents who prefer the use of isiZulu for academic purposes find it challenging that isiZulu does not feature formally in their tertiary education experience. The lectures and learning materials are in English, and assessments are administered in English. These respondents express their fondness for isiZulu and hope that isiZulu will feature more in their academic endeavours. Results indicate that these respondents have been exposed to learning isiZulu at HL level, and their teachers, at basic education level, have been translanguaging in isiZulu and English while giving lessons; a practice reported on by Read and du Plessis (2021: xv). This translanguaging practice is neither formally acknowledged nor encouraged at UKZN, however, it is widely and informally promoted in South African higher education as a means of addressing the academic needs of most African students (see e.g., Makhanya & Zibane 2020; Nhongo & Tshotsho 2020; Nyangiwe & Tappe 2021). The strategic use of isiZulu at UKZN is evident in the bilingual programmes in the School of Education (see e.g., Nkosi 2017: 227-228; Mbatha 2016: 156; Mthiyane 2016: 124), and in the Supplemental Instruction classes in

the School of Chemistry and Physics (Bengesai 2011: 64) and adds to the transformation agenda in South Africa. However, these initiatives need to be applied university-wide and in a flexible manner that addresses the students' needs. Hence, this study solicited data across the four colleges of UKZN. Continuing initiatives, which include the use of isiZulu in academic activities, enhance the African Renaissance and decolonisation movements as strategies aimed at eradicating the misfortunes and the injustices of colonialism and apartheid in South Africa. These initiatives, according to Chasi (2021: 35), counteract the marginalisation of local and indigenous languages in South African universities.

In terms of using isiZulu, not exclusively, but alongside English in the pursuit of academic activities, the quantitative data shows high response rates, indicating a preference for receiving explanations of the course materials in both isiZulu and English. Comparably, the student participants in the study by Makhanya and Zibane (2020: 32) expressed that they would appreciate their home language being included in their studies, as this would ease expression during discussions, enhance self-confidence, and create a sense of belonging. Even though the sentiments shared in the two studies are aligned, the respondents in the current study specify how they would like isiZulu to be featured. Most of the respondents indicate a preference toward the explanation of the course materials being presented in both isiZulu and English. These materials may include lecture slides, lecture notes, and additional resources such as terminology lists.

Studies that explore the attitudes of African students towards the use of their languages in higher education (e.g., Nkosi 2014; Ditsele 2016; Makhanya & Zibane 2020) refer to the students' attitudinal responses in a general sense. These studies look at attitude as a unitary construct. The current study contributes further to the research on attitudes towards the use of African languages (isiZulu, in this case) by delineating attitudes in terms of the tripartite model of attitudes. It looks at the attitude towards isiZulu in terms of three aspects: cognitive, affective, and behavioural. The majority of the respondents (sub-group one who attended schools in quintiles one to four) indicate positive attitudes towards the use of isiZulu in academic contexts in all three aspects. They believe isiZulu helps them understand the course content better, they express a passion for isiZulu as their home language, and they indicate the intention of using isiZulu more in their studies. A minority of the respondents (sub-group two who attended quintile five schools) indicate ambivalence toward the use of isiZulu in academic contexts. For this sub-group of respondents, isiZulu is acknowledged as important and worth

developing and it is a language they identify with, however, there is reluctance in using it for academic purposes.

In as much as the majority of the respondents hold positive attitudes toward the use of isiZulu, similarly to the respondents in Nkosi (2014), Ditsele (2016), and Makhanya and Zibane (2020); Nkosi (2017) reveals another perspective on the students' use of isiZulu. In an investigation involving lecturers' views on the use of isiZulu for teaching and conducting research in higher education, Nkosi (2017: 230) reports on the challenges encountered in the modules conducted in isiZulu. These include the students' poor academic writing skills combined with poor orthography in their L1. The students, referred to by the lecturers in Nkosi's (2017) study, had not received adequate preparation in the use of isiZulu as an academic language. Reasons that may account for students' poor academic skills in isiZulu include students not being exposed to isiZulu HL at basic education level, which creates challenges in terms of orthography and academic writing skills (Lafon 2008: 47). Further to this, an early switch to English as an MoI is questionable, even for those who learn isiZulu at an HL level through their basic education years (Desai 2016: 344). In an assessment by Wildsmith-Cromarty and Turner (2018: 418), they found that African students need a solid foundation in their home language to take full advantage of its use as MoI at a tertiary level. In the case of South Africa, attention must be paid to the development of biliteracy (Nomlomo & Katiya 2018: 79). The use of home languages beyond the first three years of schooling concurrently with English may allow for the development of adequate academic skills that will allow the students the freedom to choose which language they use as MoI at all levels of their education. In the case of Nkosi's (2017) study, UKZN may not have created an environment conducive enough for the use of isiZulu; a responsibility that Gore and Walker (2020: 57) bestow on universities. The use of isiZulu as MoI must go beyond the first three years of primary education. A selection of subjects should be offered in isiZulu/African languages throughout basic education in order to develop adequate biliteracy skills, for either language to be used at the university level.

As previously stated, respondents in this study indicating a preference for the use of isiZulu are predominantly those who have been exposed to the offering of isiZulu at HL level as well as the use of isiZulu in academic contexts. The use of isiZulu assists in articulating their thoughts, scaffolding academic content, and enhancing their understanding of the module presented in English. As Alexander (2012: 3) contends, the use of home languages is empowering rather than disempowering. The respondents who favour the use of isiZulu feel empowered, as their confidence in managing the module content is enhanced with the use of isiZulu. Ramoupi

(2014: 55) argues that the students' home languages facilitate the acquisition of vital information while the use of a non-mother tongue (in this case, English) prohibits such acquisition.

5.1.1.2 The considerable use and preference for English

English, as the default primary MoI at all education levels (Desai 2016: 345), is predominantly used by students in this study when they interact in formal academic settings with both isiZulu L1 speakers and non-L1 speakers. This is an indication of the functional use of English among speakers of African languages (Ngcobo & Barnes 2020: 91). This finding is congruent with a finding from a study conducted among isiXhosa first-year engineering students at the University of the Western Cape, wherein the students who had attended ex-Model C schools considered their home language as not viable for political, academic, or economic purposes, thus, English is the preferred functional language (Nomlomo & Katiya 2018: 78). In this study, the students who have a stronger background in English than in isiZulu, indicate that while they acknowledge the importance of isiZulu, they consider its use exclusively in their academics at this point, to be too late in their educational endeavours. Therefore, these respondents advocate for the use of isiZulu alongside English, with isiZulu taking a secondary role as MoI, and with English remaining the primary MoI.

Respondents in this study attribute the primacy of English, related to their underdeveloped background in isiZulu, to attending ex-Model C schools at basic education level. They are accustomed to the use of English and the concept of the exclusive use of isiZulu is inconceivable. For these respondents, English is the dominant language used at home and school. African parents have been encouraging their children to attend English medium (ex-Model C/quintile five) schools due to a shared belief that these schools have better-qualified teachers and offer a higher quality education than that perceived to be offered at schools in African residential and rural areas (Ndimande 2013: 28). Despite the respondents identifying as isiZulu L1 speakers, they have become so accustomed to the use of English that it may be subconsciously activated as the first language choice in their interactions. This finding reinforces that Africans in South Africa are not undergoing a language shift from their languages to English, as suspected by Kamwangamalu (2003: 237), but instead default to English as an involuntary action to serve a function. IsiZulu is not discarded and disregarded as a language, a finding that iterates a conclusion drawn by Ngcobo (2014: 710).

The use of English as an academic language is rooted in the language's international prestige, its hegemonic status over African languages, and the prospects of economic goods that are associated with it. Respondents indicate that isiZulu does not currently meet these criteria. They do, however, acknowledge that isiZulu assists in those instances where English poses a challenge in comprehending academic content. This finding shows that attitudes are not static. There are shifts in attitudes, as detected in this study. The respondents in this study are more receptive to the use of isiZulu in comparison to respondents in earlier studies, where students were more ambivalent towards the use of isiZulu. Mashiya (2010: 102) reported on a reluctance by students to enrol in isiZulu-medium modules. They regard isiZulu as more difficult to use in academic contexts than English. They also indicate the underdevelopment of terminology in isiZulu as a further reason for their reluctance. In Thamaga-Chitja and Mbatha (2012: 344), the students dismissed the use of their home language (isiZulu) at UKZN citing fear of limited access to economic goods as an underlying cause. The current shift in attitudes presents a window of opportunity for isiZulu and other African languages to be used in academic contexts.

5.1.2 The extent to which the isiZulu L1 students' attitudes are influenced by the existence of discipline-specific terminology in isiZulu

Data collected in addressing research question 2 indicates that the attitudes of isiZulu L1 students towards the use of isiZulu as an academic language are influenced by the existence of the terminology in isiZulu to varying degrees. Most of the respondents' attitudes towards isiZulu are positively influenced by the existence of the terminology. Although there are other studies that report on the existence of isiZulu discipline-specific terminology at UKZN, this study goes further in three ways. Firstly, it investigates the way this existence influences the attitudes of L1 students towards isiZulu. Secondly, this study solicits the attitudes of students across the four colleges of the university. Thirdly, the investigation looks at the three aspects of attitude.

5.1.2.1 Influence of terminology in isiZulu towards isiZulu as an academic language

There have been studies conducted at UKZN that report on the existence of terminology in isiZulu, the processes of terminology development, and the translation processes (see e.g., Mkhize, Dumisa & Chitindingu 2014: 142; Khumalo 2016: 258; Khumalo 2017: 254). These authors, however, have not investigated the reception of this terminology by isiZulu L1 students at UKZN. The current study places emphasis on the attitudes that isiZulu L1 students hold towards isiZulu as an academic language and the influence that the existence of discipline-

specific terminology in isiZulu has on these attitudes. The study finds that the existence of terminology in isiZulu, for the majority of the respondents, has a positive influence on attitudes towards isiZulu as an academic language. The current research also supplements another cohort of studies that investigates the attitudes of isiZulu L1 students towards the use of isiZulu as an academic language with little or no reference to the existence of the terminology in isiZulu (see e.g., Van Laren & Goba 2013: 3; Nkosi 2014: 246; Makhanya & Zibane 2020: 23; Zulu & Ndebele 2020: 19).

Most of the respondents in this study believe that the terminology in isiZulu enhances their understanding of academic terms, which results in better academic performance. Thus, the existence of the terminology has a positive influence, in terms of attitudes, on the use of isiZulu as an academic language. This finding differs from the attitudes expressed in Van Laren and Goba (2013: 4) wherein pre-service teachers considered the mathematical terms in isiZulu to be limited, not expressive of the terms they use in teaching numeracy and not commonly used by L1 speakers. For these pre-service teachers, the availability of the terminology in isiZulu influenced them negatively towards the use of isiZulu as an academic language. In a study by Nkosi (2014: 251), while there is no reference to the existence of terminology in isiZulu, the respondents hold a positive attitude towards learning through the medium of isiZulu. Makhanya and Zibane (2020: 32) report that students bemoan the absence of isiZulu in their academic journey. For them, the presence of isiZulu will boost their confidence, sense of belonging, and academic performance. These students are positive about the prospect of using their home language, an attitude that may escalate with the existence of terminology in isiZulu. Using isiZulu, and enrolling in isiZulu modules, is welcomed by the students investigated in Zulu and Ndebele (2020: 26). While these authors do not refer to the terminology in isiZulu, their findings indicate that better understanding (**and subsequent improved academic performance** – my addition) ranks as the highest motivational factor for the students' choices. Thus, isiZulu L1 students may be influenced positively towards the use of isiZulu with the existence of discipline-specific terminology in isiZulu.

Most of the respondents in this study prefer that terminology be available in isiZulu, however, this preference is conditional. A substantial number of respondents indicate a preference for loanwords being provided as an option in the terminology lists. This preference may be in line with concerns expressed by the pre-service teachers in Van Laren and Goba (2013: 4), wherein respondents indicated that the isiZulu mathematical terms that they were provided with were not part of the day-to-day vocabulary of the learners. In Nkosi (2014: 260), postgraduate

students bemoan the use of terms that are directly translated from English positing that this causes the academic terms to be inaccessible and compromises comprehension of the terms. However, the respondents in both cited studies are in support of the use of isiZulu in their studies particularly if the terminology is available and accessible. Nomlomo and Katiya (2018: 86) attribute the challenge that African students encounter with 'pure' terms in African languages to a lack of biliteracy in English and their home languages. Hence, such students cannot fully capitalise on their home languages as a resource. This concern over 'pure' terms in African languages is prevalent among students who attended English medium schools, as opposed to those who attended schools where African languages are dominant both inside and outside the classroom. The case of the former is evident in an earlier study conducted by Rudwick and Parmegiani (2013: 100) wherein isiZulu L1 students at UKZN admitted to having deficient literary skills in isiZulu, which hampered their use of the language despite a willingness to do so. The divided loyalty of these students is discussed in §2.2.3.1 of this thesis.

In the case where the terminology in isiZulu is either challenging to decode or non-existent, loanwords may be helpful. The preference for loanwords is not unique to the respondents of the current study, nor isiZulu as a whole. Gumbo and Mutasa (2020: 58) note that in terms of Shona, a language of Zimbabwe, loan terms from English serve the purpose of gap-filling in those instances where there are no apt Shona terms, as well as in those instances where Shona terms are a taboo; the English terms present precise expressiveness of the terms. According to Rudwick (2018: 258), lexical borrowing in the form of loanwords is prevalent among South African languages. For Nhongo and Tshotsho (2020: 83), loanwords are non-prescriptive and allow for functionality of the language which benefits end-users. Even though students may prefer loanwords for functionality, from a lexicography perspective, Mphahlele (2004: 340) contends that resorting to loanwords is not ideal as it impedes optimal retrieval of the semantic information in the target language. This preference for loanwords is demonstrated in Nchabeleng (2012: 61), wherein 52 percent of Northern Sotho grade 12 learners indicated a preference for Chemistry loanwords instead of indigenous or pure terms.

The respondents in this study indicate an intention to consult the terminology in isiZulu when they encounter challenging terms in English and when they discuss course content with other L1 students. They show a positive attitude of support toward the drive for the use of isiZulu terminology, in terms of it facilitating an understanding of academic content. In addition to the indigenous terms available, respondents indicate that they would prefer the inclusion of loanwords in the terminology. The respondents' responses are seen to be influenced by their

exposure to English during their education, prior to tertiary level. For Nomlomo and Katiya (2018: 85) students from former white and private schools do not benefit much from the multilingual glossaries. Therefore, these authors contend that “multilingual materials such as glossaries do not automatically guarantee epistemological access if they are not in sync with the students’ multilingual and biliteracy trajectories” (Nomlomo & Katiya 2018: 89). This may be one factor influencing the respondents’ preferences for loanwords over pure isiZulu terms.

5.1.2.2 The attitudes of isiZulu L1 students across the four colleges of UKZN

The current study solicits the attitudes of students across the four colleges of the university. The student fraternity at UKZN is dominated by isiZulu L1 students, and the use of isiZulu, according to the UKZN policy, applies throughout the university. Previous studies soliciting isiZulu L1 students’ attitudes towards isiZulu at UKZN have been conducted either per college (see e.g., Nkosi 2014: 246; Zulu & Ndebele 2020: 19) or per discipline (see e.g., Chetty 2013: 1; Makhanya & Zibane 2020: 26). Nkosi’s (2014: 246) study reports on the attitudes of students in relation to being taught in isiZulu in the School of Education. Zulu and Ndebele (2020: 19) solicited isiZulu L1 students’ motivation for enrolling in isiZulu first language modules. Respondents were recruited from the Colleges of Humanities, and Law and Management Studies. Studies conducted per discipline include Chetty (2013: 2), who sought to examine isiZulu L1 students’ perceptions on being taught Physics in isiZulu and Makhanya and Zibane’s (2020: 33) study reported on students’ concerns over the absence of the use of isiZulu in the Social Work discipline. This study adds to the ongoing research at UKZN by obtaining data from students in all the colleges, in four disciplines wherein isiZulu terminology has been developed as well as in four disciplines wherein the terminology has not been. This positions the study as a comprehensive assessment of isiZulu L1 students’ attitudes at UKZN. This study collected data quantitatively and qualitatively while other studies collected data using only qualitative methods (see e.g., Chetty 2013: 2; Nkosi 2014: 250; Makhanya & Zibane 2020: 26), or, as with Zulu and Ndebele (2020: 18), using only a quantitative instrument in collecting data.

5.1.2.3 The three aspects of attitude on the existence of terminology in isiZulu

A substantial number of research studies have investigated the isiZulu terminology development processes at UKZN (see e.g., Engelbrecht et al. 2010: 253; Mkhize et al. 2014: 142; Khumalo 2016: 258; Khumalo 2017: 254). In the studies that refer to attitudes towards terminology in isiZulu at UKZN, (see e.g., Chetty 2013: 6; Van Laren & Goba 2013: 3), the focus is on a unitary structure of attitudes and not on the three aspects of attitude, being

cognitive, affective, and behavioural. On the availability of terminology in isiZulu for Physics, the respondents in Chetty (2013: 6) raise a concern regarding the convoluted nature of the terms, specifically noting that different terms in English have only one equivalent in isiZulu. Chetty (2013: 5) provides an example. Students were asked to provide the equivalent isiZulu terms to the English terms, ‘velocity’, ‘acceleration’, and ‘speed’. The dominant response was ‘*isivinini*’ across all three terms. As a result of this type of challenge, these respondents indicated a negative attitude towards the use of isiZulu (including terminology in isiZulu) for Physics. In my opinion, this conclusive assessment in Chetty (2013: 5) reflects the cognitive aspect of attitude by examining what respondents think of the terms in isiZulu, as well as the behavioural aspect of attitude, in examining the isiZulu equivalents given to the terms in English. The affective aspect of attitude is indirectly implied in the concern that the respondents raise.

In the current study, the attitudes of the respondents are expressed in three dimensions. Firstly, they indicate that they believe the terminology in isiZulu may facilitate a clearer understanding of academic terms as these terms are predominantly self-explanatory and their use may enhance academic performance. Secondly, they indicate receptive feelings towards the terminology in isiZulu, even though there is a preference for loanwords instead of proper terms in isiZulu. Thirdly, they consistently indicate an intention to consult the terminology in isiZulu when they encounter challenging terms, to enhance their understanding of the academic terms.

The respondents in Van Laren and Goba’s study (2013: 4) express a negative attitude towards terminology in isiZulu for numeracy as they consider the terminology to be limiting in expression and alien to the lived experiences of the learners. This conclusive assessment, in my opinion, reflects a cognitive aspect of attitude. The affective aspect is only implied in the expressed concern and not specifically mentioned while the behavioural aspect is not considered. While respondents in the current study show a positive attitude regarding their intention to use the terminology in isiZulu, the preference for loanwords rather than proper terms in isiZulu corresponds with the sentiments expressed in Laren and Goba (2013: 4), that the terms in isiZulu are alien to the lived experiences of the students. The respondents’ assessments, expressed explicitly in Laren and Goba regarding the unfamiliarity with proper terms in isiZulu, and implied subtly in the current study through a preference for loanwords, confirm the critique made in Khumalo (2017: 262) concerning the harvesting¹⁴ of the

¹⁴ Harvesting, as used in Khumalo (2017: 257) refers to the collection and selection of terms that are included in the terminology lists.

terminology in isiZulu. Khumalo (ibid.) recommends a bottom-up approach, such as crowdsourcing, in harvesting the terminology rather than a top-down approach, which involves lecturers identifying the terminology, a model that UKZN used. The bottom-up approach may allow end-users (students) to identify terminology that forms part of their day-to-day lived experiences. The inclusion of loanwords may address the abstract nature of indigenous terms, thus making the terminology relatable. This receptiveness for loanwords differs from the respondents in Laren and Goba (2013: 4), who dismiss the use of the terminology in isiZulu altogether.

5.1.3 The correlations among the three components of attitude

This study aligns with the notion that the attitude construct is complex and has three aspects: cognitive, affective, and behavioural (see e.g., Baker 1992: 13; Kowalczyk et al. 2021: 361). For this reason, when all three aspects are under scrutiny, inconsistencies surface (Breckler 1984: 1203). The respondents in this study reveal these inconsistencies, which vary from person to person. These inconsistencies are a result of each individual's distinct experiences in terms of the dominant languages they use, their language backgrounds, the varied language exposure through the basic schooling system, and other factors which may not have explicitly been identified in this study.

As Jain (2014: 7) contends, the combination of the three aspects of attitude may yield eight triode combinations. From the quantitative data, out of 28 focus group participants, 23 participants' responses yielded six triodes (six attitudinal response combinations) which are presented in Chapter 4 §4.4.3.

In the attitudinal response combinations, the cognitive aspect has the most positive attitude responses (19 out of 23), the affective aspect follows (15 out of 23), and the behavioural aspect has the least number of positive responses (13 out of 23). For the negative attitudinal responses, the cognitive aspect has the least (four out of 23), the affective aspect doubles up (eight out of 23), and the behavioural aspect has the most negative responses (10 out of 23). As per Breckler (1984: 1203), the attitude aspects may be inconsistent depending on the abstractness or concreteness of the object under review. In this study, when the respondents expressed their thoughts and their feelings on the use of isiZulu and the terminology in isiZulu, the ratings are high. When the respondents are presented with the actual terminology in isiZulu, the ratings are low.

In the interview data, the participants indicate that the use of isiZulu may assist in deciphering English academic terms (including those that are derived from other languages, as used in science, anatomy, law, and architecture). The absence of students' home languages in academic contexts has been raised as a concern in previous research (see e.g., Madlala & Mkhize 2019: 101; Ndebele & Ndimande-Hlongwa 2019: 96; Makhanya & Zibane 2020: 33). The interview participants in this study, seemingly addressing the value that a home language can play in academics, foreground the way in which the terms in isiZulu may assist their recall of the terms with ease and assist in understanding the conceptual nature of the academic terms. A need to understand academic content is rated as the highest motivational factor for the preference of isiZulu modules in a study conducted by Zulu and Ndebele (2020: 26). Similarly, the participants in this study believe that the use of isiZulu may help them perform better in their academic work despite the limited study time they have.

The participants' positive affective attitude responses (15 out of 23) reflect the feelings and emotions that they carry regarding the use of isiZulu and the terminology list in isiZulu. The respondents indicate their passion for isiZulu as well as a positive inclination toward isiZulu being positioned in the academic space. This expression of love for the language, the embracing of the language, the upholding of culture, and the affirmation of identity as Africans is foregrounded in Ngcobo (2014: 700) and is evident in Sigudla et al. (2021: 135). Over and above a sense of belonging as a reason for the preference for isiZulu, the participants in this study feel that the use of isiZulu enhances their interest in their chosen subject areas, thus increasing concentration on the subject matter. They indicate that isiZulu makes the academic content more accessible as it mitigates the barrier that is presented when only English is used.

The participants' positive behavioural attitude response rate is the lowest of the three aspects of attitude (13 out of 23). Despite the participants acknowledging the importance and role of isiZulu in academic contexts, including the benefits they may reap from its use, the historical positioning of isiZulu (and other African languages) as subordinate to English inhibits overwhelming support for its use (Hurst 2016: 232). It appears that isiZulu L1 students (and, probably, other L1 speakers of African languages as well) still uphold the remnants of colonial practices that position English in an elevated position for the pursuit of higher functions such as academic endeavours (see e.g., Makhanya & Zibane 2020: 33; Chasi 2021: 31). The participants welcome the opportunity that the use of isiZulu brings, for example, being able to ask questions in their home language when interacting with isiZulu L1 tutors, being able to discuss the academic content with peers in a familiar language and being able to visualise

academic terms when translated to isiZulu. While these possibilities may assist participants when studying, they are cognizant of the fact that English remains the language of assessment and the dominant language in the world of work. It is apparent that the valorisation of English (Alexander 2012: 3) in South Africa is not only a reality in terms of the legislative frameworks in place, but it is a reality that L1 speakers of the indigenous languages of the country cannot deny.

This discussion is evidence that the attitude construct, under scrutiny, is not unitary and that the three aspects of attitude may not always be consistent. This study explicitly delineates these aspects of attitude in contrast to Van Laren and Goba (2013) wherein attitudes are a by-product of the participants' experiences of being taught numeracy in isiZulu. The participants in Van Laren and Goba (2013: 4), indicate a comprehensive positive attitude towards communication in isiZulu during lectures – they found it helpful (*cognitive aspect* – my assessment), they loved it (*affective aspect* – my assessment), and they could follow the lecture with ease (*behavioural aspect* – my assessment). The same participants indicate a comprehensive negative attitude regarding the terminology in isiZulu for numeracy – they found the terms limiting in expression (*cognitive aspect* – my assessment), they had difficulty distinguishing between related terms (*behavioural aspect* – my assessment), and they expressed frustration in respect to translating terms from English to isiZulu (*affective aspect* – my assessment) (ibid.). The participants in Van Laren and Goba (2013: 4) indicate a positive perception of communicating through isiZulu during lectures, while they also indicate a negative perception of the numeracy terms in isiZulu. Thus, the possibility of inconsistency among the aspects of attitude exists and such inconsistencies appear in this study. A deeper understanding of the attitude construct and its different aspects is necessary. From this study, we learn that campaigns that aim to bring about attitudinal change may have to target the different aspects of attitude individually. I discuss this and further implications of the current study in Chapter 6.

5.1.4 The extent to which isiZulu L1 students acknowledge discipline-specific terminology as a resource in their academic lives

There are variations in the extent to which isiZulu L1 students acknowledge discipline-specific terminology as a resource in their academic lives. These variations add weight to the inconsistencies within the attitude construct. The extent of acknowledgement, as depicted by how the respondents behave towards the terminology in isiZulu (i.e., providing English

equivalents and rating the terms in isiZulu), is not congruent with the cognitive and affective aspects of attitude that the respondents attest to (see subsections one and two of this chapter).

Before discussing the extent of acknowledgement of the terminology in isiZulu, it is worth mentioning that when the respondents were recruited, they claimed that they were not aware of the terminology lists that had been developed for various disciplines at UKZN. This was surprising as the terminology is available in two public domains: the UKZN weblink and the mobile application, 'Zulu Lexicon'. The respondents interacted with the terminology for the first time in the questionnaire survey. This finding is concerning because financial and human capital has been invested in developing these terminology lists in isiZulu (see Khumalo 2017: 258). In addition, the terminology has been made publicly available for all users in open-source domains (Khumalo 2017: 261). However, it seems that no systematic awareness has been created directly at UKZN to promote the active use of the terminology, particularly for the benefit of the students who are the primary end-users.

Research studies on the development of terminology lists in African languages have been pursued at UKZN (see §5.1.2.3 above) and at a few other universities in South Africa (see e.g., Sibula 2007: 404; Nkomo & Madiba 2011: 146; Nomlomo & Katiya 2018: 79 amongst others). In these studies, there is no direct mention of reactions to the terminology nor the receptiveness of the students to the developed terminology. Yet, the terminologies are primarily developed for the students. Sibula (2007: 405) reports on a positive reception of terminology in isiXhosa by both the academic departments at Stellenbosch University and government dignitaries, yet there is no mention of the students' reactions and their receptiveness towards this terminology. Nkomo and Madiba (2011: 146) report on a project wherein the University of Cape Town engaged in the compilation of multilingual glossaries to support non-English L1 students in their pedagogical needs. The authors admit that the success and effectiveness of these glossaries had not been assessed (at the time of their publication) but they believed that the interactive nature of the glossaries makes them valuable resources for non-English L1 students (Nkomo & Madiba 2011: 168). Nomlomo and Katiya (2018: 79) investigate the use of multilingual glossaries among first-year electrical engineering students in a university in the Western Cape. The authors highlight that the students' multilingual and bilingual trajectories are not synchronous with the multilingual glossaries due to variations in the students' proficiency levels in their home languages (Nomlomo & Katiya 2018: 89).

The studies cited in the preceding paragraph do not solicit the students' perceptions and/or evaluations on the extent to which they acknowledge the resourcefulness of the resources. The respondents in this study reacted to the terminology in isiZulu in varied ways. In terms of recognising the terminology in isiZulu, and providing the equivalents in English, the respondents (from all four colleges of the UKZN and irrespective of the language-learning background) indicate a remarkably low level of familiarity with the terms in isiZulu. In each of the ten lists of terms in isiZulu that were given to the eight groups of respondents, only one group responded by giving equivalents in English to 90 percent of the terms. This group represents only one percent of the respondents. This response rate indicates that the behavioural aspect of attitude towards the terminology in isiZulu is not positive. The respondents do not indicate familiarity with the discipline-specific terminology in isiZulu across all four colleges.

The ratings, with respect to the equivalent English terms given by the students, are incongruent with the ratings given to the isiZulu terms in connection with clarity, understanding, acceptance, the chance of using the term, the need for the term in isiZulu, and the term in English. There is also inconsistency in the ratings among the features assessed. The ratings for level of clarity and level of understanding are higher than the ratings related to the level of acceptance, the chance of using the term, the need for the term in isiZulu, and the term in English. A few of the respondents rate the terminology as clear and understandable, however, this does not correlate to the number of equivalents provided to the terminology in English. The respondents (across the varying levels of proficiency in isiZulu) are challenged by the terminology in isiZulu and could not decipher the ten terms provided in the questionnaire survey. These findings question the preparedness of isiZulu L1 students for the use of isiZulu learning resources.

The inconsistencies between the ratings of the features and the provision of equivalents in English may be attributed to the respondents' varying backgrounds and levels of exposure to isiZulu in academic contexts. However, it appears that even the respondents who have experienced high levels of exposure to isiZulu, as a home language at school, and its use in basic education, are not prepared for the use of resources such as the terminology list in isiZulu. This is despite their self-assessment of proficiency in isiZulu as high.

Those respondents who learnt isiZulu at a home language level, and whose teachers have used isiZulu in explaining content believe that the terminology in isiZulu is accessible and may benefit them. These respondents appraise the level at which they learnt isiZulu at school and

associate it with a state of readiness in terms of welcoming and using the terminology in isiZulu. The confidence that the respondents in this study express, concerning their proficiency in isiZulu, is articulated in Zulu and Ndebele (2020: 21). In that study, isiZulu L1 students indicated that they were motivated to enrol in isiZulu modules because they are taught and assessed in isiZulu. They believed that this would offer a greater opportunity for improved academic performance, over the modules in English. These findings, however, relate to overall motivation for enrolling in isiZulu modules and do not interrogate the reception of learning material that includes terminology in isiZulu. There is a clear need to integrate the learning resources, such as the terminology in an L1, when academic activities are conducted. Therefore, only combining an L1 and English in language use and not integrating learning resources in both L1 and English, is inadequate when constructing the epistemological meaning of academic texts in order to meet the academic needs of L1 speakers (of isiZulu and other African languages) in academic contexts, (Makhanya & Zibane 2020: 33).

The respondents who learnt isiZulu at additional language level and other content subjects consistently through the medium of English, feel that the terminology in isiZulu is abstract to their reality. This group of respondents has two sub-groups. The first sub-group does not believe that the isiZulu terminology, in all its variants, will benefit them and enhance their academic performance. These respondents do not acknowledge the terminology in isiZulu as a resource in their academic lives. Some of these respondents admit to not providing the equivalents in English to the terminology in isiZulu in the questionnaire survey as they found the terminology in isiZulu difficult to decode. For this reason, they do not believe that the terminology will assist them in their academic endeavours. In Mashiya (2014: 249), isiZulu L1 pre-service teachers who had attended ex-Model C schools expressed frustration when being assessed in modules taught through the medium of isiZulu. These pre-service teachers had difficulty expressing themselves and producing appropriate terminologies in isiZulu for concepts in Life Skills and Numeracy (ibid.). Integrating the relevant terminologies in isiZulu during lectures, tutorials, and other academic activities before assessments are conducted, may have benefited these pre-service teachers. In addition, this kind of integration may assist isiZulu L1 students who have not experienced extensive exposure to learning through the medium of isiZulu.

The second sub-group expresses a preference for loanwords instead of indigenous terms in isiZulu, the latter being regarded as abstract to their realities. They regard terminology in the deep variety of isiZulu as challenging, complicated, and not clear, and hence, isiZulu does not

assist them in understanding academic terms. These respondents do not necessarily discount the use of isiZulu terminology but indicate a preference for loanwords being included in the terminology lists. This is an indication of an ambivalent attitude towards discipline-specific terminology in isiZulu. Additionally, these respondents attest to the functional role that English plays for most students in South Africa who are functionally bilingual (Berghoff 2021: 12). To cater to the needs of such students, Nhongo and Tshotsho (2020: 87) appraise the transliteration of terms in African languages (loanwords) as a translanguaging strategy that mitigates the abstract nature of the indigenous terms, thus making the terminology in African languages accessible to the students.

Provision of loanwords in addition to indigenous terms in isiZulu may cater to the heterogeneity that prevails among isiZulu L1 students. The extent to which the respondents in this study indicate their acknowledgement of the terminology in isiZulu as a resource in their academic lives reflects this heterogeneity. This heterogeneity may be addressed using translanguaging approaches, not only in teaching but in the presentation of resources such as terminology lists as well. Translanguaging is commended for integrating English and African languages (isiZulu, in this case), thereby catering for the heterogeneity of the isiZulu L1 students (see e.g., Ngcobo et al. 2016: 22; Hurst & Mona 2017: 132; Nyangiwe & Tappe 2021: 52).

5.2 Summary of the chapter

In this chapter, I discuss the findings by juxtaposing them with findings from past research. The discussion has been framed around the four research questions posed in this study. I highlight the extent to which this study and its findings draw and expand on past research.

That which is notable in the findings is threefold:

Firstly, isiZulu L1 students are a heterogeneous group. As a result, their attitudes towards the use of isiZulu as an academic language and toward discipline-specific terminology in isiZulu varies. The variation is attributed to different experiences in learning isiZulu at basic education level.

Secondly, this thesis illustrates the validity of the tripartite model of attitude as proposed by Jain (2014: 6). The results clearly show that striking intra-personal disparities between the cognitive, affective, and behavioural aspects of attitude exist.

Thirdly, there is a notable inability of respondents in this study to practically use the isiZulu terminology developed to assist them with understanding discipline content. This finding applies irrespective of the students' levels of competence in isiZulu. It appears that the existing discipline-specific terminology does not meet the students' needs at this point.

The implications of these findings are presented in the concluding chapter of the thesis. In addition, the final chapter presents the limitations and the delimitations of the study, the recommendations and outlook for further research, and the concluding summary of the thesis.

CHAPTER 6: SUMMARY OF THE FINDINGS, IMPLICATIONS OF THE STUDY, LIMITATIONS AND DELIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter consists of six subsections. The first provides a summary of the findings and thereafter, I discuss the theoretical and practical educational implications of the study. I then present the limitations and delimitations of the study followed by conclusions drawn from the study. Subsequently, I give a summary of the study and highlight its contribution and lastly, I propose recommendations for further study.

6.1 Summary of the findings

The study sought to investigate the cognitive, affective, and behavioural aspects of attitudes that isiZulu L1 students at UKZN hold towards discipline-specific terminology in isiZulu and isiZulu as an academic language. The course of the investigation necessitated that I ask four questions:

1. What attitudes do isiZulu L1 students at the University of KwaZulu-Natal hold towards the use of isiZulu in academic contexts?
2. In what way does the existence of discipline-specific terminology in isiZulu influence attitudes of L1 students towards the use of isiZulu in academic contexts?
3. Is there evidence of a correlation among the three components of attitude in isiZulu L1 students towards isiZulu, particularly discipline-specific terminology in isiZulu?
4. To what extent do isiZulu L1 students acknowledge discipline-specific terminology in isiZulu as a resource in their academic life?

In asking these questions, I anticipated that isiZulu L1 students may indicate positive attitudes towards the use of isiZulu in academic contexts, particularly with the existence of discipline-specific terminology in isiZulu.

The data, as discussed in §5.1 indicates three main findings. The first finding is that isiZulu L1 students are a heterogeneous group. This heterogeneity emanates from their language-learning experiences both at home and at basic education level. As a result of the different language-learning experiences, there are two main sub-groups of isiZulu L1 students. The first group is

made up of L1 students who have experienced isiZulu language learning at home language level, and English language learning at additional language level (Desai 2016: 344). This group predominantly resides in townships, rural areas, and informal settlements outside of the urban areas. This group learns through the medium of isiZulu in the foundation phase (first grade to third grade) and switches to English MoI in the fourth grade. English as the MoI continues through to twelfth grade (basic education exit-level). From grades four to 12, isiZulu is offered as a subject at home language level, and English is offered at additional language level. Despite English being the MoI, it has been observed that this group experiences extensive code-switching and code-mixing of English and isiZulu in the offering of content subjects at school (Desai 2016: 344). Due to the extensive use of isiZulu, both at home and school, this group, in the self-assessments in the questionnaire survey and the focus group interviews, indicates positive attitudes towards the use of isiZulu in academic contexts, and towards the use of discipline-specific terminology in isiZulu. This positive attitude compares to the finding in Zulu and Ndebele (2020: 21). These students believe that the use of isiZulu will assist in enhancing their academic performance, a belief shared by Sibisi and Tappe (2020: 16). In addition, they believe that the use of discipline-specific terminology will assist in a clearer understanding of academic concepts. The second group is made up of L1 students who have experienced isiZulu language-learning at additional language level, and English language-learning at home language level in ex-Model C schools (Heugh 2013: 226). This group predominantly resides in urban areas, however, there is a constant large-scale movement of L1 students from townships and rural areas to urban areas for their schooling (Ndimande 2013: 25). For most of these L1 students, isiZulu as an academic language is not a welcome choice and the discipline-specific terminology in isiZulu is challenging to decipher; an expression shared in Madlala and Mkhize (2019: 101). The majority of these students express a negative attitude towards isiZulu and the terminology in isiZulu.

The second finding is that the respondents in this study show a clear inability to decipher the terminology in isiZulu that was developed to assist them in understanding the content of their disciplines. The respondents had difficulties in providing the English equivalents to the isiZulu terms which were provided in the questionnaire survey. This challenge holds for both students who have experienced learning isiZulu at home language level and who are accustomed to code-switching and code-mixing at school, as well as for students who have only experienced the learning of isiZulu at additional language level. Thus, the finding reveals that the level of isiZulu L1 students' preparedness to use isiZulu as an academic language is low, irrespective

of their level of competence in isiZulu. As Nomlomo and Katiya (2018: 80) attest, bilingualism does not guarantee biliteracy in the two languages involved. However, bilingualism presents an opportunity for the development of biliteracy in the two languages. Over and above the inability to decipher terminology in isiZulu, the entire cohort of respondents was not aware of the existence of discipline-specific terminology in isiZulu at UKZN.

The third finding shows that there are striking intra-personal disparities between the cognitive, affective, and behavioural aspects of attitude. The respondents' self-assessments for each aspect of attitude towards the use of isiZulu, as well as the terminology in isiZulu, are inconsistent with the assessment results wherein they provided English equivalents to the terms in isiZulu. It is apparent, as Breckler (1984: 1202) contends, that the attitudinal assessments are determined by the absence or the presence of the attitude object. In the absence of the terminology, most of the respondents indicate positive cognitive and affective aspects of attitude, as well as positive intentions to use the terminology in isiZulu. However, in the presence of the terminology, a large majority of respondents struggle to decipher the terminology in isiZulu. These findings confirm that the attitude construct is not unitary but is indeed a multi-componential construct.

6.2 Implications of the findings

Based on the findings in the data discussion, this subsection presents the theoretical implications as well as practical educational implications of this study.

6.2.1 Theoretical implication of the study

In terms of the theoretical implications, I consider the heterogeneity of isiZulu L1 speakers, the challenges these students face with discipline-specific terminology, and the disparities in the aspects of attitude.

6.2.1.1 The heterogeneity among isiZulu L1 students

The heterogeneity that exists among speakers of African languages, needs to be acknowledged and addressed. IsiZulu L1 students are subjected to varying language learning experiences. IsiZulu L1 students who have learnt isiZulu at home language level are optimistic that the use of isiZulu in academic contexts and the related terminology will help with a clearer understanding of academic concepts. However, these students' expectations are not met as these students have difficulty deciphering this terminology.

The offering of isiZulu at home language level should benefit L1 students throughout their academic years, from basic education to tertiary levels. The early switch from isiZulu to English as MoI at the end of grade three may not work towards the realisation of this expectation. The use of isiZulu as MoI may need to be extended beyond grade three for L1 students to reap optimal benefits from the use of this language in academic contexts. Conversely, the introduction of English as MoI may need to be phased in gradually instead of abruptly at grade four. Terminology in isiZulu needs to be incorporated into the syllabus and made available throughout the school years, even if English remains the dominant MoI.

The L1 students who have experienced the learning of isiZulu at additional language level are pessimistic about the use of isiZulu and the related terminology, in academic contexts. These students do not believe either will benefit them. This pessimistic view on their L1 is an indication of subtractive bilingualism and signals an inclination towards monolingualism. This trajectory does not entirely benefit the students who still use isiZulu as a home language. Being bilingual is an advantage rather than a disadvantage and bilingual students ought to benefit from this advantage. Learning isiZulu at additional language level needs to enable a level of proficiency that may assist L1 students in supporting their learning even though English may remain the MoI.

6.2.1.2 The challenge isiZulu L1 students face with discipline-specific terminology in isiZulu

The respondents herein indicate limited functional bilingualism. In as much as they use isiZulu when discussing course content, the functionality of this use appears to be limited. The respondents do not indicate familiarity with the existing terminology in isiZulu. The learning of isiZulu (and any other African language), whether at home language level or additional language level, ought to develop sufficient literacy in order for students to use their home language as a resource in their academic endeavours. In the same vein, language use in education should include contemporary and urban varieties of the language in question. These varieties of the language that may include loanwords are non-prescriptive and may enhance the use of African languages in education. This inclusive use of African languages will serve to redress the “monolingual distortions and prescription inherited from the colonial legacy and give substance to new harmonized and multilingual writing systems” Banda (2016 in Rudwick 2018: 263). According to Sibisi and Tappe (2020: 16), contemporary language use may be an

innovative and restorative form of pedagogy that is not only rooted in but also resonates with African culture.

6.2.1.3 The disparities among the three aspects of attitude

The attitude construct is not unitary. A deeper understanding of the attitude construct and its different aspects is necessary. Studies on language attitudes need to look closely into the cognitive, affective, and behavioural aspects of attitude and from the findings in this study, investigations on attitude may have to target the aspects of attitude individually. The three aspects may not always correlate in terms of a single attitude object. An exploration of the three aspects needs to be conducted both in the absence as well as in the presence of the attitude object.

6.2.2 Practical educational implications of the findings

The practical implications considered are linked to both basic and higher education as well as studies on language attitudes in education.

6.2.2.1 Implications for basic education and higher education levels

The heterogeneity of isiZulu L1 students calls for a direct response at both basic and higher education levels. At basic education level the offering of isiZulu, whether at home language level or additional language level, needs to allow for sufficient development of literacy in the language. This development needs to encompass the use of isiZulu for academic purposes. In addition, the terminology in isiZulu needs to be introduced across the learning areas even while English remains the dominant medium of instruction and assessment. The introduction of the terminology in isiZulu will serve the following purposes:

- to address the injustices of the past,
- to transform South African institutions of learning into bilingual institutions with two MoI
- to allow for increased identification with the subject matter for the L1 speakers, and
- to enhance academic success for L1 speakers.

At the tertiary level, the use of African languages, including the use of terminology in African languages, needs to be fully integrated into different course offerings. Students of African

descent need to be provided with multilingual terminologies that include their languages. These terminologies will allow speakers of African languages opportunities, such as:

- access to academic concepts in their languages,
- a broadened knowledge of the subject matter through the lens of their languages, and
- higher success rates in their academic endeavours. IsiZulu enables a better understanding of the academic concepts which, in turn, enables a better understanding of the academic content.

In this manner, the subject matter in the different courses will not be abstract and alien to African students.

The multilingual terminologies need to accommodate the fluidity of the African languages through the incorporation of loanwords. If terminologies are not prescriptive and purist, the use of African languages in academic contexts will be intensified while the transformation agenda in higher education is enhanced. In addition, the rate of success for multitudes of African students in higher education and the throughput rates will increase. The use of inclusive non-prescriptive terminologies will cater for the heterogeneity that prevails among isiZulu L1 students. It will also mitigate the inaccessibility of the terminologies in isiZulu proper.

Universities, such as UKZN, that are developing terminologies in African languages need to engage in awareness campaigns to conscientise students and lecturers on the availability of the terminologies. The resourcefulness of the terminologies has value if it is beneficial to the L1 speakers and other users.

6.2.2.2 Implications for studies on language attitudes in education

Studies on language attitudes towards the use of African languages in education need to consider the language-learning background of the L1 students. The language-learning background impacts the respondents' evaluations of their attitude towards the use of isiZulu and the use of the terminology in isiZulu. The impact of the background exists across the three aspects of attitude. The cognitive, affective, and behavioural aspects of attitude vary intuitively in individuals and between the varied sub-groups of isiZulu L1 students. Studies on language attitudes need to tackle each aspect of the attitude construct individually and need to tackle the sub-groups that exist among L1 speakers separately. In addition, the attitude object needs to be physically present in the assessments of each aspect of attitude. The presence of the attitude

object provides for increased accuracy, as the respondents assess their attitudes across the three aspects.

6.3 Limitations and delimitations of the study

There were two limitations and one delimitation that I noted as the study proceeded.

6.3.1 Limitations

In enlisting students, I had to approach students in widely mixed lecture theatres. Students are mixed in terms of racial groups and home languages. The targeted population (isiZulu L1 speakers) had to be isolated from the rest of the students. When I presented the project and study purpose the students seemed reluctant to participate. There seemed to be an assumption on their part that I was campaigning for isiZulu to be the predominant medium of instruction at the university. This assumption led to negative attitudes towards the project – a ramification of the remnants of the apartheid system. As a result, some students blatantly refused to take part in the project. Among the students who had attended quintile five schools, and who had experienced more exposure to English than to isiZulu, there is reluctance towards the use of isiZulu as MoI. The reluctance of the students to participate in the project that advocates for the use of isiZulu impacted the number of respondents to the study.

The recruitment of the respondents occurred within stringent time frames. UKZN operates on a semester model. The study targeted respondents in their first year of study and the second semester of their registration. Conducting a study that involves two data collection sessions within one semester subjected the recruits to an added liability to their study schedules and workloads. I am grateful to the 149 questionnaire respondents for their willingness to participate in this study. Of these respondents, 28 took part in the focus group interviews.

The recruitment of the study respondents took place in semester two of 2019. In order to augment the low response rate, a further recruitment attempt could have been attempted in semester two of 2020, however, Covid-19 regulations during the pandemic prevented this from happening. The mitigation strategy for the low response rate is discussed in §4.1.

6.3.2 Delimitations

In two out of the eight disciplines targeted, the required number of respondents was not reached: Physiology and Architecture. The foremost reason for this was that a large number of registered students in these modules either did not meet the criteria for recruitment into the

study or were reluctant to involve themselves in the study. Distributing questionnaires beyond first-year modules, where this was allowed, was intentional as the response rate could not be guaranteed at recruitment.

6.4 Conclusions from the findings

I draw the following conclusions from the study:

- The different language-learning experiences that isiZulu L1 students (and possibly other L1 speakers of African languages) undergo result in varying attitudes towards the use of L1 in academic contexts. Extended exposure to L1 yields favourable attitudes to use the L1 in academic contexts. Limited exposure to L1 yields negative attitudes to use the L1 in academic contexts.
- The multi-componential nature of the attitude construct calls for the separation of the three aspects of attitude during an investigation of attitudes towards the use of language(s). The cognitive, affective, and behavioural aspects of attitude do not always correlate.
- The evaluation of the attitude construct differs depending on either the presence or the absence of the attitude object. The presence and the absence of the attitude object may yield a more comprehensive evaluation of the attitudes. These evaluations may be conducted independently and/or jointly.
- The period in which isiZulu is used as a medium of instruction, in the first three years of basic education and its use as a subject at home language level throughout basic education, does not prepare L1 students adequately for the use of this language at the tertiary level of education. In the same way, the early switch to English MoI at grade four does not prepare the speakers of African languages adequately for the use of English throughout their educational endeavours. In addition, the offering of isiZulu at home language level for the duration of basic education (12 years) does not prepare L1 students for the use of this language across different disciplines of study. As a result, even isiZulu L1 students who have had extended exposure to the use of isiZulu, in both formal and informal ways, fail to decipher the terminology in isiZulu.
- The standardised terminologies currently in the terminology lists are prescriptive and lack fluidity. As a result, L1 speakers find the terminology alien and lacking in resourcefulness.

6.5 Summary of the study and the contribution of the study

The presentation of the study is structured in six chapters:

- In Chapter 1, I introduce the study. This introduction includes presentations on the contextual background to the study, the research objectives and research questions, a brief highlight of the literature review and the theoretical framework, a preview of the research design including the methodology, limitations and delimitations, and the structure of the thesis.
- In Chapter 2, I present the review of the literature. The review is sub-divided into three main parts: a review of studies that investigate attitudes including attitudes towards languages, a review of studies that look into the use of African languages in academic contexts, and a review of studies that examine the use of isiZulu at UKZN. In addition, this chapter explores the theoretical framework upon which the study aligns.
- In Chapter 3, I present the research design that is applied in conducting the study. This chapter includes the methodological approach, the data collection instruments, and the tools used in data analysis.
- In Chapter 4, I present the description and the interpretation of the data. The descriptions and interpretations are addressed per the four research questions.
- In Chapter 5, I discuss the data and present the findings from the discussion. The presentation juxtaposes the data collected with previous studies discussed in the literature review chapter. It is in this chapter that I identify the gap in the literature that the current study fills.
- In Chapter 6, I conclude the study. This conclusion chapter includes the summary of the findings, the theoretical and educational implications of the study, the limitations and the delimitations of the study, the conclusions I arrive at, the summary of the study, and the recommendations for further study.

The study makes the following contribution to the field of study of L1 speakers' attitudes towards the use of their languages in academic contexts, including the use of the terminology in their languages:

- The inability of isiZulu L1 students to decipher the terminology in isiZulu is evidence of low literacy rates in isiZulu. The use of isiZulu in academic contexts, including the

use of resources such as terminology lists in isiZulu, may be more effective if the students' literacy levels in isiZulu are developed. In this way, isiZulu may prove to be a useful resource for L1 students who already use this language more frequently than English, which remains the dominant MoI in the academic context.

6.6 Recommendations for further research

Based on the conclusions drawn from the findings, I make the following recommendations:

- Studies on attitudes towards the use of languages in academic contexts need to consider the language learning background and experiences of the study respondents. These two factors, in language learning, impact attitudes towards the language(s) in question.
- The studies on language attitudes need to include the evaluations of the attitude object in its presence as well as in its absence.
- A comprehensive study of language attitudes needs to encompass the three aspects of attitudes. The investigation into the three aspects gives clearer insight into the nature of the attitude construct.
- The learning of isiZulu at home language level for L1 speakers (and possible speakers of other African languages) needs to incorporate the use of terminologies in isiZulu across different disciplines. The use of discipline-specific terminologies in isiZulu will enhance engagement with the use of isiZulu in academic contexts.
- The discipline-specific terminologies need to incorporate loanwords and other contemporary, urban non-formal registers in a non-prescriptive and non-purist manner. This will mitigate for the literacy shortcomings that prevail among L1 speakers of African languages.

Future research initiatives may be directed towards:

- Assessing the level of understanding between the use of isiZulu and the use of English under test conditions.
- Testing the level of comprehension that students achieve between the use of discipline-specific terminologies in isiZulu and terminologies in English.
- Using translanguaging, loanwords, and other non-formal registers as mitigating strategies for literacy shortcomings.

- Exploring whether the cognitive, affective, and behavioural aspects of attitude are influenced by the outcomes of tests on comprehension from the use of terminologies in either of the two languages.

The active use of isiZulu and resources such as terminologies in isiZulu not only elevates the esteem of isiZulu but enhances the academic performance of L1 speakers. Moreover, such use responds to the United Nations call to promote indigenous languages, and it operationalises the promotion of multilingualism that is promulgated in the South African National Development Plan.

REFERENCES

Abdulaziz, Mohamed H. 2003.

The history of language policy in Africa with reference to language choice in education. In: Adama Ouane (ed.). *Towards a multilingual culture of education*. Hamburg, Germany: UNESCO Institute for Education. 103-112.

Agheyisi, Rebecca and Joshua A. Fishman. 1970.

Language attitude studies: A brief survey of methodological approaches. *Anthropological Linguistics* 2 (5): 137-157.

Ajzen Icek and Martin Fishbein. 2005

The influence of attitudes on behaviour. In: *The handbook of attitudes*. 173-221.

Alberts, Mariëtta. 2010. National language and terminology policies: A South African perspective. *Lexikos* 20: 599-620.

Alberts, Mariëtta. 2014.

Terminology development at tertiary institutions: A South African perspective. *Lexikos* 24: 1-26.

Alexander, Neville. 2003.

The African renaissance and the use of African languages in tertiary education. *PRAESA Occasional Papers* 13: 1-42.

Alexander, Neville. 2004.

The politics of language planning in post-apartheid South Africa. *Language Problems and Language Planning* 28 (2): 113-130.

Alexander, Neville. 2012.

The centrality of the language question in post-apartheid South Africa: Revisiting the perennial issue. *South African Journal of Science* 108 (9): 1-7.

Amineh, Roya J. and Hanieh D. Asl. 2015.

Review of constructivism and social constructivism. *Journal of Social Sciences, Literature and Languages* 1 (1): 9-16.

Angongo, Rachel. 1978.

Language and politics in South Africa. *Studies in African Linguistics* 9 (2): 211-221.

Baker, Colin. 1992.

Attitudes and language. Clevedon: Multilingual Matters Ltd.

Bamgbose, Ayo. 1983.

- Education in indigenous languages: The West African model of language education. *Journal of Negro Education* 52 (1): 57-64.
- Bengesai, Annah. 2011.
Engineering students' experiences of supplemental instruction: A case study. *Alternation* 18 (2): 59-77.
- Berghoff, Robyn. 2021.
The role of English in South African multilinguals' linguistic repertoires: A cluster-analysis study. *Journal of Multilingual and Multicultural Development* 1-15.
- Beukes, Anna-Marie. 2010.
Not leaving your language alone: terminology planning in multilingual South Africa. *Euralex Proceedings. Lexicography for Specialised Languages – Terminology and Terminography* 882-891.
- Brock-Utne, Birgit. 2007.
Language of instruction in higher education in Europe: Highlights from the current debate in Norway and Sweden. *International Review of Education* 53: 367-388.
- Breckler, Steven J. 1984.
Empirical validation of affect, behaviour and cognition as distinct components of attitude. *Journal of Personality and Social Psychology* 47 (6): 1191-1205.
- Buijs, Gina. 2013.
Diversity in higher education in South Africa: The case of HDIs and African languages. In: *De Wet, Gideon. Beyond the apartheid university: Critical voices on transformation in the university sector*. Alice: University of Fort Hare Press. 138-152.
- Bunyi, Grace. 1999.
Rethinking the place of African indigenous languages in African education. *International Journal of Educational Development* 19: 337-350.
- Chasi, Samia. 2021.
South Africa's policy framework for higher education internationalisation: A decolonial perspective. *The Thinker* 89: 30-37.
- Chetty, Naven. 2013.
Student responses to being taught physics in isiZulu. *South African Journal of Science* 109 (9/10): 1-6.
- Coetzee-de Vos, Ghauderen. 2019.
Reflections on language transformation at Nelson Mandela University. *Language Matters* 50 (1): 45-63.

Coetzee-Van Rooy, Susan. 2018.

Dominant language constellations in multilingual repertoires: Implications for Language-in-Education policy and practices in South Africa. *Language Matters* 49 (3): 19-46.

Coffi, Ophelie R. L. 2017.

The hegemony of English in Primary School Education: South Africa's language identity struggle. Pretoria: University of Pretoria (MA dissertation).

Creswell, John W. 2009.

Mapping the field of mixed methods research: Editorial. *Journal of Mixed Methods Research* 3 (2): 95-108.

Creswell, John W. 2014.

Educational research: planning, conducting and evaluating quantitative and qualitative research. Fourth edition. Essex, England: Pearson: Education Limited.

De Boer, Anne-Louise and Marthinus C. J. van Rensburg. 1997.

Underprepared students in the faculty of Arts: Burden or boon? A preliminary report. *South African Journal of Ethnology* 20 (4): 159-164.

Delavan, Garrett M, Verónica E. Valdez and Juan A. Freire. 2017.

Language as whose resource? When global economics usurp the local equity potentials of dual language education. *International Multilingual Research Journal* 11 (2): 86-100.

Department of Education. 2002.

Language Policy for Higher Education. Pretoria: DHET. Available at: <http://www.dhet.gov.za/HED%20Policies/Language%20Policy%20for%20Higher%20Education.pdf>.

Department of Education. 2003.

The development of indigenous African languages as mediums of instruction in Higher Education. *Report compiled by the Ministerial Committee appointed by the Ministry of Education in September 2003*. Pretoria, South Africa: Department of Higher Education and Training.

Department of Higher Education and Training. 2015.

Report on the use of African languages as mediums of instruction in higher education. Pretoria, Republic of South Africa: Department of Higher Education and Training.

Desai, Zubeida. 2016.

- Learning through the medium of English in multilingual South Africa: enabling or disabling learners from low income contexts? *Comparative Education* 52 (3): 343-358.
- Diller, Karl C. 1970.
Compound and coordinate bilingualism: A conceptual artefact. *WORD* 26 (2): 254-261.
- Dilshad, Rana M. and Muhammad I. Latif. 2013.
Focus group interview as a tool for qualitative research: An analysis. *Pakistan Journal of Social Sciences* 33 (1): 191-198.
- Ditsele, Thabo. 2016.
Attitudes held by Setswana L1-speaking university students towards their L1: New variables. *South African Journal of African Languages* 36 (1): 1-13.
- Ditsele, Thabo. 2017.
Testing the impact of known variables on the attitudes held by Setswana L1-speaking university students towards their L1. *Literator* 38 (1): 1-15.
- Djité, Paulin G. 2008.
The nexus between education, learning, and language. UNESCO Conference on Globalisation and Languages: Building our rich heritage. Tokyo, Japan: United Nations University. 1-34.
- Dyers, Charlyn and Bassey E. Antia. 2019.
Multilingual and multimodal mediation in one university module: The people and processes involved. *South African Linguistics and Applied Language Studies* 37 (1): 62-76.
- Engelbrecht, Charlotte, Nondumiso C. Shangase, Sisana J. Majeke, Sindi Z. Mthembu and Zanele M. Zondi. 2010.
IsiZulu terminology development in Nursing and Midwifery. *Alternation* 17 (1): 249-272.
- Fasold, Ralph W. 1984.
The Sociolinguistics of society. New York: Basil Blackwell.
- Fishman, Joshua A. 2006. *Do not leave your language alone: The hidden status agendas within corpus planning in language policy*. Mahwah, New Jersey: Lawrence Erlbaum Associates Inc. Publishers.
- Fraser, Donald A. S. 2019.
The *p*-value function in statistical inference. *The American Statistician* 73 (1): 135-147.
- Frescura, Franco and Joyce Myeza. 2016.

- Illustrated glossary of Southern African architectural terms: English-isiZulu.*
Pietermaritzburg: University of KwaZulu-Natal Press.
- Fusch, Patricia I. and Laurance R. Ness. 2015
Are we there yet? Data saturation in qualitative research. *The Qualitative Report* 20 (9): 1408-1416.
- Gándara, Patricia and Kathy Escamilla. 2016.
Bilingual education in the United States. *Bilingual and Multilingual Education* 10: 1-16.
- Garrett, Peter. 2010.
Attitudes to language. Cambridge: Cambridge University Press.
- Giliomee, Hermann. 2004.
The rise and possible demise of Afrikaans as public language. *Nationalism and Ethnic Politics* 10 (1): 25-58.
- Glanville, Stella, Hillary Janks, Magauta Mphahlele, Yvonne Reed, Michael Joseph and Esther Ramani. 1998.
English with or without g(u)ilt: A position paper on language in education policy for South Africa. *Language and Education* 12 (4): 254-272.
- Gore, Oliver T. and Melanie Walker. 2020.
Conceptualising (dis)advantage in South African higher education: A capability approach perspective. *Critical Studies in Teaching and Learning* 8 (2): 55-73.
- Groff, Cynthia. 2017.
Language and language-in-education planning in multilingual India: A minoritized language perspective. *Language Policy* 16: 135-164.
- Guba Egon G. and Yvonna S. Lincoln. 1994.
Competing paradigms in qualitative research. *Handbook of Qualitative Research* 2: 105-117.
- Gumbo, Lettiah and Davie E. Mutasa. 2020.
The inevitability of linguistic change: The motivation of borrowing English terms by Shona speakers. *South African Journal of African Languages* 40 (1): 53-59.
- Heugh, Kathleen. 1999.
Languages, development and reconstruction education in South Africa. *International Journal of Educational Development* 19: 301-313.
- Heugh, Kathleen. 2002a.

- Revisiting bilingual education in and for South Africa. *PRAESA Occasional Papers* 9: 1-27.
- Heugh, Kathleen. 2002b.
The case against bilingual and multilingual education in South Africa: Laying bare the myths. *Perspectives in Education* 20 (1): 171-196.
- Heugh, Kathleen. 2007.
Language and literacy issues in South Africa. In Rassool, N. (ed.), *Global issues in language, education, and development: Perspectives from postcolonial countries*. Linguistic diversity and language rights 4: 187-218. Clevedon, UK: Multilingual Matters.
- Heugh, Kathleen. 2013.
Multilingual education policy in South Africa constrained by theoretical and historical disconnections. *Annual Review of Applied Linguistics* 33: 215-237.
- Horsthemke, Kai. 2004.
Knowledge, education and the limits of Africanisation. *Journal of Philosophy of Education* 38 (4): 571-587.
- Hult, Francis M and Nancy H. Hornberger. 2016.
Revisiting orientations in language planning: Problem, right, and resource as an analytical heuristic. *The Bilingual Review* 33 (3): 30-49.
- Hurst, Ellen. 2015.
The thing that kills us: Students' perspectives on language support in a South African university. *Teaching in Higher Education* 20 (1): 78-91.
- Hurst, Ellen. 2016.
Navigating language: Strategies, transitions and the 'colonial wound' in South African education. *Language and Education* 30 (30): 219-234.
- Hurst, Ellen and Msakha Mona. 2017.
Translanguaging as a socially just pedagogy. *Education as Change* 21 (2): 126-148.
- Jain, Vishal. 2014.
3Dmodel of attitude. *International Journal of Advanced Research in Management and Social Sciences* 3 (3): 1-12.
- Janks, Hilary. 2014.
Globalisation, diversity, and education: A South African perspective. *The Educational Forum* 78: 8-25.
- Kaiser, Karen. 2009.

- Protecting respondent confidentiality in qualitative research. *Qualitative Health Research* 19 (11): 1-13.
- Kamwangamalu, Nkonko M. 2003.
Social change and language shift: South Africa. *Annual Review of Applied Linguistics* 23: 225-242.
- Kamwendo, Gregory H. 2010.
Denigrating the local, glorifying the foreign: Malawian language policies in the era of African Renaissance. *International Journal of African Renaissance Studies* 5 (2): 270-282.
- Kamwendo, Gregory; Nobuhle Hlongwa and Nhlanhla Mkhize. 2014.
On the medium of instruction and African scholarship: The case of isiZulu at the University of KwaZulu-Natal in South Africa. *Current Issues in Language Planning* 15 (1): 75-89.
- Kankam, Philip K. 2019.
The use of paradigms in information research. *Library and Information Science Research* 41 (2): 81-92.
- Kaveh, Yalda M. 2020.
Unspoken dialogues between educational and family language policies: Language policy beyond legislations. *Linguistics and Education* 60: 1-14.
- Khatri, Krishna K. 2020.
Research paradigm: A philosophy of educational research. *International Journal of English Literature and Social Sciences* 5 (5): 1435-1440.
- Kivunja, Charles and Ahmed B. Kuyini. 2017.
Understanding and applying research paradigm in educational research. *International Journal of Higher Education* 6 (5): 26-41.
- Kloss, Heinz. 1967.
Abstand languages and ausbau languages. *Anthropological Linguistics* 9 (7): 29-41.
- Konaté, Ahmadou S. 2021.
African culturalist subversion of Western otherizing logic in decolonising the mind: Ngugi's indigenization project. *International Journal of African-Egyptian Studies* 1-24.
- Kothari, Chakravanti R. 2004.
Research methodology: Methods and techniques. New Delhi: New Age International.
- Kowalczyk, Pascal; Carolin Siepmann (née Scheiben) and Jolt Adler. 2021.

- Cognitive, affective, and behavioural consumer responses to augmented reality in e-commerce: A comparative study. *Journal of Business Research* 124: 357-373.
- Khumalo, Langa. 2016.
Disrupting language hegemony. In: Michael Samuels et.al. (eds.) *Disrupting higher education curriculum*. Sense Publishers. 247-263.
- Khumalo, Langa. 2017.
Intellectualization through terminology development. *Lexikos* 27: 252-264.
- Lafon, Michel. 2008.
Asikhulume: African language for all, a powerful strategy for spearheading transformation and improvement in the South African education system. *IFAS Working Paper* 11: 37-59.
- Lee, Huan Y; M. Obaidul Hamid and Ian Hardy. 2021.
Language and education policies in Southeast Asia: Reorienting towards multilingualism-as-a-resource. *International Journal of Multilingualism* 1-19. DOI: 10.1080/14790718.2021.2002333.
- Litosseliti, Lia (ed.). 2010.
Research methods in Linguistics. London: Continuum International Publishing Company.
- Lombard, Ellen. 2017.
Students' attitudes and preferences towards language of learning and teaching at the University of South Africa. *Language Matters* 48 (3): 25-48.
- Lui, Charlotte H. and Robert Mathews. 2005.
Vygotsky's philosophy: Constructivism and its criticisms examined. *International Education Journal* 6 (3): 386-399.
- MacSwan, Jeff. 2017.
A multilingual perspective on translanguaging. *American Educational Research Journal* 54 (1): 167-201.
- Madiba, Mbungeleni. 2001.
Towards a model of terminology modernisation in the African languages of South Africa. *Language Matters* 32 (1): 53-78.
- Madlala, Nolwandle and Nhlanhla Mkhize. 2019.
The influence of ideology on black African students' perceptions of the University of KwaZulu-Natal's bilingual policy. *Journal of Education* 76: 89-107.
- Makhanya, Thembelihle and Sibonsile Zibane. 2020.

- Students' voices on how indigenous languages are disfavoured in South African higher education. *Language Matters* 51 (1): 22-37.
- Martínez-Vela, Carlos A. 2001.
World Systems Theory: An essay. *ESD* 83 – Fall: 1-5. Available at: <http://web.mit.edu/esd.83/www/notebook/WorldSystem.pdf>. Accessed: 18 October 2020.
- Mascha, Edward J. and Thomas R. Vetter. 2018.
Significance, errors, power, and sample size: The blocking and tackling of statistics. *International Anesthesia Research Society* 126 (2): 691-698.
- Maseko, Pamela. 2014.
Multilingualism for teaching and learning. In: Trish Gibbon (ed.). *Driving change: The story of the South Africa Norway Tertiary Education Development Programme*. Cape Town, South Africa: African Minds. 79-101.
- Mashiya, Nontokozo. 2010.
Mother tongue teaching at the University of KwaZulu-Natal: Opportunities and threats. *Alternation* 17 (1): 92-107.
- Mashiya, Nontokozo. 2014.
Challenges faced by students in mother tongue administered assessments in higher education. *The Anthropologist* 18 (1): 241-250.
- Matthews, Margaret and Roshni Gokool. 2018.
Second language teaching of vocation-specific isiZulu communication skills to health sciences students. *South African Journal of African Languages* 38 (2): 149-158.
- Mavuru, Lydia and Umesh D. Ramnarain. 2020.
Language affordances and pedagogical challenges in multilingual grade 9 natural science classrooms in South Africa. *International Journal of Science Education* 42 (14): 2472-2492.
- Mawonga, Sisonke; Pamela Maseko and Dion Nkomo. 2014.
The centrality of translation in the development of African languages for use in South African higher education institutions: A case study of a Political Science English-isiXhosa glossary in a South African university. *Alternation* 13: 55-79.
- Mayaba, Nokhanyo N.; Monwabisi K. Ralarala and Pineteh Angu. 2018.
Students' voice: Perspectives on language and critical pedagogy in South African higher education. *Education Research for Social Change* 7 (1): 1-12.
- McLean, James E. and James M. Ernest. 1998.

- The role of statistical significance testing in educational research. *Research in the Schools: Special Issue – Statistical Significance Testing* 5 (2): 15-22.
- Mbatha, Nontobeko T. 2017.
Attitudes towards studying isiZulu at a university of technology: A survey of undergraduate students taking isiZulu as an L1 major. Master of Technology dissertation. Pretoria: Tshwane University of Technology.
- Mbatha, Thabile A. 2016.
Ideologies shaping language choices: Views of African students on isiZulu modules in higher education at the University of KwaZulu-Natal. *Nordic Journal of African Studies* 25 (2): 146-166.
- Mchombo, Sam. 2017.
Politics of language choice in African education: The case of Kenya and Malawi. *International Relations and Diplomacy* 5 (4): 181-204.
- McKenna, Sioux. 2003.
Paradigms of curriculum design: Implications for South African educators. *Journal for Language Teaching* 37 (2): 215-223.
- McKenzie, Robert M. 2010.
The study of language attitudes. *The Social Psychology of English as a Global Language* 10: 19-39.
- McKim, Courtney A. 2017.
The value of mixed methods research: A mixed methods study. *Journal of Mixed Methods Research* 11 (2): 202-222.
- McMillan, James H. and Sally Schumacher. 2010.
Research in education: Evidence-based enquiry. New Jersey: Pearson.
- Mhlauli, Mavis B., End Salani and Rosina Mokededi. 2015.
Understanding apartheid in South Africa racial contract. *International Journal of Asian Social Science* 5 (4): 203-219.
- Mkhize, Dumisile and Robert Balfour. 2017.
Language rights in education in South Africa. *South African Journal of Higher Education* 31 (6): 133-150.
- Mkhize, Nhlanhla, Nolwandle Dumisa and Ethel Chitindingu. 2014.
Democratising access and success: IsiZulu terminology development and bilingual instruction in Psychology at the University of KwaZulu-Natal. *Alternation Special Edition* 13: 128-154.

- Mohanty, Ajit. 2017.
Multilingualism, education, English and development: Whose development? In: H. Coleman (ed.). *Multilingualisms and development*. London: British Council. 261-280.
- Mphahlele, Motlokwe C. 2004.
The transliteration principle: Is this the best procedure in African language lexicography and terminology? *Lexikos* 14: 339-348.
- Mthiyane, Nonhlanhla. 2016.
Pre-service teachers' beliefs and experiences surrounding the use of language in science classrooms: A South African case study. *Nordic Journal of African Studies* 25 (2): 111-129.
- Muchanga, Manoah. 2020.
Reflexive debate on the use of philosophy in scientific research. *International Journal of Humanities Social Sciences and Education* 7 (6): 208-213.
- Murray, Mike. 2016.
Does poor quality schooling and/or teacher quality hurt Black South African students enrolling for a degree at the University of KwaZulu-Natal? *PLoS ONE* 11 (4): 1-11.
- Mutasa, Davie E. 2014.
Multilingual education in South African universities: A possibility or delusion. *South African Journal of African Languages* 34 (1): 9-20.
- Nagy, William and Dianna Townsend. 2012.
Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly* 47 (1): 91-108.
- Naidoo, Shamila and Roshni Gokool. 2020.
Compulsory isiZulu at the University of KwaZulu-Natal: The attitudes of enrolled students. *Language Matters* 51 (3): 24-42.
- Nchabeleng, Mahlodi J. 2012.
Terminological issues in the translation of Chemistry terms from English to Northern Sotho. MA dissertation. Pretoria: University of Pretoria.
- Ndebele, Hloniphani. 2020.
Is isiZulu a 'problem or a resource'? Engineering students' perceptions of teaching and learning in a multilingual context. *Journal for Language Teaching* 54 (1): 123-149.
- Ndebele, Hloniphani and Nobuhle Ndimande-Hlongwa. 2019.
Impediments in promoting the functional status of African languages in higher education. *Southern African Linguistics and Applied Language Studies* 37 (2): 91-104.

- Ndebele, Hloniphani and Nogwaja S. Zulu. 2017.
The management of isiZulu as a language of teaching and learning at the University of KwaZulu-Natal's College of Humanities. *Language and Education* 31 (6): 509-525.
- Ndimande, Bekisizwe S. 2013.
From Bantu Education to the fight for socially just education. *Equity and Excellence in Education* 46 (1): 20-35.
- Ndimande-Hlongwa, Nobuhle and Hloniphani Ndebele. 2017.
Embracing African languages as indispensable resources through the promotion of multilingualism. *Per Linguam* 33 (1): 67-82.
- Ndlovu-Gatsheni, Sabelo J. 2019.
Revisiting the African Renaissance. *Oxford Research Encyclopedias*. 1-24.
- Ngabonziza, Amini J. 2020.
Multilingual writing pedagogy for African languages in the monolingual education setting: Literacy development for multilingual children in Rwanda (grade 1-3). PhD thesis. Durban: University of KwaZulu-Natal.
- Ngcobo, Mtholeni and Lawrie A. Barnes. 2020.
English in the South African language-in-education policy on higher education. *World Englishes* 40: 84-97.
- Ngcobo, Sandiso. 2014.
The struggle to maintain identity in higher education among Zulu-speaking Students. *International Journal of Bilingual Education and Bilingualism* 17 (6): 695-713.
- Ngcobo, Sandiso; Nobuhle Ndaba; Bulelwa Nyangiwe; Njabulo Mpungose and Rafiq Jamal. 2016.
Translanguaging as an approach to address language inequality in South African higher education: Summary writing skills development. *Critical Studies in Teaching & Learning* 4 (2): 10-27.
- Nhongo, Raphael and Baba Primrose Tshotsho. 2020.
Is terminology the real problem in failure to implement STEM education in African languages? Translanguaging as an intervention strategy. *Multicultural Education* 6 (4): 78-89.
- Nkomo, Dion and Mbungeleni Madiba. 2011.
The compilation of multilingual concept literacy glossaries at the University of Cape Town: A lexicographical function theoretical approach. *Lexikos* 21: 144-168.

Nkosi, Zinhle P. 2014.

Postgraduate students' experiences and attitudes towards isiZulu as a medium of instruction at the University of KwaZulu-Natal. *Current Issues in Language Planning* 15 (3): 245-264.

Nkosi, Zinhle P. 2017.

IsiZulu as a vehicle towards teaching and conducting research in higher education: Challenges and prospects. *South African Journal of African Languages* 37 (2): 225-233.

Nomlomo, Vuyokazi and Misiwe Katiya. 2018.

Multilingualism and (bi)literacy development for epistemological access: Exploring students experiences in the use of multilingual glossaries at a South African university. *Educational Research for Social Change* 7 (1): 77-93.

Nyangiwe, Bulelwa and Heike Tappe. 2021.

Politeness constructions in written business communication: A plea for African politeness strategies. *South African Journal of African Languages* 41 (1): 44-54.

Oelofsen, Rianna. 2015.

Decolonisation of the African mind and intellectual landscape. *Phronimon* 16 (2): 130-146.

Orfan, Sayeed N. 2020.

Afghan undergraduate students' attitudes towards learning English. *Cogent Arts & Humanities* 7: 1-23.

Otu, Monica. N. 2014.

University of KwaZulu-Natal's vision of 'African scholarship' and information access: The case of isiZulu as an indigenous African language. *Journal of Social Development in Africa* 29 (2): 135-159.

Owusu, Edward; Asuamah Adade-Yeboah; Solomon A. Dansieh and Charles Afram Snr. 2021.

Language-in-education policies in Malawi, Zambia and Rwanda as presented by Williams (2013): A review. *International Journal of Linguistics, Literature and Translation* 4 (10): 232-236.

Pandya, Dipal. 2021.

Sustainable multilingualism in Indian higher education. *International e-Journal of Humanities and Social Sciences* 2 (1): 10-13.

Phaka, Fortunate M. and Dax Ovid. 2022.

- Life sciences reading material in vernacular: Lessons from developing a bilingual (isiZulu and English) book on South African frogs. *Current Issues in Language Planning* 23 (1): 96-111.
- Phillipson, Robert. 1997.
Realities and myths of linguistic imperialism. *Journal of Multilingual and Multicultural Development* 18 (3): 238-248.
- Pillay, Rama. 2017.
Non-Zulu speakers' attitudes towards isiZulu at selected public and private sectors in the eThekweni region of KwaZulu-Natal. *International Journal of Literature, Language and Linguistics* 4 (2): 165-177.
- Posel, Dorrit; Mark Hunter and Stephanie Rudwick. 2020.
Revisiting the prevalence of English: Language use outside the home in South Africa. *Journal of Multilingual and Multicultural Development*: 1-13.
- Prah, Kwesi K. 2017.
The intellectualization of African languages for Higher Education. *Alternation* 24 (2): 215-225.
- Pretorius, Elizabeth J. and Nic Spaul. 2016.
Exploring relationships between oral reading fluency and reading comprehension amongst English second language readers in South Africa. *Reading and Writing* 29 (7): 1449-1471.
- Ramani, Esther and Michael Joseph. 2002.
Breaking new ground: Introducing an African language as medium of instruction at the University of the North. *Perspectives in Education* 20 (1): 233-240.
- Ramchander, Manduth and Micheline J. Naude. 2018.
The relationship between increasing enrolment and student academic achievement in higher education. *Africa Education Review* 15 (4): 135-151.
- Ramoupi, Neo L. 2014.
African languages policy in the education of South Africa: 20 years of freedom or subjugation? *Journal for Higher Education in Africa/RESA* 12 (2): 53-93.
- Ramrathan, Labby. 2016.
Beyond counting the numbers: Shifting higher education transformation into curriculum spaces. *Transformation in Higher Education* 1 (1): 1-8.
- Read, John and Colleen du Plessis. 2021.

- Introduction: A global perspective on the South African context. In: Albert Weideman, John Read and Theo du Plessis (eds.). *Assessing academic literacies in a multilingual society: Transition and transformation*. Bristol, UK: Multilingual Matters. xiii-xxvii.
- Rehman Adil and Khalid Alharthi. 2016.
An introduction to research paradigms. *International Journal of Educational Investigations* 3 (8): 51-59.
- Republic of South Africa. 1996.
The Constitution of the Republic of South Africa: Act 108 of 1996. Pretoria: Department of Justice.
- Republic of South Africa. 1997.
Language in Education Policy. <https://www.gov.za/documents/language-education-policy-0>
- Republic of South Africa. 2002.
Language Policy for Higher Education. South Africa, Pretoria: Ministry of Education.
- Republic of South Africa. 2011.
National Development Plan: Vision for 2030. South Africa, Pretoria: National Planning Commission.
- Republic of South Africa. 2012.
Use of Official Languages Act: Act No. 12 of 2012. South Africa, Cape Town: The Presidency.
- Roy-Campbell, Zaline M. 2006.
The state of African languages and the global language politics: Empowering African languages in the era of globalisation. In: Olaoba F. Arasanyin and Michael A. Pemberton (eds.). *Selected Proceedings of the 36th Annual Conference on African Linguistics*. Somerville, MA: Cascadilla Proceedings Project. 1-13.
- Rudwick, Stephanie and Andrea Parmegiani. 2013.
Divided loyalties: Zulu vis-à-vis English at the University of KwaZulu-Natal. *Language Matters* 44 (3): 89-107.
- Rudwick, Stephanie. 2018.
Language, Africanisation and identity politics in a South African university. *Journal of Language, Identity and Education* 17 (4): 255-269.
- Sayahi, Lotfi. 2015.
España ante el mundo: Spain's colonial language policies in North Africa. *Languages, Literatures and Cultures Faculty Scholarship* 3: 62-77.

Schwarz, Norbert and Gerd Bohner. 2001.

The construction of attitudes. In: A. Tesser & N. Schwarz (eds.). *Intrapersonal processes: Blackwell Handbook of Social Psychology*. Oxford, UK: Blackwell. 436-457.

Shava, Soul and Tintswalo V. Manyike. 2018.

The decolonial role of African indigenous languages and indigenous knowledges in formal education processes. *Indilinga African Journal of Indigenous Knowledge Systems* 17 (1): 36-52.

Sibisi, Muhle and Heike Tappe. 2020.

Tertiary students' attitudes towards contemporary poetry in isiZulu as a tool to enhance access to academic content. *Nordic Journal of African Studies* 29 (1): 1-29.

Sibula, Phumlani M. 2007.

Furthering the aim of multilingualism through integrated terminology development. *Lexikos* 17: 397-406.

Sigudla, Malefeu M.; Thembinkosi E Mabila and Happy M. Tirivangasi. 2021.

Language preferences of pre-service teachers who specialise in English and an African language. *Journal of Social Sciences and Humanities* 18 (9): 134-146.

Skutnabb-Kangas, Tove. 1998.

Human rights and language wrongs: A future for diversity. In: Phil Benson, Peter Grundy and Tove Skutnabb-Kangas (eds.). *Language Sciences: Special Issue* 20 (1): 5-27.

Skutnabb-Kangas, Tove. 1998b.

Multilingualism and education in minority children. In: Tove Skutnabb-Kangas and Jim Cummins. *Minority Education: From shame to struggle*. Clevedon, England: Multilingual Matters. 9-44.

Skutnabb-Kangas, Tove. 2001.

The globalisation of educational language rights. *International Review of Education* 47 (3-4): 201-219.

Skutnabb-Kangas Tove and Stephen May. 2016.

Linguistic human rights in education. *Encyclopedia of Language and Education* 3rd edition: 1-17.

Spaull, Nicholas. 2013.

South Africa's Education crisis: The quality of education in South Africa 1994-

2011. Report Commissioned by Centre for Development and Enterprise. CDE, Johannesburg.
- Stroud, Christopher. 2016.
Towards a policy for bilingual education in developing countries. *Multilingual Margins* 3 (1): 4-87.
- Stroud, Christopher and Caroline Kerfoot. 2021.
Decolonizing higher education: Multilingualism, linguistic citizenship and epistemic justice. *Language and Decoloniality in Higher Education: Reclaiming Voices from the South*: 19-46.
- Thamaga-Chitja, Joyce M. and Thabile Mbatha. 2012
Enablers and barriers to multilingualism in South African university classrooms. *Southern African Linguistics and Applied Language Studies* 30 (3): 339-346.
- Tollefson, James W. and Amy B. M. Tsui. 2014.
Language diversity and language policy in educational access and equity. *Review of Research in Education* 38: 189-214.
- Turner, Noeleen S. 2012.
African languages as compulsory courses in KwaZulu-Natal: Illusory initiative or inspired intervention? *Per Linguam* 28 (2): 28-45.
- University of KwaZulu-Natal. 2014.
Language policy of the University of KwaZulu-Natal Ref: CO/02/0109/06 Revised 2014. Durban: University of KwaZulu-Natal.
- University of KwaZulu-Natal. 2014.
Teaching and Learning Report 2014/2015. Durban: University of KwaZulu-Natal.
- Ushioda, Ema. 2017.
The impact of global English on motivation to learn other languages: Towards an ideal multilingual self. *The Modern Language Journal* 101 (3): 469-482.
- Van der Walt, Christa. 2010.
The context of language planning in multilingual higher education. *Language Learning Journal* 38 (3): 253-271.
- Van Laren, Linda and Busisiwe Goba. 2013.
They say we are crèche teachers: Experiences of pre-service mathematics teachers taught through the medium of isiZulu. *Pythagoras* 34 (1): 1-8.
- Van Pinxteren, Bert. 2022.

- Language of instruction in education in Africa: How new questions help generate new answers. *International Journal of Educational Development* 88: 1-6.
- Vithal, Renuka and Langa Khumalo. 2015.
University of KwaZulu-Natal Language Board Report 2014/2015. Durban: University of KwaZulu-Natal.
- Vithal, Renuka and Langa Khumalo. 2016.
University of KwaZulu-Natal Language Board Report 2015/2016. Durban: University of KwaZulu-Natal.
- Vuzo, Mwajuma. 2018.
Towards achieving the Sustainable Development Goals: Revisiting language of instruction in Tanzania secondary schools. *International Review of Education* 64: 803-822.
- Vygotsky, Les S. 1978.
Mind in society: The development of higher psychological processes. Cambridge: Harvard University Press.
- Webb, Vic. 2013.
African languages in post-1994 education in South Africa: Our own Titanic? *Southern African Linguistics and Applied Language Studies* 31 (2): 173-184.
- Weber, Tobias. 2021.
The cost of language attitudes. *Proceedings of the 12th International Conference of Experiential Linguistics*, 11-13 October 2021, Athens, Greece. 249-252.
- Wildsmith-Cromarty, Rosemary and Noeleen Turner. 2018.
Bilingual instruction at tertiary level in South Africa: What are the challenges? *Current Issues in Language Planning* 19 (4): 416-433.
- Wildsmith-Cromarty, Rosemary and Robert J. Balfour. 2019.
Language learning and teaching in South African primary schools. *Language Teaching* 52: 296-317.
- Willemse, Hein. 2015.
The hidden histories of Afrikaans. Pretoria: University of Pretoria.
- Wolff, Ekkehard H. 2017.
Language ideologies and the politics of language in post-colonial Africa. *Stellenbosch Papers in Linguistics Plus* 51: 1-22.
- Zondi, Khulekani. 2018.

A glossary of law terms: English-isiZulu. Pietermaritzburg: University of KwaZulu-Natal Press.

Zulu, Nogwaja S. and Hlonipani Ndebele. 2020.

Students' motivation for studying isiZulu first language modules at the University of KwaZulu-Natal. *Journal for Language Teaching* 54 (2): 11-33.

Weblinks:

Asmara Declaration on African languages and literatures. 2000.

https://www.africa.upenn.edu/Govern_Political/asmrlit.html

OAU Plan for Action. 1986.

<http://www.bisharat.net/Documents/OAU-LPA-86.htm>

UNESCO. 2016.

Sustainable Development Goals: The 2030 Agenda for Sustainable Development

<https://sdg4education2030.org/the-goal>

United Nations. 2002.

United Nations General Assembly Resolution 56/262

https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/56/262

United Nations. 2019.

International Year of Indigenous Languages.

<https://en.iyil2019.org/about#about-1>

United Nations. 2021.

International Mother Language Day 2021

<https://www.un.org/en/observances/mother-language-day>

University of KwaZulu-Natal Termbank

<https://ukzntermbank.ukzn.ac.za/PublicSearch.aspx>

APPENDICES

ANNEXURE A1: College of Health Sciences – Target Group

HSS/0755/018D

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				

1.17 Books I read (e.g. novels)				
1.18 Language I pray/do rituals in				

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu will equip me to perform better in my chosen career					
2.9 IsiZulu facilitates a better understanding of the academic concepts					
2.10 Understanding academic concepts will enhance the academic performance					
2.11 The terminology list in isiZulu facilitates a clearer understanding of the academic concepts					

2.12 Translations in the terminology list in isiZulu are easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu will enhance academic performance					
2.14 IsiZulu L1 students stand to benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu supports academic performance in English-oriented academic contexts					
2.16 IsiZulu has an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the use of isiZulu language in academic contexts and the use of isiZulu discipline-specific terminology.

--

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards:	PESSIMIST IC	NEGATI VE	NEUTR AL	POSITI VE	OPTIMIS TIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic					

language for L1 students (choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. isiklerethomi					
3.7 using isiZulu ‘proper’ in the terminology list e.g. isisikazicubu					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the use of isiZulu language in academic contexts and the use of discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU USE OR MIGHT USE/INTEND TO USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

	Never 0- 19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80- 100%
4.1 I use/might use isiZulu to understand course material better					
4.2 I use/might use isiZulu to discuss course material					

4.3 I prefer/might prefer to receive explanations in isiZulu before the English explanations					
4.4 I prefer/might prefer to receive explanations in English before isiZulu explanations					
4.5 I prefer/might prefer explanations of the course material in English only					
4.6 I prefer/might prefer explanations of the course material in isiZulu only					
4.7 I prefer/might prefer explanations of the course material in both isiZulu and English					
4.8 I prefer/might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu enhances/might enhance understanding of academic concepts					
4.10 I consult/might consult terminology in isiZulu when I study					
4.11 I use/might use terminology in isiZulu to explain course content to other students					
4.12 I use/might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I use/might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the frequency of use of isiZulu language and/or discipline-specific terminology in isiZulu in your studies

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
okuphathelene nokukhiqizwa kwamafutha	
imizwa ezungelezile	
izicutshana/izinhlayiya ezihlangene	
umsipha wesihluzi	
isikhiqizambewu	
okusaphonjwana	
umlomo	
okuphathelene nenqulu/okwenqulu	
uvulavale	
iphakathi nendawo	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------

IsiZulu term	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term
okuphathelene nokukhiqizwa kwamafutha					
imizwa ezungelezile					
izicutshana/izinhlayiya ezihlangene					
umsipha wesihluzi					
isikhiqizambewu					
okusaphonjwana					
umlomo					
okuphathelene nenqulu/okwenqulu					
uvulavale					
iphakathi nendawo					

SECTION 6: PLEASE PROVIDE YOUR PERSONAL BIOGRAPHIC DETAILS FOR STATISTICAL ANALYSIS

6.1 Age bracket in years (tick one option):

18-21	22-25	26-29	30-33	34+
-------	-------	-------	-------	-----

6.2 Gender (tick one option) MALE FEMALE

6.3 Level of language study at High School level (circle one option from each language)

6.3.1 IsiZulu HL/ IsiZulu FAL

6.3.2 English HL/ English FAL

6.4 Year of registration at UKZN: 1st 2nd 3rd 4th

CONTACT DETAILS FOR FURTHER INTERACTION

I would appreciate if you can avail yourself for a follow-up interview.

May I contact you for interview purposes?

YES	NO
-----	----

Email address _____ /
number _____.

Cell phone

Would you prefer to bring a friend who is registered for the same module as yourself to be part of the interview?

YES	NO
-----	----

Contact details of you friend

Email address _____ / Cell phone number
_____.

**NGIYABONGA KAKHULU NGESIKHATHI SAKHO NANGOLWAZI
OLUCOBELELE KULOLUCWANINGO.**

THANK YOU FOR TAKING YOUR TIME TO PARTICIPATE IN THIS RESEARCH
STUDY.

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu could equip me to perform better in my chosen career					
2.9 IsiZulu could facilitate a better understanding of the academic concepts					
2.10 Understanding academic concepts enhances the academic performance					
2.11 The terminology list in isiZulu could facilitate a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu should be easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu could enhance academic performance					
2.14 IsiZulu L1 students would benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu should support academic performance in English-oriented academic contexts					
2.16 IsiZulu should have an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the potential use of isiZulu language in academic contexts and of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards the possibility of:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students					

(choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. isiklerethomi					
3.7 using isiZulu ‘proper’ in the terminology list e.g. isisikazicubu					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the possibility of using isiZulu language in academic contexts and discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU MIGHT USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU SHOULD IT BE AVAILABLE

	Never 0-19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80-100%
4.1 I might use isiZulu to understand course material better					
4.2 I might use isiZulu to discuss course material					

4.3 I might prefer to receive explanations in isiZulu before the English explanations					
4.4 I might prefer to receive explanations in English before isiZulu explanations					
4.5 I might prefer explanations of the course material in English only					
4.6 I might prefer explanations of the course material in isiZulu only					
4.7 I might prefer explanations of the course material in both isiZulu and English					
4.8 I might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu might enhance understanding of academic concepts					
4.10 I might consult terminology in isiZulu when I study					
4.11 I might use terminology in isiZulu to explain course content to other students					
4.12 I might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I might support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the possibility of using isiZulu language and/or discipline-specific terminology in isiZulu in your studies

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
--------------	--------------------------------

okuphathelene nokukhiqizwa kwamafutha	
imizwa ezungelezile	
izicutshana/izinhlayiya ezihlangene	
umsipha wesihluzi	
isikhiqizambewu	
okusaphonjwana	
umlomo	
okuphathelene nenqulu/okwenqulu	
uvulavale	
iphakathi nendawo	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------

	Level of clarity	Level of understanding	Level of acceptability	Chance s of using the term	Need for the isiZulu term	Term in English
okuphathelene nokukhiqizwa kwamafutha						
imizwa ezungelezile						
izicutshana/izinhlayiya ezihlangene						
umsipha wesihluzi						
isikhiqizambewu						
okusaphonjwana						
umlomo						
okuphathelene nenqulu/okwenqulu						
uvulavale						
iphakathi nendawo						

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu will equip me to perform better in my chosen career					
2.9 IsiZulu facilitates a better understanding of the academic concepts					
2.10 Understanding academic concepts will enhance the academic performance					
2.11 The terminology list in isiZulu facilitates a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu are easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu will enhance academic performance					
2.14 IsiZulu L1 students stand to benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu supports academic performance in English-oriented academic contexts					
2.16 IsiZulu has an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the use of isiZulu language in academic contexts and the use of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 use of isiZulu as an academic language for all students (100%)					
3.2 use of isiZulu as an academic language alongside English (dual medium instruction)					
3.3 use of isiZulu as an alternative academic language for L1 students (choose between English and isiZulu)					

3.4 use of isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 use of discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 the translations and elaborations of the concepts in the terminology list in isiZulu					
3.7 the kind/level of isiZulu used in the terminology list					
3.8 the use of the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 the impact of consulting the terminology in isiZulu on my performance in the module					
3.11 isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the use of isiZulu language in academic contexts and the use of discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU USE OR MIGHT USE/INTEND TO USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

	Never (0-19%)	Rarely (20-39%)	Occasionally (40-59%)	Regularly (60-79%)	Always (80-100%)
4.1 I use/might use isiZulu to understand course material better					
4.2 I use/might use isiZulu to discuss course material					
4.3 I prefer/might prefer to receive explanations in					

isiZulu before the English explanations					
4.4 I prefer/might prefer to receive explanations in English before isiZulu explanations					
4.5 I prefer/might prefer explanations of the course material in English only					
4.6 I prefer/might prefer explanations of the course material in isiZulu only					
4.7 I prefer/might prefer explanations of the course material in both isiZulu and English					
4.8 I prefer/might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu enhances/might enhance understanding of academic concepts					
4.10 I consult/might consult terminology in isiZulu when I study					
4.11 I use/might use terminology in isiZulu to explain course content to other students					
4.12 I use/might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I use/might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the frequency of use of isiZulu language and/or discipline-specific terminology in isiZulu in your studies

--

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
udaka lobumba	
umhlobisonsika	
igumbimkhathi	
isithungo	
isikhocosendlu	
ithandela/ibhathini	
umshayo	
isibopho	
isigqokwana sensika yesibambelelo	
udonga olumahhadla	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------

	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	English equivalent
udaka lobumba						
umhlobisonsika						
igumbimkhathi						
isithungo						
isikhocosendlu						
ithandela/ibhathini						
umshayo						
isibopho						

isigqokwana sensika yesibambelelo						
udonga olumahhadla						

SECTION 6: PLEASE PROVIDE YOUR PERSONAL BIOGRAPHIC DETAILS FOR STATISTICAL ANALYSIS

6.1 Age bracket in years (tick one option):

18-21	22-25	26-29	30-33	34+
-------	-------	-------	-------	-----

6.2 Gender (tick one option)

MALE	FEMALE
------	--------

6.3 Level of language study at High School level (circle one option from each language)

6.3.1 IsiZulu HL/IsiZulu FAL

6.3.2 English HL/English

FAL

6.4 Year of UKZN registration 1st

2nd

3rd

4th

CONTACT DETAILS FOR FURTHER INTERACTION

I would appreciate if you can avail yourself for a follow-up interview.

May I contact you for interview purposes

YES

NO

Email address _____ / Cell phone number _____.

**NGIYABONGA KAKHULU NGESIKHATHI SAKHO NANGOLWAZI
OLUCOBELELE KULOLUCWANINGO.**

THANK YOU FOR TAKING YOUR TIME TO PARTICIPATE IN THIS RESEARCH STUDY.

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____
(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				

1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				
1.18 Language I pray/do rituals in				

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu could equip me to perform better in my chosen career					
2.9 IsiZulu could facilitate a better understanding of the academic concepts					
2.10 Understanding academic concepts enhances the academic performance					
2.11 The terminology list in isiZulu could facilitate a clearer					

understanding of the academic concepts					
2.12 Translations in the terminology list in isiZulu should be easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu could enhance academic performance					
2.14 IsiZulu L1 students would benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu should support academic performance in English-oriented academic contexts					
2.16 IsiZulu should have an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the potential use of isiZulu language in academic contexts and of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards the possibility of:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language					

alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students (choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. irijini					
3.7 using isiZulu ‘proper’ in the terminology list e.g. umqolo wophahla					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the possibility of using isiZulu language in academic contexts and discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU MIGHT USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU SHOULD IT BE AVAILABLE

	Never	Rarely	Occasionally	Regularly	Always
--	-------	--------	--------------	-----------	--------

	(0-19%)	(20-39%)	(40-59%)	(60-79%)	(80-100%)
4.1 I might use isiZulu to understand course material better					
4.2 I might use isiZulu to discuss course material					
4.3 I might prefer to receive explanations in isiZulu before the English explanations					
4.4 I might prefer to receive explanations in English before isiZulu explanations					
4.5 I might prefer explanations of the course material in English only					
4.6 I might prefer explanations of the course material in isiZulu only					
4.7 I might prefer explanations of the course material in both isiZulu and English					
4.8 I might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu might enhance understanding of academic concepts					
4.10 I might consult terminology in isiZulu when I study					
4.11 I might use terminology in isiZulu to explain course content to other students					
4.12 I might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I might support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the possibility of using isiZulu language and/or discipline-specific terminology in isiZulu in your studies

--

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
udaka lobumba	
umhlobisonsika	
igumbimkhathi	
isithungo	
isikhocosendlu	
ithandela/ibhathini	
umshayo	
isibopho	
isigqokwana sensika yesibambelelo	
udonga olumahhadla	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------

	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	English equivalent
udaka lobumba						
umhlobisonsika						
igumbimkhathi						
isithungo						

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu will equip me to perform better in my chosen career					
2.9 IsiZulu facilitates a better understanding of the academic concepts					
2.10 Understanding academic concepts will enhance the academic performance					
2.11 The terminology list in isiZulu facilitates a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu are easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu will enhance academic performance					
2.14 IsiZulu L1 students stand to benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu supports academic performance in English-oriented academic contexts					
2.16 IsiZulu has an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the use of isiZulu language in academic contexts and the use of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students					

(choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. ikhophasi elementi					
3.7 using isiZulu ‘proper’ words in the terminology list e.g. ukulawulwa kwesiqu					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the use of isiZulu language in academic contexts and the use of discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU USE OR MIGHT USE/INTEND TO USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

	Never 0-19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80-100%
4.1 I use/might use isiZulu to understand course material better					

4.2 I use/might use isiZulu to discuss course material					
4.3 I prefer/might prefer to receive explanations in isiZulu before the English explanations					
4.4 I prefer/might prefer to receive explanations in English before isiZulu explanations					
4.5 I prefer/might prefer explanations of the course material in English only					
4.6 I prefer/might prefer explanations of the course material in isiZulu only					
4.7 I prefer/might prefer explanations of the course material in both isiZulu and English					
4.8 I prefer/might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu enhances/might enhance understanding of academic concepts					
4.10 I consult/might consult terminology in isiZulu when I study					
4.11 I use/might use terminology in isiZulu to explain course content to other students					
4.12 I use/might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I use/might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the frequency of use of isiZulu language and/or discipline-specific terminology in isiZulu in your studies

--

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
isimangalo sesinxephezelo	
-thobelile	
inhlango yabammeli basemajajini	
umyalelo wommeli basemajajini	
ubelelesi obuthinta amazwe ngamazwe	
isenzo ngokweswo lomthetho	
impikiswano	
-dalula/-veza	
umthetho ongabhaliwe	
amacala ahlanganisiwe/ ingxubemacala	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH		
	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	Term in English
isimangalo sesinxephezelo						
-thobelile						
inhlango yabammeli basemajajini						
umyalelo wommeli basemajajini						
ubelelesi obuthinta amazwe ngamazwe						

isenzo ngokweso lomthetho						
impikiswano						
-dalula/-veza						
umthetho ongabhaliwe						
amacala ahlanganisiwe/ ingxubemacala						

SECTION 6: PLEASE PROVIDE YOUR PERSONAL BIOGRAPHIC DETAILS FOR STATISTICAL ANALYSIS

6.1 Age bracket in years (tick one option):

18-21
 22-25
 26-29
 30-33
 34+

6.2 Gender (tick one option)

MALE
 FEMALE

6.3 Level of language study at High School level (circle one option from each language)

6.3.1 IsiZulu HL/ IsiZulu FAL

6.3.2 English HL/ English

FAL

6.4 Year of UKZN registration 1st

2nd

3rd

4th

CONTACT DETAILS FOR FURTHER INTERACTION

I would appreciate if you can avail yourself for a follow-up interview.

May I contact you for interview purposes

YES
 NO

Email address _____ / Cell phone number _____.

**NGIYABONGA KAKHULU NGESIKHATHI SAKHO NANGOLWAZI
OLUCOBELELE KULOLUCWANINGO.**

**THANK YOU FOR TAKING YOUR TIME TO PARTICIPATE IN THIS RESEARCH
STUDY.**

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu could equip me to perform better in my chosen career					
2.9 IsiZulu could facilitate a better understanding of the academic concepts					
2.10 Understanding academic concepts enhances the academic performance					
2.11 The terminology list in isiZulu could facilitate a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu should be easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu could enhance academic performance					
2.14 IsiZulu L1 students would benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu should support academic performance in English-oriented academic contexts					
2.16 IsiZulu should have an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the potential use of isiZulu language in academic contexts and isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards the possibility of:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students					

(choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. ikhophasi elementi					
3.7 using isiZulu ‘proper’ in the terminology list e.g. ukulawulwa kwesiqu					
3.8 using terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the possibility of using isiZulu language in academic contexts and discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU MIGHT USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU SHOULD IT BE AVAILABLE

	Never 0- 19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80- 100%
4.1 I might use isiZulu to understand course material better					
4.2 I might use isiZulu to discuss course material					
4.3 I might prefer to receive explanations in isiZulu before the English explanations					

4.4 I might prefer to receive explanations in English before isiZulu explanations					
4.5 I might prefer explanations of the course material in English only					
4.6 I might prefer explanations of the course material in isiZulu only					
4.7 I might prefer explanations of the course material in both isiZulu and English					
4.8 I might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu might enhance understanding of academic concepts					
4.10 I might consult terminology in isiZulu when I study					
4.11 I might use terminology in isiZulu to explain course content to other students					
4.12 I might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I might support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the possibility of using isiZulu language and/or discipline-specific terminology in isiZulu in your studies

--

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
isimangalo sesinxephezelo	

-thobelile	
inhlango yabammeli basemajajini	
umyalelo wommeli basemajajini	
ubelelesi obuthinta amazwe ngamazwe	
isenzo ngokwesomthetho	
impikiswano	
-dalula/-veza	
umthetho ongabhaliwe	
amacala ahlanganisiwe/ ingxubemacala	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------------

	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	Term in English
isimangalo sesinxephezelo						
-thobelile						
inhlango yabammeli basemajajini						
umyalelo wommeli basemajajini						
ubelelesi obuthinta amazwe ngamazwe						
isenzo ngokwesomthetho						
Impikiswano						
-dalula/-veza						

umthetho ongabhaliwe						
amacala ahlanganisiwe/ ingxubemacala						

SECTION 6: PLEASE PROVIDE YOUR PERSONAL BIOGRAPHIC DETAILS FOR STATISTICAL ANALYSIS

6.1 Age bracket in years (tick one option):

18-21
 22-25
 26-29
 30-33
 34+

6.2 Gender (tick one option) MALE FEMALE

6.3 Level of language study at High School level (circle one option from each language)

6.3.1 IsiZulu HL/ IsiZulu FAL

6.3.2 English HL/English

FAL

6.4 Year of UKZN registration 1st

2nd

3rd

4th

CONTACT DETAILS FOR FURTHER INTERACTION

I would appreciate if you can avail yourself for a follow-up interview.

May I contact you for interview purpose

YES

NO

Email address _____ / Cell phone number _____.

**NGIYABONGA KAKHULU NGESIKHATHI SAKHO NANGOLWAZI
OLUCOBELELE KULOLUCWANINGO.**

THANK YOU FOR TAKING YOUR TIME TO PARTICIPATE IN THIS RESEARCH STUDY.

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu will equip me to perform better in my chosen career					
2.9 IsiZulu facilitates a better understanding of the academic concepts					
2.10 Understanding academic concepts will enhance the academic performance					
2.11 The terminology list in isiZulu facilitates a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu are easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu will enhance academic performance					
2.14 IsiZulu L1 students stand to benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu supports academic performance in English-oriented academic contexts					
2.16 IsiZulu has an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the use of isiZulu language in academic contexts and the use of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students					

(choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. ihayiphotesisi					
3.7 using of isiZulu ‘proper’ words in the terminology list e.g. umbonosiqagelo					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the use of isiZulu language in academic contexts and the use of discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU USE OR MIGHT USE/INTEND TO USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

	Never 0-19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80- 100%
4.1 I use/might use isiZulu to understand course material better					
4.2 I use/might use isiZulu to discuss course material					

4.3 I prefer/might prefer to receive explanations in isiZulu before the English explanations					
4.4 I prefer/might prefer to receive explanations in English before isiZulu explanations					
4.5 I prefer/might prefer explanations of the course material in English only					
4.6 I prefer/might prefer explanations of the course material in isiZulu only					
4.7 I prefer/might prefer explanations of the course material in both isiZulu and English					
4.8 I prefer/might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu enhances/might enhance understanding of academic concepts					
4.10 I consult/might consult terminology in isiZulu when I study					
4.11 I use/might use terminology in isiZulu to explain course content to other students					
4.12 I use/might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I use/might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the frequency of use of isiZulu language and/or discipline-specific terminology in isiZulu in your studies

--

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
umsebe	
thathela kungqangqazela	
zungeza/zongoloza/jikeleza	
umsindo ongazwakali/umsindobuthule	
ubungangomdlandla	
ukusilela	
okucacile/okusobala	
iyengelamcijo	
isifundomkhathi/ isayensi yomlandomkhathi	
okubonwa yiso	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------------

	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	English equivalent
umsebe						
thathela kungqangqazela						
zungeza/zongoloza/jikeleza						
umsindo ongazwakali/ umsindobuthule						
ubungangomdlandla						
Ukusilela						

Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language.

Researcher: Muhle Sibisi (sibisim3@ukzn.ac.za) Supervisor: Prof Heike Tappe (tappe@ukzn.ac.za)

PLEASE FILL-IN THE LAST 5 DIGITS OF YOUR STUDENT NUMBER _____

(confidentiality and anonymity is guaranteed – a unique code name will be assigned to each respondent)

The questionnaire has six (6) sections. **It will take not more than 30 minutes to finish.**

SECTION 1: PLEASE SPECIFY THE DOMINANT LANGUAGE (EXCEEDING 60% OF YOUR LANGUAGE USE) IN EACH OF THE SPECIFIED DOMAINS OF LANGUAGE USE AS WELL AS PEOPLE YOU USE THE LANGUAGE WITH.

DOMAIN/PEOPLE	ISIZULU	ENGLISH	BOTH	NEITHER/ DOES NOT APPLY TO ME
1.1 Family elders				
1.2 Family young members				
1.3 Friends from my home area				
1.4 Friends from varsity (isiZulu-speaking)				
1.5 Lecturers (isiZulu-speaking)				
1.6 Lecturers (non-isiZulu-speaking)				
1.7 Tutors (isiZulu-speaking)				
1.8 Tutors (non-isiZulu-speaking)				
1.9 Librarian(s) isiZulu-speaking				
1.10 Librarian(s) non-isiZulu-speaking				
1.11 Non-academic staff members (isiZulu-speaking)				
1.12 Non-academic staff members (non-isiZulu-speaking)				
1.13 During lectures to other isiZulu L1 speakers when discussing module content				
1.14 Outside lectures to other isiZulu L1 speakers when discussing module content				
1.15 Outside lectures to other isiZulu L1 speakers on non-academic matters				
1.16 Newspapers I read				
1.17 Books I read (e.g. novels)				

1.18 Language I pray/do rituals in				
------------------------------------	--	--	--	--

SECTION 2: PLEASE INDICATE YOUR BELIEFS, KNOWLEDGE & PERCEPTUAL RESPONSES TOWARDS LANGUAGE USE, ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
2.1 Language and identity correlate					
2.2 IsiZulu language defines my identity					
2.3 Language enables access to information					
2.4 Information is accessed better in a familiar language					
2.5 Understanding of the information is achieved better in the Home Language					
2.6 IsiZulu may be used in academic contexts					
2.7 IsiZulu may enhance academic performance for L1 speakers					
2.8 The use of isiZulu could equip me to perform better in my chosen career					
2.9 IsiZulu could facilitate a better understanding of the academic concepts					
2.10 Understanding academic concepts enhances the academic performance					
2.11 The terminology list in isiZulu could facilitate a clearer understanding of the academic concepts					
2.12 Translations in the terminology list					

in isiZulu should be easy to understand					
2.13 Understanding of discipline-specific terminology in isiZulu could enhance academic performance					
2.14 IsiZulu L1 students would benefit from the use of a discipline-specific terminology list in isiZulu					
2.15 IsiZulu should support academic performance in English-oriented academic contexts					
2.16 IsiZulu should have an important role to play in academic contexts					

Elaborate on why you hold the beliefs you hold on the language used in academic contexts, the potential use of isiZulu language in academic contexts and of isiZulu discipline-specific terminology.

SECTION 3: PLEASE INDICATE HOW YOU FEEL, YOUR EMOTIONS AND MOOD TOWARDS ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU

My feelings towards the possibility of:	PESSIMISTIC	NEGATIVE	NEUTRAL	POSITIVE	OPTIMISTIC
3.1 using isiZulu as an academic language for all students (100%)					
3.2 using isiZulu as an academic language alongside English (dual medium instruction)					
3.3 using isiZulu as an alternative academic language for L1 students					

(choose between English and isiZulu)					
3.4 using isiZulu to supplement English academic instruction – e.g. in course outlines, academic concepts and tutorials					
3.5 using discipline-specific terminology in isiZulu to facilitate understanding of English academic concepts					
3.6 using loan words in the terminology list in isiZulu e.g. ihayiphotesisi					
3.7 using isiZulu ‘proper’ words in the terminology list e.g. umbonosiqagelo					
3.8 using the terminology list in isiZulu in academic contexts					
3.9 consulting the terminology list in isiZulu on the concepts I struggle with in my studies					
3.10 improving my performance in the module by using terminology in isiZulu					
3.11 using isiZulu as an academic language generally in Higher Education					

Elaborate on the feelings you have towards the possibility of using isiZulu language in academic contexts and the use of discipline-specific terminology in isiZulu.

SECTION 4: INDICATE THE CHANCES THAT YOU MIGHT USE ISIZULU LANGUAGE AND DISCIPLINE-SPECIFIC TERMINOLOGY IN ISIZULU SHOULD IT BE AVAILABLE

	Never 0-19%	Rarely 20-39%	Occasionally 40-59%	Regularly 60-79%	Always 80- 100%
4.1 I might use isiZulu to understand course material better					

4.2 I might use isiZulu to discuss course material					
4.3 I might prefer to receive explanations in isiZulu before the English explanations					
4.4 I might prefer to receive explanations in English before isiZulu explanations					
4.5 I might prefer explanations of the course material in English only					
4.6 I might prefer explanations of the course material in isiZulu only					
4.7 I might prefer explanations of the course material in both isiZulu and English					
4.8 I might prefer to consult terminology in isiZulu when I encounter challenging concepts					
4.9 Terminology in IsiZulu might enhance understanding of academic concepts					
4.10 I might consult terminology in isiZulu when I study					
4.11 I might use terminology in isiZulu to explain course content to other students					
4.12 I might use terminology in isiZulu when I talk about my studies to other isiZulu L1 students					
4.13 I might use terminology in isiZulu when I talk about my studies to people outside of the university					
4.14 I might support the drive to use discipline-specific terminology in isiZulu to facilitate understanding of academic content					

Elaborate on the possibility of using isiZulu language and/or discipline-specific terminology in isiZulu in your studies

SECTION 5A: REFER TO THE LIST OF TERMS EXTRACTED FROM THE ZULU LEXICON. FOR EACH TERM, GIVE AN ENGLISH EQUIVALENT/TRANSLATION

IsiZulu term	English equivalent/translation
umsebe	
thathela kungqangqazela	
zungeza/zongoloza/jikeleza	
umsindo ongazwakali/umsindobuthule	
ubungangomdlandla	
ukusilela	
okucacile/okusobala	
iyengelamcijo	
isifundomkhathi/ isayensi yomlandomkhathi	
okubonwa yiso	

SECTION 5B: FOR EACH FEATURE IN THE FOLLOWING TABLE, EVALUATE THE ISIZULU TERMINOLOGY USING THE FOLLOWING SCALE:

1= VERY LOW	2= LOW	3= MEDIOCRE	4= HIGH	5= EXTREMELY HIGH
-------------	--------	-------------	---------	-------------------------

	Level of clarity	Level of understanding	Level of acceptability	Chances of using the term	Need for the isiZulu term	English equivalent
umsebe						
thathela kungqangqazela						
zungeza/zongoloza/jikeleza						
umsindo ongazwakali/ umsindobuthule						
ubungangomdlandla						
ukusilela						
okucacile/okusobala						

INKULUMO-MPIKISWANO YEQEMBU ELIKHETHEKILE**

1. Between isiZulu and English, which language do you use the most? On what occasions and with whom do you use this language?
Kuzozombili izilimi isiZulu nesiNgesi, iluphi ulimi olusebenzisa kakhulu? Ulusebenzisa kuziphi izimo lolulimi futhi ulusebenzisa naluphi uhlobo lwabantu?
2. What role does isiZulu play in your academic life?
Iyiphi ingxenye edlalwa ulimi lwesiZulu endimeni yokufunda kwakho?
3. In what way is the availability of terminology list in isiZulu of any assistance to your academic performance?
Kunamthelela muni ukubakhona kohla lwamatemu ngolimi lwesiZulu kunawo yini umthelela ezifundweni zakho?
4. How do you feel about the use of isiZulu and the terminology list in isiZulu in your academic life?
Kungabe uzizwa kanjani ngokuthi ulimi lwesiZulu kanye nohla lwamatemu esiZulu kube ingxenye yokufunda kwakho?
5. Do you see the need of using the terminology in isiZulu to enhance your understanding of academic content?
Ngabe uyasibona yini isidingo sokusebenzisa amatemu angolimi lwesiZulu ukwelekelela ukufunda kwakho?
6. What is your overall view on the terminology list in isiZulu?
Luthini uvo lwakho ngohla lwamatemu olungolimi lwesiZulu?

*These are baseline questions to prompt the discussion. Participants will exchange ideas until each question is exhausted.

**Lona umgogodla wemibuzo yokuqala ingxoxo. Abafundi bayocebelelana ulwazi ngombuzo ngamunye kuze kuqinisekise ukuthi umbuzo ngamunye ubhekisisiwe.

INTERVIEW SCHEDULE (Focus groups)*

INKULUMO-MPIKISWANO YEQEMBU ELIKHETHEKILE**

1. Between isiZulu and English, which language do you use the most? On what occasions and with whom do you use this language?
Kuzozombili izilimi isiZulu nesiNgesi, iluphi ulimi olusebenzisa kakhulu? Ulusebenzisa kuziphi izimo lolulimi futhi ulusebenzisa naluphi uhlobo lwabantu?
2. What role could isiZulu play in your academic life?
Iyiphi ingxenye engadlalwa ulimi lwesiZulu endimeni yokufunda kwakho?
3. In your opinion, in what way could the availability of terminology list in isiZulu be of any assistance to your academic performance?
Ngokucabanga kwakho, kungaba namthelela muni ezifundweni zakho ukubakhona kohla lwamatemu angolimi lwesiZulu?
4. How do you feel about the lack of option to use isiZulu and the terminology list in isiZulu in your academic life?
Kungabe uzizwa kanjani ngokungakwazi ukusebenzisa ulimi lwesiZulu kanye nohla lwamatemu esiZulu njengengxenye yokufunda kwakho?
5. Is there a role that the use of terminology in isiZulu could play to enhance your understanding of academic content?
Ngabe ikhona yini indima engadlalwa ukusebenzisa amatemu angolimi lwesiZulu ukwelekelela ukufunda kwakho?
6. If there would be a terminology list in isiZulu for your discipline, what would your suggestions be on the formulation of this list? Would you suggest the use of isiZulu in its pure form, or would you suggest the use of loan words?
Uma kungase kubekhona uhla lwamatemu olungolimi lwesiZulu oluqondene nezifundo zakho, iziphi iziphakamiso ongazenza ngokwakhiwa kwaloluhla, kungamele abenjani lawomatemu – kusetshenziswe isiZulu phaqa noma imifakela?

*These are baseline questions to prompt the discussion. Participants will exchange ideas until each question is exhausted.

**Lona umgogodla wemibuzo yokuqala ingxoxo. Abafundi bayocelelana ulwazi ngombuzo ngamunye kuze kuqinisekise ukuthi umbuzo ngamunye ubhekisise.

Information Sheet and Consent to Participate in Research

July/August 2019

Dear student,

My name is Muhle Sibisi enrolled for a PhD in Linguistics at the University of KwaZulu-Natal (Howard College). My contact details are: sibisim3@ukzn.ac.za/ 031-260 7541. My supervisor is Professor Heike Tappe. Her contact details are: tappe@ukzn.ac.za/ 031- 260 1131.

You are invited to consider participating in a study that involves research using a questionnaire and focus group interviews. The study is entitled: *Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language*. The aim and purpose of this research is to study the attitudes of isiZulu L1 students towards isiZulu and discipline-specific terminology in isiZulu. The study is expected to enrol 320 students in total across the four colleges of UKZN. It will involve filling up a questionnaire that will take approximately 30 minutes to fill. The study will also involve volunteering for focus group interviews. Each interview session will take approximately 45 minutes. The duration of your participation if you choose to enrol and remain in the study is expected to be no more than 1 hour and 30 minutes.

The study will not involve any risks and/or discomforts. We hope that the study will put under scrutiny the attitudes of isiZulu L1-speaking students on the use of and potential benefit of using isiZulu and discipline-specific terminology in isiZulu to access academic content and thereby improving academic performance.

There are no risks involved in participating in the study (medical and/or psychosocial).

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number **HSS/0755/018D**)

In the event of any problems or concerns/questions you may contact the researcher and/or supervisor using the email addresses provided above or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**RESEARCH OFFICE, WESTVILLE CAMPUS****GOVAN MBEKI BUILDING**

Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Participation in the study is voluntary and you may withdraw participation at any point. In the event of refusal/withdrawal of participation you will not incur any penalty. Your input in the study is invaluable, however, should you wish to withdraw from the study, you are urged to notify the researcher by sending an email to this effect. Your participation in the study will be terminated should incorrect and inappropriate information be given under false pretences. There is no remuneration for participating in the study. However, the researcher commits to acknowledging the involvement and input of all the participants using module names.

You are assured of confidentiality during the study and in the dissemination of the research findings. You will be assigned a unique pseudonym in order to protect your privacy. The video recordings that will be used to gather data will be transcribed for analysis. Raw data will not be open to the public domain. Questionnaire data and the video recordings will be stored safely in the Linguistics discipline for a period of five years after which all data will be destroyed.

CONSENT FORM

HSS/0755/018D

I ----- have been informed about the study entitled: *Cognitive, affective and behavioural aspects of attitude in isiZulu L1 tertiary students towards discipline-specific terminology in isiZulu and isiZulu as an academic language* by Muhle Sibisi.

I understand the purpose and procedures of the study – to assess the attitudes of isiZulu L1-speaking students on the use of and potential benefit of using isiZulu and discipline-specific terminology in isiZulu to access academic content and thereby improving academic performance. **This will involve filling in a questionnaire and possible participation in a focus group interview.**

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed that there is no remuneration for participating in the study and that my contribution will be acknowledged using a group identity.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher on email: sibisim3@ukzn.ac.za.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

RESEARCH OFFICE, WESTVILLE CAMPUS

GOVAN MBEKI BUILDING

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

In addition to filling in the questionnaire, I hereby provide consent to:

Video-record my focus group interview /discussion (circle 1 option)

YES / NO

Signature of Participant

Date