



Decolonising life orientation by integrating indigenous knowledge in Technical Vocational Education and Training colleges in North West province, South Africa

T MANYAU

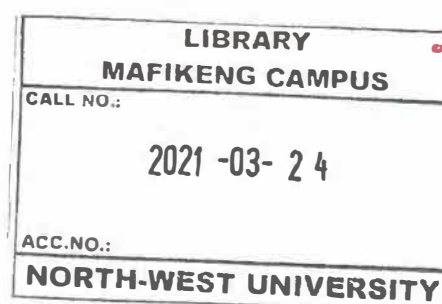
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DECLARATION BY CANDIDATE

I, **TONDERAIMANYAU**, (Student Number: **22513817**), hereby declare that this thesis being submitted for the fulfillment of the degree of Doctor of Philosophy in Indigenous Knowledge Systems at North-West University was solely done by me and it is my original work. I declare that this work had never been submitted elsewhere before and the materials/sources used have been acknowledged.

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DECLARATION BY PROMOTERS

This full thesis entitled “DECOLONISING LIFE ORIENTATION BY INTEGRATING INDIGENOUS KNOWLEDGE IN TECHNICAL VOCATIONAL EDUCATION AND TRAINING COLLEGES IN NORTH WEST PROVINCE” written by **TONDERAI MANYAU** (Student Number: **22513817**) is declared as a fulfilment for the degree of Doctor of Philosophy in Indigenous Knowledge Systems and is recommended for acceptance for Examination.

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DEDICATION

This study is dedicated to all the martyrs and advocates of indigenous knowledge, for their advocacy and unraveled spirit in standing firm and advancing this highly contested knowledge field. I commend their tireless efforts and endeavours in dragging and driving indigenous knowledge from the peripheries to the core within the knowledge discourses and terrains. These people's drive and devotions for a new humanist, life-sensitive and organised world goes a long way towards the decolonisation of the human mind, freedom and sustainable community development. The knowledge we all seek to gain, in their perspective, should benefit the world; the people, our environment and all its beings. The study is also dedicated to all aspiring individuals who wish to pursue the decolonisation agenda by integrating, validating, documenting and implementing the inclusion of indigenous knowledge in academic disciplines.

ABSTRACT

Globally and in South Africa in particular, there are drives to decolonise education and to integrate indigenous knowledge into curricula. Despite policy requirements to integrate indigenous knowledge (IK) in education disciplines in South Africa, many Life Orientation (LO) educators in Technical Vocational Education and Training (TVET) Colleges do not integrate IK in teaching. Subject guideline for LO require educators to apply social constructivist teaching strategies by promoting active learning strategies, student engagement and collaboration. Unfortunately, the implementation of LO education contradicts with the prescribed policy requirements and social constructivist - education philosophy. This gap between LO education, IK integration and policy implementation could be the source of many challenges realised in LO. Students now do not take the subject seriously, bunk LO classes, and are continuously exposed to many health and social pathologies.

Considering these inconsistencies, the main aim of this study was to close a gap between [ineffective] implementation of LO education policies and IK integration in TVET Colleges in South Africa. Therefore, the study investigated the teaching strategies being used by LO educators in TVET Colleges in South Africa; the extent to which LO educators integrate IK in teaching and the views, perceptions and suggestions from IK holders on decolonising and integrating IK and LO in TVET Colleges in South Africa.

A qualitative study, guided by a transformative approach was adopted in the study. Data collection processes were accomplished through two distinct strategies, namely: the medicine wheel strategy (for indigenous participants) and the phenomenological interpretive strategy (for LO lecturers and students). Participants consisted of **28** LO educators, **120** LO students and **7** IK holders in the North West Province of South Africa. Research data was gathered from the aforementioned participants and policy-related documents by means of in-depth face-to-face individual interviews; focus group interviews (using indigenous talking circle strategy); oral discussions and document analysis. Findings obtained were interpreted through the social constructivist theoretical framework as well as specific sub-theories such as the Embodied Situated Distribution Cognition Theory, Collateral Learning Theory, Indigenous Standpoint Theory and Kaupapa Maori Theory.

Major findings revealed that the policies informing LO education in South Africa conform to social constructivist ideologies, and advocate for student-centred approaches, as well as the promotion and utilisation of indigenous knowledge. Contrarily, it emerged that there is ineffective implementation of these approaches in LO policies by most educators who dominate their teaching with teacher-centred teaching strategies. It was found that some LO educators do not clearly understand the meaning of indigenous knowledge, and also do not integrate it in their teaching or utilise indigenous knowledge holders as resource persons. It was realised that many LO educators' epistemologies, pedagogies and teaching strategies are more Eurocentric and condensed with these hegemonic methodologies. The teaching environments, planning, instruction and assessments were seen to be linked to behaviourist principles and strategies. Subsequent findings from IK holders indicate that LO implementation should be decolonised and transformed through collaboration with IK communities. These empirical findings, together with the literature findings, were used to design an integrated LO and IK teaching framework for LO educators to assist them to integrate indigenous knowledge and teaching practices in their teaching endeavours. The study recommends that IK principles, subject outcomes and learning outcomes should be fused into LO subject guidelines. There is need to include IK holders within the teaching matrix through a curricula re-structuring process. More indigenous community centres should be established. Many LO and IK integration workshops and training should be initiated to inform, educate and prepare LO educators in implementing the integration process. The study advises LO educators to use student-centred teaching and learning strategies. It is also the duty of LO educators to consult with local community IK holders, collaborate with them and build working partnerships. Efforts to effectively implement LO policies by following the underpinned recommendations given in this study could benefit the students, indigenous communities and their people, the country as well as globally.

KEY WORDS: Decolonisation; Life Orientation; Teaching strategies; Indigenous knowledge; Integration; Technical Vocational Education and Training Colleges

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	:	Acquired Immune-Deficiency Syndrome
CAPS	:	Curriculum and Assessment Policy Statements
CLT	:	Collateral Learning Theory
DHET	:	Department of Higher Education and Training
DoE	:	Department of Education
ESDC	:	Embodied Situated Distribution Cognition
ESRC	:	Economic and Social Research Council
FET	:	Further Education and Training
GET	:	General Education and Training band
HIV	:	Human Immune Virus
ICASS	:	Internal Continuous Assessments
ICT	:	Information and Communications Technology
IK	:	Indigenous Knowledge
IKS	:	Indigenous Knowledge Systems
IST	:	Indigenous Standpoint Theory
KMT	:	Kaupapa Maori Theory
LO	:	Life Orientation
NCS	:	National Curriculum Statement
NCV	:	National Certificate and Vocational
NEPA	:	National Education Policy Act
NQF	:	National Qualifications Framework
OBE	:	Outcomes Based Education
OCAP	:	Ownership, Consent, Access and Possession
PCK	:	Pedagogical Content Knowledge
PHAT	:	Promoting Health Among Teens
PoA	:	Portfolio of Assessment
PoE	:	Portfolio of Evidence
PRISMA	:	Preferred Reporting for Systematic Reviews
RNCS	:	Revised National Curriculum Statement

RSA	:	Republic of South Africa
SA	:	South Africa
SCT	:	Social Constructivist Theory
SETA	:	Sector for Education and Training Authority
SKAV	:	Skills, Knowledge, Attitudes and Values
SOs	:	Subject Outcomes
TVET	:	Technical Vocational Education and Training

TABLE OF CONTENTS

DECLARATION BY CANDIDATE	ii
DECLARATION BY PROMOTERS.....	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	vi
ABSTRACT	vii
LIST OF ABBREVIATIONS AND ACRONYMS	ix
CHAPTER ONE	1
INTRODUCTION	1
1.1 BACKGROUND TO THE STUDY	1
1.2 PROBLEM STATEMENT AND SUBSTANTIATION	3
1.2.1 Lack of IK Grounded Principles	4
1.2.2 Lack of IK Epistemologies	4
1.2.3 Lack of IK Pedagogical Competence	5
1.2.4 Ineffective Teaching Strategies.....	5
1.2.5 Insufficient Resources	6
1.2.6 The Problem, Rationale and Purpose of the Study.....	7
1.3 RESEARCH AIM AND OBJECTIVES	7
1.3.1 Research Aim.....	7
1.3.2 Research Objectives	7
1.3.3 Research Questions	8
1.4 SIGNIFICANCE OF THE STUDY.....	9
1.5 POSITIONING THE STUDY WITHIN INDIGENOUS KNOWLEDGE SYSTEMS	10
1.7 DELIMITATIONS OF THE STUDY.....	12
1.8 DEFINITION OF KEY TERMS	13
1.8.1 Decolonisation	13
1.8.2 Life Orientation.....	13
1.8.3 Indigenous Knowledge.....	14
1.8.4 Integration.....	14
1.8.5 Teaching Strategies	15
1.8.6 Technical Vocational Education and Training Colleges	15
1.9 SCOPE OF THE STUDY: DIVISION OF CHAPTERS	15

1.10 CHAPTER CONCLUSION	17
CHAPTER TWO	19
2.1 INTRODUCTION	19
2.2 CONCEPTUAL FRAMEWORK	19
2.2.1 Decolonising Concept	21
2.2.2 Life Orientation Education Concept.....	26
2.2.3 Indigenous Knowledge Concept	40
2.2.4 Integration Concept	47
2.2.5 Technical Vocational Education and Training Colleges	51
2.2.6 Conceptual Linkages and Relationships.....	52
2.3 THEORETICAL FRAMEWORK	54
2.3.1 Locating Relevant Theory from Existing Literature	54
2.3.2 Social-Constructivism Theory (Main Theory or Broad Lens).....	55
2.4 ONTOLOGICAL REVIEW OF LO, IK AND INTEGRATION PHENOMENON	67
2.4.1 Ontological review process.....	68
2.5 SUMMARY OF LITERATURE REVIEW AND KEY KNOWLEDGE GAPS IDENTIFIED	74
2.6 CHAPTER CONCLUSION	75
CHAPTER THREE	77
3.1 INTRODUCTION	77
3.2 INDIGENOUS PHILOSOPHICAL UNDERPINNINGS OF THE STUDY	79
3.2.1 Indigenous Ontological Assumptions (which gives rise to reality).....	80
3.2.2 Indigenous Epistemological Assumptions (alternate ways of knowing).....	82
3.2.3 Indigenous Methodology	83
3.2.4 Axiology (set of morals or values).....	84
3.2.5 Volition (motivation).....	84
3.3 RESEARCH STRATEGY	86
3.3.1 Indigenous Medicine Wheel: Culturally Intrinsic Strategy	87
3.3.2 Phenomenological and Interpretive Strategy (LO participants).....	90
3.4 STUDY SITE	91
3.4 TARGET POPULATION	93
3.5 SAMPLE SIZE AND SAMPLE PROCEDURES	93
3.5.1 Lecturer Participants.....	93
3.5.2 Students Participants	94

3.5.3 Indigenous Knowledge Holders as Participants.....	94
3.6 DATA COLLECTION AND TOOLS	99
3.6.1 Individual (face-to-face) Interview Data	100
3.6.2 Focus Group Interview Data.....	101
3.6.3 Indigenous Oral Discussion Data.....	101
3.7 DATA ANALYSIS METHODS	104
3.7.1 Categorisation	106
3.7.2 Grouping, Classification and Coding of Data.....	106
3.8 TRUSTWORTHINESS AND VALIDITY	107
3.8.1 Multiple Data Sources	107
3.8.2 Verifying Raw Data	107
3.8.3 Intra-Coder Consistency and Reliability	108
3.8.4 Member Checks	108
3.8.5 Direct Quoting	108
3.8.6 Confidentiality and Anonymity.....	108
3.9 PARTICIPATIVE REFLECTION	108
3.10 ETHICAL CONSIDERATIONS.....	109
3.10.1 General Ethical Principles and Procedure.....	109
3.10.2 Indigenous Knowledge Ethical Principles and Procedures.....	110
3.11 CHAPTER CONCLUSION	111
CHAPTER FOUR.....	113
4.1 INTRODUCTION	113
4.2 THEORETICAL PERSPECTIVE	114
4.3 METHODOLOGY	115
4.3.1 Demographic Characteristics of Participants.....	115
4.3.2 Data Sets Used	118
4.4 FINDINGS	123
4.4.1 Findings from Policy Documents.....	123
4.4.2 Findings from LO Lesson Observations on LO educators	125
4.4.3 Findings from Interviews with LO Educators.....	132
4.4.4 Findings from Focus Group Interviews with LO students.....	135
4.4.5 Students' Responses on Teaching Methods.....	138
4.5 SUMMARY OF FINDINGS OBTAINED	141
4.5.1 Lessons Learnt	142

4.6 DISCUSSION OF FINDINGS	143
4.7 CHAPTER CONCLUSION	146
CHAPTER FIVE	148
5.1 INTRODUCTION	148
5.2 THEORETICAL PERSPECTIVE	149
5.3 METHODOLOGY	151
5.3.1 Demographic Characteristics of Participants	151
5.3.2 Strategy of Inquiry and Data Collection Process	152
5.3.3 Data Analysis	152
5.4 FINDINGS	153
5.4.1 Theme One: Purpose of LO Education.....	153
5.4.2 Theme Two: Impact and Value of LO Education	159
5.4.3 Theme Three: Challenges in LO Education.....	167
5.4.4 Theme four: Meaning and Value of Indigenous Knowledge (IK)	170
5.4.5 Theme five: IK and LO Integration as viewed by both Educators and Students	174
5.4.6 Theme Six: IK Integration Methods, Processes and Partnerships.....	176
5.5 SUMMARY OF FINDINGS OBTAINED	180
5.6 DISCUSSION OF FINDINGS	183
5.7 CHAPTER CONCLUSION	186
CHAPTER SIX	188
6.1 INTRODUCTION	188
6.2 THEORETICAL PERSPECTIVE	188
6.3 METHODOLOGY	191
6.3.1 Research strategy	191
6.3.2 Access, Protocols and Methods.....	192
6.3.3 Data Corpus and Collection Process	193
6.3.4 Data Analysis Process	194
6.4 FINDINGS	195
6.4.1 Theme One: IK Holders' Views on the Current Life Skills Education	195
6.4.2 Theme Two: Indigenous Life Skills Education and Pedagogies.....	203
6.4.3 Theme Three: Recognition of IK Holders	208
6.4.4 Theme Four: Decolonising Life Skills Education.....	211
6.4.5 Theme Five: Integration Methods, Processes and Partnerships	213

6.4.6 Theme Six: Challenges in Integrating LO and IK	217
6.5 SUMMARY OF FINDINGS OBTAINED	220
6.6 DISCUSSION OF FINDINGS	223
6.7 CHAPTER CONCLUSION	224
CHAPTER SEVEN.....	226
7.1 INTRODUCTION	226
7.2 THEORETICAL LENS	227
7.3 METHODOLOGY	230
7.3.1 Identification of Major Study Themes.....	231
7.3.2 Grouping and Classification	232
7.3.3 Analysis of the Kaupapa Maori Theoretical Model	232
7.3.4 Re-designing the KMT Model into 6 Cs Model (for IK and LO Integration)	232
7.4 FINDINGS	233
7.4.1 Literature Findings	233
7.4.2 Theoretical Findings.....	238
7.4.3 Empirical Findings	238
7.5 COMMON THEMES EMERGING FROM THE RESEARCH STUDY	242
7.6 KAUPAPA MAORI THEORY (MODEL) AND THE LO AND IK INTEGRATION	242
7.6.1 Philosophical Differences between KMT Model and LO-IK Integration	243
7.6.2 Way Forward	244
7.7 IMPLICATIONS FOR (6 C's Model) IK AND LO INTEGRATION FRAMEWORK	244
7.7.1 Change Inside Out.....	245
7.7.2 Community Involvement.....	246
7.7.3 Culture and Context	246
7.7.4 Coaching through Multiple Pedagogies.....	247
7.7.5 Conscientise and concretise the Value of IK	247
7.7.6 Content of LO and IK.....	247
7.7 APPLICATION OF LO AND IK INTEGRATED FRAMEWORK	248
7.8 SIGNIFICANCE OF THE LO AND IK INTEGRATION FRAMEWORK.....	252
7.8.1 Inferential.....	252
7.8.2 Descriptive	252
7.8.3. Application	252
7.9 CHAPTER CONCLUSION	252

CHAPTER EIGHT	254
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	254
8.1 INTRODUCTION	254
8.2 SUMMARY OF FINDINGS OBTAINED	255
8.2.1 Findings for Objective One.....	256
8.2.2 Findings for Objective Two.....	256
8.2.3 Findings for Objective Three	258
8.2.4 Findings for Objective Four.....	259
8.3 CONCLUSIONS FROM THE STUDY.....	260
The following conceptual-theoretical and methodological conclusions are briefly explained.....	260
8.3.1 Conceptual-Theoretical Conclusions.....	260
8.3.2 Methodological Conclusions	260
8.3.3 Limitations and Opportunities	261
8.3.4 Further Future Investigations.....	261
8.3.5 Contribution of Knowledge	262
8.4 RECOMMENDATIONS	266
8.5 CONCLUDING REMARKS	268
REFERENCES.....	271
APPENDICES.....	302
1. Data transcription (educators).....	303
2. Data transcription (IK holders).....	311
3. Data transcription (students).....	324
4. Invitation letter-Ik holder.....	333
5 Invitation letter-lecturer.....	337
6. Invitation letter-student.....	340
7. Oral discussion guide.....	343
8. Interview guide.....	345
9. Focus group interview guide.....	347
10. Oper-ended questionnaire.....	349
11. Class observation form.....	352
12. Permission letter-Chief.....	358

13. Permission letter-director.....	360
14. Permission letter-student.....	362
15. Permission letter-principal.....	366

LIST OF TABLES

Table 2.1: List of literature study list	20
Table 2.2: Constructive Alignment Evaluation Criteria	40
Table 2.3: Themes on the IK and LO strengths and weaknesses	49
Table 3.1: Summary on philosophical assumptions of the study	85
Table 3.2: Measure/objective; data collection technique; instrument and validity process	103
Table 4. 1: LO educators' profile	116
Table 4. 2: Themes and categories for lesson observations	119
Table 4. 3: List of LO teaching policies	120
Table 4. 4: Emerging findings from LO policies	123
Table 4. 5: Observation findings: Themes and Scores obtained	126
Table 4. 6: Summary of findings on teaching strategies	141
Table 5. 1: The border crossing and integration collateral scale	150
Table 5.2: Thematic data analysis process	153
Table 5.3: Summary of findings obtained	180
Table 6. 1: Summary of findings	220
Table 7. 1: Philosophical differences between IK and LO	233
Table 7. 2: Integration of findings from literature	237
Table 7. 3: Theoretical views on integration	238
Table 7. 4: Empirical findings on integration	239
Table 7. 5: Policy and implementation findings	240
Table 7. 6: Philosophical differences between KMT model and IK and LO integration	243
Table 7. 7: The application of LO and IK integration processes by LO educators	248

LIST OF FIGURES

Figure 2.1: Themes in LO education	27
Figure 2.2: Challenges in LO	31
Figure 2.3: The mastery teaching and learning model	39
Figure 2.4: Themes on the meaning of IK	41
Figure 2.5: Conceptual linkages and relationships	53
Figure 2.6: Theoretical framework: main and sub-theories	59
Figure 3. 1: Map representing North West and Mpumalanga provinces	92
Figure 3. 2: Pictures of former Barolong Chiefs	99
Figure 3. 3: Inductive data analysis Model	105
Figure 4. 1: Interpretation framework	122
Figure 4. 2: Picture taken in Class A at College C	130
Figure 5. 1: Chapter Outline	149
Figure 6. 1: Households in Barolong Boora Tshidi's district	192
Figure 6. 2: Mme Segotso's Beadwork	204
Figure 6. 3: Beading Artwork and drawing done by Mme Segotso	205
Figure 6. 4: Fine art and drawing done done by Mme Segotso	205
Figure 6. 5: Shoes and bags made by Rre Tshepiso	206
Figure 6. 6: Weaved basked made by Mme Modiragabo	206
Figure 6. 7: Cooking pot made by Mme Modiragabo	207
Figure 7. 1: The decolonisation cycle	228
Figure 7.2: Major components for designing the integrated framework	231
Figure 7. 3: 6 C's Model for integrating IK and LO	245
Figure 8. 1: Chapter Outline	255

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

In many countries around the world, there is a current paradigm shift towards the promotion and integration of indigenous knowledge (IK) in educational disciplines (Briggs, 2013; Owuor, 2007). This seismic need to integrate IK in education is evidenced in research done in Australia (Saunders & Rennie, 2013), United States of America (Stultz, 2002), Canada (Donso, 2014), Namibia (Klein, 2011), Zimbabwe (Masaka, 2017), Mozambique (Castiano & Mkabela, 2014) and South Africa (Makhubele & Qalinga, 2008) on integration of IK in education. Scholars such as Masaka (2018); Mawere (2015); and Makhubele and Qalinga (2008) believe that the current education system in many parts of the world is more *Educentric* and *Eurocentric*; and is doing little justice to solve the current socio-economic issues.

South African communities, including TVET College boundaries, are distinguished by different and diverse people with different cultures, languages and backgrounds (Meier, 2005). This diverse profile is also common in schools and universities and in most cases it is the African indigenous student population who dominate the demographic variables (Kgotleng, 2014; Jansen, 2004). Yet, the epistemologies and teaching practices in education mostly reflect Eurocentred methodologies (Haron & Hamiz, 2014; Meoka, 2015; Sanford, Williams, Hopper & McGregor, 2012) which are mainly insensitive to many indigenous South African students. Instead of integrating IK in education disciplines such as Life Orientation (LO) education, to suit all indigenous students, many education practitioners continue to misinterpret the constitutional phrase “unity in our diversity” and they follow the unified Western pedagogies and epistemologies (Castiano & Mkabela, 2014; Smith & Oosthuizen, 2006:515). IK which is the common and collective knowledge of indigenous people (Barua, 2010; Briggs, 2013; Ngara, 2007) is believed to address diverse and complex aspects of indigenous people (Shizha, 2013; Emeagweli, 2014; Mawere, 2014). However, many educators, including LO educators, are stuck between their professional commitment to Western orientated pedagogy in which they were

trained and their personal or indigenous identities, cultures and traditions (Abah, Mashebe & Denuga, 2015). In this pandemonium, most educators de-emphasise the values of students' indigenous cultures at the expense of the westernised school values. This provokes many writers, including the current researcher, to interrogate the IK and LO integration process in TVET Colleges through the decolonisation and integration lenses.

Decolonisation in South Africa resonates with recent radical student activism movements such as the “Rhodes must fall movement” and the “Fees must fall” lobby group (Canca, 2017). These movements ignited the “Why is my education white?” protests across numerous universities in South Africa including the upsurges in North America (Centre for Research in Arts, Social Sciences and Humanities, 2016). This drive calls for the decolonisation of education and curricula (Grange, 2016), as illustrated by the words of one of the student leaders that “they do not want to treat the symptoms but to decolonise the university”. Although there are many definitions for decolonisation, Barney and Mackinlay (2014) view decolonisation not as a theoretical term, but rather an action oriented concept for empowering indigenous people. From an education perspective, decolonisation implies rejecting the “status quo”, moving beyond closing the discourse gap, and contributing to the well-being of indigenous people and their communities (Archibald, Lundy, Reynolds & Williams, 2010:2). Linking to the present study, decolonisation implies designing a new model to be used in response to the implementation of policies advocating for the integration of IK into curricula; as well as lack of utilisation of IK and pedagogies within LO education in South Africa.

So far, in science education alone, many researchers have reviewed or conceptualised IK integration (Adeyemi & Adeyinka, 2003; Castiano & Mkabela, 2014); Shizha, 2013) and have designed integration models (Ackay, 2011; Donso, 2014; Mpofu, Otulaje & Mushayikwa, 2014; Stultz, 2002; Saunders & Rennie, 2013) as well as empirically tested these integration models (Saunders & Rennie, 2013). However, in LO education, only few literature reviews or conceptual studies (Makhubele & Qalinga, 2008; Iya, 2013) have been done on the integration of IK and LO. While studies in LO or life skills education (Iya, 2013; Makhubele & Qalinga, 2008) agree on the urgent need to integrate IK in LO or life skills education in South Africa, they all argue from either the social work or theoretical perspectives. No empirical studies nor frameworks or models to guide curriculum developers or LO educators on IK and LO integration

could be found on LO education in Technical Vocational Education and Training (TVET) Colleges in South Africa. Therefore, this empirical study designed to decolonise and integrate IK and LO education in TVET Colleges in South Africa was undertaken in order to fill this crucial gap.

The study investigated the possibilities for decolonising LO education by integrating indigenous knowledge (IK), contents and its pedagogical approaches (Maffie, 2009) into the current LO education in TVET Colleges in South Africa. The study followed a qualitative empirical phenomenological and interpretive approach, guided by a post-colonial transformative paradigm, to develop an IK and LO integrated framework for LO education. It is anticipated that the framework will be useful in the current knowledge gap of integrating IK in LO education in South Africa. The question in the mind of the reader could be: what is the specific problem; aim and objectives; significance of the study; context; delimitations; as well as the scope of the study? All these questions are briefly answered and explained in the subsequent sections.

1.2 PROBLEM STATEMENT AND SUBSTANTIATION

LO education should be very exciting and useful to both students and educators, if educators could inspire students to learn and develop mentally, spiritually, socially and psychologically as explained in policy documents (Department of Education, 2002; Faridi, 2014). The South African National Certificate and Vocational (NCV) subject guidelines for 2015 (DHET, 2015) and the South African (SA) Indigenous policy (2006) provide a blue print for the need to integrate IK and LO education. Both documents insist that LO education should integrate and promote IK; and the implementation inputs should promote social transformation, inclusivity and social justice (SA Indigenous Knowledge Systems Policy, 2006; DHET, 2015).

Despite these sound and promising policies and guidelines which inform LO education, there is no meaningful or practical integration of IK in many schools and colleges in South Africa (Prinsloo, 2007; Mekoa, 2015). Not integrating IK in LO education can have a negative impact on students' achievements, progressions, future morals and the economic and social development of the country (Prinsloo, 2007). In LO education, many educators are now losing interest in teaching the subject since they cannot cope, while students find the subject boring (Jacobs, 2012), and some have now resorted to bunking LO lessons (Christiaans, 2006). Researchers

suggest that the reasons for educators not to integrate IK in teaching include: lack of IK grounded principles; lack of IK epistemologies; lack of IK pedagogical competence; ineffective teaching strategies; and insufficient resources (Le Roux, 2003; Prinsloo, 2007). Elaborated below, are the key problem areas identified in this study.

1.2.1 Lack of IK grounded Principles

IK is referred to as local, traditional, indigenous, peasants', environmental or folk knowledge; that is unique to a given culture or society (Barua, 2010; Battiste, 2002; Shizha, 2013). According to Adeyemi and Adeyinka, (2003) the philosophical foundations of indigenous knowledge (IK) education in Africa were based on grounding principles identified by Ocitti in 1971, although not known by many, as *preparationism*, *functionalism*, *communalism*, *perennialism* and *wholisticism*. While preparationism implies the teaching of boys and girls for future roles in society (Shizha, 2013), functionalism enables the young to learn through imitation, initiation ceremonies, work or oral literature (Adeyemi & Adeyinka, 2003; Kgotleng, 2014). Whereas communalism engages all indigenous community members; perennialism preserves the cultural heritage; and wholisticism, entails many various learning strategies which were used in teaching the indigenous children (Adeyemi & Adeyinka, 2003). These principles in the view of Adeyemi and Adeyinka (2003) can be used not only to transform the education system, but as gateways to community, national, social and economic recovery (Barua, 2010). However, these IK grounding principles are not clearly defined or mentioned in the LO education policies in South Africa. Although the LO policies advocate for the inclusion of IK in teaching (DHET, 2015); there is no further clarification or description on the exact grounding IK principles to be applied by LO educators. This was identified as one of the gaps contributing to ineffective IK integration.

1.2.2 Lack of IK Epistemologies

Many researchers suggest that IK and western integrated teaching endeavour, could possibly enhance effective teaching and learning in South Africa (Tella, 2007; Makhubele & Qalinga, 2008; Nnadozie, 2009; Mosha, 2011; Iya, 2013). However, there are no clear guidelines or practical knowledge on how to integrate IK in practice, particularly in the LO education context. Various researchers such as Makhubele and Qalinga (2008) advocate for the integration of IK

into LO, but they do so from a social work perspective and they do not provide tangible pedagogical knowledge to LO educators on how to effectively integrate IK and LO education. Authors such as Iya (2013) provided general possible integration strategies, but still could not give a specific teaching guideline necessary for LO educators. Castiano and Mkabela (2014), like many others, also endorsed the integration of IK into school subjects, but could not provide the practical knowledge and guidelines applicable to LO educators. Therefore, there is no tangible descriptive information or guidelines on how to integrate IK and LO in practice in South Africa.

1.2.3 Lack of IK Pedagogical Competence

Regardless of the LO subject policies and guidelines in South Africa, many LO educators face two main challenges linked to ineffective implementation of policy requirements. The first difficulty among educators is that they seem to be clueless on the methods and strategies or ways to integrate IK in teaching (Vambe, 2005). Secondly, most educators teaching LO subjects are either not very competent or improperly qualified to teach the subject (Christiaans, 2006; Jacobs, 2012); and this impacts on the effective pedagogy and results of students. As such, the epistemology, teaching strategies and skills for LO educators has now been widely criticised across the length and breadth of South Africa (Christiaans, 2006; Hardman, 2003; Rooth, 2005; Talbot, 2001). In addition, the negative perceptions of students towards the LO subject in general could be linked to this ineffective implementation of policies, incompetency and lack of IK integration teaching in LO among educators (Christiaans, 2006). Rooth (2005) reports that LO educators feel that they did not receive adequate training on how to teach LO and that their LO teaching is therefore not very effective nor does it have a lasting impact on students. As such, LO educators lack not only the pedagogical competence of integrating IK and LO, but, the professional teaching competence as well. For the purpose of this study, it is important to note that the IK and LO pedagogical competence gap was found crucial since it lies within the scope of this study; and the professional competence, although important, was only addressed in passing.

1.2.4 Ineffective Teaching Strategies

Researchers in LO, suggest that some inexperienced educators rely on teacher-centred teaching strategies such as the lecture method or book reading. They rarely apply any student-centred, innovative or IK inspired teaching strategies such as collaborative or participatory approaches,

storytelling, oral discussions or ceremonies to arouse the interest of students. Therefore, in the view of Makhubele and Qalinga (2009:201):

...it is worrying that the teaching of LO (Life Skills) education has not successfully reduced the health and social pathologies facing the young people in South Africa as proven by the high rate of HIV and AIDS, criminal activities involving students, violence in schools and colleges, substance abuse, rape, cultural and gender based violence, suicide and teenage pregnancy.

To address this gap, Hartell, Mosia & Steyn, (2013) proposed that the teaching of LO in TVET Colleges requires a paradigm shift, from the LO traditional teaching style, to collaborative or participatory teaching styles. This study embraced this view and interrogated the teaching strategies for LO educators; and the findings to this effect are presented in chapter four. Various suggestions to improve the teaching strategies for LO educators were given under the recommendations section in chapter eight.

1.2.5 Insufficient Resources

Many authors who investigated the challenges in LO education observed that there are insufficient resources in LO contributing to the negative impact and misdirected outcomes (Christiaans, 2006; Rooth, 2005; Van Deventer, 2009). One important aspect neglected by former researchers in LO education (Mosia & Steyn, 2013; Theron & Dalzell, 2006) is to find alternative ways such as linking or engaging indigenous knowledge holders as human resource persons. From the African traditional education perspective, the teaching or pedagogical transmission process was not left to the parents alone. All adults and elders in the society were expected to play the mother and father roles in teaching, scolding, advising, rewarding and punishing children in the village or community (Adeyemi & Adeyinka, 2003). This kind of teaching is holistic in nature because it involves every member of the community; and it is helpful in promoting community standards, spiritual, morals and principles (Cronje, 2014). Through this collective teaching mode, the education becomes perennial and functional thereby promoting life and engagement within a society. Researchers such as Emeagweli (2014) and Tella (2007) state that, the utilisation of IK holders as indigenous resource aides, which is not happening in LO education community, can assist educators, students and community members

in solving the problem of IK integration; which is relevant for personal, social and emotional development of individuals in African communities. Therefore, lack of utilisation of IK holders as useful resource was identified as another problem affecting LO and IK integration processes.

1.2.6 The Problem, Rationale and Purpose of the Study

Although many studies have been done on LO teaching (Christiaans, 2006; Rooth, 2005; Van Deventer, 2009); as well as the IK integration in LO and other disciplines in South Africa (Castiano & Mkabela, 2014; Makhubele & Qalinga, 2008; Iya, 2013), no evidence could be found suggesting the practical ways to integrate IK, as stated in policy documents, in the actual teaching of LO subject in TVET Colleges in South Africa. Therefore, the rationale of the study was to close an IK implementation gap among educators teaching LO subject in TVET Colleges in North West Province. In that regard, the purpose of the study was to design an IK and LO integrated teaching framework for LO educators so as to guide and empower them to effectively teach and integrate IK and LO. In accomplishing this goal, an investigation to assess the teaching strategies; the level of IK integration in LO; seeking wisdom from indigenous knowledge; and the designing of an integrated framework, has been done. More so, practical and descriptive integration guidelines for integrating IK and LO education were provided.

1.3 RESEARCH AIM AND OBJECTIVES

This section presents the research aim and objectives of the study.

1.3.1 Research Aim

The aim of this study was to develop an IK and LO integrated framework for LO educators in TVET Colleges to guide them with the implementation of indigenous knowledge in teaching.

1.3.2 Research Objectives

This research was intended to:

- Establish the teaching strategies being used by LO educators in TVET Colleges in North West Province in South Africa;

- Explore the extent to which LO educators understand, value and implement IK integration as well as the challenges they face in teaching LO subject in TVET Colleges in North West Province in South Africa;
- Determine the attitudes, perceptions and suggestions from local community IK holders on LO and IK integration in North West Province in South Africa; and
- Design and propose an IK integrated teaching framework that can assist LO educators in TVET Colleges with the implementation of IK as stated in LO policies.

In realising these objectives, the following research questions guided this inquiry:

1.3.3 Research Questions

Research questions in this study are divided into two main categories namely; the main (what to be achieved) research question and the sub (how) research questions.

i. Main Research Question

- What IK integrated teaching framework can be designed to decolonise LO education and allow LO educators to implement IK, as stipulated in policies in TVET Colleges in the North West Province of South Africa?

ii. Sub-Research Questions

- Which teaching strategies do LO educators use in teaching LO in TVET Colleges in North West Province South Africa?
- To what extent do LO educators integrate IK and which challenges do they face in teaching LO in TVET Colleges in the North West Province of South Africa?
- What are the attitudes, perceptions and suggestions among local community IK holders in integrating IK and LO education in North West Province in South Africa?
- What integrated framework can be designed to decolonise and guide the the implementation and integration of IK and LO education in South Africa?

1.4 SIGNIFICANCE OF THE STUDY

With specific reference to LO education, educators feel challenged by the subject and do not know how to integrate IK into LO. This compelled the current researcher to investigate the LO and IK integration problem in TVET Colleges considering that no similar investigation has been done so far in these colleges. More so, the researcher is an NCV Senior lecturer in the LO Department at one of the TVET Colleges in North West Province and so he is obliged to try and solve the mentioned problems at hand through this study's contributions.

It is hoped this study contributed to the body of knowledge by closing an implementation gap in LO education in South Africa. This has been achieved through documenting empirical evidence on the teaching strategies being used by LO educators; revealing the extent to which LO educators integrate IK; providing views and suggestions from IK holders towards the integration of LO and IK in education; and designing an LO and IK integrated teaching framework for LO educators. So far, two research articles emerging from the study have been sent to peer-reviewed journals for publication and three more articles are still to follow. It is hoped that the findings provided herein, might benefit LO educators in realising practical and meaningful ways to integrate LO and IK. The study might also provide information and facts necessary to facilitate college-community dialogues, engagements and partnerships. The integrated framework for IK and LO education designed in this study might help policy makers and curriculum planners in re-designing IK integrated course outlines and guidelines to be used during curriculum development, teaching and other LO training initiatives. The designed framework might contribute or add new perspectives towards effective implementation of the LO subject outcomes. Further related studies can also use this framework to evaluate other education disciplines or teaching processes elsewhere. Teaching strategies proposed herein might stand to benefit students by developing positive interests in teaching and learning deliberations. Ultimately, the current study will possibly address the IK integration, social transformation, inclusivity and social justice problems in South Africa. As such, the following section identifies and positions the study within the indigenous knowledge systems perspective.

1.5 POSITIONING THE STUDY WITHIN INDIGENOUS KNOWLEDGE SYSTEMS

The present study positions itself within the Indigenous Knowledge System (IKS) domain. It subscribes to the African indigenous philosophical beliefs (Chilisa, 2012; Hart 2010). Although Life Orientation (LO), as a subject, falls within the purview of Western education, this study bridges the two opposing knowledge systems (indigenous and Western) by socially constructing, transforming and decolonising LO education through integrating indigenous knowledge principles, contents, pedagogies and resource persons. While the study aims to bring a balance between the LO (Western) and the African ways of knowing (indigenous), it must be acknowledged herein that the researcher's voice echoes more from the IKS dominion. Indigenous researchers (Gill, 2002; Hart, 2010:3; Rice; 2005) identify six common metaphysical beliefs of indigenous peoples namely that:

All things exist according to the principle of survival; the act of survival pulses with the natural energy and cycles of the earth; this energy is part of some grand design; all things have a role to perform to ensure balance and harmony and the overall well-being of life; all things are an extension of the grand design, and, as such, contain the same essence as the source from which it flows; and this essence is understood as "spirit," which links all things to each other and to Creation.

The afore-mentioned indigenous beliefs, aimed at creating a balance and harmony within the universe, campuses the present study. The researcher assumes that the process of integrating IK and LO education might strengthen the education design as well as alleviate the social and cultural problems endured by standalone systems and cultures. The two differing systems might provide holistic gains necessary for South African students, which in turn may add value to their lives. The researcher believes that cyclic inputs from Western and indigenous circles help in building relationships, connections and collaborations between the indigenous people and educators. Hart (2010) adds that integrating IK exposes the current education to multiple truths; dependent upon many individual experiences. Within the indigenous worldview, it is believed that everything is alive (Simpson, 2000); and there is need to respect both the living and the dead (Haron & Hamiz, 2014). Drawing from the IK beliefs it can be reasoned that indigenous people value relationship, communitism and respect for individualism; and these

three beliefs were the cornerstones of this research. This study at most values people, respects individualism, and believes in relationships and togetherness. Thus, the African indigenous knowledge belief system enabled the researcher to bring in indigenous knowledge into the Western academy; as well as utilising indigenous theories, and methodologies in gathering data.

1.6 RESEARCH DESIGN AND METHODOLOGY

This study adopted a qualitative research design process and it was guided by an indigenous transformative paradigm. It followed two strategies, namely: an indigenous medicine wheel strategy and a phenomenological and interpretive inquiry strategy in gathering, analysing and reporting the data. The main reasons for choosing the qualitative design were that: firstly, it gave participants the freedom to express their views, ideas or experiences while in their natural settings. There was no interference or coercion among participants such that they provided in-depth and reliable data. For the community IK holders' category, there was no limit on the amount of information suggested; and they were free to express their thoughts, ideas, experiences and attitudes. The second reason was linked to the following ontological, epistemological and methodological assumptions provided in qualitative research.

- *Ontological* assumptions (which gives rise to reality)

The researcher assumes that social reality can best be understood from within; that is in the mind, the spirit and the body of an individual. The words or expressions of individuals based on lived experiences and feelings (Chilisa, 2012; Schnarch, 2004) gave rise to social constructions as well as social realities(findings) consolidated in the study.

- *Epistemological* assumptions (which gives rise to knowledge)

This researcher subscribes to the view that knowledge is socially created, within a given culture (Smith, 2003) and is transmitted orally through interpretive relational discussions and participatory action paradigms (Chilisa, 2012). The study therefore used the Social Constructivism theory, as its broad lense, to filter all the knowledge gathered during research.

Intermediate social constructivist theories such as the Embodied Situated Distribution Cognition (ESDC) theory; Collateral learning theory; Indigenous Standpoint theory (IST) and the Kaupapa Maori theory (KMT) were also used to sieve and refine the knowledge obtained. It is important to note that the social-cultural epistemological creation of knowledge assisted in the realisation of practical knowledge (integrated framework) for LO educators.

- *Methodological preferences*

The empirical investigation in this study embraced the indigenous medicine wheel and phenomenological-interpretive methodological approach and was centred on individuals mainly for the purpose of understanding their behaviours, views or ideas; and with little emphasis on formulating general laws (Kovach, 2009; Maree, 2014; Maree, 2015). This implies that a qualitative mode of inquiry and the strategies mentioned before were utilised in the data collection, analysis and reporting processes.

Twenty eight LO educators, one hundred and twenty students and seven indigenous knowledge holders participated in the study. Data was gathered through in-depth interviews, focus group interviews, oral discussions and document analysis processes. The study followed both general and indigenous ethics and protocols such as respect for individuals, observing protocols, confidentiality and trust. To ensure validity and trustworthiness of findings, the researcher used multiple data collection strategies, member checking, applying indigenous talking circle and talking strategies, attentive listening and using various questioning techniques. Further explanations on the research design and methodological processes followed were discussed in detail in chapter three as well as in the objective chapters which are chapter four, five, six and seven.

1.7 DELIMITATIONS OF THE STUDY

Since the main problem identified in this study is directly linked to the implementation of LO subject policies and teaching, this study was delimited only to the improvement of LO implementation process, in the context of LO education. Due to the broad nature of the LO subject which constitutes two different learning areas (Computer Skills and Life Skills), the empirical investigation process was only delimited to Life skills learning area. This enabled the

researcher to manage the research process given the limited time and financial resources available. Therefore, only life skills educators participated in the study. The study took the form of an interpretive and phenomenological research; and was delimited to TVET Colleges in North West province in South Africa. Although generalisation of results is delimited to the present study setting and population, findings in this study might be generalised to other settings with similar characteristics and features such as other TVET Colleges in South Africa. Finally, the study was delimited only to the accessed and available literature linked to the topic under study.

1.8 DEFINITION OF KEY TERMS

This section defines the key terms used in the study, namely: decolonisation; life orientation; indigenous knowledge; integration; teaching strategies; and Technical Vocational Education and Training Colleges.

1.8.1 Decolonisation

In the view of Barney and Mackinlay (2014) decolonisation is not a formal term but an action oriented concept for empowering indigenous people to reclaim, rename, reunite and rewrite subjects of history into agents of history. Grange (2016) defines decolonisation as the rise of people from an oppressive group for the purpose of opposing restricting ideologies or ways of doing. Authors such as Keane (2017) add that decolonisation is the new debates, contextual discoveries or the solving of community problems through the inclusion of indigenous knowledge. This entails that decolonisation is actually the inclusion of indigenous knowledge in order to empower indigenous people to solve their own problems. In other words, it is a re-awakening and validation process involving the inclusion of indigenous knowledge within the tight and secured knowledge space (Grange, 2016). For the purpose of this research, decolonisation means including indigenous knowledge in LO education so as to improve the teaching and learning process in LO; at the same time empowering educators to integrate IK into LO for the sole benefit of students and communities.

1.8.2 Life Orientation

The Life Orientation (LO) National Certificates and Vocational (NCV) Level 4 Subject Guidelines (DHET, 2013) defines LO as an NCV qualification offered from level 2 to 4 in

Technical Vocational Education and Training (TVET) Colleges in South Africa. LO is one of the fundamental subjects within the South African education curriculum and combines life skills and computer skills education (DHET, 2015). For this study, empirical investigations and discussions are more inclined towards the life skills education since it resonates well with the indigenous knowledge life skills education. LO subject was mainly introduced to bridge a gap between curriculum transformation, reformation and social challenges realised in many developed and developing countries globally (Diale, 2016). In this regard, LO is therefore believed to effect behavioural, psychological, emotional and social changes within students (Beyers, 2013). Thus, LO, in this study, is regarded as the life skills education which is a curriculum subject taught in many schools and colleges in South Africa, in order to prepare students for life in society.

1.8.3 Indigenous Knowledge

Mekoa (2015) views indigenous knowledge (IK) as the oral knowledge learned, experienced and applied by various indigenous communities. IK is perceived as the holistic knowledge possessed by communities and is used to understand their realities and to resolve problems of survival (Doughty, 2005; Moahi, 2012). According to Dei (2000), IK encompasses three aspects namely: (i) knowledge passed from one generation to another, (ii) empirically observed knowledge, and (iii) revealed knowledge provided through dreams, visions and intuitions. Therefore, IK can be defined as the holistic experienced and observed knowledge within communities. This study characterises IK as the holistic empirically observed, experienced and practiced knowledge and skills common within a particular indigenous setting.

1.8.4 Integration

The term integration has different meanings and one would argue that it is most appropriate to define it by examining its related conceptual and contextual typology. For the purpose of this research, integration is examined and defined from the education context. It conceptualises the link between indigenous knowledge and life orientation education. Integrating indigenous knowledge into an education discipline provide a balance between Western knowledge and indigenous knowledge systems (Emeagwali, 2014) by enriching the content, strengthening pedagogies, promoting community engagement, creating harmony in society and transforming

the education system (Nnadozie, 2009). It also creates room for a generative dialogue and collaboration between Western knowledge and indigenous knowledge (Mawere 2014)

1.8.5 Teaching Strategies

In the view of Jacobs (2011), teaching strategies are methods of teaching which are mainly informed by the teaching policy or philosophy. In the context of South Africa, teaching strategies are sometimes referred to as outcomes based education, integrated and student-centred pedagogies (Van Deventer, 2009), and are aimed at improving the quality of education. Gill (2016) defines effective teaching strategies as styles of teaching which engage students in the learning process and help them to develop critically. In this study, teaching strategies entails regulated student-centred and effective principles, content, pedagogies and resources that develop well rounded critical thinkers for a diverse student population.

1.8.6 Technical Vocational Education and Training Colleges

Technical Vocational Education and Training (TVET) Colleges are now categorised under higher institutions of learning and were established as Further Education and Training (FET) institutions in 1996 under the Further Education and Training Act (DoE, 1998). They consist of public and private institutions that provide both business and vocational further education and training on a full-time and part-time basis (DOE, 1998). Department of Higher Education and Training (2013) defines further education and training as the learning and training programmes leading to qualifications from level 2 to 4; and these levels are above general education but below higher education. In this study, only public TVET Colleges in North West Province formulated the target for this research.

1.9 SCOPE OF THE STUDY: DIVISION OF CHAPTERS

The study was divided into eight chapters as follows:

Chapter One: presented an overview or orientation of the research. It described the background to the problem and rationale for the study, problem statement, problem questions and research objectives, significance of the study, the position and the delimitations of the study.

Chapter two: reviewed local, regional and international literature review on LO, IK, integration and decolonisation. It defined and contextualised the main concepts used in the study and showed the relationship and linkages between these concepts. The chapter also discussed the theoretical framework underpinning the present study. In the last segments of the chapter, an ontological review of literature related to the study was done in order to evaluate related prior research studies, for the purpose of identifying gaps in the body of knowledge; some of which were filled by the present study.

Chapter three: discussed the overall research design and methodology underpinning the study. This was followed by a description of the philosophical underpinnings of the study, research paradigm and the specific strategy adopted. The chapter also highlighted the general research site area, participants for the study as well as the data collection and analysis processes. However, it is important to note that subsequent objective chapters (chapter four, five and six) used different theories, settings, and methodologies. These were further explained within the specific objective chapters for clarification purposes.

Chapter four: responded to the first objective and question of the study. It provided empirical findings on the teaching strategies used by LO educators in TVET Colleges in North West Province in South Africa. The chapter recapped with the description of the specific theoretical framework followed, before detailing the methodology and presenting the findings obtained.

Chapter five: retorted to the the second objective and provided the empirical findings on the extent to which LO educators integrate indigenous knowledge in TVET Colleges in North West Province in South Africa. The chapter initiated with the introduction; followed by a recap on theoretical lens; the specific methodology utilised; and concluded with the presentation, interpretation and discussion of findings obtained.

Chapter six: focused on the third objective of the study. The chapter discussed the specific theoretical lens adopted by this study as well as the unique research design and methodology used. In the last segments of the chapter, empirical findings on the attitudes, perceptions and suggestions gathered from indigenous knowledge holders on decolonising and integrating IK and LO were presented.

Chapter seven: consolidated the main literature and empirical findings obtained in the study into an integrated IK and LO teaching framework for LO educators. The designed framework was mainly guided by the decolonisation agenda with the intention to address the major problems and gaps identified in chapter one and two on integrating IK and LO in TVET Colleges in North West Province in South Africa. As such, it is hoped that the integrated framework might close a gap in LO education and provide guidelines on integrating IK and LO education in South Africa.

Chapter eight: was the last chapter of the study. It concluded the research by summarising and discussing the research process and findings obtained in this particular study. In this chapter, conclusions and recommendations emanating from the literature and empirical findings were also provided.

1.10 CHAPTER CONCLUSION

This chapter presented an overview and background to the problem, problem statement and substantiation, research aim and objectives, significance of the study, positioning of the study, delimitations and the scope of the study. Various conclusions are made as follows: despite the recognition and appreciation of LO education globally; in South Africa, the subject is being faced with numerous challenges. One major challenge identified in this chapter is linked to the ineffective implementation of LO subject policies and requirements; for instance, the integration of indigenous knowledge. Reasons to this effect, as seen in the chapter, are linked to the idea that many LO educators seem to be unaware of the IK integration policy requirement, and some lack the practical methods, processes or ways to integrate IK and LO education. Some LO educators rely more on teacher-centred teaching strategies and this explains why some students bunk LO lessons as well as lack trust in the subject. For this reason, LO education is not playing a significant role in solving social problems such as lack of morals, respect for elders, valuing of life, drugs and general misconduct issues. As observed in the chapter discussion, researchers argue that integrating IK into LO education could solve some of these social problems in South Africa. Therefore, the main purpose of the current study, as stated, was to close the implementation gaps identified in LO by designing an integrated teaching framework for LO educators. This framework might help LO educators, students, community members, and policy

designers with new insights towards effective LO implementation process. The next chapter unpacks the literature review linked to the problem identified in this chapter for the purpose of unpacking the gaps and finding ways to locate the present study and its own findings within the body of knowledge.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Worldwide, there is a growing concern among futurists, educationists and researchers to link or integrate indigenous knowledge (IK) into current education systems (Haron & Hamiz, 2014; Hart, 2010). Contemporary literature in education circles converge towards an urgent need to integrate IK in various teaching and learning disciplines (Abah, Mashebe & Denuga, 2015; Makhubele & Qalinga, 2008; Owuor, 2007; Ruheza & Kilugwe, 2012). However, LO education in South Africa seems to be deprived of enough literature particularly on integrating IK and LO. This could be attributed to the fact that on one hand, many studies (Jacobs, 2012; Mosia & Steyn, 2013; Prinsloo, 2007; Rooth, 2005; Van Deventer & Van Neikerk, 2008) interrogated much on the nature of LO; student-educator experiences and challenges in LO education. On the other hand, IK and integration studies (Cronje, 2014; Jegede & Aikenhead, 2002) are skewed more on science and ecological disciplines.

While the previous chapter provided the overview for this particular study, this chapter details the key study concepts, describes the theoretical frameworks underpinning this research, and the ontological review of related literature. In the conceptual framework, attention is paid only to the main concepts on the integration of IK and LO education. These concepts are explained and elaborated, in order to have a clear picture and understanding of their meaning and relations. The broad theories underpinning the study are also explained in detail. In the last segment of this chapter an ontological literature review on integrating IK and LO examines and evaluates prior studies done so far, mainly for the purpose of identifying gaps and locating the present study within the related field of knowledge.

2.2 CONCEPTUAL FRAMEWORK

The main concepts underpinning this study are indigenous knowledge; life orientation; decolonisation; integration; and technical vocational education and training colleges. This section details the conceptual meanings of the terms linked to the study as well as illustrating the relationship between these concepts or typologies within the context of the present study. It is

important to note that the conceptual study followed a *thematic* literature analysis process (Creswell, 2009). A total of 332 electronic books, book chapters, journal articles, conference proceedings, policy documents, internet sources, policy documents and published and unpublished theses and dissertations were gathered from various knowledge databases such as *Google scholar*, *Jstor*, *SAe publications* or *Science Direct*. The initial and final total study lists are summarised in Table 2.1.

Table 2.1: List of literature study list

Concept Focus	Initial study list	Final study list
Indigenous knowledge (IK)	115	73
Life Orientation (LO)	140	138
Decolonising	43	42
Integration (I)	62	38
Technical Vocational and Education	12	10
Total	372	301

Source: Compiled by the researcher

All documents were categorised and attached to the five main conceptual themes namely: Life Orientation (LO), Indigenous Knowledge (IK), decolonisation; integration and technical vocational education and training colleges. The studies were then consistently screened and filtered using a validated *Preferred Reporting Items for Systematic Reviews (PRISMA)* (Moher, Liberati, Tetzlaff, Altman & the Prisma group, 2009) checklist; and the final list amounted to 259 studies. The screening process involved only selecting *electronic, peer-reviewed, recent and related* literature from South Africa, Africa and abroad; and this was done to ensure quality and conformity. All the literature was analysed manually and electronically through deductive and inductive processes. Manual and deductive analysis processes included physical reading; identification of themes; grouping; building patterns; categorisation; and formulating themes. The inductive manual analysis process entailed working back and forth between themes until comprehensive themes were established. A systematic content analysis process was also done on some electronic literatures; and these were run on *ATLAS.ti* version 8 (2015) to determine the

emerging themes, codes, co-occurrences, matching themes and networks grounded in literature. Thus, the following conceptual literature findings were obtained.

2.2.1 Decolonising Concept

The decolonisation concept has now become a hit song within social and academic circles in South Africa and elsewhere; and various authors define it using different but related terms. Writers such as Keane, Khupe and Seehawer (2017) and Sefa Dei (2014) assume that decolonisation is the process of “reclaiming, rethinking, reconstituting, rewriting, and validating” indigenous knowledge for instance, the African traditional knowledge. For an author such as Emeagwali (2014), the decolonisation stance is the refusal by IK advocates to continue ignoring, devaluing and marginalising the indigenous forms of knowing as an alternative mode of discourse. These views are supported by Grange (2016) who refers the decolonisation process in education as an attempt to bring in indigenous knowledge, for the purpose of neutralising the western colonial hegemony since it is the sole source of knowledge within the academy presently. In other words decolonisation process in education or communities is simply an activism against many disorders which include social, cultural or epistemic disorder. To understand more about decolonisation, it may be important to examine the colonisation process and its impact.

2.2.3.1 The impact of colonisation on indigenous people

Colonisation in Africa and other continents paralysed the indigenous people and their ways of knowing in many different ways. Issues such as cultural racism, individualism, coloniality and power of knowledge and colonisation of the mind are few notable impacts of colonisation; which in turn have triggered the decolonisation agenda.

- *Cultural racism*

The colonisation process was marked by cultural racism which entailed privileging the dominant racial group over others; and this was reflected in unbalanced institutionalised structures, ideological beliefs, practices and actions of people (Dudgeon & Walker, 2015). In Africa and South Africa in particular, cultural racism in education began when the missionaries

established formal schools around the 19th century within the continent (Seehole, 2006; Tiberondwa, 1978). Together with the colonial masters, they did not only control the socio-economic, political, cultural and epistemic faculties, but also, defined and measured everything in Africa in European terms (Heleta, 2016).

Writers such as Hira (2012) and Dudgeon and Walker (2015) claim that the white supremacist project paralysed the social dynamics and culture of Africans through instilling an inferiority complex syndrome among indigenous people. This is supported by Heleta (2016) who notes that the Western European literature portrayed indigenous people as inferior and subordinate, thereby rubber stamping the superiority of the colonisers. Many post colonial authors lambast western knowledge for bringing in colonial supremacy, indoctrination and mental colonisation (Dudgeon & Walker, 2015; Hira, 2012; Mackinlay & Barney, 2014; Marzagora, 2016; Sefa Dei, 2014), than solving indigenous problems within the continents. Pre-colonial African cultures were seen to be pure, static, uncontaminated, self-contained, a repository of authenticity to be re-discovered in the struggle to overcome colonial domination.

- *Coloniality and power of knowledge*

Colonisation also brought in the coloniality and power of knowledge. Dudgeon and Walker (2015) describe coloniality as the process of centralising power through European modernity domination, and defining social relations, boundaries, hierarchies and social roles. In the context of South Africa, during apartheid which initiated in 1948, many schools and colleges were designed to entrench the power and privilege of the white minority (Heleta, 2016; Tiberondwa, 1978). According to Dudgeon and Walker (2015), the Western knowledge education design only promoted the European culture and social organisations and was based on rationality, science and the wills of the minority. Various education institutions, organisations and discourses were structured and controlled by the powerful colonialists (Dudgeon & Walker, 2016; Heleta, 2016). Colonial sympathisers such as Van Lier (1971) wrote a study entitled *Frontier Society: A social analysis of the history of Suriname* and stated that coloniality of power was a form of social relationship. However, his study failed to provide evidence to that effect. Many countries and educators today, still operate from the colonial education perspective, which perpetuates colonial

power (Mackinlay and Barney, 2014); and classroom set ups, curricula, and educational communities only reproduce colonial hegemonies.

- *Individualism*

The colonisation process succeeded in decontextualising an individual to become self-centred, asocial and apolitical (Dudgeon & Walker, 2015; Howarth, 2006). The power of Africans was mainly centralised on relationships, togetherness, ubuntu, community values and unity. This enabled them to share amongst themselves and assist one another in times of need. Europeans then brought their individualistic model and dissociated the individual from the community and social context (Dudgeon & Walker, 2015), and they arrested relationships and social and cultural interactions between individuals and community or society. Children are now kept in schools, and the content and pedagogies are disconnected to the social and cultural society (Sefa Dei, 2014) of the individual student.

- *Colonisation of the mind*

A major impact of the colonisation process was also the colonisation of the mind (Ngugi, 1981). Globally, indigenous people's minds were tuned and destroyed, probably, due to a series harsh oppressive laws and acts which were passed between 1883 and 1967 (Dudgeon & Walker, 2015). In the view of Mackinlay and Barney (2014) indigenous people were repeatedly made to believe that the white people are more superior to other indigenous people. Hira (2012:62) exposes that the mental colonisation of indigenous people is reflected in the following ten conceptions, namely:

The concept of inferiority of the indigenous culture and the superiority of Western culture linked to colour; the concept of self-humiliation of the coloured people and self-glorification of the white people; the concept of gratitude for colonialism; the concept of mitigating the nature of colonial oppression and exploitation; the concept of destroying the cultural identity of indigenous people; the concept of divide and rule; the concept of equal culprits in the crime against humanity; the

concept of forbidden chambers; the concept of applause instead of discussion; and the concept of the house Negro and the field Negro.

In relation to education, it seems indigenous educators and students have also been mentally colonised. They negate their own culture, despise relationships (Heleta, 2016), dissociate the curricula from the indigenous setting, and do not value their own indigenous knowledge. The impact and effects of colonisation here described provide insights for finding ways to decolonise the imbalances and injustices engraved by the colonial system.

2.2.3.2 Advancing the decolonisation process

The quest for advancing the authenticity and autonomy is central to African and black intellectual history (Marzagora, 2016); and it can be traced back to the writings of diasporic thinkers such as Garvey and Blyden (the Negritude theorists) in the 1930s; Pan Africanism in the 1950s to 1960s; and the Afrocentrism in the 1980s and 1990s. The main idea of these philosophical movements revolved around the assumption that African identity existed, could be defined and should be nurtured and promoted (*Ibid*). Drawing from the colonisation process, discussed before, and the African identity crisis, just mentioned, the decolonisation process should then consider three major suggestions, namely that there is need to represent misrepresentations of the past; seek spiritual guidance; and claim and assert indigenous rights and protection.

- *Representing misrepresentations of the past*

Various indigenous researchers concur that indigenous voices and visions need to be represented in both social and academic circles (Dudgeon & Walker, 2015). Indigenous knowledge should not be regarded as inferior and should be gathered, utilised and tested. Donald (2009) warns that non-indigenous researchers should desist from voicing for the indigenous people, and instead, they should allow indigenous people's voices and stories to be heard. There is need to erase colonial misrepresentations such as cultural racism as well as examining institutional powers at play (Mackinlay & Barney, 2015). While advancing the decolonisation agenda, sensitivity and respect for others should be observed and efforts should be taken to avoid divisiveness (Donald,

2009). It is also important to note that decolonisation is an ongoing process, requiring continuous learning experiences and building relationships (Higgins, 2018). In research, theories, ideas, conversations, discussions, stories and suggestions from indigenous people should be listened to, validated, documented and applied as well as reviewed.

- *Seeking spiritual guidance*

The foundation of ways of knowing, principles and practices of indigenous people is founded and guided by spirituality (Grieves, 2009). Indigenous spirituality is central to indigenous social cultural affirmation and self-determination (Dudgeon & Walker, 2015). Africans, Aborigines and other indigenous people in the world respect the spiritual connection between living and the dead and believe that the colonisers have contaminated the universe (Moreton-Robinson, 2003). However, Dudgeon and Walker (2015) suggest that contemporary indigenous conformists, researchers and academics may show their spiritual determination through transforming, decolonising, asserting, negotiating and advancing their social identities and culture, without being assimilated by the colonisers.

- *Claiming and asserting indigenous rights and protection*

Dudgeon and Walker (2015) allude that the United Nations Declaration of Human rights proclaims that indigenous people have a right to claim their lives, spirituality and belief systems. The declaration also stipulates that various governments should respect, recognise and uphold indigenous peoples' individual and collective rights. This stretches towards using their own academic institutional structures, customs, spirituality, traditions, procedures and practices. Human rights and protection allow indigenous people to participate in academic matters or any other issues affecting their children, communities and culture. In South Africa, the indigenous knowledge policy (2006) protects indigenous peoples' rights, cultures and practices; including their participation in academic-related matters. For the purpose of this research, indigenous rights and protection is crucial, and the researcher detailed this under the ethics section in chapter three.

Having discussed the colonisation and decolonisation processes, it is important to note that the African colonisation process also brought in commendable outputs such as the formal education

system. This implies that decolonising the education system, with specific reference to this study, does not mean discarding everything within the LO education model, but it is only aimed at re-aligning and re-structuring the system. The study embraced the good features contained in the present Western academy (Sefa Dei, 2014:170), and merged it with the indigenous informed discourse, through a balanced integrative framework. Therefore, decolonisation in this study is an ongoing attempt to integrate indigenous knowledge into Life Orientation subject.

2.2.2 Life Orientation Education Concept

Modern Life Orientation (LO) teaching, as a subject, is designed to teach students the knowledge, skills, attitude and values that empower them to cope with the challenges of life (Department of Education, 2002:13). With specific reference to Technical Vocational Education and Training (TVET) Colleges, the LO subject is divided into two segments (Computer skills and Life skills) which are sometimes taught by a single lecturer or at other times two educators (Department of Higher Education and Training, 2015; Rooth, 2005; Christiaans, 2006). Computer skills learning area focuses on computer and technological literacy while Life skills learning area concerns itself with the social, physical, personal, emotional and intellectual development of students (Theron & Dalzell, 2006: 399). Life skills as a learning area is broad in nature since it incorporates previous subjects or topics such as career guidance, religious education, health education, physical education and citizenship education (United Children's Fund, 2004). LO therefore can be defined as a teaching subject which develops students' knowledge, skills and attitude to enable them to cope with life challenges. However, literature suggests that the present life skills learning area is limited in practical knowledge, and do not offer real life skills-related education as before; as such, it is not benefiting students (Jacobs, 2012). This study therefore, was designed to try and improve LO education or life skills learning area in South Africa, through integrating indigenous knowledge into LO education. To understand more and unpack the concept of LO education, a thematic literature analysis was done to identify the main themes embedded in LO education literature. Figure 2.1 represents the themes which emerged from literature.

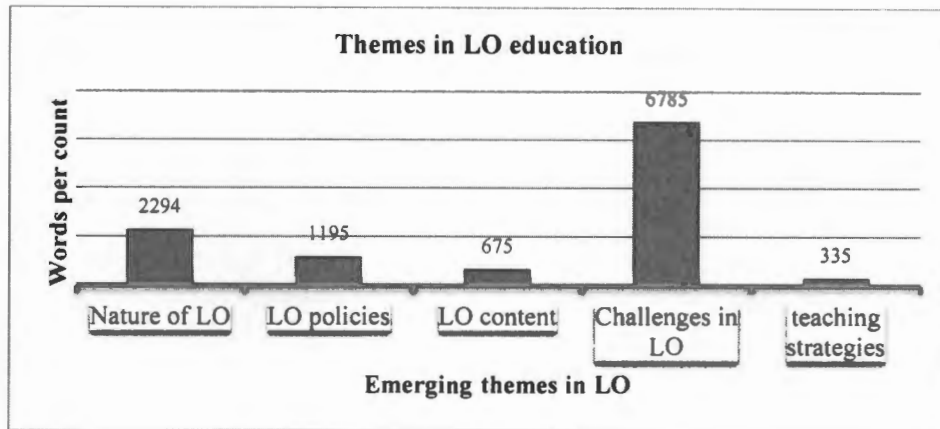


Figure 2.1: Themes in LO education

Source: Electronically generated from Atlas ti

Findings show that the major themes investigated in LO education include the *nature* of LO; LO *policies*; *content* in LO; *challenges* in LO; and LO *teaching strategies*. Challenges in LO, as a theme, gathered the highest word count of 6785; meaning many researchers, so far, have investigated much on the LO challenges. Following, was the nature of LO and policies with 1294 and 1195 word counts respectively. Investigations on the LO content and strategies gathered least counts totaling 675 and 335. Although these results indicate that there are major challenges in LO education, least investigated variables were on how to address the problems in LO such as ineffective teaching strategies and lack of depth in LO content; which provide a clue for further inquiries.

2.2.2.1 Nature of LO

Globally, the teaching of Life Orientation (LO) is widely recognised in various countries (Boler & Aggleton, 2004; Donald, Lazarus & Lolwana, 2007; Du Preez, 2004; Ebersöhn & Eloff, 2006; United Nations Children's Fund, 2004). In the United States of America and the United Kingdom, LO is referred to as social and life skills education and it emerged around the 80's (Gysbers & Henderson, 2000). In Australia, LO is recognised as one of the eight key learning areas essential for students' personal development, health and physical education (New South Wales Education Standards Authority, 2012). Similarly, in New Zealand, the LO subject is widely recognised for students' personal, social and physical development (Rooth, 2005). In

countries such as Zimbabwe, Thailand, Columbia and Mexico; LO subject is referred to as health education for students (World Health Organisation, 2003).

In South Africa, LO focuses on the development of students' knowledge, skills and attitudes linked to health promotion, social development, personal development, physical development and provides an orientation to the world of work (Department of Education, 2002). The main purpose and outcomes in LO teaching is to try and promote healthy relationships, positive self-esteem, interpersonal respect, healthy and balanced lifestyle, informed and responsible decision-making skills and independent critical and creative thinking skills among the populace (Donald, Lazarus & Lolwana, 2007; Rooth, 2005). Thus, LO as subject; is being taught worldwide, and is undoubtedly essential to any student's holistic education and development (Theron&Dalzell, 2006).

In the context of South Africa, the birth of LO as a subject in the TVET spectrum, was a result of the emergence of the New Curriculum 2005 (C2005) in the post-apartheid era. C2005 was designed to transform the education system in South Africa, and it brought in a new learning subject called Life Orientation (LO); which was to be introduced in the General Education and Training (GET) Band (Grades R-9) as well as the Further Education and Training (FET) band (Grades 10-12), now called Technical and Vocational Education and Training (TVET) band or Colleges (Van Deventer, 2009). LO therefore, was and is intended to equip students with the skills, knowledge, attitudes and values (SKAV), to allow students to face life's challenges in an informed, confident and responsible way (Botha, 2002; Christiaans, 2006; DoE, 2002a; DoE, 2002b; Fiske & Ladd, 2004; Hendricks, 2004; Vambe, 2005).

Two years after the implementation of LO as subject in South Africa in 1998 (Theron&Dalzell, 2006), C2005 was revised and changed to the National Curriculum Statement (NCS) (Harley & Wedekind, 2004; Manganyi, 2001; Vambe, 2005). The NCS has an outcomes-based education focus; meaning it is much more concerned with the development of students in general. It shares the same view as the Indigenous Knowledge (IK) policy that was introduced in South Africa in 2008 (Indigenous Knowledge Systems Policy, 2006) for the purpose of improving the quality of education for all indigenous students (Botha, 2002; Fiske & Ladd, 2004; Todd & Mason, 2005). More so, it is clearly stated in the Department of Higher Education and Training (DHET)

National Certificate and Vocational (NCV) LO Level 4 Subject Guidelines (DHET, 2015) that, the teaching of LO should promote among other things the integration of indigenous knowledge. This, in the view of DHET (2013) implies that LO educators need to create a balance by planning and setting teaching outcomes, methods and tasks which include the acquisition of IK.

Literature indicates that LO education in South Africa is underpinned by the outcomes-based education (OBE) philosophy (Christiaans, 2006; Rooth, 2005); even though schools in South Africa are moving away from OBE. Many social constructivists such as Dewey (Dewey, 1902) and Kohlberg influenced most pragmatic ideologies, contents or skills teaching in LO education. As a skills oriented subject, LO pedagogy in South Africa consists of life skills and computer skills learning areas (DHET, 2015), with emphasis towards achieving a practical experiential learning approach. Much content in LO were drawn from Kohlberg's moral development theory which emphasises values, spirituality, laws, principles of right and wrong, fairness and justice (Hoff-Sommers, 2002). LO subject outcomes are designed to equip students with the skills, knowledge, attitudes and values (SKAV) to confidently and responsibly face life's challenges (Botha, 2002; DOE, 2002; Hendricks, 2004; Christiaans, 2006). Therefore, the LO curriculum is intended to prepare each student for life, for an occupation, employability and for good citizenship (Prinsloo, 2007). The Department of Education (DoE) (2003) regards LO as holistic in nature since it develops the personal, social, intellectual, emotional, spiritual, motor and physical growth of an individual student. Besides developing the self in society, LO contributes towards a just and democratic society, productive economy, environmental awareness, recreation and social engagement (Prinsloo, 2007). More so, LO addresses health issues linked to violence, abuse, sexuality and HIV/AIDS (Botha, 2002). LO subject is offered in the General Education and Training (GET) band as well as the Technical Vocational Education and Training (TVET) band (Van Deventer, 2009).

2.2.2.2 LO Policies

In the context of South Africa, LO education is informed by numerous policies and guidelines. For instance, the National Certificate (Vocational) NQF L2-L4 policy (Department of Education, 2003), National Education Policy Act (1996), Further Education and Training Act (1998), and the South African Schools Act provide regulations, procedures and guidelines for implementing LO education. National Curriculum Statement (NCS), in line with the policies above, gave birth

to LO subject in South Africa in 1998 (Manganyi, 2001; Harley & Wedekind, 2004). In 2002, the aims and objectives in NCS were revised and refined as seen in the Revised National Curriculum Statement (RNCS, 2002). Few researchers such as Killen (1996) and Jansen and Christie (1999) warned earlier that there is need in the future to examine the success and effective implementation of ideologies and cultural values (Bredlid, 2009) embedded in LO policies.

2.2.2.3 LO Content

The content in LO education includes personal and career development, life skills, health and well being, citizenship knowledge and integrated computer technology (ICT) skills (Swart & Hairbottle, 2014). LO or life skills content is intertwined in *personal values, characters, moral intelligences or skills, social emotional learning skills, citizenship and democracy* (Asmal & James, 2002; Karstens, 2010). Life skills content or topics such as personal and career development, learning skills, health and well-being and citizenship (Swart & Hairbottle, 2014) enable the development of students' moral and social values and responsibilities. Literature findings acknowledge that LO content is drawn from various disciplines such as sociology, psychology, political science, human movement science, labour studies and industrial studies (Prinsloo, 2007).

2.2.2.4 Challenges in LO education

Figure 2.2 presents the emerging themes observed from literature analysis. Most frequent challenges observed were linked to the implementation, qualifications for educators, and sexuality education and teaching. More information on the challenges in LO is described below.

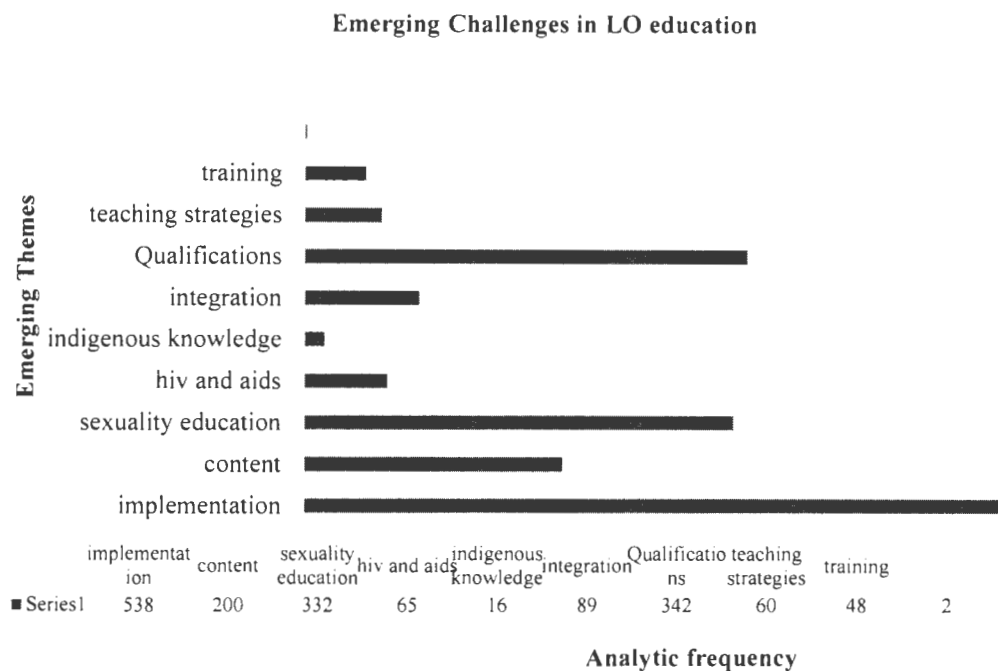


Figure 2.2: Challenges in LO education

Source: Electronically generated from Atlas ti

Various researchers realised numerous challenges (see Figure 2.2) in LO education in South Africa. For instance, Hartel, Mosia and Steyn (2013) observed that LO educators lack sufficient training linked to pedagogical content knowledge (PCK) and pedagogical skills to implement LO education. Rooth (2005) and Van Deventer (2002) confirm this challenge and allude that LO is being taught by non-specialists and untrained educators. Although Van Deventer (2009) and others indicated that LO educators lack PCK, most of them could not draw a line on whether this also meant lack of methodical teaching knowhow. Cronje (2014) reasons that lack of PCK could be linked to multiple variables such as limited qualifications, skills, teaching strategies or teaching methodologies. With this, many researchers agree that theoretical, empirical, methodological and probably practical teaching support and training could be the solution to lack of PCK among LO educators (Christiaans, 2006; Rooth, 2005; Van Deventer, 2008).

Literature findings confirm that many educators, including LO educators, still dominate their teaching with teacher-centred Eurocentric teaching strategies (Battiste, 2002; Kanu, 2011). These teaching strategies are despised for promoting the banking approach (Darling-Hammond, 2006),

and researchers now advocate for student-centred teaching strategies preferably holistic, lifelong and utilitarian African education strategies (Adeyemi & Adeyinka, 2003). Theron and Dalzell (2006), views the LO curriculum as being more theoretical, non reflective of students' needs and not speaking to the indigenous character of South Africa. These important findings correlate with the recent discourses on Euro-centred valued teaching strategies employed by some LO educators (Jacobs, 2011; Masters, 2016). However, in LO investigations, few researchers outlined the teaching strategies problem as many conceded that LO educators lack qualifications. For instance, Van Deventer (2008) detects that many LO educators are not qualified in dealing with multiple teaching responsibilities. Rooth (2005), Christiaans (2006), and Prinsloo (2007) argue that LO educators lack epistemological expertise and competence, which is linked to ineffective teaching strategies as well as qualifications.

Makhubele and Qalinga (2008) argue that there is a dire need to integrate indigenous knowledge in LO education in order to add value and improve the subject together with the life of people in communities, yet, indigenous knowledge and teaching strategies are viewed as being inferior (Semali & Kincheloe, 2011). Futile teaching strategies and lack of IK integration in LO have exposed the subject which is now being viewed as pointless by students. Jacobs (2011) and Christiaans (2006) divulge that students suggest that LO is unnecessary, boring and irrelevant. To add to this confusion, several educators refuse to teach the subject, give excuses, become hostile and angry to students (Hartel, Mosia & Steyn, 2013). In other instances, some LO educators submit that they are challenged in teaching topics such as sexuality education (Helleve, Flisher, Onya, Mukoma and Klepp, 2011), particularly topics such as HIV and AIDS.

Furthermore, Helleve *et al* (2011) observed that educators feel challenged in switching roles from their professional to social roles: from being an educator to a parent; and from a friend to a counsellor or social worker. In certain circumstances they need to be friendly, while in other situations they are compelled to be strict (Helleve *et al*, 2011). In view of Pillay (2012), educators should wear different hats and be knowledgeable in order to assist students accordingly. Understanding cultural backgrounds of students (Jacobs, 2015; Pillay, 2012); help in dealing with emotional breakdowns, psychosocial or sexual abuses, substance abuse, poverty challenges and HIV/AIDS challenges. In another perspective, college managers and principals (Rooth, 2005), were implicated for their lack of support as well as negative attitude towards LO

(Christiaans, 2006; Van Deventer, 2009). As seen in literature, the employment of generalist novice educators to teach LO subject (Van Deventer, 2008) subsequently degrade the value of LO education as well as students.

Considering the content to be covered in both Life Skills and Computer Skills in relation to the teaching time, Van Deventer (2008) argues that the time does not cater for all theoretical and practical content coverage. According to the LO subject guidelines for 2015 (DHET, 2015) the teaching time is divided as follows: a minimum of three hours per week for Life Skills component, and a minimum of two hours per week for Computer Skills component (DHET, 2015). Lack of resources such as computers was raised among researchers. Again, lack of co-operation among LO educators (Hartel *et al*, 2013) who sometimes compete against each other than to share available resources (Hartel *et al*, 2013), trickled among the challenges as well. Nevertheless, many challenges observed in LO impact negatively on the implementation of the subject.

2.2.2.5 Teaching Strategies

Globally and in South Africa, there is a general consensus among contemporary researchers and academics to move away from teacher-centred teaching strategies to student-centred teaching strategies (Crehan, 2016; Hancock, 2011; Jacobs, 2011; Masters, 2016). A teaching strategy is a way of teaching inclined to a defined and regulated plan (Jacobs, 2011). Apparently, the introduction of western education in Africa, about five centuries ago, brought with it some behaviourist educator-centred teaching strategies or plans (Makhubele & Qalinga, 2008), seen in LO delivery today. The dominant constructivist African indigenous Life Skills teachings and practices were pushed to the periphery (Owuor, 2007), while western hegemonic ideologies were privileged. Quite intriguing is the practice that even the basic Life Skills teaching, traditionally handled by the whole community, has now been left to qualified educators alone (Tsatsi, 2005). Many parents and indigenous community members have also transformed their traditional teaching strategies, responsibilities, languages and value teachings to suit Western ways and trends.

Although, the design of the new South African education curriculum is informed by the social constructivist theoretical perspective since 1997, to specifically re-dress and transform the

education system, behaviourist teacher-centred practices such as the “banking approaches” are still dominant (Govender, 2015; Jacobs, 2012:5) in teaching. The banking approach refers to a teaching strategy in which the educators dominate by being listened to, while he/she pours knowledge into students’ heads. Many researchers such as Moore (2009); Makhubele & Qalinga(2008) and Masters (2016) advocate for student-centred teaching strategies which help students to internalise, reshape, or transform, new information. For social constructivists such as Rudestam and Newton (2015), educators should use student-centred approaches which rely on epistemological support from indigenous, cultural, historical, and contextual factors as well as allowing students to make use of all available knowledge, pedagogies and values around them in generating new knowledge and meanings. LO bows towards the use of knowledge integration and student-centred approaches (Botha, 2002; Fiske & Ladd, 2004; Todd & Mason, 2005); as prescribed in the LO education policies (Chisholm, 2000; DHET, 2015). However, it seems some educators in South Africa still dominate their teaching with teacher-centred approaches. This is confirmed by Magashoa and Maila (2013) who found that in Gauteng department of education, particularly North District, some educators use teacher-centred teaching strategies. In this study, the term teaching strategy therefore entails effective teaching done by educators through student-centred approaches, epistemologies, pedagogies and resources.

- ***Domains for Teaching Strategies***

There are five key components or domains constituting teaching strategies. According to Walker (2011) these areas include the planning of the teaching process; creating student-centred environment; providing effective instruction; facilitating community development in class; and monitoring and evaluating student growth.

- ***Planning and preparing the teaching process***

Quality planning and preparation is regarded as an essential skill necessary for effective teaching (Moore, 2009). According to Jacobs (2011), many people particularly those who are conversant with the teaching process, assume that the educator’s duty is mainly to know the content and tell others about what they know. This is actually not the case since effective educators spend a lot of time and energy planning the teaching activities, materials and evaluating elements associated

with teaching the content (Moore, 2009). Research done by Danielson (1996, 2013) found that effective educators need knowledge about the content and pedagogy, the cognitive and social development of students, the instructional goals, the resources and the ability to evaluate students.

Effective planning is an incredible complex challenge to both experienced and inexperienced educators. However, it is actually a 'fun activity' only to those educators who enjoy complex challenges (Tellefson & Osborn, 2008). In the view of Tellefson and Osborn (2008), effective planning requires having an in-depth knowledge of (a) the subject matter; (b) prior knowledge of students, skill levels, and interests; (c) accommodations and modifications required by individual students for them to be successful; (d) developmental schedules; (e) standards and benchmarks; and (f) instructional resources available. This implies that effecting teaching requires effective planning and it applies to both qualified and novice educators. There is need for educators to understand curriculum guidelines; prepare lesson plans for purposeful of teaching and learning (Masters, 2016); create year-long curriculum map; use appropriate teaching strategies; evaluate and monitor students' growth; and use appropriate available resources.

Effective and meaningful planning process is broken down into various levels such as course planning; unit planning; weekly planning; and daily lesson planning. Course planning is the general type of planning or a year plan for a particular course and it is mainly informed by the curriculum (Moore, 2009). Experienced and inexperienced educators should follow the curriculum guidelines, suggestions for books to use and should integrate other relevant supplementary materials (Walker, 2011). Unit planning is the process of breaking down the year plan into manageable units all around a theme or related concepts. The plan should spell out the specific goals, learning activities, instructional resources and materials, an evaluation outline, accommodations and reflections (Mackinlay, 2008), for that particular unit. Weekly plans outline each day's lesson for a week and they are important in case the educator is absent during the middle of the week. A daily lesson plan then provides details for the objectives and class activities for a single day (Moore, 2009), and it naturally flows out of the unit plan. Although there are different types of formats for a lesson plan the most important items which should not be missing in the plan are the specific learning outcomes, methods and procedures, resources and materials as well as the evaluation criteria.

- *Creating student-centred environment*

Various authors acknowledge that a student-centred classroom environment promotes effective pedagogy (Tollefson & Osborn, 2008; Moore, 2009; Walker, 2011). Things such as the floor space, wall space and routine procedures play a significant role in accomplishing the student-centred methodology. For Tollefson & Osborn (2008:58), “educators must ensure that the floor plan encourages student interaction, community development, ease of movement, and a variety of options for teaching and learning”. The space must be divided or arranged in such a way that it allows the pedagogical grouping options. Classroom wall space must be purposely utilised to display students’ work, achievements and successes since this promotes the social and academic values of the class community (Moore, 2009). It is mandatory that educators clearly communicate with students about all behavioural expectations, routine procedures, and the management of all learning materials and supplies (Tollefson & Osborn, 2008; Walker, 2011). This indicates that educators should strive to create a student-centred environment for effective teaching and learning.

- *Instruction*

Student-centred instruction should be mainly based on theories of teaching and learning as well as research (Jacobs, 2011). An effective educator should have basic knowledge and understanding of how students learn. There is need for the educator to understand the physical being, the cognitive being and the affective being of their students; and probably use these as spring boards for their instruction (Walker, 2011). For instance, *Harrow's taxonomy*, for physical domain focuses on the psychomotor skills and it emphasises on neuromuscular co-ordination (Sibaya & Kruger, 2010), during teaching and learning. *Blooms taxonomy* interrogates the educators’ questioning techniques and specifies that these should foster students’ cognitive or intellectual development (*Ibid*). From the constructivist perspective, *Blooms taxonomies* challenge students to comprehend learning outcomes, apply these, analyse or synthesise them, and critically evaluate the concepts in teaching and learning processes. *Krawthwohl's taxonomy* is another theory of learning which posits that students effectively participate in the teaching and learning process when they feel accepted (Jacobs, 2011; Sibaya & Kruger, 2010). Therefore,

educators should create a safe and nurturing environment and strive to improve students' self concepts.

- ***Facilitating community development in class***

Community development in class is a progressive term which was recently derived in opposition to the traditional term 'classroom management'. Recent researchers contend that students cannot be managed or equated to things but are human beings who can only be developed through care and trust (Tollefson & Osborn, 2008). Effective teaching and learning can only take place in a trustful, caring and conducive classroom community (Jacobs, 2004). To accomplish this, students need to build faith, confidence and trust in the educator (Tollefson & Osborn, 2008). Researchers argue that students trust educators with genuine authority who are confident and possess great humility (Walker, 2011). Intrinsic motivation develops and sustains the students' community than extrinsic motivation or coercion. For this reason, effective educators should facilitate platforms for community developments in class through motivating students and caring for them.

- ***Monitoring and evaluating student growth***

Theorists of effective pedagogical strategies argue that educators should be skilled enough to assess students' knowledge and abilities, engage them in assessments and help them in shaping their goals (Jacobs, 2011; Tollefson & Osborn, 2008). An educator's duty should be to assess the words, actions, beliefs, behaviours, mistakes and successes of students and use appropriate teaching strategies in return (Masters, 2016). A progressive way to engage students in the assessment process is to communicate with them about all the developmental stages, expectations as well as the rubrics and standards to be used (Tollefson & Osborn, 2008). A hide and seek game or perfectionists' orientation is unhealthy during assessments; and students should be allowed to participate in the teaching, learning (Vakalisa, 2004) and assessment processes. Accordingly, educators should assess students' performance, evaluate their developmental challenges, identify their new learning goals (Marzano, Pickering & Pollock, 2001; Moore, 2009), and discuss with them on their new specific learning goals. This process of monitoring

and evaluating students' performance and growth are possibilities for effective teaching and learning.

- *Evaluating Teaching Strategies*

One of the objectives in this study was set to determine the teaching strategies being used by LO educators in TVET Colleges in North West Province. This objective was designed mainly to evaluate the teaching strategies for LO education; henceforth, it is essential to discuss related techniques for evaluating teaching strategies. Two important strategies applicable for assessing teaching strategies are the Mastery Teaching Strategy (MTS) and the Constructive Alignment Strategy (CAS). These two strategies share common features in that they are all constructivist strategies and assess student-centred teaching approaches or strategies (Biggs, 2014; Moore, 2009). The two can be used as teaching and learning models as well as evaluation or assessment models (Boyle, 2007). It is also significant to note that the MTS and CAS differ from traditional teaching models which primarily focused much on the teaching objectives-instruction-and summative evaluation processes (Biggs, 2014). This traditional evaluation and teaching approaches focussed on the educator (McMahon & Thakore, 2006) while engaged in a group approach to teaching, and did not consider the fact that different students learn at different paces and from different methods (Masters, 2016). Unlike the traditional teaching approach, the mastery learning strategy follows an intensive approach and relies much on students' feedback (Moore, 2009). The diagrammatic presentation in figure 2.3 shows the mastery teaching and learning strategy and process:

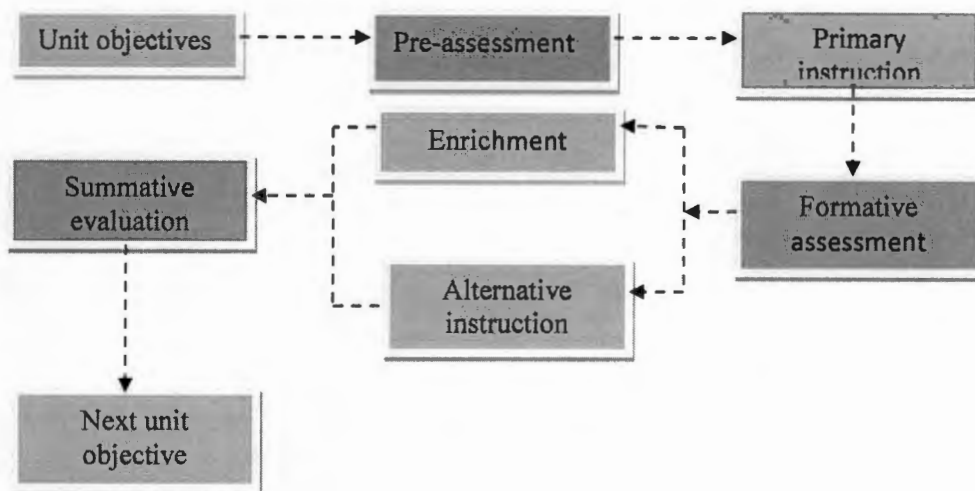


Figure 2.3: The mastery teaching and learning model

Adapted from Moore (2009)

As shown in figure 2.3, the mastery teaching strategy does not only focus on the teaching and learning objectives but the pre-assessment made to ascertain the position of students with specific regard to set objectives. The pre-assessment process helps the educator to assess the gaps in students and the educator should use various teaching strategies to fill identified gaps (Jacob, 2011; Masters, 2016). All these should be planned during daily lesson plans or year plans and any pre-assessment tasks should be filed in the Portfolios of Assessment (PoA) and Portfolios of Evidence (PoE) for students (*Ibid*). Formative assessment is then done in order to assess the mastery level of students as well as those in need of further instruction (Moore, 2009). Students at the mastery level are then directed towards enrichment activities, whereas those below the mastery level are involved in further objective-related activities (Jacobs, 2011). Once the students have mastered and accomplished the set objectives, they are then given a summative assessment. This teaching model, as indicated before, can be used for both teaching and assessment processes since it caters for students and ensures that no student is left behind with regard to set objectives.

CAS aligns the teaching strategies planned in teaching documents (PoAs) and PoEs to the learning outcomes (Biggs, 2014). It is important to pinpoint that teaching strategies include

various teaching techniques such as planning and preparation for teaching, creation of student-centred environment, instruction, community development and monitoring of students' growth (Wang, Su, Cheung, Wong & Kwong, 2013). As seen in table 2.2, CAS evaluates the achievement of learning outcomes in teaching; a process which can be accomplished through lesson observations and critical analysis of teaching documents.

Table 2.2: Constructive Alignment Evaluation Criteria

TEACHING STRATEGIES	LESSON EVALUATION AND OBSERVATIONS			
	LO1	LO2	LO3	LO4
Planing and preparation: <ul style="list-style-type: none"> • year planning • daily planning 				
Creating student-centred environment				
Instruction				
Facilitating community development <ul style="list-style-type: none"> • teaching relationships 				
Monitoring student growth				

Source: own table

The implementation of learning outcomes using CAS in teaching is beleieved to arouse student interest in teaching and learning (Larking & Richardson, 2013). This is supported by a research conducted by Moulding (2010), which reveals that students' interest is more on learning outcomes related to practical activities, problem solving and real world tasks thanwritten tests and examinations. In the same vein as Moulding (*Ibid*), Larking and Richardson (2013) also found that the CAS implementation enhances student pass rate. Advantages of CAS are overemphasised by McMahan and Thakore (2006) who posit that the alignment of learning outcomes to assessment makes it easier when calculating marks; allows students to focus on outcomes; enables measuring teaching approaches, pedagogies, content, materials and resources against their learning outcomes.

2.2.3 Indigenous Knowledge Concept

Various authors provide different but related definitions on indigenous knowledge (IK) (Nnadozie, 2009; Chilisa, 2012). In the view of Nnadozie (2009:14), IK is merely the everyday

life *experiences* of indigenous people that is acquired *orally* and through direct contact with the natural and social environment. IK are *beliefs, realities* or *values* of indigenous people (Aikenhead & Ogawa, 2007; Hart, 2010) and does not exist in laboratories nor can it be found in archives; and it is not divided into sections nor taught as subjects in schools (Nnadozie, 2009). According to Chilisa (2012:98), IK is the knowledge or “*knowhow*” of a particular group of people in a specific location, region or setup. It is synonymously referred to as “*traditional, local*” or community generated knowledge since it is different from the knowledge generated through western academy and its knowledge institutions (Chilisa, 2012:98). More so, Cronje (2014:3) posits that IK does not have a single definition since it is described using certain characteristics. However, Agrawal (2002:413) summarises that: “*IK is the common sense knowledge, ideas, beliefs, heritages or traditions of local peoples about everyday realities of living*”. This implies that IK is simply the consolidated and validated knowledge of a particular group of people within a particular community or society; aimed at solving community problems. The main themes that emerged from thematic literature analysis on IK were consolidated and presented, as depicted in figure 2.4. Drawing from these themes identified, IK can therefore be defined as: the *local-holistic-preparatory-practical-creative-functional-traditional-experiences* and *communal sense* which is based on *heritages, values, beliefs* and *cosmological realities*.

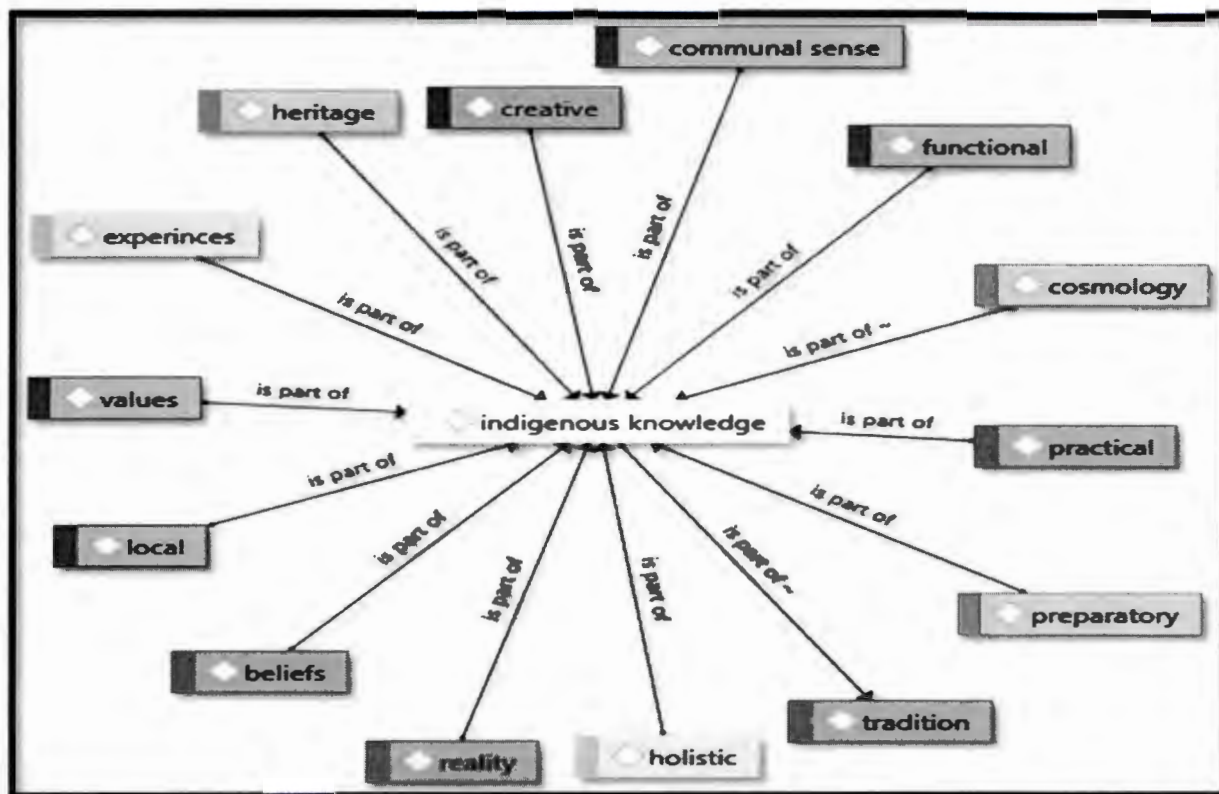


Figure 2.4: Themes on the meaning of IK

Source: electronically generated from Atlas ti

Due to the complex nature of the indigenous knowledge concept, many scholars prefer describing the features and characteristics of IK. For example, a scholar namely, Hart (2010) portrays indigenous knowledge as the life of a specific group of people defined by ancestral territories, cultural activities and historical locations. For the reason that this study crosses within the boundaries of both the indigenous world and modern education system; a description of IK principles, ways of knowing (epistemologies) and IK teaching or pedagogies would help in realising how the concept is essential in both systems. Therefore, the following section elaborates the IK principles, epistemologies and pedagogies for the purpose of trying to holistically understand the indigenous knowledge concept.

2.2.3.1 IK pedagogical Principles

African indigenous knowledge principles which guide the IK teaching process were distinctly outlined by Ocitti in 1971, as *preparationism, functionalism, communalism, perennialism* and

wholisticism (Adeyemi & Adeyinka, 2003; Hart, 2010; Majasan, 1967). While preparationism implies the teaching of boys and girls for distinctive skills and roles in society, functionalism was more participatory in nature. Children learned by doing and produced useful and functional items such as beads and carvings or artifacts (Gill, 2002; Owuor, 2007). According to Adeyemi & Adeyinka (2003), children learned through imitation, initiation ceremonies, work or oral literature.

Communalism involves the common ownership among indigenous members and the application of communal spirit to life and work issues (Haron & Hamiz, 2014; Rice, 2005). In the view of Adeyemi & Adeyinka (2003), in the past, all children belonged to the community and every member had a responsibility to teach, guide and control them. Idioms such as 'it takes a whole village to raise a child' were holding in this regard. Any member could discipline or correct any child even in the absence of the child's immediate guardians (Owuor, 2007). This method was used as an effective tool to teach, guide and control children within a communities. People used to share and work together by taking turns in helping one another.

Perennialism is mainly a form of preserving the cultural heritage and status quo, therefore, the education system was conservative in nature. Children were groomed to conform to given cultures, traditions, customs, values and morals; and at times were not allowed to question these ways (Owuor, 2007). Wholisticism entails the multiple learning strategies which were used in the teaching of indigenous children (Gill, 2002). According to Adeyemi & Adeyinka (2003:432), children were taught various life skills such as "cooking, hunting, carving, ploughing, sewing or milling"; and this made them to be productive in many ways.

Although all these IK principles are quite significant, this particular research only adopted the IK principles of functionalism, communalism and wholisticim. The participatory nature of the principle of functionalism allows LO students to participate in this decolonisation of LO teaching study. Communalism principle in teaching and learning, tap in the knowledge of communal specialists around, so as to bridge the gap between the school and the community. Wholisticism principle helps in not only developing the mental faculty, but also, the emotional and physical parts of students; and was achieved through designing a holistic teaching framework which includes IK principles, pedagogy and epistemologies.

2.2.3.2 Indigenous epistemological underpinnings

The term indigenous knowledge (epistemologies) has been misinterpreted by many for centuries (Briggs, 2013; Dei, 2002; Owuor, 2007; Mawere 2012, 2014). According to Owuor (2007), the perception that IK is often referred to as historical and ancient old practices of the African people who lived in the past, is ultimately problematic. Although many authors agree that IK is defined as past knowledge, ancestral knowledge, historical knowledge or collective cultural configurations (Dei, 2002; Turay, 2002); these definitions place IK into the oblivions of the past and opponents use these to shut IK from being included into the current knowledge discourse (Dei, 2002). In the context of this study, indigenous epistemology is successive versatile knowledge, practices and traditions maintained and developed by people through validated accounts and experiences.

Indigenous epistemologies in the view of Cronje (2014) are divided into two distinct interrelating categories namely education for life and education for a living. Epistemology on education for life according to Cronje (2014) was intended to transform a person to become a knowledgeable individual. This knowledge provides wisdom for one to live in harmony with others around the world and it includes moral and spiritual development (Ankiewiz. 2013; Arnold, 2016). Education for living knowledge provided skills to prepare the young ones for life and for a job (Cronje, 2014); which corresponds with the current LO education objectives. Children were taught many skills such as farming, traditional healing, metal work, crafting or beading.

There are various indigenous epistemologies ranging from socio-cultural knowledge (Makhubele & Qalinga, 2008), socio-economic knowledge, medicinal knowledge, environmental knowledge (Green, 2009), political practices to scientific knowledge. Authors such as Barnhardt and Kawagley (2002) classify indigenous epistemologies as cultural knowledge, ethno-mathematics, cross-general knowledge, native science knowledge, and place-based knowledge. Abah, Mashebe and Denuga (2015) add that indigenous epistemologies include indigenous science and technology, indigenous health care delivery, traditional ecological knowledge, and indigenous natural disaster management. Apparently, only the socio-cultural knowledge, cross-generational knowledge and place-based knowledge relate to the present study.

In the view of Makhubele and Qalinga (2008), indigenous epistemologies such as the socio-cultural knowledge was designed to teach students about social issues, which can still be applied to address today's issues such as gender-based violence, teenage pregnancy, domestic violence, alcohol and drug abuse. It was also aimed at preventing issues linked to lack of respect, abuse of the elderly, early sexual indulgence, crime, bullying, rape and theft (Dei, Hall & Rosenberg, 2008). Indigenous epistemologies taught also included contents such as cultural practices, norms and values, moral development, history and ethos, and African culture and traditions (Makhubele & Qalinga, 2008). Furthermore, indigenous epistemologies in the view of Owuor (2007) include oral discussions which were done among elders or between grown children and elders. Grown children were prepared into adult roles and taught about caring and respecting their husbands or wives (Emeagweli, 2014). Boys were taught on how to treat their wives, protect them including other general social life (Briggs, 2013), economic, and political practices. In other instances, children were taught through folklore, myths and proverbs (Barua, 2010). Rich local languages and parables also form part of indigenous epistemologies. Barnhardt and Kawagley (2002) reveal that place-based education taught children about the knowledge of their surrounding physical and natural environments as well as sacred and non-sacred places. They add also that cross-generational knowledge was the vital knowledge of the indigenous people, their forefathers, totems, genealogies, and relations which were passed through generations. More so, Makhubele & Qalinga (2008) share that indigenous children were taught basic life skills, interpersonal skills, intra-personal skills, hand-work skills, survival skills and technological skills.

2.2.3.3 IK pedagogical underpinings

IK pedagogies are informed by IK principles as discussed in section (2.3.3.1). Pedagogy is described by Smith (2012) as the art and craft of teaching through caring and bringing learning to life. In the context of this study, IK pedagogies, entails the local indigenous knowledge informed teaching practice which puts students at the centre of education, so as to benefit the students, their communities and the world at large. Sanford, Williams, Hopper and McGregor (2012) confirm that the IK pedagogies are guided by principles such as inclusivity, community building, recognition and celebration of individual uniqueness. This implies that the teaching of students is not only the responsibility of qualified educators, but it includes various stakeholders such as parents, community members and elders (Winslet & Phillips, 2005). The IK pedagogy or teaching is passed down orally from one generation to another and is regarded as a way of living

(Nnadozie, 2009:13). Significantly, IK pedagogy is shared within a group of people or community through association, cultural practices and shared outlooks (Nnadozie, 2009), and is encoded in proverbs, stories or riddles. However, in the context of the education system, for instance in South Africa, formal western pedagogy is more dominant than the IK pedagogy as is reflected by a formal curriculum and a formal way of teaching (*Ibid*).

In contrast, the African indigenous pedagogical strategies (popularly known as the holistic strategies) are student-centred in nature and were normally used by African elders in the pre-colonial era. Traditional African education was passed from one generation to another through various pedagogical strategies such as oral tradition, imitation, proverbs, myths and stories; cultural practices, initiation, imitation, music and dance (Adeyemi & Adeyinka, 2003; Omolewa, 2007). Oral tradition was a structured or unstructured strategy which was used to share wisdom to children, mainly about the meaning of life, morals, norms and survival techniques, their origin, history, culture and religion (Omolewa, 2007). Non literal traditions developed complicated and beautiful webs of eyewitness account, idioms, legends, folklore, stories, proverbs and myths to inculcate children from various conceivable circumstances (*Ibid*).

Ceremonies, feasts and festivals were also used as teaching strategies. Adult taught religious doctrines, practices and experiences by comparing and contrasting ceremonial happenings (Makhubele & Qalinga, 2008). Children were involved in make-belief activities which were imitative, imaginative and symbolic. They enjoyed imitating parental roles. Girls and boys imitated their sexual orientation roles such as building huts, digging, hunting or playing with idols, or cooking (Owuor, 2007). A popular play among older boys was wrestling and it developed the children's psychomotor skills.

Deterrence strategy was used to induce fear in children so that they conform to morals, customs and standards. Habits such as stealing, unruly behaviour, tantrums and disobedience were not tolerated (Owuor, 2007). Verbal warnings were often used and at times followed by punishments; which in the eyes of elders was reformatory. Deception was used as a form of discouraging young children to acquire bad habits (Kenyatta, 1938). Children learned through productive work and gaining practical experience and skills; by doing tasks such as farming, weaving, or knitting.

Proverbs were used mostly in ordinary conversation. They are the condensed wisdom of great ancestors and provided one or two moral lessons to children (Makhubele & Qalinga, 2008). As spurs of knowledge, wisdom and morality, proverbs can be used by educators to challenge assumptions as well as to inspire reflection (Omolewa, 2007). They stipulate on how to treat people with respect, dignity, empathy and kindness and govern religious and social behaviour. A myth is a product of fertile imagination, often containing profound truth and is used as a socialising agent in nourishing the traditions, customs, norms, and conventions of the African society (Fasokun, 2005). Stories were used to teach values, culture, experiences, knowledge and wisdom, and are powerful in that they amuse and express feelings (*Ibid*).

The cultural indigenous teaching strategy was used to provoke perceptions, influences and sensitisations as well as to motivate children (Omolewa, 2007). African traditional children also learnt through initiation and imitation particularly from their elders or specialists (Adeyemi & Adeyinka, 2003; Omolewa, 2007). Music and dance strategies involve children and allow them to effectively learn, become creative, artistic or realise their talents (Omolewa, 2007). These indigenous African traditional student-centred teaching strategies can be used by educators in today's classes since they promote student engagement and effective teaching and learning.

2.2.4 Integration Concept

In this study, integration teaching means linking the Western teaching strategies to IK teaching strategies. The effects of integrating IK principles, contents, pedagogies and epistemologies in education have far-reaching consequences since it brings in a holistic and an all-round system (Adeyemi & Adeyinka, 2003; Cronje, 2014) which rears up responsible citizens with a purposeful and dynamic commitment to their community. Students will gain multitudes of skills and knowledge leading to national, social and economic recovery (Adeyemi & Adeyinka, 2003). Because of the IK transformative power, social empowerment and justice (Adeyemi & Adeyinka, 2003; Donso, 2014), can then be achieved. The transformative power in IK according to Semali & Kincheloe (2011:15) is that it links action to reality and builds relationships among indigenous members. In addition, IK integration promotes diversity in teaching which brings about a socio-cultural holistic and universal form of teaching. For the purposes of this study, integration entails linking IK and LO education principles, content, pedagogies and

epistemologies in Technical Vocational Education and Training (TVET) Colleges. Although the effects of integrating IK into an education discipline such as LO were captured by many researchers (for example, Adeyemi & Adeyinka, 2003), the main emerging theme such as considerations for integrating IK and LO captured the attention of the researcher. It was observed that issues such as philosophical differences; strengths and weaknesses; methods and partnerships; and politics, scales, laws and policies require serious attention during integration.

2.2.4.1 Philosophical differences between IK and LO

Taking aside differences, integrating IK and LO ontology(s), epistemologies, methodologies, values and beliefs brings both promises and devotions. IK philosophical principles such as *praparationism, functionalism, communalism, perenialism* and *wholisticism* (Adeyemi & Adeyinka, 2003) could strengthen LO education. IK values and principles in the view of Adeyemi & Adeyinka (2003:426) can be used not only to transform the education system, but as gateways to community, national, social and economic recovery. IK epistemologies can build up LO pedagogical content and delivery. For IK, epistemologies are derived from empirical, metaphysical, tentative, inferential, creative and subjective experiences (Ankiewicz, 2013; Barnhardt, 200; Bohensky & Maru, 2011; Ogunniyi, 2004). Linking them into current education disciplines create more alternate knowledge banks for students to choose on. Needs-based, real and practical experiences and skills in IK such as farming, hunting, cooking or fishing could find meaningful considerations in LO education (Anorld, 2016; Owuor, 2007). In addition, social and spiritual skills namely: purification, respect, honesty, generosity, diligence and hospitality (Adeyemi & Adeyinka, 2003). might help to contextualise the LO education. Delivery challenges in LO education, could be accomplished by allowing adults and elders in communities to play the mother, father and teacher roles in “guiding, scolding, advising, rewarding and punishing children” in villages or communities (Adeyemi & Adeyinka, 2003:427).

2.2.4.2 Strengths and weaknesses in Western knowledge and IK

While there is potential to acknowledge the negative aspects of the modern western knowledge such as LO or life skills education, it is essential to acknowledge its positive aspects (Iya, 2013). Comparably, African indigenous knowledge education also has its own strengths and weaknesses. Thus, in pursuance of the integration interest, it is essential to analyse strengths and

weaknesses within the two forms of knowledge in preparation for the integration motive (Iya, 2013; Owuor, 2007). Table 2.3 presents a summary of strengths and weaknesses of IK and LO, as observed by Iya (2013:259).

Table 2.3: Themes on the IK and LO strengths and weaknesses

Form of knowledge	Strengths	Weaknesses
<i>1. Indigenous knowledge</i>	<i>Community based Life-long learning process Practical orientated Realistic and effective Holistic in nature</i>	<i>Void of intellectual content Top-down teaching Discriminate women No data storage facilities No formal institutions</i>
<i>2. Western knowledge</i>	<i>Classroom based Regulated and managed Structured and documented Measured and certified Real and effective Holistic in nature</i>	<i>Disrespectful of other cultures Impractical Costly Specialised Lacks depth</i>

Ideas were adopted from Iya (2013:259)

Weaknesses on the current LO education reflect hegemonic Euro-centred philosophies, values and principles; shaped by neo-liberal discourses of hierarchical models (Battiste, 2002; Jacobs, 2012; Mekoa, 2015); where, *individualism, disrespectful of other cultures, impractical, cost-related, specialisation and lack of depth* (table 2.3) still dominate the processes (Kanu, 2011). Sanford, Williams, Hopper and McGregor (2012) declare that the Western education system values linear teaching over cyclical progression; competition over collaboration; dualism over complexity; and product over processes. According to Giroux (2012) diversity considerations for example; culture, race, gender, sexual orientation, economic potential, disability, or beliefs are minimal. IK also is believed to be weak in that it has no formal institutions, no documents, use top-down approach and lacks proper knowledge management (Kok, 2005). Indeed, both IK and LO are not immune to criticism as observed in literature findings in table 2.3. More importantly, Semali and Kincheloe (2011) reason that IK should not be subjugated as inferior; or continue to

remain on the terraces. Linking and integrating IK and LO may not only transform the LO education system, but may also promote diversity, socio-cultural holistic and universal education forms.

2.2.4.3 Methods and partnerships

The IK and LO integration processes should follow a well defined methodological process. In the view of researchers, integrationists should specify the aspects or categories of IK to be included in the integration process (Owuor, 2007). There is a need to examine features or modes of learning which are *common* in various indigenous cultures; and outline these during curricula development (Bohensky & Maru, 2011). Some writers provide different methods necessary for integrating IK and LO and these include strategies such as *community theatres, functions, ceremonies, mapping, practical and project tasks or scenarios*. Sanford *et al* (2012), observe that methods such as *practicum experience* in indigenous settings, *inquiry-based* approaches and *learning* from students could also provide meaningful methods of integration. In addition, Omolewa (2007) suggests that *language, music, dance, drama, oral tradition, proverbs, myths, stories, culture, religion, and elders* can also be used as pedagogical integration methods.

In view of researchers, beneficial *partnerships* are essential during integration. *Community centres* can be developed to enhance the cognitive abilities of students (*Ibid*). School-communities relationships create strong links or partnerships in pursuing a common goal and purpose. On this note, common values such as trust, reliability, sharing and respect should be observed by both parties. While the school gains multiple knowledge and skills from IK holders the law of good practice states that there is need for them to also give back to the community. This can be done using various ways and one practical example is to offer free services such as providing agricultural advice to farmers (*Ibid*).

2.2.4.4 Politics, scales, laws and policies

Reviewed literature assumes that knowledge integration should intersect the politics, scales, law and policies in IK and LO to avoid conflicts (Reid, Berkes, Wilbanks & Capistrano, 2006). This view is supported by Bohensky & Maru (2011) who argue that IK politics such as indigenous protocols and sacred knowledge should be outlined and considered during knowledge integration

processes. Issues such as structural politics, positions and roles in LO education sectors need to be agreed upon in different institutions and communities to avoid clashes. There is also a call for clarifying the knowledge scales which satisfy both knowledge holders. IK and LO laws and policies such as Indigenous Knowledge Systems Policy (RSA, 2006), National Certificate (Vocational) NQF L2-L4 policy (DHET, 2015), National Education Policy Act (1996), and Further Education and Training Act (1998), should also be considered, applied equally or consolidated. At present, only one issue so far, the policies, have already been dealt with by the government of South Africa. As of now, the IKS policy (RSA, 2006) and the Education policies provide clear guidelines necessary for integrating IK and LO (DHET, 2015). What is missing, is the politics and scales of IK integration, and participants in this study highlighted similar related issues concerned with the stealing of ideas by intellectuals.

2.2.5 Technical Vocational Education and Training Colleges

Former Further Education and Training (FET) Colleges were recently renamed to Technical Vocational and Training (TVET) Colleges at the launch of a new amendment bill “White Paper on Post School Education and Training” on 15 January 2014 (Odendaal, 2015). This re-classification in the view of Liebenberg, the principal of Oxbridge Academy (Odendaal, 2015), was part of a strategic overhaul of the South African post school education system.

In retrospect, FET Colleges now TVET Colleges were established in the 1920s as an alternative means to bridge the skills problem during the industrial revolution (Maharaswa, 2013). Around the 1980s FET Colleges were reduced due to socio-economic (world oil crisis) demands (*Ibid*) and companies scaled down on apprenticeship training. Later, globalisation and trading trends exerted new pressure on government to re-establish more technical colleges (Hoppers, 2000; Maharaswa, 2013) as reflected in the Manpower Training Act established in 1981. Although this created few opportunities for racially inclusive access (Hoppers, 2000), many colleges were small, weak and poorly resourced (Maharaswa, 2013).

Post-1994, Manpower Colleges were transformed to FET Colleges through the White Paper 4 and the FET Act (Department of Education, 1998). About 152 technical colleges were merged to 50 mega FET Colleges with 264 campuses (Papier, 2008; DHET, 2013). The main aim of FET Colleges according to the new FET Act (DoE, 2003) was to enable students to acquire

knowledge, practical skills and applied as well as vocational competence towards employment, gaining new skills and creating new jobs and enterprises. Papier (2008) together with Garraway, Bronkhorst and Wickham (2015) echo the same sentiments as the FET Act that FET Colleges serve the needs of those seeking employment, returning to learning, re-training, vocational preparation and seeking access to higher education.

Programmes offered at FET or TVET Colleges include the Report 190/1 National education (Nated) courses; National Certificate Vocational (NCV) courses; studentship programmes; and apprenticeship theoretical training (Maharaswa, 2013; Garraway, Bronkhorst & Wickham, 2015). While Nated courses offers N1-N5 certificates as well as N6 Diplomas, NCV courses are certificate courses offered at National Qualifications Framework (NQF) level 2, 3 and 4 (Garraway, Bronkhorst & Wickham, 2015). The advantage of the NCV programme is that it gives Grade 9 students room to further their studies till Grade 11 to 12 by offering them an industry focussed training. Garraway, Bronkhorst and Wickham (2015) highlight that apprentices are sent by companies to TVET Colleges for theoretical training, whereas, studentship programmes are facilitated by Sector Education and Training Authorities (SETAs). As indicated before, major challenges observed in TVET Colleges are linked to ineffective implementation of LO policies. For this major reason, some researchers such as Leeman and Wardekker (2011) have argued that there is need to re-design the vocational education system.

2.2.6 Conceptual Linkages and Relationships

The diagrammatic representation (Figure 2.5) presents the linkages and relationships between the study concepts. Firstly, on the left side, the TVET Colleges represent the continuum where effective or ineffective LO education is taking place. The centre represents a balanced pivot where LO education shares inputs from both knowledge systems – Western and indigenous knowledges. Lack of one, or any unequal integration of the two makes the arrow to either go downwards or upwards; towards the ineffectiveness degree or susceptibility. Relating to the current LO education, it seems the continuum is skewed downwards where there is western oriented domination and subjugation of indigenous knowledge. This implies that the LO education conforms mostly to western principles, ideologies, pedagogies, contents and epistemologies. In the context of TVET Colleges in South Africa, LO is therefore not really informed by the cultural environment; in this case the indigenous values, principles, ideologies,

pedagogies, contents and epistemologies. As such, in South Africa, this western dominance is currently not working nor serving the indigenous people positively (Shiha, 2013). Makubele and Qalinga (2008) view LO or life skills education as being more *Educentric* and *Eurocentric* in nature. This, according to Emeagweli (2014) subjugates indigenous knowledge as well as fuelling competition between the two forms of knowledge. Subjugation is the process of making one knowledge system to sound inferior and making it extinct (Makubele & Qalinga, 2008). The same dominance and subjugation happen when the scale also moves upwards towards the indigenous knowledge education point. As the argument seems to favour IK, researchers such as Iya (2013) warned that IK education also has its own weaknesses such as being void of intellectual content, having no formal institutions and is dominated by a top-down teaching approach. This suggests that IK and Western forms of knowledge rather need each other more than remain separate; and hence the need to decolonise and try and find meaningful ways to integrate IK and LO in a manner that allows complementarity.

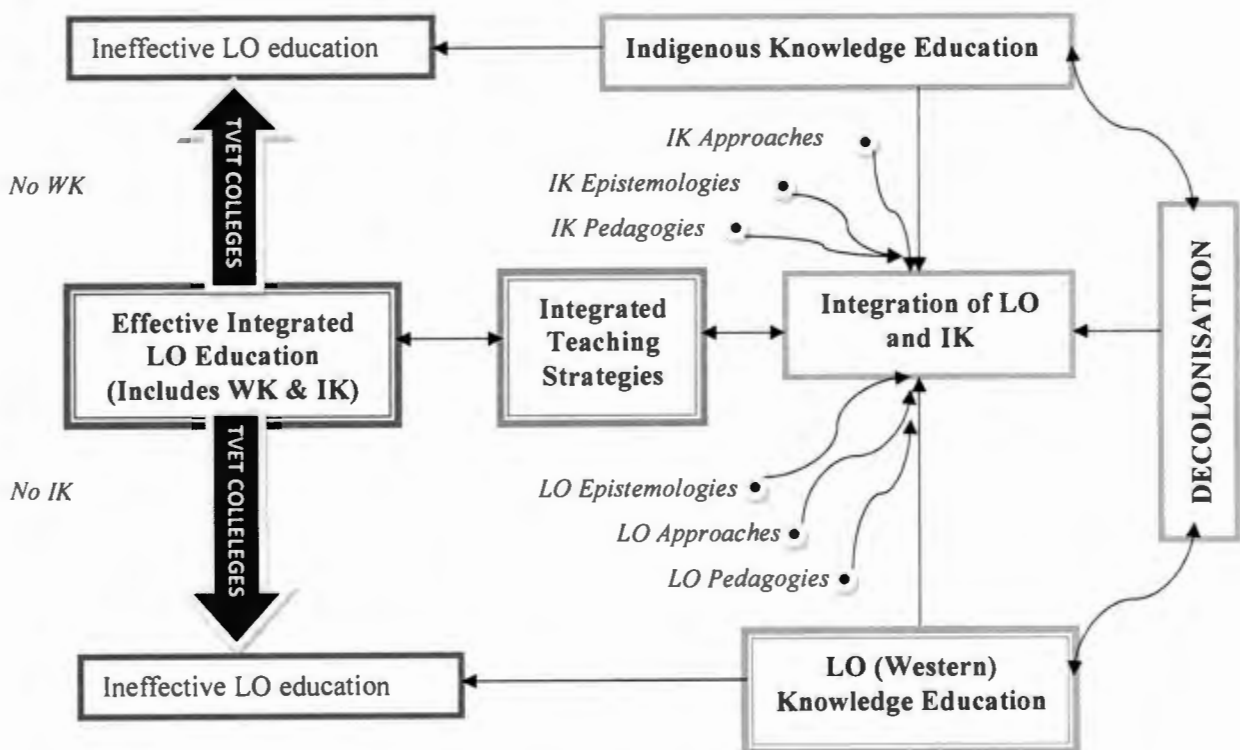


Figure 2. 5: Conceptual linkages and relationships

Source: Own design

2.3 THEORETICAL FRAMEWORK

This section describes the theoretical framework underpinning the present study. However, in choosing and consolidating the theoretical framework, I first reviewed integration and indigenous literature in order to find and align the study with related theories from existing literature. Drawing from the findings obtained in this thematic literature analysis, an indigenous oriented theoretical framework (social constructivism) was selected to guide the current study.

2.3.1 Locating Relevant Theory from Existing Literature

Many studies on integration literature done internationally advocate for upcoming researchers to use *inquiry* oriented theories and *constructivist* approaches (Vhurumuku & Mokeleche, 2009). This trend is recognised among various authors in the United Kingdom (Briggs, 2013; Driver, Newton & Osborne, 2000), United States (Abd-El-Khalick & Lederman, 2000; Mwaria, Chen, Coppola, Maurice & Phifer, 2016), Asia (Akçay, 2006), Middle East (Haidar, 2002) and Africa (Abah, Mashebe & Denuga, 2015; Owuor, 2007). Scholars such as Mwaria *et al* (2016) and Owuor (2007) used inquiry approaches such as replicating a *culturally responsive model* (Promoting Health among Teens (PHaT)) in North-Eastern United States and an endogenous contextualisation approach respectively. Constructivists' perspectives were used by Abah *et al* (2015) to review the prospects for integrating IK into teaching in Africa.

In South Africa, many researchers such as Dekkers (2006), Makubele and Qalinga (2008), and Ogunniyi (2006) also followed the international trend of using inquiry and social constructivist paradigms. While Dekkers (2006) and Ogunniyi (2006) explicitly utilised inquiry approaches, Makubele and Qalinga adopted *social constructivism* and *Afro-centricism* theories in their study on integrating socio-cultural knowledge in life skills education. However, in other integration studies, Le Grange (2007) and Nnadozie (2009) employed *multiculturalism*, while Jegede and Aikenhead introduced the *border crossing* and *collateral learning* theory. One important thing to note is that all these theories (such as multiculturalism and collateral learning theory) are sub-theories branching from the main social constructivism theory.

Many IK studies done so far, were dominated by inquiry-based approaches (Shizha, 2013; Saunders & Rennie, 2013; Young, Zubrzycki, Green, Jones, Stratton, & Bessarab, 2013), as

compared to social constructivist oriented studies. Few researches in IK were guided by social constructivist theories and they utilised theories such as *Afrocentricity* theory (Higgs & Niekerk, 2002) and *African philosophy* (Mwinzi, 2015) to promote African social constructivism. Probably, the reason for IK studies to be dominated by inquiry-based theories could be that earlier studies in IK (Adeyemi & Adeyinka, 2003; Mkabela, 2005) were dominantly conceptualisation focused studies rather than empirical investigations. Contrary, recent investigations in IK, including the present study, now focus on developing models and frameworks (Donso, 2014; Young *et al*, 2013) to foreground the IK integration initiatives worldwide. Equipped with these lessons drawn from integration and IK literature analysis above, this study then employed the social constructivist theory as its main theory or broad lens.

2.3.2 Social-Constructivism Theory (Main Theory or Broad Lens)

The Social Constructivism theory is the broad lens and does not only inform the study, but filters the method, objectives, structure and findings obtained in this particular study. Lev Vygotsky (1978) is seen as the father of social constructivism, for promoting the theory around the early 1900s, in opposition to behaviourism theories. The theory is also condensed from various ideas suggested by John Dewey, Jean Piaget and Freire, among others; and it opposes the Platonic and other realistic views of epistemology (Hein, 1991; Nilson & Burzotta, 2010). Social Constructivism is a paradigm in teaching and learning that advocates for students not to be treated as mere empty vessels and receivers of knowledge, but as actors who should be actively involved in constructing their own knowledge in order to understand the world (Jacobs, 2012) in which they find themselves and are part. This process according to Jacobs (2012) is enhanced through experiencing things and reflecting on those experiences within their own cultural world. According to Hein (1991:22), the consequences of this view are twofold:

1. We have to focus on the student in thinking about learning (not on the subject/lesson to be taught);
2. There is no such thing as knowledge “out there” independent of the knowledgeable individual. Learning is not a process of remembering and understanding things, but rather a personal and social construction of meaning.

Jacobs (2012:41) argues that “traditionally, learning has been thought to be a ‘mimetic’ activity—a process that involves students repeating or miming newly presented information. But, constructivists teaching practices help students to ‘internalise and reshape, or transform, new information” (Jacobs, 2012:5). Cognitive learning according to Social Constructivists is depended upon relationships as part of a social exchange process (Rudestam & Newton, 2015). The focus on the isolated knower is replaced by an emphasis on the epistemological support from indigenous cultural factors, historical factors, and contextual factors (Rudestam & Newton, 2015). This suggests that students through the Social Constructivism lens should make use of all available knowledge, principles and values around them in generating new knowledge and meanings.

The theory assumes that students should be assisted in constructing knowledge that is useful in their own lives (Vygotsky, 1978; Jacobs, 2012). Epistemological views of Social Constructivism also influence pedagogy. As Jacobs (2012: 42) notes, “what is important from the Social Constructivist view point is not so much about “*what*” the students learn, but “*how*” they learn it; and equally important are the applied skills used to enhance that particular teaching and learning process”. In the course of learning, students or students should be allowed to create their own model to explain nature; interact with the sensory data; and construct their own world (Hein, 1991; Nilson & Burzotta, 2010). Realist critics of Social Constructivism (Kirschner, Sweller & Clark, 2006; Mayer, 2004) argue that novice students cannot create their own instructional content; need structured content to suit their age groups; cannot learn through discovery due to lack of schemas necessary for problem solving; and expose students to unguided methods of instruction and impractical pedagogy. Indeed, realists are acknowledged for organising the knowledge into subjects, developing taxonomic schemes and sequencing the teaching and learning components. However, they differ from the Social Constructivists in that they sideline the student and dictate both the knowledge and pedagogy necessary for the student; and believe knowledge should be poured and applied somewhere later in future (Hein, 1991). For this reason, this study preferred the Social Constructivist perspective than the realist paradigm. Nine pedagogical principles necessary for Social Constructivist pedagogy in the view of Bransford, Brown and Cocking (2000) and Hein (1991:23) are:

1. *Learning is an active process* in which the student uses sensory input and constructs meaning out of it. This implies that the student should participate and do something and desist from being a passive receptor of knowledge;
2. *People learn to learn as they learn*: meaning as students construct their own meaning, they simultaneously construct systems and patterns of meaning out of it. This might allow them to relate to different sensations which can fit similar patterns created;
3. *The crucial action of creating meaning is mental*: Educators should set activities which engage the mind and as well as the body;
4. *Learning involves language*: Since learning and language are intertwined, educators should use indigenous languages to explain meanings;
5. *Learning is a social activity*: Learning is influenced by other human beings such as educators, peers, family members, indigenous knowledge holders and community members. Realists separate the student from social interaction and views education as one on one interaction with the educator and the objective material to be learned;
6. *Learning is contextual*: Learning should relate to our indigenous contexts, our beliefs, values, prejudices and fears. Educators cannot divorce learning to the students' lives;
7. *One needs knowledge to learn*: Prior knowledge gained by students is essential in building new knowledge. Students' previous knowledge should be acknowledged;
8. *It takes time to learn*: Learning is a process and a repetitive action of interrelated events. It requires preparation, insight, thought and repeated exposure; and
9. *Motivation is a key component in learning*. The ultimate goal and achievement inspires one to learn.

From the above stated Social Constructivist approaches to learning, educators should wear their roles as educators and adapt the role of facilitators (Barua, 2010; Woolfolk, 2010). Unlike educators who lecture to cover the subject matter, facilitators assist students in understanding the content (Kim, 2005) and to discover for themselves. Students play the active role and not the passive receiving role. While the teacher tells and the facilitator asks, there is need for educators to continuously question students and support and give guidelines where necessary. Educators should steer the learning experience and drive it towards creating value in students or students (De Vries, 2002). The learning and social environment should be also designed to provoke new thinking and experiences. In the view of Hein (1991), educators should continuously arouse the intellect of students by allowing them to solve problems and become critical thinkers. From the Social Constructivist viewpoint, it is also necessary to use reciprocal questioning techniques, jigsaw participating technique and structured controversies (Woolfolk, 2010). While the jigsaw technique allows students to also question the educator, jigsaw technique engages students to teach others and structured controversies allows students to research in groups about a given contentious issue.

In that respect, the present study interrogated more on *how* and through which strategies the knowledge is transmitted to students. Therefore, the study argued from the Social Constructivist perspective that students should acquire various knowledge using different pedagogical methods embedded in both indigenous and Western systems. This suggests that the two forms of knowledge (indigenous and Western) should be integrated since it may further enhance collaboration and successful teaching and learning. In hindsight, the South African school curriculum has been based on the Social Constructivist theory since 1997, with the view of integrating IK in teaching; but apparently, LO educators in South Africa continue to mainly use behaviouristic forms of teaching as well as regarding the Western knowledge system as the only valid way of knowing (Jacobs, 2012). Thus, the decolonisation teaching stance and framework designed in this research was directly informed by the Social Constructivist theory.

Although the social constructivist theory was used as the main sieve and filter, further intermediate social constructivist sub-theories refined all the objective-related data in this study. Social Constructivist sub-theories such as the Embodied Situated Distribution Cognition (ESDC) theory, Collateral Learning Theory (CLT), Indigenous Standpoint Theory (IST) and

Kaupapa Maori Theory (KMT) were used as sharp theoretical tools to further the Social Constructivism ideology in this study. While the ESDC theory examined the data on LO teaching strategies the CLT filtered all the data on the extent to which IK is integrated in LO. IST provided the framework for IK holders' interviews and KMT informed and acted as an evaluating tool in designing the IK and LO integrated framework.

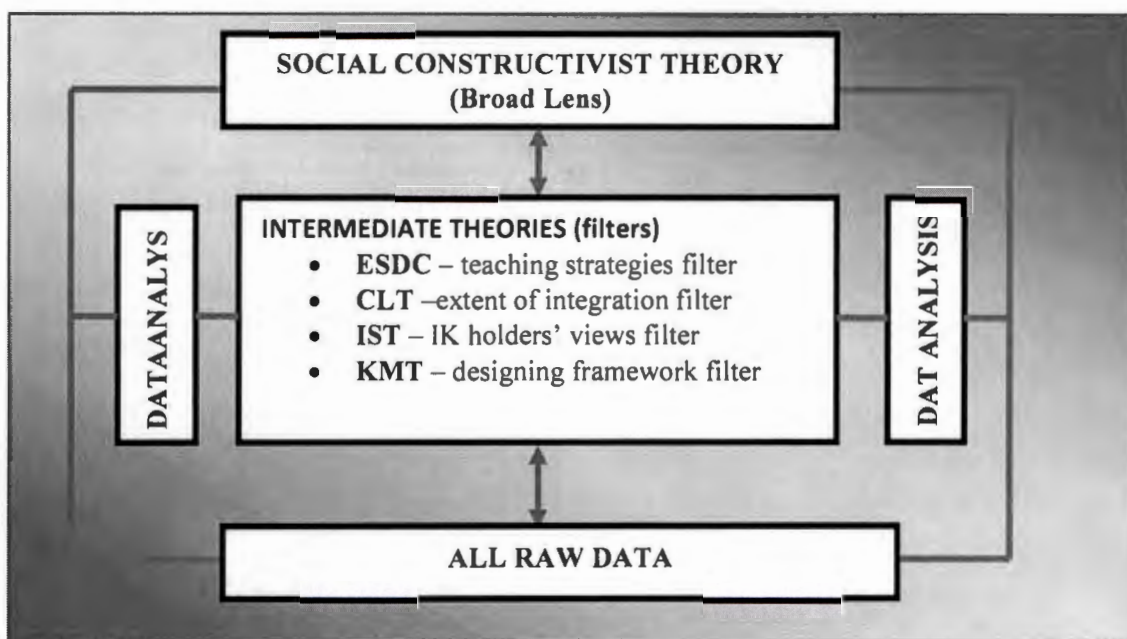


Figure 2.6: Theoretical framework: Main and sub theories

Source: Own design

2.3.2.1 Embodied, Situated Distribution Cognition (ESDC) Theory (Sub-theory)

Embodied, Situated Distributed Cognition (ESDC) theory retort to the first objective on establishing the teaching strategies for LO educators in TVET Colleges in North West Province. ESDC is a pedagogical theory which advocates for the use of current student-centred teaching strategies. It sprang from the social constructivist theory and was mainly developed in opposition to the traditional teacher-centred pedagogical strategies (Jacobs, 2004) together with its perceptions on cognition. In view of Barab and Plucker (2002), Western traditional philosophers perceived the brain as the only place where cognition processes occur. They dissociated cognition from any other influences outside the body, for instance, the outside environment, the

sensory and motor influences (Barab & Plucker, 2002). The Western traditional philosophers (Makubele & Qalinga, 2008) believed that the absolute model for learning was the input and output model. Educators supporting this model concentrate on pouring or transferring knowledge to students and normally use lecturing as their mode of delivery (Wilson, 2014). It is quite disheartening to realise that some educators still support this traditional thinking (Botha, 2002) as reflected in some who are still continuing to use traditional banking teaching strategies.

Current trends in cognition suggest that cognitive learning is not only depended on the brain, but, on the sensory and motor processes, for example, emotions and the environment (Payette, 2008; Cronje, 2014). Embodied cognition, therefore, asserts that even though the brain is embedded in the body, there is actually a coordination of the mind, spirit and the body. There is integration taking place from ideas, feelings to actions. According to Holvikki (2007:76), the different brain functions such as “perception, learning and memory, emotion and feeling, attention, reasoning, language or motion”, are located in different sections of the brain and not in one epicentre; and hence cannot be separated from each other. Positive or negative feelings and emotions can either enhance or inhibit teaching and learning (Payette, 2008; Cronje, 2014); similarly, with the positive or negative environments or cultural factors. LO educators from this perspective should be aware that indigenous environmental or cultural factors play a significant role in cognition learning. This study investigated this cognition phenomenon through assessing the dominant teaching strategies being used by LO educators.

The synaptic connections between neurons that can change due to experiences (Cronje, 2014) call for student-centred teaching strategies since they promote effective cognition learning among students. Dubinsky, Roehrig and Varma (2013) insist that, through cognition learning, there are physical, functional and genetic changes which happen in the nervous system, particularly, when students participate in various learning activities. Teaching strategies, such as inquiry based strategies, participatory strategies or indigenous strategies actively involve students and can transform learning from only “using the brain’ to that of ‘changing the brain” (Dubinsky *et al*, 2013:81). It would benefit LO educators to take advantage of the ESDC theory and engage students in IK participatory activities linked to cognition learning.

Situated cognition implies that the learning process is not only limited to the body and brain of an individual, but, the environment as well. In the view of Barab and Plucker (2002), the linear correlation which takes place on the student, the content and the context is inseparable. For Maxwell and Chahine (2013), effective cognitive learning takes place when the student assimilates his or her existing knowledge (indigenous knowledge), background and environment. If the teaching process provokes the indigenous prior knowledge of the students, it becomes easier for students to conceptualise what they are being taught (Cronje, 2014). More so, according to Barab and Plucker (2002) situated learning enables students to effectively adapt as they continuously move from between different contexts or environments, such as the school or college, to their indigenous homes and communities.

Research done in India, Finland and New Zealand observed that social constructivist student-centred teaching strategies allow students to assimilate their prior knowledge and experiences; and construct and gain new knowledge easily (Cronje, 2014). In the African context, the gap between African indigenous students' culture and the education culture can only be narrowed if educators utilise the student-centred teaching strategies for knowledge gains and creations (Makhubele & Qalinga, 2008). All these dynamics informed the analysis process in this study. Thus, the study investigated and analysed the dominant teaching strategies in LO education in TVET Colleges; as well as assessed their cognitive effectiveness in the context of students. Therefore, the ESDC theory was used as the ultimate social constructivist theoretical tool for measuring the first objective on teaching strategies in this study.

2.3.2.2 Collateral Learning Theory (Sub-theory)

The Collateral Learning Theory (CLT) filtered the data obtained in objective two; on the extent to which LO educators integrate IK in teaching. Integrating IK epistemologies and pedagogies into Western LO education is synonymous to the cultural border crossing process developed by Jegede and Aikenhead in 2002. The cultural border crossing process takes place when stakeholders link the indigenous education principles and practices to Western teaching and learning culture (Fortuin, 2017; Jegede & Aikenhead, 2002). In this study, this linking process (cultural border crossing) is referred to as the integration process. The cultural border crossing or integration process is informed by the social constructivist ideology as well as the embodied, situation distribution cognition theory, which suggests that, learning is a social process and

cannot be separated from culture (Cronje, 2014). Therefore, in this study, the idea of integrating indigenous and Western knowledge systems was conceptualised through the collateral learning theory (Jegede and Aikenhead, 2002).

Collateral learning theory addresses the cognitive challenges and experiences realised by non-Western or indigenous students (Jegede & Aikenhead, 2002) when they try and learn from a different cultural perspective. In simpler terms indigenous students often find it difficult to master and comprehend the Western teachings and ideologies, which are often taught, using Western teaching approaches and or strategies (Nnadozie, 2009; Makhubele & Qalinga, 2008). With this, students usually experience culturally related cognitive dissonance during the teaching and learning processes (Jegede & Aikenhead, 2002). Quite intriguing, students experience two conflicting schemata which at times are held simultaneously in students' long term memory.

Jegede and Aikenhead (2002) earmarked the conflict which happens in the mind of students as they move from one knowledge system to another. According to the collateral learning theory (Jegede & Aikenhead, 2002), students cognitively experience parallel, simultaneous, dependent, and secured collateral learning. While parallel collateral learning happens, on one end when conflicting schemata do not interact; secured collateral learning is realised when the conflicting schemata interact (Jegede & Aikenhead, 2002). Between these two extremes, there is dependent and simultaneous collateral learning in which either students force to learn through reciting or cramming in order to pass; or educators reconcile the two conflicting worldviews to enable a harmonious simultaneous collateral learning. In the context of this study, the simultaneous collateral learning of integrating the Western and indigenous teaching strategies is embraced since it is believed herein to promote secured or integrated cognitive collateral learning among indigenous students.

To facilitate the integration or secured collateral teaching and learning endeavour, educators are often challenged, particularly, on *what* to integrate from the two contrasting knowledge systems. In that regard, CLT argues that educators need to act as cultural brokers in merging the Western as well as the indigenous worldviews (Jegede & Aikenhead, 2002). This theory therefore filtered two things namely: (1) to what extent does LO educators understand the impact of IK towards

LO students' cognition; and (2) to what extent does LO educators act as cultural brokers towards integrating IK and LO education.

2.3.2.3 Indigenous Standpoint Theory (Sub-theory)

The Indigenous Standpoint Theory (IST) responded to and filtered the third objective of the current study. This objective is intended to determine the attitudes and perceptions of local community indigenous knowledge holders as well as possible strategies for decolonising or integrating IK and LO education. The fact that the standpoint of the marginalised indigenous knowledge holders is valued and appreciated in this study propels the interrogation in order to mine deep knowledge and experiences of indigenous knowledge holders. As such, IST provides insights, boundaries and strategies for accomplishing the stated objective. To put the IST into context, the following descriptions define, unpack and draw the ways and methods to apply the theory.

The Standpoint theoretical concept was borrowed from the feminist discipline (Nakata, 2002) as well as the social-constructivism theory authored by Vygotsky in 1978. It was developed into IST around the 1990s by proponents such as Herkman, Harstock, Harding, Smith and Collins (Wylie, 2003). The theory advocates for the inclusion and recognition of indigenous subjects in the central academic discourse. Wylie (2003) alludes that IST is positioned between the political and social epistemological dimensions. On one hand, indigenous people are subject to structural domination and systemic marginalisation by the western academy (Wylie, 2003). Often, the epistemic systems sideline, oppress and manipulate them. On the other hand, little is known about the indigenous people; who at times have deep knowledge and experience about their environment. IST therefore, comes in on the side of indigenous subjects to square this social differentiation and epistemic subjugation.

In application, IST mediates between the indigenous knowledge holders and the western academy (Foley, 2003; Nakata, 2004). It is a form of digging deeper into the social spheres of the marginalised through dismissing the crafted normative claims related to epistemic privilege or authority (Wylie, 2003). Furthermore, it provides a framework for understanding how cultural diversity enriches western inquiry (*Ibid*). In relation to the current study, indigenous knowledge holders are the insiders (*Ibid*) or the marginalised standpoints whose beliefs, values, systems,

practices and traditions can complement today's teaching with cultural pluralistic methodologies (Choy & Woodlock, 2007). IST has the potential to elevate indigenous pedagogy, students and their communities. Teaching and learning in the view of Choy and Woodlock (*Ibid*) cannot fully materialise without culture. The current pedagogy, including the LO pedagogy, is believed to be weak within the cultural dimensions. It lacks inclusive pedagogical strategies, integration techniques and cultural diversity (*Ibid*).

Although many authors argue that IST pedagogy should be integrated in teaching, there are also valuable challenges to this effect. Three main challenges identified by Choy and Woodlock relate to accessing, translating and integrating indigenous knowledge into teaching. To solve these, IST reasons that researchers should negotiate the cultural interface between insiders and outsiders; validate local practices through discourses and critical reflections (*Ibid*). In the current study, the researcher shared, discussed, negotiated and resolved LO teaching issues with local indigenous knowledge holders. The researcher, through the IST strategies, also formed sustainable partnerships with indigenous people. For Miller (2005), true partnerships allow community ownership, involvement, participation and the establishment of networks. Ethical considerations are also part of the agenda of IST (Choy & Woodlock, 2007). In this regard, indigenous sacred knowledge will remain the domain of indigenous people. In practice, the researcher gained trust and rapport with indigenous people, through respecting their identities, cultures and traditions.

2.3.2.4 Kaupapa Maori Theory (KMT) (sub-theory)

Objective four in chapter one was drawn to find ways to decolonise LO education by designing an IK and LO integrated framework for LO educators. This was guided by the decolonising Kaupapa Maori Theory (KMT). The theory resulted from a radical move – a revolution taken by Maori people in New Zealand in the 1970's. The Maori people engaged in a revolution which was more of a mindset shift (Smith, 2003:3), and this shift was;

...a shift away from waiting for things to be done to them, to doing things for themselves; a shift away from an emphasis on reactive politics to an emphasis on being more reactive; a shift from negative motivation to positive motivation; a move away from talking simplistically about decolonisation...to about 'conscientisation' or 'consciousness'.

Therefore, the Maori people took responsibility for transforming their own condition and subsequently they got out from repressive dominant forces within their society. The Kaupapa Maori community fought for their indigenous treasure and re-introduced their indigenous language, knowledge and culture (Mahuika, 2008). They shunned the politics of colonial oppressive distractions and hegemony and stopped the exploitation of their knowledge and indigenous materials by outsiders (Smith, 2003). In the early 1980's the Maori designed frameworks and initiated programmes to revitalise the inclusion of indigenous language and culture in schools. Mahuika (2003) narrated that many emancipatory institutions such as the Kaonga Reo and the Kura Kaupapa Maori were then established and their teaching contexts were based on the Maori language, cultural practices and values. In the view of Eketome (2008), the Kaupapa Maori revolution and case study was developed into a theoretical perspective; and it is believed that it was influenced by two differing theories namely the Critical Theory as well as the Social Constructivist Theory.

The Critical theory emerged from the Marxist/Socialist paradigm and it challenges the oppressed members within organisations or societies to transform themselves (Eketone, 2008). It is mainly aimed at bringing social, economic and political change through empowering the subjugated members to free themselves (Mead, 2001). The Maori indigenous people suffered similar exploitation as other indigenous people from different societies and lost their treasured capital and power (Crotty, 1998). The second theory, the Social Constructivism theory, advocates for the social construction of knowledge and the utilisation of indigenous people as active participants; a move designed to allow the knowledge to benefit indigenous communities and its members. Eketone (2008) assume that the Kaupapa Maori practice and understanding, is more inclined towards the Social Constructivist perspective than the Critical theory view point.

The culturally appropriate and relevant services philosophy of Kaupapa Maori is practiced and evident in areas such as education, health and welfare sectors. Durie (2001:8) identifies five common cultural characteristics practised across these disciplines, and stated that they include: (i) the use of cultural values, (ii) active participation, (iii) use of Maori language, (iv) informed by outcomes measurements relevant to Maori, and (v) competent and professional workforce. Smith (1997), documented this social change initiated by the Maori people and developed it into

a Kaupapa Maori Theory of change and praxis. Thus, the Kaupapa Maori Theory suggests the following critical guidelines and principles (Smith, 2003:2) which have a bearing towards the decolonisation of LO education:

- Positive transformation of the current condition is essential;
- It is transformative because the status quo to most indigenous educators and students is not working;
- Transformation requires multiple strategies, some of which might be applied simultaneously;
- It needs to be accountable to the community; and
- Praxis and action is essential.

In the view of Eketone (2008), there are three significant components of the Kaupapa Maori theory which must be followed when designing similar interventions and praxis models; and these include conscientization, resistance and transformation. Conscientisation is described by Smith (2003) as the process of revealing reality; critiquing and deconstructing the hegemonic forces of marginalisation. In the context of this study, there is need to examine the integration of IK and LO and critique as well as deconstruct the policy outcomes and the implementation processes of LO education in South Africa. The Maori not only defined themselves but defied their position as the colonised, and impassioned the revolutionary change designed to prevent further loss of their language, knowledge, culture and values. Awareness campaigns were made, and focused research was done to develop indigenous orientated frameworks and models (Bishop & Glynn, 2003). However, Eketone (2008) warns that decolonisers need to be wary of being carried away by only critiquing the norm and the oppressor without looking inside to empower individuals with critical consciousness skills.

Resistance, as the second component calls for oppositional actions. These actions in the view of Smith (2003) are twofold: the reactive realities and the proactive activities. While reactive realities are situations involving the concerned people responding and reacting to dominant structures of exploitation, oppression, manipulation and containment, proactive activities include collective actions done to spearhead the wider change (*Ibid*). For this study, the inclusion of indigenous knowledge within the LO curriculum; this integration research process; engaging

indigenous community members in academic matters; and attempts to design an IK and LO integrated teaching framework; are all proactive endeavours being done to decolonise LO education in South Africa.

Transformation action is defined by Smith (1997) as a reflective change. It is a process of not just critiquing what has gone wrong, but also working to find the best way forward through drawing on application processes, outcomes and what has been learnt (Smith, 2003). In relation to this study, all initiatives and suggestions should be questioned, applied, re-examined and refined. This helps to finetune the decolonisation process and endeavour and to allow for effective delivery and outcomes within the LO academy. These three distinct designing components assisted the present researcher in designing an LO and IK integrated framework.

Therefore, the social constructivist Kaupapa Maori Theory principles, components and practical indicators were used in designing the IK integrated framework to decolonise the LO education in South Africa. The framework followed a transformative action agenda to denounce the status quo by reclaiming equity in knowledge representation. The revolutionary move taken by the Maori people and the theoretical perspectives explained propelled this particular study to engage educators, students and IK holders in participating towards decolonising the LO education in South Africa. It was the prerogative of the researcher to investigate the attitudes and perceptions of the mentioned stakeholders which in turn led to the move of designing of a new balanced teaching framework favouring both the indigenous and the Western epistemologies and pedagogies. While IK holders' inputs were pivotal in building the integration model, it is important to note that the whole integrated framework designed is accountable to all indigenous participants involved in the study together with other concerned stakeholders. Thus, KMT, as a Social Constructivist tool responds to the last objective in this study.

2.4 ONTOLOGICAL REVIEW OF LO, IK AND INTEGRATION PHENOMENON

An ontological review of international, regional and national literature on the integration of indigenous knowledge (IK) into Life Orientation (LO) education was conducted. The main purpose for this in-depth review was to assess the present reality of LO teaching as well as the integration of IK in education disciplines, so as to identify gaps in literature. This process helped

to locate and relate the current study within the body of knowledge, at the same time filling in these identified knowledge gaps.

2.4.1 Ontological review process

In reviewing and analysing ontological literature, both inductive and deductive text analysis processes were done to mine, develop and consolidate the meanings and findings obtained. As such, the following main question linked to the main aim and objectives of the current study guided the literature review process:

- What are the themes, findings and gaps emerging from LO education, IK and integration studies published in South Africa and abroad; and how does the present study attempt to fill these identified gaps?

In responding to the given question, various literature on LO, IK and integration phenomena were gathered, analysed, categorised and reported under the headings: international literature study, regional (African) literature study, and local literature study. As mentioned before, the reviewing of these literature studies assisted to a greater extent in realising and identifying gaps in literature, but, which in turn opened gateways for locating the present study within the body of knowledge. The following sections briefly summarise the findings obtained during the ontological review process.

2.4.2 Reality about LO Education from the International Perspective

In the United States of America (USA), Lawson and Briar Lawson (1997) conducted a school reform research in 36 different states and discovered that there is an urgent need to integrate community members and families in the teaching matrix. They designed a supportive family-community-school model for educators in USA. The integrated model provided practical guidelines on the methods and processes for community-families-educators collaboration and engagement. However, the model does not integrate IK and LO; and it is only applicable in the USA. In India, Ngai and Koehn (2010) conducted an intervention to assist educators on how to integrate community members in the teaching process. It was realised in this study that the intervention program improved the cognitive, attitude and affective domains of students who

participated in the study (Ngai & Koehn, 2010). Relating to the present study, it can be argued that the inclusion of IK holders within the teaching matrix is essential; and the idea is not a new phenomenon at all.

While based in Britain, Owuor (2007) conducted a literature study on integrating IK into the formal Western education system, with specific reference to the Kenyan context. The study provided valuable information on the meaning of IK, the rationale for valuing IK in formal schools, the Kenyan government's milestone in indigenising its education curriculum, dilemmas and challenges for integration and the implications of the research on teacher education. The findings revealed that most educators do not integrate IK and are unaware of the need to integrate IK in teaching. Owuor (2007) mentioned that subsequent researchers should inquire into educators' perceptions on IK. It is out of this recommendation that the current researcher to investigate the extent to which LO educators integrate IK in North West Province in South Africa. LO educators were interviewed in order to mine in-depth data about their perceptions on IK, thereby filling in this gap.

In Australia, Bohensky and Maru (2011) critically reviewed and explored literature on IK integration and resilience. They reviewed 47 articles and research papers and observed insightful themes which emanated from integration literature. The following findings or themes which also assisted in shaping and structuring the integration section of this current research were observed: that the integration process should include: (i) unpacking the similarities, differences and linkages; (ii) the methods to be used during integration, institutions, processes, and partnerships for maintenance and integration; (iii) the social context of IK; and (iv) the evaluation process of the integration. Although Bohensky and Maru (2011) provided meaningful and insightful integration information to the current study, such as the key areas to focus on during integration, the only limitation about their study was that it focussed on integrating science as well as ecological resilience and not LO. To close this gap, the current study focused on integrating IK and LO education.

In Canada, Sanford, Williams, Hopper and McGregor (2012) reported on the integration programme implemented by numerous researchers. The focus of the study was on integrating IK in teacher education program through utilising IK principles to decolonise the teacher education

program. Findings in this report indicated that students successfully integrated IK using various innovative and modified ways such as engaging IK holders in teaching and using games, drama and music as teaching strategies. This study by Sanford *et al* (2012) provides new paradigms on integrating IK in teaching. It answers the how question in many integration attempts.

Although all the above studies inform and provide useful information on integration, they were all done elsewhere and in different contexts. No study on integrating indigenous knowledge and LO has been done so far in North West Province in South Africa; and so the current study fills a crucial gap. The present study also differs from many IK integration studies done elsewhere in that it was aimed at producing an LO integrated teaching framework for decolonising LO education in South Africa; a move which has not been done so far.

2.4.3 Reality about IK Integration from the Regional Perspective

In Mozambique, indigenous community members took part in designing an integrated curriculum for western and indigenous knowledge systems in 2002 (Castiano & Mkabela, 2014). This initiation resulted in indigenous community members formulating the learning content for the school curriculum (*Ibid*). There are two main lessons learnt from this study, and these are: (i) educators, students and community members can take part in knowledge production rather than to just act as receivers of knowledge. It takes the will, power and interest of the stakeholders to take an initiative in decolonising the teaching process, for as long as there is unity and common purpose for development; and (ii) educators can be trained and guided on the methodological processes for collecting, interpreting and evaluating IK data as well as the process of applying it in teaching and learning. Such suggestions were also included in the designing of the teaching framework for the current study, by gathering representatives from student, educators and indigenous knowledge categories to suggest on the methods, processes, ways and partnerships necessary for integrating IK and LO in the present study. More so, a practical guideline on how to integrate IK and LO was designed to help LO educators in integrating IK and LO education.

In Namibia, a Traditional Life Skills Project (TLSP) integrated the knowledge and skills of the indigenous Nama people in rural schools in the Karas region (Klein, 2011). The project incorporated 14 schools and it involved parents and grandparents to teach children some of the traditional Life Skills and knowledge of the Nama people. The essence of the project was to

conserve the Nama culture as well as to reduce the drop-out rates and disciplinary problems among the youth. It also aimed to contribute to the economic and social development of the Nama people through promoting the sales of their products. Findings in this project revealed that the project was not so successful in some areas due to lack of social capital. In other areas the project contributed to the conservation of the Nama culture and had the potential for reducing the students' dropout rate and disciplinary problems in schools (*Ibid*); and the researcher recommended that Life Skills education should be integrated in Entrepreneurial education.

Two lessons learnt from Klein's TSLP study are that the IK integration process can only be enhanced if the government and all involved stakeholders participate and assist mutually and financially during integration. For the success of the integration projects, IK should be integrated into various education disciplines. Relating these to the South African context, the government so far, made efforts by infusing IK into subject guidelines; however, it also needs to further fast-track the integration agenda by re-awakening and motivating educators. Towards this advancement, the present study contributes through designing a guideline or framework necessary to fast-track the integration motive.

2.4.4 Reality about IK and LO Integration from the Local Perspective

Rooth (2005) investigated the status and practice of LO as subject in South African Schools in the Limpopo and Western Cape provinces. Although findings in this study suggest that both educators and students do recognise the importance of LO (*Ibid*), some LO educators were found to be on the wrong side of the equation. The findings in this study indicate that some LO educators cannot effectively teach certain topics in the LO curriculum. Distinctive reasons for this were not given, but recommendations in the study suggested that most educators lack tangible support in teaching strategies while teaching the LO subject. With specific regard to Rooth's findings, the present study investigated the teaching strategies for LO educators for the purpose of trying to find ways to address the ineffective teaching strategies problem. The need for support was further regarded as an opportunity to develop an integrated framework for LO educators.

Christiaans (2006) conducted research on empowering and assessing the preparedness of educators in implementing the LO learning area in the senior phase of the General Education and

Training (GET) Band. The research took the form of a case study and it was conducted in the Metropolitan Area in Western Cape. Christiaans found that LO educators are not fully prepared to teach the subject because they lack pedagogical skills. He recommended that educators should be trained and assisted with support programmes to enable them to effectively teach the LO subject. This implies that LO educators lack the necessary pedagogical skills for teaching the LO subject in South Africa. To validate this phenomenon, an empirical investigation was conducted to determine the pedagogical challenges being faced by LO educators. This was done in chapter four under the teaching strategies inquiry.

On a similar note, Mosia (2011) conducted a research on how secondary school educators understand, respond to and implement LO in the Gert Sibanda region in the Mpumalanga Province. Similar to Christiaans' (2006) results, Mosia (2011) found that educators are frustrated, lack knowledge, understanding and are ignorant in implementing the subject area in schools. Indeed, Rooth (2005), Mosia (2011) and Christiaans (2005) contend that educators should be provided with the knowledge or practical demonstrations necessary to teach the LO subject area successfully. This implies that there is a gap on how to teach the LO subject in South Africa. Rooth (2005), Christiaans (2006) and Mosia's (2011) researches provide an insightful baseline for subsequent research to provide meaningful support linked to the teaching of the LO subject, and hence this current research.

Makhubele and Qalinga (2008) conducted an integration of IK and LO study in North West Province. However, the study focused much on integrating socio-cultural knowledge in Life Skills education and was investigated from a social work perspective. It followed a qualitative, explorative and descriptive inquiry with Life Skills educators in three secondary schools, together with social workers. Empirical findings in this study revealed that stakeholders are not happy with the erosion of socio-cultural knowledge (indigenous knowledge) because of the myth that it is outdated. Another important finding was that Life Skills education is strictly Eurocentric with no consideration of African customs, values and practices. Furthermore, it was observed that the materials for Life Skills education were written in English by writers who have little or no knowledge about African cultures (Makhubele & Qalinga, 2008). The main recommendation by this research was that socio-cultural or indigenous knowledge should be integrated into Life Skills teaching to reduce the social problems in South Africa. The present study builds up on

Makhubele and Qalings's study by integrating IK and LO education in TVET Colleges in South Africa, for the purpose of closing the gap identified by Makhubele and Qalinga.

In the same vein as the current research, Nnazodie (2009) builds up on Makhubele and Qalinga (2008) as well, by investigating the integration of IKS into Biodiversity and Natural resources. The empirical study was done in the Pine Town District in KwaZulu Natal in South Africa. Respondents for part one of the study were Life-Science educators, who were purposively chosen. Part two of her study was on the extent of IKS and Biodiversity integration done by educators. Results in this study indicated that 90 percent of the educators integrated IK in teaching. The limitation of the research by Nnazodie (2009) is embedded in the methodological process. The researcher only used open-ended questionnaires which in turn raises questions linked to trustworthiness. This methodological inconsistency was avoided in the present study, and instead, the researcher triangulated multiple data collection methods. To confirm or disconfirm Nnazodie's findings, the present study investigated the extent to which LO educators integrate IK in teaching LO; through using multiple measuring instruments. Nnazodie's integration study differs from the present IK and LO integration study in that her's was done from a science perspective.

Beyers (2013) researched on the teaching strategies for teaching the sexuality topic in the LO subject. The research took an experiential participatory approach with educators in Motheo District in the Free State Province. The research urged educators to engage in participatory teaching approaches by allowing students to share their views on sexuality education. Beyer's (2013) participatory teaching approach is linked to the IK integration teaching philosophy. The only limitation or gap in Beyer's research is that it focussed only on the teaching strategy possible for one topic which is sexuality and was silent on the other topics and subject outcomes in the LO subject.

Although many South African subject guidelines and policies call for integrating indigenous knowledge in teaching in schools and colleges; research indicate that no meaningful integration teaching is being done (Mekoa, 2015) in TVET Colleges in South Africa; particularly for the LO subject. Studies discussed above indicate that LO educators need support in teaching; do not know how to integrate IK in teaching; and lack IK pedagogical strategies. No similar projects

linked to IK and LO integration involving the community have been conducted yet in South Africa. To fill these crucial gaps, the present study investigated the LO and IK integration phenomenon in TVET Colleges with the conception of documenting empirical findings related to IK and LO education integration. An integrated Life Skills teaching framework for LO educators, based on IK principles (*communalism, functionalism and Wholisticism*), epistemologies, pedagogies and resources was designed herein.

2.5 SUMMARY OF LITERATURE REVIEW AND KEY KNOWLEDGE GAPS IDENTIFIED

The preceding conceptual discussions and findings obtained in LO, IK and integration literature converge on the assumption that there are missing links in the current LO education in South Africa. Many LO students lack access to multiple forms of knowledge and skills embedded in IK. Students and educators in South Africa, do not enjoy the complementary strengths in IK and LO (Jegede & Aikenhead, 2002) and there is an urgent need to free children from the Western edu-centric or logo-centric boundaries of hegemonic practices through integrating IK and LO (Makhubele & Qalinga, 2008). The current LO education does not consider real culture of children nor arouse their social indigenous worldviews and perceptions (Semali & Kincheloe, 2011). The domination of Western orientated knowledge discourses (Bohensky & Maru, 2011), over IK, exposes LO to multiple missing links (including rich knowledge) within it. Integrating indigenous principles, pedagogies and epistemologies could empower LO educators and break the implementation challenges mentioned earlier.

No studies on integrating IK and LO have been done so far in TVET Colleges in South Africa. Evidence from literature studies indicate that many integration studies were linked to either social science or social work discipline; and they all have been done elsewhere. Most studies on IK were non-empirical since they only tried to conceptualise the importance of IK and integration motives. Although few studies in South Africa hinted on the need to integrate IK into LO or Life Skills education (Makhubele & Qalinga, 2008; Iya, 2013), no empirical investigations have been conducted so far in relation to this initiative. Therefore, it was realised herein that there is lack of empirical evidence in most IK related literature.

As far as LO is concerned, LO researches done so far have failed to clearly identify the problem in LO as well as coming up with a tangible solution to the problem. Although many studies provided insights towards the need to develop LO educators, challenges in LO seem to be bigger than the training and development calls by many researchers. Few studies as indicated before suggested that IK should be integrated into LO education in South Africa. However, these studies did not further provide an integration framework necessary to facilitate this development. It is under the backdrop of these literature findings that the present study tried to close these knowledge gaps by designing an integrated framework, through an empirical investigation; all aimed at integrating IK and LO in TVET Colleges in South Africa.

2.6 CHAPTER CONCLUSION

This literature chapter examined three key areas, namely: the conceptual framework, theoretical framework and ontological review of literature. While the conceptual framework defined and elaborated the major concepts (indigenous knowledge, life orientation, decolonisation, teaching strategies and integration); theoretical framework revealed the underpinning theories for the study. As shown in literature, the study was underpinned by Social constructivist theory, standing as the broad lense for the study. Other social constructivism theories such as the Embodied Situated Distribution Theory (ESDC), collateral learning theory (CLT), indigenous knowledge theory, and the Kaupapa Maori theory were used as intermediate theories. The ontological review of literature enabled the researcher to identify gaps in literature as well as to find ways to fill these crucial gaps.

Literature review findings indicate that the purpose of LO education in South Africa is to mould socially and morally responsible citizens. Basic life values and skills such as respect, love, caring, empathy and kindness form part of LO dispensation and pedagogy. Issues such as health and social pathologies can be curbed through effective LO education. However, the problems occurring in LO education such as lack of training; ineffective teaching strategies; lack of IK integration or unbalanced content are directly linked to pedagogical incompetence and ineffective teaching strategies. Most educators rely on western pedagogy and epistemology and this negatively impacts the LO delivery. There is a missing link between the indigenous life of students, their indigenous social values and the LO education processes. The skewed imbalance

in epistemological gain is reflected in the challenges, practices and negative views of students and educators on LO.

Literature acknowledges that IK is the *local-holistic-preparatory-practical-creative-functional-traditional-experience* and *communal sense* which is based on *heritages, values, beliefs* and *cosmological realities*. Integrating IK and LO do not only square the differences but can transform LO education as well as promote socio-cultural synergy between the two forms of knowledge. Essentially, it is important to consider issues such as methods, partnerships, politics, laws and policies during integration. These help to create a balance between the two opposing systems for the betterment of students and the societies in general.

It emerged that there is an urgent need to integrate IK and LO in South Africa. However, the integration process should consider the philosophical differences between the two forms of knowledge. Efforts should be done to try and infuse these philosophies together. Other issues necessary for considerations are the methods, politics; laws; partnerships with community; or scales of integration. Based on literature findings integration processes should avoid domination or partial integration methodology since it will still create frictions. Above all, literature findings in this study gives a hope to foreground integration initiatives which might foster continual change in the minds of students, neutralise conflicts, ambiguities and promote increasing moral and social interdependence. The next chapter describes the research design and methodology for empirical investigations on integrating IK and LO. Having discussed more on the reality about the LO education, as well as identifying its inconsistencies and gaps, it is justifiable to also discuss in detail the indigenous philosophical underpinnings of the study, so as to locate the study as well as to see how these philosophical underpinnings in IK can fill these gaps in LO. Thus, the coming chapter outlines the indigenous ontology, epistemology, methodology, axiology and volition guiding the present study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The previous chapter provided and explained the conceptual and theoretical frameworks of the present study. The main purpose in the last chapter was to conceptualise, theorise and situate the study within the body of knowledge. Essentially, the chapter provided a guiding lens for analysing empirical findings in chapters four, five and six. In sum, chapter two reviewed, discussed and analysed LO, IK and integration literature in order to identify major themes, findings and gaps in prior related studies. Notably, some gaps and findings identified in the literature chapter were either filled by the present study or were used to compare and triangulate the empirical findings presented in chapters four, five and six respectively.

While chapter one introduced the study; and was followed by a theoretical and literature chapter described above, this chapter details the indigenous research design followed in collecting, analysing and reporting all the empirical data. This study was informed by the qualitative indigenous research design. A research design is defined by Creswell (2009) as a plan and or procedure for conducting a research and it includes the broad assumptions of the researcher, strategies and methods for data collection and analysis. Maree (2010:70) defines a research design as a strategy which initiates with the “underlying philosophical assumptions to specifying the selection of respondents, data gathering techniques to be used and the data analysis to be done”. This implies that a research design is made up of a philosophical assumption or research paradigm, research strategy and the methods or processes for collecting and analysing data.

The main reason for choosing the qualitative research design was that, firstly, it offered the opportunity for the researcher to accomplish both indigenous philosophical assumptions (mentioned in Chapter one); realise the purpose of the study; and answer all the research questions (Bogdan & Biklen, 2007; Creswell, 2009). Secondly, this design is flexible and applicable in different settings. More importantly, the design gave indigenous and LO

education participants the freedom to express their views, ideas or experiences while in their natural settings (Cohen, 2001; De Vos, Strydom, Fouche & Delpont, 2009). There was no interference or coercion among participants; as such, participants provided in-depth and seemingly reliable data. With specific reference to community IK holders, there was no limit on the amount of information they offered; and they were free to express their thoughts, perceptions, ideas, experiences, suggestions and behaviours. Researchers such as Chilisa (2012) and Creswell (2009) confirm that a study informed by a qualitative indigenous research design is conducted in a *natural setting*; uses the *researcher as the key instrument*; relies much on *participant meanings*; and follows a *holistic account* inquiry process.

- ***Natural setting***

Chilisa (2012) and Creswell (2009) assume that indigenous qualitative researchers collect data within the natural problem setting or site and they do not bring individuals into a lab. This suited this research since all respondents participated while in their natural environments or setting. Individual face-to-face, oral dialogues, natural discussions and group interactions were done with participants while they were in their own territorial grounds or vicinities (Schnarch, 2004). For example, oral discussions (Chilisa, 2012) with indigenous knowledge holders were done in IK holders' homes; while educators' and students' interviews were conducted in their respective colleges or classrooms.

- ***Researcher as key instrument***

The researcher was the key instrument in collecting all research data; as well as negotiating and liaising with the *Kgosi* (Chief) of the village setting. The researcher observed all indigenous protocols and ethics (Absolom & Willett, 2005; Schnarch, 2004; Deloria, 2004) within a dignified and respectful manner and conducted oral discussions with indigenous knowledge holders while observing and recording participants' views, behaviours, actions and suggestions. While indigenous researchers such as Deloria (2004) and Absolom and Willett (2005) suggest that it is not advisable to record indigenous participants, contemporary indigenous writers, for instance Kovach (2009), Schnarch (2010) and Chilisa (2012) assume that an agreement should be made with participants before recording. During the data

collection process, great caution was taken not to interfere with the basic ethical and research considerations. The researcher also prepared a discussion and interview guides for IK and LO participants such as indigenous knowledge holders, LO educators and LO students and did not rely on questionnaires or instruments designed by other researchers (Chilisa, 2012; Creswell, 2009; Gubrium & Holstein, 2002). On the educators' and students' side, the researcher was also the key instrument in recruiting, making schedules and collecting data.

- *Participant meaning*

The researcher relied on participants' views or ideas about the problem or issue, and not the information that the researcher brings to the research (Chilisa, 2012; Creswell, 2009) or from the literature review processes.

- *Holistic views*

The researcher reported multiple perspectives of the problem (Chilisa, 2012; Creswell, 2009; Schnarch, 2004), from IK holders', educators' and students' perspectives and triangulated (as explained in section 3.6 in the present chapter) the findings obtained in response to the study objectives. Therefore, all the findings reported indicate the holistic views, attitudes and perceptions of participants who took part in the study.

It is important to note that the study was informed by different objectives and therefore used different methodologies. To avoid duplication of the information, the methodology sections were only detailed in the separate objective chapters to follow. Thus, the chapter outline follows a discussion on the research philosophical underpinnings guiding the study, research strategy followed and a brief description of the research site as well as categories of participants who took part in the study. The trustworthiness and validity; and the ethical principles followed during the research process are also reported herein.

3.2 INDIGENOUS PHILOSOPHICAL UNDERPINNINGS OF THE STUDY

The term philosophical underpinning, according to Hart (2010) refers to a set of beliefs or assumptions (Thompson, 2008) about fundamental aspects of reality. Some authors prefer to use

the word research paradigm or philosophical assumption (Taylor & Medina, 2013). For example, Creswell (2009:6) uses the term worldview and defines it as “a basic set of beliefs that guide an action”. Other writers contend that research paradigms or worldviews are simply *epistemologies* and *ontologies* (Lincoln & Guba, 2000). In this study the term philosophical underpinning is much more preferred and it entails the researcher’s belief or an assumption which informs the epistemological and methodological strategy and method of data collection and analysis. The present study was therefore informed by the indigenous transformative philosophical assumptions; those which give rise to reality, generation of knowledge, techniques, values and ethical considerations. Thus, the following sections describe these ontological, epistemological, methodological, axiology and volition views grounding the study.

3.2.1 Indigenous Ontological Assumptions

As indicated before, the study holds on to indigenous transformative ontological assumption (worldview) embedded in the *Indigenous Transformative* paradigm; under the flood light of social constructivism. Writers of this worldview can be traced back to 1980s and 1990s particularly from the works of Carol Giligan, Robert Chambers, Arturo Escobar, Merriam and Simpson, Mertens and Nueman (Chilisa, 2012) as well as John Dewey cited by Tomal (2010). Some indigenous and transformative scholars, criticised the positivist or post-positivist paradigms; and felt that these dominant paradigms do not fully represent their social transformative worldviews (Chilisa, 2012). One indigenous transformative advocate, Chilisa (2012:35), quotes one of these authors that:

...Carol Giligan in the 80s, argue that most research studies that inform sociological and psychological theories were developed by white male intellectuals on the basis of studying male subjects. In the United States, for example, African Americans argue that research-driven policies and projects have not benefited them because they were racially biased. In Africa, scholars, for example Robert Chambers in the late 90s, and Arturo Escobar in the middle 90s, argue that the dominant research paradigms have marginalised African communities’ ways of knowing and have thus led to the design of research-driven development projects that are irrelevant to the needs of the people.

The indigenous transformative paradigm assumes that it is essential to “emancipate and transform communities through group action” (Mertens in Chilisa, 2012:35). As such, the present indigenous transformative research aims to find meaningful ways to re-construct, build and change social disorders, for instance those identified in LO education earlier. Tomal (2010) supports the view that indigenous transformative research re-rights the evils of the past; which are related to the non-integration of IK in LO education. In the view of the present researcher, it is necessary to re-construct the pedagogical, epistemological and skewed structural dynamics in LO; by including indigenous knowledge holders to become active participants, particularly in many education structures. The researcher assumes that indigenous knowledge has the potential to transform LO education for the benefit of students and their communities.

This researcher assumes that social reality can best be understood from within; that is, in the mind, the spirit and the body of an individual (Chilisa, 2012). The social location and context of an individual best describe the feelings and experiences about reality (Donso, 2014). Words (dialectical) or expressions of individuals based on lived experiences and feelings (Maree, 2014) give rise to social constructions as well as social realities (Hart, 2010). In this regard, the present researcher assumes that it is also important to briefly describe his identity and self; using the first person authority. Thus, I am an indigenous African born around the late 70s. I was born from an underprivileged couple, that is, my father who never attended any formal school, and my mother who was forced to leave school in grade 3 only because she was a woman. My parents were so poor that at times, they struggled to put a plate of food to eat on the table. I was raised by my grandmother (who was a qualified indigenous traditional healer) in another village some miles away from our village. She taught me to be humble, to respect others and the environment and to love all mankind. I am an emotional shy person and I stammer to speak. The struggle to let my voice out to be heard pained me inside, during my entire youth; and to resolve this I had to act to be heard. My poor background, the connection made between myself and my indigenous grandmother, the voiceless self, the power to act, free and liberate myself, have shaped this research a lot. I feel so much indebted to be the voice of the voiceless, to free the colonial chains within us, value and integrate IK in life skills education, engage community IK holders, and so act and construct the world we need.

Back to the study, participants, in community spirit, gave their innermost views, perceptions, beliefs and lived experiences through orally expressing their emotions and attitudes in response to the subject under investigation (Haron & Hamiz, 2014). The study was guided by the emancipatory belief within the indigenous transformative research (Emeagwali, 2014) and the objectives of the study were aimed at transforming students' teaching and learning processes as well as the implementation of LO education by educators. The study engaged local community indigenous knowledge holders, a move believed to break the unjust formal conception and structures within the Western education circles. More so, the study empowers and provokes local community indigenous knowledge holders to collaboratively participate in solving social, moral, cultural, education and economic problems within their societies and in South Africa.

3.2.2 Indigenous Epistemological Assumptions

The researcher subscribes to the view that both validated (scientific) knowledge and the experienced (indigenous) knowledge within the society and the universe are all essential and should be treated equally (Hart, 2010). Much has been talked about already, in as far as the scientific or western knowledge is concerned; and this study advocates for the inclusion of experienced (tacit) and shared indigenous knowledge (Haron & Hamiz, 2014) in education disciplines. From the indigenous perspective, knowledge creation follows two distinct processes which in today's world can be transformed into four categories. Two categories of indigenous knowledge creation in the view of Nonaka and Toyama (2003) involve (1) the formation of tacit (experienced) knowledge (Haron & Hamiz, 2014) held by individuals which is shared orally through face to face individual conversations; and (2) dialoguing and externalisation processes where the tacit knowledge is converted into explicit (common) knowledge of community or society. Lwoga, Ngulube and Stilwell (2010) posit that explicit knowledge in the past was shared through metaphors, analogies, rock paintings, carvings and printed materials; and this is less applicable in the present day. In today's world, the tacit and explicit indigenous knowledge can be transformed into combination and internalisation processes (Nonaka & Toyama, 2003); thereby bringing the indigenous knowledge creation processes to the fore. According to Lwoga *et al* (2010), combination involves systemising, refining, validating and documenting explicit knowledge by using information and communication technologies such as existing databases. This is followed by internalising process where explicit knowledge is transferred back to tacit knowledge through practising or translating theory into practice (Lwoga *et al*, 2010). In support

of Lwoga *et al* (2010) and Nonaka and Toyama (2003), Chilisa (2012) argues that indeed indigenous epistemologies are created through an interpretive, critical analysis or participatory action among concerned participants.

Drawing from this description about knowledge creation, the present study reiterates that indigenous knowledge is essential and should be included in LO education. Local community IK holders should share their tacit and explicit life skills knowledge which in turn might assist students physically, socially, psychologically and emotionally. Through collaborations, engagements and participations, within a community of practice framework among IK holders and education stakeholders, useful explicit life skills and knowledge can be originated, shared, documented and practiced in South Africa and elsewhere.

3.2.3 Indigenous Methodology

The study followed a qualitative empirical investigation approach, guided by both contemporary (Creswell, 2009) and indigenous methodologies (Chilisa, 2012; Deloria, 2004; Kovach, 2009; Schnarch, 2004), and focused more on individuals as well as understanding their views or ideas (Kovach, 2009); with little emphasis on formulating general laws (Maree, 2014). Although the study is transformative and integrative in nature, it was informed by the phenomenological, interpretive (Creswell, 2009) and indigenous relational strategies (Chilisa, 2012); which are based on shared, collaborative, participative, collective and integrative efforts and mutual interactions between the researcher and participants (Schnarch, 2004). The researcher engaged both Western and indigenous participants through voluntary working partnerships (Deloria, 2004; Littlebear, 2000) and collected and analysed data, so as to fulfil the investigation process intended in this study. All stakeholders participated freely and were committed to share their views, epistemologies, beliefs and concerns (Kovach, 2009) for the betterment of indigenous persons and community in which they live in. Indigenous research methods such as oral dialogues, discussions and the talking circle strategy (described later in Chapter three) (Chilisa, 2012; Kovach, 2009; Schnarch, 2004) were followed.

3.2.4 Axiology

The researcher being an indigenous African himself respects the young and the old and values relationships (Chilisa, 2012; Deloria, 2004), social order as well as the sharing phenomenon among human beings. With this, the study followed indigenous social protocols and moral obligations such as respect for individuals and community interests (Schnarch, 2004). Indigenous protocols such as visiting and seeking permission from the Chief of the land to engage with IK holders were followed (Kovach, 2009). Indigenous relations (Deloria, 2004) and prescripts such as allowing participants to bring their aunts, sisters, brothers, mothers, fathers or friends was tolerated. Participants were guaranteed of their human rights, trust and confidentiality (Creswell, 2009; Maree, 2014); and the researcher made appointments with participants, prior to the investigation session, to avoid intrusions (Schnarch, 2004). The researcher made an attempt to listen holistically to participants (Kovach, 2009) through a process of hearing-emotionally, spiritually and physically; and also avoided leading participants and being judgemental.

3.2.5 Volition

The present study was driven by the researcher's desire to find meaningful and empirical ways to try and solve indigenous knowledge integration problems within the LO education context in TVET Colleges in North West Province in South Africa. The researcher aspires to see an everlasting connectedness (Hart, 2010) between education and the indigenous society since this promotes healthy spirituality, metaphysical connection and social order. The researcher is also motivated by the LO-IK integration outcomes which includes a designed LO and IK integration teaching framework for LO educators. Table 3.1 summarises the identified indigenous philosophical beliefs and assumptions underpinning the present study. Included in the summary, are the main constructs emerging from the ontology (reality), epistemology (knowledge), methodology (ways), axiology (values) and volition (motivation) descriptions made above.

Table 3. 1: Summary on philosophical assumptions for the study

INDIGENOUS RESEARCH	
Ontology (What it is: belief or the nature of reality)	<ul style="list-style-type: none"> • Constructed based on social location • Dialectical: brings change in practice • Emancipatory: breaks away from irrational unjust processes or structures. • Multiple layers of realities • Empowerment issue-oriented
Epistemology (Ways of knowing-truth)	<ul style="list-style-type: none"> • Orally transmitted through collaborative efforts • Debates or discussions geared at changing the status quo • Creativity: practical applications and problem solving initiatives • Based on theoretical facts put in practice • Collective meanings of people • Created from the participants' frame of reference
Methodology (Using knowledge to gain more knowledge about reality)	<ul style="list-style-type: none"> • Relational accountability: shared with all creation • Collective: involves others • Commitment: through reciprocity • Practical application of knowledge • Oral texts, focus group interviews, and individual interviews
Axiology (set of values)	<ul style="list-style-type: none"> • Approved by collaborators • Respect for individual and community interests • Relate and act according to the prescripts of a particular group of people • Respect and safety among participants • Confidentiality: according to collaborator's requirements • Non intrusive observation (trustworthiness) • Deep listening and hearing-emotionally, spiritually and physically

	<ul style="list-style-type: none"> • Reflective-non judgmental
Volition (motivation)	<ul style="list-style-type: none"> • Driven by the desire to survive and the loyalty to the community • Inseparably embedded in ethics, spirituality, metaphysics, ceremony and social order • Respect for all things • Healthy scepticism

Source: Adopted from Chilisa(2012:20)

3.3 RESEARCH STRATEGY

Two distinct strategies were used, namely, one applicable to indigenous participants (IK holders) and the other for LO participants (educators and students). The reason for this is linked to the call among indigenous researchers that there is need to utilise indigenous methods and strategies in indigenous research (Chilisa, 2012; Kovach, 2009; Schnarch, 2004). Scholars such as Barney and Mackinlay (2014), Grange (2016) and Keane (2017) support the use of indigenous strategies for the reason that it decolonises the indigenous minds by recentring indigenous values and cultural practices within research practice (Shield, 2003). Almost two decades ago, Kuokkanen (1999:413) explained the essence of freeing people’s minds and societies through the following quote:

If we acknowledge the importance of the decolonisation process of indigenous societies on the way to empowerment and full self-determination, it is also crucial we reconnect ourselves to our cultural concepts, values and knowledge systems in order to also be self-governing intellectually. Therefore, an Indigenous strategy would be a culturally specific discourse based on Indigenous peoples' premises, values and worldviews.

Based on these views, the following dual strategies were adopted.

3.3.1 Indigenous Medicine Wheel: Culturally Intrinsic Strategy

The research study, methods for data collection and analysis, in view of indigenous participants were underpinned by the indigenous Medicine Wheel Culturally Intrinsic Strategy. The strategy is derived from the interconnected indigenous worldview of the universe symbolised as the healing and medicine wheel (Shield, 2003). The medicine wheel strategy is connected to the four sacred symbols pinpointing the directions of all existence; at the same time representing the need for harmony and balance within the universe (Conti, 2001; Rogers, 2004). For the past ten thousand years, indigenous people in various parts of the world regarded the medicine wheel as the healing universe; although interpreted differently, it was looked to by many, both past and present, for spiritual and physical healing, wisdom, and direction (Conti, 2001). The wheel is cyclic in nature (talking circle), and it is divided into four balanced segments (directions), and the meeting point of these directions (centre) is where the living human being lies (Medicine Wheel Student Manual, 2010). The four sacred segments or directions are demarcated with various colours, normally, white, yellow, black and red (Anon, 2010). They are also conceptualised as the north, south, east and west powers, virtues or values which guide the central living human being (Shield, 2003). With specific reference to the present study, the centre is the research setting or society which is believed herein to be out of balance. It was found appropriate to adopt the medicine wheel sacred directions to guide the study, and give it directions on the indigenous methods, ethics and protocols. The cyclic nature and talking circle strategy of the medicine was used in focus group data collection with the students. It is justifiable to elaborate further the meaning of the four coloured directions so as to clearly understand them and see how they link or relate to the study.

Thus, the yellow power (east direction) defines the sacred virtues of spirituality, illumination and enlightening usually used as an insight for compassion to another human being who may be in pain (Dyck, 2009). It is the link between the living being and the living spirits within the universe; and is usually associated with the generous, loving, warmth, pure, trustful, hoping woman who give birth and new life (Engelbrecht, 2011). In the view of Conti (2001) the woman being is only an analogy, where the birth process may mean, insights, truthful revelations, emotional and mental provocations, constructive ideas, and understandings. According to Anishaabemdaa (2010), it can also represent the rising sun, the dawn of a new day and the

knowledge we seek to be delivered each new day. In other instances, the east power signifies the resemblance of the *spring* and raining time when plants start to grow and blossom in preparation for a bumper harvest (Indian first head nations, 2002). For this study, the yellow power (east direction) is the conceptualisation of the study, the problem identification process as well as the suggested ways to close gaps in IK and LO integration in South Africa. The researcher believes that the ideas and provocations leading to the formulation of the problem statement, was through spiritual blessings from the sacred powers within the universe. In the data collection process, the yellow (east) honesty, truthful and trustful power was used in ethical section. The pure woman analogy allowed the researcher to be truthful, trustful and provide honesty information to participants; information such as his identity, where he is coming from, the purpose of his study, why he is doing the study and for whose benefit it is.

The White colour, which is often described as the South Power, also links our World and the Spirit World; and it is often regarded as the direction where our ancestors have gone before us (Anon, 2010; Swam, 2004). It is the silent power, where one receives the healing and blowing winds, a time of solitude, preparing for future, of getting ready, self reflecting, healing and internalising one's experiences as well as the seeking of knowledge (Swam, 2004). The spirit of connection is associated with this power and it joins us with our ancestors, medicine people, spiritual leaders, relatives, community members; for protection, guidance and support (Ontario Society for environmental education, 2009). White sacred power and virtue is also associated with intellectual grace, cognitive alignment and wisdom (Dyck, 2009). In relation to this research, the white sacred direction symbolises the internalisation, organisations and coordination of the research project which is a lonely journey of navigating thinking, writing and reflecting on the progress made; and it was only achievable through guided wisdom and privilege from the universe. The white power also enabled the researcher to prepare guides for oral discussions and sending invitations in advance as well as researching about the values, requirements, protocols and the community's dos and donts.

Black colour is often associated with the West Power, and the Wankiyas (the Thunder Beings). Some indigenous researchers believe that the Wankiyas are powerful, physical and can affect the environment intensely (Anon, 2010; Dyck, 2009; Rogers, 2004). The black West Power segment is connected with the blood, power and experience (Dyck, 2009). From the Wankiyas

perspective, blood, power and experience affect the environment, so, too, does the West power affect the internal environment of individuals and groups (Anon, 2010). This implies that there is an aspect of the individual internal environment which is influenced by the power and experience of other community-related beings (group) (Medicine Wheel Student Manul, 2010). In simpler terms, it can be said that the internal individual, for instance the student, is shaped by the external interactions among other human beings (young and old) as well as the environment. Drawing from the West Power and influence on the internal human being, the study valued community participation and influence. It engaged IK holders in finding ways to decolonise and integrate indigenous experienced knowledge, based on their influence. Oral discussions guided by basic principles of love, honesty, truthfulness and transparency were done.

The fourth colour, which is Red is often associated with the North Power; symbolising the emotional power, a force of life, blood flowing through our own veins, strength, bravery, and courage (Shield, 2003). The North Power and virtue is also seen as the energy giving power and the water element of survival (Conti, 2001). It gives human beings the power, strength, endurance and courage to utilise and express their individual gifts, for community and nation building; even if it means losing your own blood (Engelbrecht, 2011). In the view of Anishnaabemdaa (2010), it is an emotional awakening process, internal motivation and trusting drive for survival. For this study, the red colour was more significant since it revitalised indigenous knowledge holders to voluntarily participate (through oral discussions) in the study. The desire to survive and to solve problems which affect indigenous people and their children was the main driving force among indigenous participants. Respecting and conforming to indigenous protocols and ethics, as well as adjusting oneself towards connectivity and sensibility motivated the IK holders. Figure 3.1 provides a summary and diagrammatic representation of the medicine wheel; and how the strategy was contextualised.

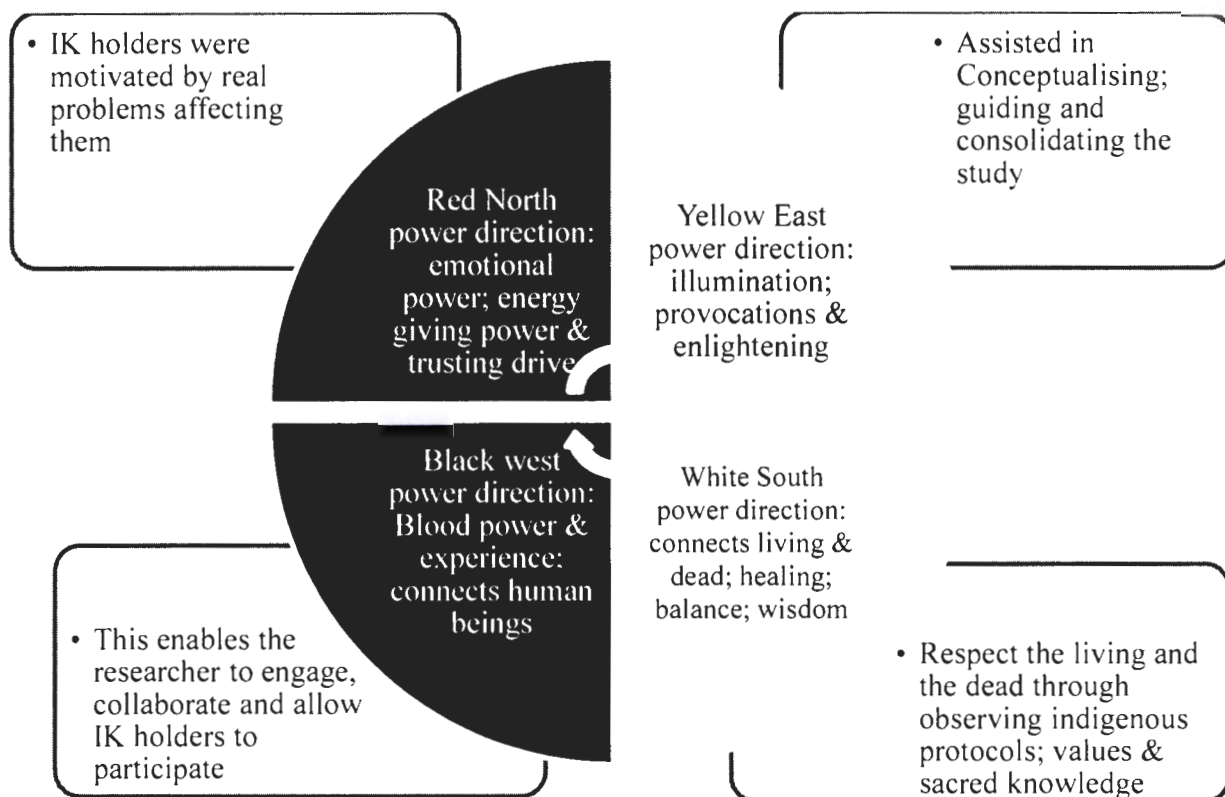


Figure 3.1: The indigenous medicine wheel data collection strategy
Source: adapted from Engelbrecht(2011)

3.2.2 Phenomenological and Interpretive Strategy (LO participants)

The study was also guided by a phenomenological and interpretive strategy. Phenomenological research strategy was founded by a social psychologist, Edmund Husserl in 1970 (Rudestam & Newton, 2015). It was conceived in opposition to the positivist science. Proponents of this strategy argue that “the scientific world is not the lived world that we experience on a daily basis” (Rudestam & Newton, 2015:42); and it distances people from the actual lived and experienced world. Much emphasis, according to phenomenologist, should be focussed on direct and unbiased appreciation of pure human experiences (Rudestam & Newton, 2015). Supporters of Edmund Husserl include Crotty (1998), Giorgi (2009), Gubrium and Holstein (2002) and Rudestam & Newton(2015). In North America, Crotty announces that the practice of phenomenological research is much more prevalent and uncritically accepted (Rudestam &

Newton, 2015). Gubrium and Holstein (2002) describes how phenomenology has been catapulted to become a philosophical basis for interpretive research strategies as well as its extent in ethnomethodology (the study of meanings of talks, social interactions and conversations) (Rudestam & Newton, 2015). In essence phenomenological form of inquiry attempts to describe and elucidate meanings in peoples' lived experiences and consciousness. The thin line between phenomenology and interpretive is that the former focuses on the phenomenon or context while the later explains the phenomenon. Therefore, the interpretive strategy assisted the researcher, during data interpretations and discussions, to make meaning of participants' views, words and understandings (Creswell, 2009). Emerging themes and sub-themes were deduced from the data and all research findings were compared or related to existing theories, concepts and other prior research findings in order to interpret and identify new knowledge.

3.4 STUDY SITE

The study site is described by De vos, Strydom, Fouche and Delpont as the universe of the study (2009). These authors assume that the universe or site is the selected area composed of potential subjects with attributes in which the researcher is interested (*Ibid*). Three different TVET Colleges with ten different Campuses in North West Province in South Africa were purposively selected as the study sites (universe) for this research. Based on the fact that the researcher is currently working at one of the TVET Colleges, it was found convenient and suitable for the researcher and participants to conduct this study in TVET Colleges, to enable inter-colleague engagement, effective participation and collaboration of educators, students and community IK holders. The following map (figure 3.2) provides a schematic view representing the geographical view of the research site (North West Province).

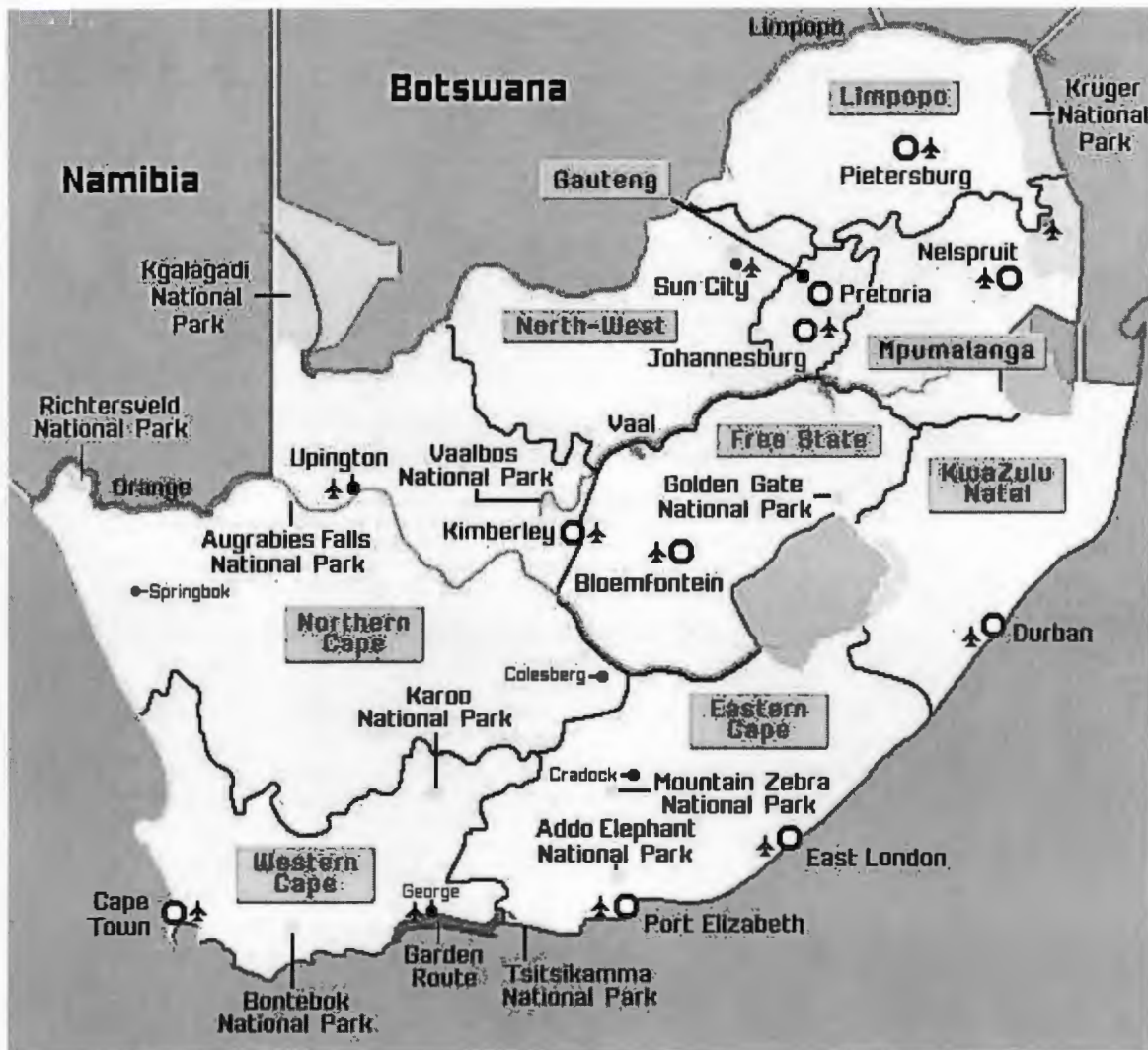


Figure 3.2: Map representing North West province

Source: Google maps

All TVET Colleges in North West Province are situated in either *urban, small urban towns or rural setting* respectively; and are surrounded by rural villages which are governed by indigenous African communal systems of authority. Many of the campuses of the three chosen TVET Colleges in North West province are situated in complete rural settings which are also governed by tribal systems of authority. The Colleges are spacially situated and the distances are approximately two hundred (200) kilometres apart from each other.

3.4 TARGET POPULATION

A target population is a term that sets boundaries for the study units (De Vos *et al*, 2009). There were three categories or units of participants in the study namely; LO educators, LO students, and Indigenous knowledge holders. These participants formulated the target population for the study. This implies that **all** LO educators, LO students and indigenous knowledge holders in North West Province in South Africa consolidated the target population.

3.5 SAMPLE SIZE AND SAMPLE PROCEDURES

A sample size comprises of elements of a target population considered for the actual inclusion in the study (De Vos *et al*, 2009; Maree, 2010). From the target population described in section 3.4 above, a sample was drawn through a purposive sampling strategy to represent the target population. The sample size which was chosen then amounted to **28** educators teaching LO subject from Level 2 to Level 4; **120** Level 4 students doing LO subject, and **7** indigenous knowledge community holders. The criteria for choosing participants included inviting and recruiting all educators teaching LO as subject, be it computer skills or life skills learning area, in all three TVET colleges in North West province. For the students' category, only level 4 students doing their final year in the three TVET Colleges participated in the study. All students were invited to take part in the study and only those willing filled in the consent or agreement forms. This means that out of five hundred and eighty **580** registered LO students doing level 4 in the three TVET Colleges in North West province, one hundred and twenty students volunteered to participate. In as far as the local indigenous knowledge holders are concerned, all seven IK holders in Barolong Borra Tshidi village agreed to participate in the study by filling in consent forms as well. The following paragraphs describe the profiles of participants as well as the reasons for selecting these participants.

3.5.1 Lecturer Participants

The researcher used his experience as a researcher and an academia to recruit and select convenient educators and students. Although there are many educators teaching various subjects in the selected TVET Colleges, only LO educators were selected since the nature of the study

was only limited to LO education. It was also aimed at improving the LO curriculum implementation and in that regard LO educators as key players, provided rich data necessary for the study. The researcher then relied on professional relationship strategy to negotiate with the LO educators.

3.5.2 Students Participants

Only LO (level 4) students doing their final year in TVET Colleges in North West Province were selected for the study in order to gain rich data and information from the more experienced students. The screening process involved recruiting only full-time registered students to minimise the absentees during focus groups' discussions; and the students participated voluntarily.

3.5.3 Indigenous Knowledge Holders as participants

IK community holders were recruited through a *snow ball* or referral strategy. The Kgosi (Chief) referred the researcher to one IK holder who also directed the researcher to another IK holder. The snowball referral process went on and on till all IK holders in the village were visited, recruited and included in the study. For the IK oral discussions, the researcher focussed on one district (Ngaka Modiri Molema) in North West Province. A purposive and convenient strategy was used to select the Barolong Bo ra Tshidi IK holders situated in Ngaka Modiri Molema District in Mahikeng area. As indicated before, the Barolong Bo ra Tshidi are also governed by a tribal system of authority and all community leaders report to the Chief (Kgosi) Montshioa. The selection of the Barolong Bo ra Tshidi IK holders was mainly informed by two things. One, the Barolong Bo ra Tshidi IK holders are conveniently accessible to the researcher since he is also staying in Mahikeng area. This enabled the researcher to easily navigate and follow directions to different IK holders' homes within the community. The second reason was that the Barolong Bo ra Tsidi indigenous people have a rich and traceable traditional culture and value system which are still being led by indigenous tribal authorities through Chieftaincy. In this regard, it is necessary to briefly detail the profile of the indigenous Barolong people in order to substantiate many reasons for their inclusion in the study.

3.5.3.1 The Profile of the Indigenous Barolong people in North West Province

Indigenous ethnic Barolong (Batswana) people are located in Botswana as well as in South Africa. They share the same culture, tradition and language and are placed under one paramount Chief who is based in Mochudi in Botswana (Kgotleng, 2014). The Barolong situated in South Africa in North West Province are currently led by Kgosi (Chief) Kgolo Montshioa. The legacy of Chieftainship (traditional leadership) within the Barolong people can be traced back to the 14th and 15th centuries and one common thing is that it is hereditary meaning the eldest son inherits Chieftaincy after the death of the Chief. The indigenous Barolong have a well traced cultural history even though the old tradition and culture is continually changing due to rapid societal influences and changes. However, few indigenous knowledge holders within Barolong communities still conform to their traditional values and cultures (Kgotleng, 2014). The following succession pictures (figure 3.3) of Barolong Chieftainship (displayed at the entrance of the Chief's building) provide evidence that the indigenous Barolong people followed a defined traditional culture and customs since time immemorial.









Figure 3.3: Pictures of former Barolong Chiefs

Source: Engraved displays at Chief's office entrance

3.6 DATA COLLECTION AND TOOLS

Four categories of data sets were collected in response to given objectives stated in chapter one. The indigenous qualitative inquiry enabled the researcher to gather multiple forms of data for triangulation purposes (Chilisa, 2012; Creswell, 2009). The reason for collecting many forms of data is elaborated by Cohen and Crabtree (2008) that a single account or source of data cannot adequately shed light on the phenomenon. Through triangulation of sources, the researcher managed to examine the consistency of different data sources within one method as well as to compare different viewpoints from participants. Various sources of data used include individual face to face interviews (with LO educators); focus group interviews (with LO students); oral discussions with IK holders; and observations (in LO lessons). The following

paragraphs briefly describe these different data sets collected as well as the research instruments used.

3.6.1 Individual (face-to-face) Interview Data

Individual face to face interview data was collected using interview guides prepared by the researcher as well as open-ended questions from LO educators in Technical Vocational Education and Training (TVET) Colleges in North West Province. Educators were recruited on a voluntary basis and were informed about the study. More so, ethical considerations concerned with the use of human subjects were followed. Different schedules were made, and these were mostly depended on the most suitable time-frames suggested by each lecturer. The interview data collection period stretched for a month since the researcher had to travel to various campuses and colleges for interview sessions. Participants were free to ask questions or share any information related to the study.

Interview guides were prepared well before the interview sessions. These were piloted or tested on five LO educators, particularly Integrated Computer Technology (ICT) educators; six students and one indigenous knowledge holder. However, those participants who took part in the pilot testing were automatically excluded in the actual empirical investigations for the purpose of avoiding data contamination. All interview data was recorded on a voice recorder. Interview field notes such as the time for the interview, quotes, actions and all deliberations were scribbled in the researcher's field note book.

It is important to note that the total number of LO educators who participated in the study were (n=28) and the interviews were conducted during the free periods of the participants. However, most in-depth face-to-face interviews were done in the offices of participants or after the lessons to avoid data contamination through noise. Although interview guides were used, all educators were free to divert from the line of discussion, share other views or make any other related comments.

3.6.2 Focus Group Interview Data

Focus group interview data was gathered from LO students in TVET Colleges in North West Province. 12 focus group sessions consisting of 10 students in each group were conducted during the students' data collection process; and the total number of students' participants was (n=120). Students were mainly grouped according to their programmes for example civil engineering students were put in one group; while mechanical engineering or electrical engineering students formed another. *Concentric* focus group interviews (Lavallee, 2009; Schnarch, 2004) were done during the data collection process. Concentric gathering strategy entails allowing participants to sit comfortably in a horse shoe or circle form while the interviewer sits in the centre (Chilisa, 2012; Kovach, 2009). The advantage of this strategy is that no one will sit behind another and the convener can clearly interact with the participants as well as see their actions, expressions or any other notable signs (Chilisa, 2012; Wilson, 2008). It also increases the participation rate of respondents. However, in making sure that all participants contribute, an *indigenous talking stick* strategy (Lavallee, 2009) was used during focus group interviews. The strategy involves using a stick or any tangible item, and each and every participant must hold that sacred stick and say something in response to the question (Chilisa, 2012). The advantage of using the talking stick was that all participants were eager to touch the stick since symbolized togetherness and it encouraged the sharing of ideas, and respect for one another when he/she is making contributions. Thus, all students were encouraged to participate and share their views or feelings freely.

3.6.3 Indigenous Oral Discussion Data

Various oral discussions were done with the Barolong IK holders in their own homes. In one oral discussion session, one IK holder (Mme Segotso) had to call her friend, aunt and niece to come and participate in the study. This indicates that indigenous people follow their own indigenous methodologies, specific to their own cultural group (Chilisa, 2012; Schnarch, 2004). The advantage of using the oral discussion method was that participants were free to give or share their views (Kovach, 2009). The discussions did not take the formal style which at times contaminates the data due to participants' fear and uncertainty (Absolom & Willett, 2005; Steinhauer, 2001; Wilson, 2001). Setswana language was used as the medium of

communication during oral discussions since all indigenous participants were from Setswana dialect and people. In facilitating the oral discussions, the researcher recruited indigenous facilitators to assist him and only those who could write and speak Setswana fluently were selected. The facilitators were also employed based on their expertise in facilitation and translating skills.

3.6.4 Data from Documents

Data from documents emerged from education policies and guidelines informing LO education in the Republic of South Africa. Electronic databases were used to gather policies and guidelines necessary for the document analysis process. The documents were then analysed using *ATLAS* *t* software to extract the research themes. Various data sets such as principles, teaching strategies, epistemologies, pedagogies and resources were gathered, recorded and stored.

3.6.5 Data Recording Protocols and Procedures

Three major protocols observed during data collection were the observation protocol, interview protocol and the voice recording ethical procedure.

3.6.5.1 Observational protocol

In recording all the lesson observations, as well as gestures and receptions, the researcher used a lesson observation checklist (prepared using ideas taken from the validated Research Teaching Observation Protocol) instrument (Lincoln, 2002), and an observational protocol diary or book. In this book, all the demographic information about the place, time, setting or any activities which transpired during the lesson observation session were recorded (Lincoln, 2002; Maree, 2014).

3.6.5.2 Interview protocol

An interview protocol or guide with spaces for recording all the information was used. The researcher jotted down all the relevant notes relating to the study.

3.6.5.3 Voice recording

All interviews were recorded on a voice recorder. However, permission or consent was asked first before recording. The following table (table 3.2) developed by the researcher shows the summary of the main objectives of the study; the data collection techniques and instruments used; as well the methods used to ensure that the research findings were valid and trustworthy.

Table 3.2: Measure/objective; data collection technique; instrument and validity process

Objective	Data collection technique	Instrument	Validity/Trustworthiness
1. Teaching strategies for LO educators	Semi-structured individual face to face interviews	Interview guide Voice recorder Field notes	Attentive listening (physical and emotional expressions-non verbal cues) Various questioning techniques
	Lesson observation (observer as participant)	Structured Observation Checklist/template/field notes	Member checking Multiple observations
	Focus group for students	Interview guide Voice recorder Field notes	Domination among members was controlled by 1. Using <i>talking circles</i> and 2. Using a <i>sacred compulsory talking stick</i>
2. The extent to which LO educators integrate IK in LO education	Individual face-to-face interviews lesson observations	Interview guide Voice recorder Field notes Lecturer's files-POA and Subject file	Attentive listening (physical and emotional expressions-non verbal cues) Various questioning techniques
3. Views of IK holders on IK integration	Semi-structured individual face to face interviews	Interview guide Voice recorder (after getting consent from participants) field notes	Attentive listening (physical and emotional expressions-non verbal cues) Various questioning

			techniques
4. Designing IK integrated intervention	Literature review	Using existing intervention and framework guides	Member checking

Source: Developed by the researcher

3.7 DATA ANALYSIS METHODS

Data analysis and interpretation according to Mayan in Maree (2010:297) is:

...the process of observing patterns in the data, asking questions about those patterns, constructing conjectures, deliberately collecting data from specifically selected individuals on targeted topics, confirming and refuting those conjectures, then continuing analysis, asking additional questions, seeking more data, furthering the analysis by sorting, questioning, thinking, constructing and testing conjectures, and so forth.

Research data was analysed using manual coding and qualitative online software, *ATLAS ti*, to identify the codes, co-occurring codes, patterns, categories and major study themes as well as organising data into increasingly more abstract units of information (Creswell, 2009). Both *inductive* and *deductive* data analysis processes were followed. Inductive data analysis, on one hand, involved working back and forth between the themes and the database (Mottier, 2003) until a comprehensive set of themes or theoretical findings were established. In the deductive data analysis process, the researcher generated themes from theoretical constructs and used these to illuminate the findings obtained (Neuman, 2000). The process also involved collaborating with the supervisor in re-shaping the themes and sub-themes that emerged from the analysis processes. The following diagram (figure 3.4) represents the Inductive Data Analysis Model used in the study.

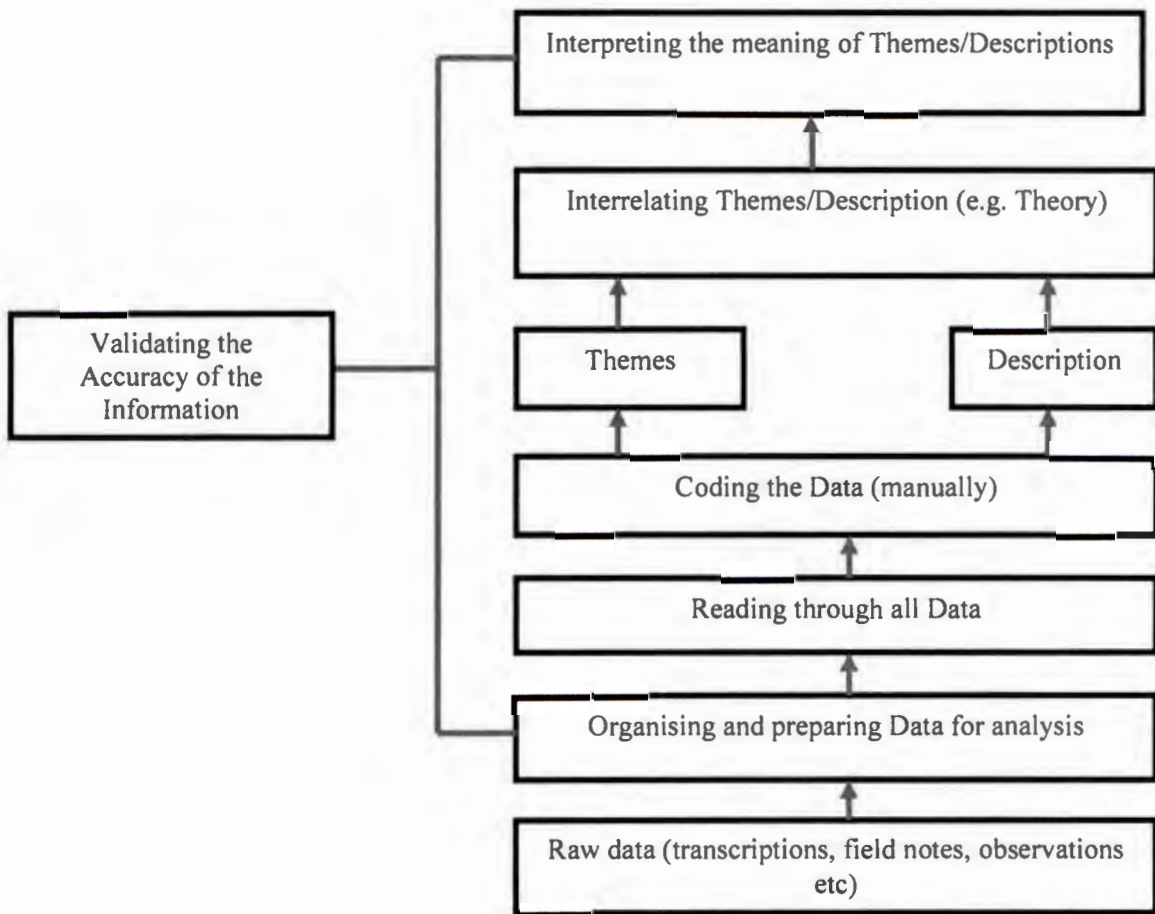


Figure 3.4: Inductive data analysis Model

Source: Adapted from Creswell (2009)

Before any verbatim transcriptions, an audio recorder was used to listen to all the voices, messages and recordings. Repetitive listening and rewinding was done in order not to miss any intricate gestures or clues in the data. All recorded data were then transcribed to a clean sheet of paper. To avoid mixing the empirical evidence, all recorded data were transcribed immediately after each interview. The researcher took time to scan through the data (*ocular scanning* or *pawing* process), for the purpose of generating rough ideas and make sense of the data (Ryan & Bernard, 2017). After data transcription, the participants were asked to validate and confirm the data (Creswell, 2009; Lincoln, 2002). A systematic process of qualitative categorisation of data,

grouping, classification and coding was done to outline the themes and sub-themes. Synthesising and reporting of the data concluded the data analysis process.

3.7.1 Categorisation

Categorising, according to Kruger and Van Schalkwyk (2011) is the process of describing by labeling or giving a name so as to characterise a phenomenon. Kruger and Adams (2010) and Creswell (2009) further describe categorising data as assembling all the data pertaining to a particular theme, bracket or category. In this study all the data from participants which fall under the same bracket was labeled first. Symbols such as L1, L2 or L3 were used to represent the educators' data while FG 1, FG2 or FG3 symbols were used for the student category.

3.7.2 Grouping, Classification and Coding of Data

According to Kumar (2011) as well as Kruger and Van Schalkwyk (2011:5), grouping, classification and coding is the process of identifying patterns, ideas, similarities, differences and connections within and between categories in the way participants responded. All the data from participants were grouped and put together. This was done through arranging all the data which fell under the same question together. The researcher re-recorded all the responses from participants on a sheet of paper with a question on top for easy grouping, coding and classification.

The data in the same group was then classified. The researcher highlighted all similar responses with similar meanings with a similar marker or highlighter. Outstanding and different responses were highlighted with a different marker. All the data with similar ideas or patterns were merged and placed in a different column, while the other non-corresponding data was taken and presented as raw as it was. This process according to Maree (2014) is referred to as the descriptive analysis process.

After the descriptive analysis process, the catch usually in research is to make an analytical understanding about what has been found in the research process (Henning, Van Rensburg & Smit, 2007; Maree, 2014). This implies contextualising the results within the existing theoretical framework (Mouton, 2000) so as to reveal whether the findings corroborate with the

existing knowledge or brings new understanding to the body of knowledge. All study findings were filtered against the chosen theoretical frameworks to compare the outcomes in relation to theoretical prescripts. Research findings were also sieved through literature findings to identify relationships, trends or new knowledge. In the final chapters, theory-related findings, literature findings and empirical findings were consolidated, and reported in order to conclude the study. However, categorical meanings were strictly derived from multiple participants' perspectives. All participants confirmed the findings as a true reflection of the data collected. Few interpretations, corrections and inputs were acknowledged and accepted; and were utilised in designing the integrated teaching framework for LO educators.

3.8 TRUSTWORTHINESS AND VALIDITY OF FINDINGS

The trustworthiness of the findings is significant in research since it provides an 'acid test' (Maree, 2014:113; Mottier, 2003; Morrow, 2005) to the data analysis process, the findings for the study as well as the final conclusions of a study. In this particular study, the following procedures done to provide evidence for assessing the trustworthiness of the findings and conclusions contained herein.

3.8.1 Multiple Data Sources

This study combined and compared information obtained from multiple sources of data such as the data from documents analysis, individual educators' interviews, lesson observations, oral discussions with IK holders, and students' focus group interviews. All these data sets were assessed, compared, triangulated and analysed before making conclusions in this study (Henning, Van Rensburg & Smit, 2007; Mouton, 2000).

3.8.2 Verifying Raw Data

Data transcriptions from the data gathering processes and field notes were randomly submitted to two participants in each category for verification or correction purposes (Philips & Hardy, 2002; Poland, 2002). This process was done to avoid misrepresentations with specific regard to participants' views, ideas or facts (Lincoln, 2002). The two participants involved in data checking appended their signatures on the bottom of the first page of each data transcription form.

3.8.3 Intra-Coder Consistency and Reliability

Great consistency was observed during the coding process to outline emerging themes and categories (Lincoln, 2002). Codes obtained through manual coding done by the researcher were compared against the codes and co-occurrences gathered through the *ATLAS ti* software. The researcher's supervisor was also engaged and asked to verify the emerging themes and categories while comparing these from the data transcriptions.

3.8.4 Member Checks

A summary of data interpretations, findings and conclusions obtained in the study were submitted to available participants for comments or assessments. Participants were asked to sign on the summarised findings document to verify or validate the findings. A separate clean sheet of paper was provided for any related comments or improvements (Cresswell, 2009).

3.8.5 Direct quoting

The researcher used participants' quotes during data presentation. Direct and indirect quotes were used as well as the language of participants (Maree, 2014). For example, many IK holders' views were in Setswana even though this was translated to English language. The researcher did not force his interpretation, ideas or thoughts into the findings.

3.8.6 Confidentiality and Anonymity

The researcher ensured participants' confidentiality and anonymity during the course of the research; and did not expose their identities and or traditional affiliations (Chilisa, 2012; Deloria, 2004). This applied only to the educators and students. For the IK holders, all participants indicated that the researcher could write their names or identities since they had nothing to hide; and this is a common practice in IK research (Chilisa, 2012). As such, only IK holders' names and identities were included in the study.

3.9 PARTICIPATIVE REFLECTION

Initially, the researcher presented the research findings to the faculty representatives. Inputs such as corrections and areas to be improved were suggested, recorded and implemented. This was followed by a presentation of the designed IK integrated teaching framework to representatives from the students', educators' and indigenous knowledge holders' categories. These participants shared their views, comments and suggestions. Then, the suggestions from faculty representatives, and participants were incorporated in the final IK integrated teaching framework for the purpose of improving it.

3.10 ETHICAL CONSIDERATIONS

The ethical considerations followed in this study were twofold: namely the general ethical principles and procedures and the IK ethical principles and procedures.

3.10.1 General Ethical Principles and Procedure

Research is sensitive and it cannot be done by anyone and anywhere (Maree, 2010:300). It involves collecting data from people, about people (Punch, 2009) and researchers need to *protect* participants; develop trust with them; promote the integrity of research; and guard against misconduct and impropriety that might reflect on their organisations or institutions (Creswell, 2009:87). In this regard, students or researchers conducting studies need to seek *ethical clearance* from responsible persons in positions of authority (Maree, 2010:300). In this study, the researcher first got an ethical clearance and a *permission letter* from North West University. The letter acted as proof that the researcher is a student at the university and has been granted permission to conduct his educational study. The main gate keeper (acting Deputy Principal) for TVET College A in North West Province, Mrs Masilo, was contacted by the researcher for permission to conduct the research. She responded by writing a letter as *proof of consent*.

Participants such as educators and students signed individual *consent forms* which signify their agreement to take part in the research. They were also *informed* about the nature of the study as well as its benefits towards the fulfilment of the researcher's doctoral degree; and gave their explicit consent, free from coercion or bribery, to take part in the study. This participant's *right to free consent*, emanated from fundamentals and democratic principles as well as rights to freedom and self-determination compiled by the Economic and Social Research Council (ESRC,

2005:7). Educators, students and indigenous community holders' participation were *voluntary* and they were free to opt out from the study at any given time. Participants' *confidentiality and anonymity* was guaranteed in this study. According to Punch (2009:248), this is done to ensure that respondents have been approached professionally, and, within limits, fully informed about the research, about confidentiality and anonymity, and about the use, and by whom, of the information they provide. *Pseudonyms* and *symbols* were used during educators' and students' data presentation processes; since this helped to protect the participants' identities, names or information. Instead, symbols such as L1 (lecturer 1) or FG1 (focus group 1) were used to represent the participants' identities. The actual place of investigation were only referred to as College A or B, also for protection purposes.

3.10.2 Indigenous Knowledge Ethical Principles and Procedures

The OCAP IK ethical principles designed by Schnarch in Kovach (2009) were used as guidelines for all empirical investigations with the community IK holders. 'O', represents the *ownership and guardianship* of Indigenous Knowledge (IK) (Chilisa, 2012). In this study, participants agreed that their names and identities be documented as proof of ownership for the knowledge. Thus, IK holders' names and titles were stated (and not hidden) according to the prescriptions of the community IK holders. 'C', represents the *consent* from IK holders. The researcher had to seek *consent* from IK holders as well as the community indigenous authorities to conduct the research (Deloria, 2004). 'A', indicates the *access* to an indigenous community. All the *local protocols* such as wearing a jacket and long trousers were followed before gaining entrance into indigenous communities (CHIR, 2007). The researcher asked for permission from the head of the community who is *Kgosi Montshioa* and was granted the *permission* first to conduct his study. 'P', represents the possession and having trusting relationships. In executing this principle among participants, the researcher gained participants' *trust* through explaining and clarifying his position, where he comes from, and the purpose of the study (Anon, 2010; Schnarch, 2004). The researcher was *open* to all stakeholders including the Chief and the community IK holders that he originates from Zimbabwe and that the study was mainly for the purpose of fulfilling the requirements for his doctoral degree. At the end of the research process, the researcher openly gave feedback to participants (Kovach, 2009).

3.11 CHAPTER CONCLUSION

This chapter presented and discussed many issues linked to research design and methodology. In the study, a qualitative research design and methodology was adopted since the research objectives and questions are more interpretive in nature. The study was guided by two distinct strategies, namely, the indigenous medicine wheel (for Ik holders) and the qualitative phenomenological interpretive strategy (suited for LO lecturers and students). The common thing about the two strategies was that they all inquired about the hidden meanings in peoples' feelings, views, conduct and expressions. The qualitative characteristics such as researching in a natural setting, being interpretive, utilising the researcher as a key instrument, using multiple sources of data and being guided by holistic account inquiry were used. From a social constructivist worldview, the study followed a transformative paradigm.

Data collection processes, analysis and interpretation of findings were done through an interpretive and phenomenological methodology. TVET Colleges in North West Province constituted the research settings. Multiple data collection processes for the study included face-to-face in-depth interviews, focus groups interviews, open-ended questionnaires inquiry, lesson observations and document analysis. A voice recorder and a field note book were the main data recording instruments. Descriptive and inductive data analysis processes were used to identify emerging, codes, themes, categories and descriptions. More over, the interpretation and discussion of findings involved the filtration of findings against theoretical and literature findings.

The study followed the general and IK-related ethical considerations and protocols. A clearance letter was granted from the North West University as an assurance by the researcher to protect the participants' rights and information. A permission letter was also granted by the Director of TVET Colleges for North West Province to permit the researcher to conduct the study. Participants voluntarily participated in the study and signed an attached proof of consent document. Symbols such as L1, L2...and FG1, FG2 were used for anonymity and confidentiality purposes as well as to protect educators' and students' identities.

IK ethical considerations included issues such as ownership, access, consent, protocols and openness. IK holders agreed that the researcher could use their names and identities to claim ownership of the knowledge shared. The researcher accessed the indigenous communities through the Chief (Kgosi) who permitted him to enter the community. All participants signed consent forms as an agreement to take part in the study. Indigenous protocols were observed through consultation and practices. Values of openness and trustfulness were utilised as core principles promoting relational dialogue and discussions. Having discussed the research design and methodology followed in collecting and analysing data, it is important to find out the findings obtained in the study. The next chapter (Chapter four) presents the findings obtained for the first objective which inquired about the present teaching strategies being applied by LO educators.

CHAPTER FOUR

TEACHING STRATEGIES USED BY LIFE ORIENTATION EDUCATORS

4.1 INTRODUCTION

Teaching strategies in South Africa are underpinned by a social constructivist oriented philosophy, and therefore, Life Orientation (LO) or (life skills) education in South Africa bows towards student-centred teaching strategies (Botha, 2002; Fiske & Ladd, 2004; Todd & Mason, 2005). John Dewey's practical experiential idea (Dewey, 1902) was fundamental to the introduction of student-centred teaching strategies in education; and was further developed by Piaget, Lev Vygotsky and Paulo Freire (Freire, 1972). Unlike educator-centred teaching strategies which rely on the "banking approach", student-centred strategies help students to "internalise and reshape, or transform, new information" (Jacobs, 2012:5). It is believed that student-centred teaching strategies (Rudestam & Newton, 2015), assist students in making use of all available knowledge, pedagogies and values around them to generate new knowledge and meanings.

However, no empirical findings to determine the nature of teaching strategies being used by LO educators could be found. The first objective and research question of this study was drafted towards determining the teaching strategies used by LO educators in Technical Vocational Education and Training (TVET) Colleges in South Africa. The main purpose was to try and outline the teaching strategies used by LO educators as well as to evaluate these from the social constructivist student-centred theoretical perspective. In that regard, the specific objectives were to: (i) analyse the LO teaching strategies and requirements as stipulated by the LO education policies; (ii) assess the implementation of LO policy-related outcomes, concerned with teaching delivery, by LO educators; and (iii) to compare and evaluate the relationship between LO policy

and implementation findings. Thus, the chapter outline includes a recap on the theoretical perspective used; methodology followed; findings obtained; summary of findings; discussion of findings; and the summary and conclusion.

4.2 THEORETICAL PERSPECTIVE

The overall study findings were guided by the theory of Social Constructivism which was proposed by Lev Vygotsky in 1978. The theory opposes the behaviourists' perspectives of treating students as empty vessels (Vygotsky, 1978). In opposition to the traditional practice of treating students as mere receivers of knowledge, constructivists advocate for student-centred teaching strategies (Jacobs, 2012). Pedagogical approaches in the view of constructivists should include various methods immersed in both western and indigenous paradigms (Makhubele & Qalinga, 2008). Findings in this chapter were assessed within the social constructivist student-centred framework. The main objective, therefore, was to assess the dominant teaching strategies used by LO educators as well as to determine whether the strategies, approaches, pedagogies, epistemologies and resources followed are effective or not.

Although guided by social constructivism theory, a specific pedagogical theory namely Embodied Situated Distribution Cognition Theory (ESDC) was used to inform and evaluate the student-centred pedagogy and methodologies being applied by LO educators. ESDC is a branch theory of social constructivism; hence, the two theories complement one another. ESDC theory assumes that effective education emanates from *embodied* students' cognition through sensory and motor processes (Dubinsky, Roehrig & Varma, 2013). Whilst sensory cognition states that the environment and resources (inclusive of culture) affect education, the motor processes such as participatory or indigenous education strategies also impact positively or negatively on how students learn. Furthermore, ESDC theory reveals that *situated cognition* such as the the environment, context, ways and links in education, plays a significant role in pedagogy (Maxwell & Chahine, 2013). Situated cognition indicators in education could be anything in the form of principles, approaches, pedagogies and linkages between the school (college) and surrounding communities. Distributed cognition refers to the fact that students learn better when knowledge is

distributed and shared, not only among other students, but, among other members from various external structures (Dubinsky *et al*, 2013).

Based on this theoretical knowledge on effective teaching strategies in education, an empirical investigation to assess the effectiveness of LO teaching strategies in TVET Colleges was done. All identified theoretical constructs such as principles, pedagogical approaches, resources, environment and community engagements were used as filters in assessing the effectiveness of LO teaching strategies. Descriptions, discussions and conclusions made were inclined to the effective teaching framework deduced from literature. The following methodology section explains the demographic characteristics of participants' profiles while the sub-section on lesson observations and policy documents used elaborates the actual observation method followed as well as the specific documents analysed.

4.3 METHODOLOGY

This methodology section details two main items which include the demographic characteristics of participants and the data sets used to report the findings.

4.3.1 Demographic Characteristics of Participants

Two categories of participants were considered in the study, and these include (28) LO educators and (120) LO students in North West Province. The following profiles describe the characteristics of participants who participated in the study.

4.3.1.1 Educators' Profile

The following table (4.1) presents the information or profile of educators who participated in the study. Pseudonyms were used to protect educators' information and identities; and as such, symbols representing *lecturer one (L1)* or *lecturer two (L2)* were used respectively. Years of teaching experience, the college, campus, and area of specialisation for educators are shown in table 4.1. While College 1 and College 2 are situated in the rural communities governed by indigenous community authorities, College 3 is situated in a semi-urban town, even though two of its campuses are also located in deep rural areas.

Table 4. 1: LO educators' profile

LECTURER	LO TEACHING EXPERIENCE	TVET COLLEGE & CAMPUS	AREA OF SPECIALIZATION
L1	8 years	College 1: Campus A	Life skills & ICT
L2	5 years	College 3: Campus A	LO & English
L3	10 yrs	College 1: Campus B	Education
L4	5 yrs	College 2: Campus C	Did not specialise in LO. The love and need for knowing new things motivated me to teach LO
L5	4 yrs	College 2: Campus B	Did not specialise in LO
L6	7 yrs	College 3: Campus B	Life Skills & ICT
L7	4 yrs	College 3: Campus A	Life skills & ICT
L8	10 yrs	College 1: Campus C	Life skills & ICT
L9	10 yrs	College 1: Campus A	ICT
L10	6 yrs	College 1-Campus B	Health and wellbeing
L11	3 yrs	College 1-Campus B campus	Life skills
L12	5 yrs	College 2: Campus B	Life skills
L13	5 yrs	College 2: Campus A	Accounting & Financial computing
L14	6 yrs	College 2: Campus A	Fashion design and Technology
L15	6 yrs	College 2- Campus A	Computer skills
L16	10 yrs	College 3-Campus D	Life skills & ICT
L17	10 yrs	College 3 - Campus A	ICT
L18	6 yrs	College 3 - Campus B	Health and wellbeing
L19	2yrs	College 2 - Campus C	English
L20	9 yrs	College 1- Campus 3	LO life skills
L21	4 yrs	College 2 - Campus B	LO ICT & Life skills
L22	3 yrs	College 3 - Campus A	Life skills
L23	5yrs	College 2 - Campus B	Science education
L24	1 yr	College 3- Campus D	ICt & Life Skills
L25	5 yrs	College 1- Campus B	Life skills
L26	5 yrs	College 1- Campus A	Accounting & Financial computing

L27	6 yrs	College 2- Campus A	Fashion design and Technology
L28	6 yrs	College 3-Campus B	Computer skills

Source: drawn by the researcher

A total of (28) LO educators were invited and recruited to take part in the study; and they all filled in acceptance and consent forms. All LO educators teaching either computer skills or life skills in the three TVET Colleges in North West Province participated in the study. It was found that LO educators' years of experience ranged from one year to ten years. Only a few educators (three out of fifteen) had less than four years teaching experience. It emerged that a bigger percentage (80%) of LO educators have been teaching LO for five or more years now. This implies that the LO subject in TVET Colleges is now dominated by experienced educators. Participants (LO educators) were drawn from (3) different TVET Colleges with a total of (10) different campuses in North West province in South Africa. Although most LO educators specialised in LO life skills or Integrated Computer Technology (ICT), as shown in table 4.1, some were drawn from various fields such as English, Accounting and Financial Computing, and Fashion Designing and Technology to teach LO.

4.3.1.2 Students' Profile

Many students who took part in the study originated from the surrounding indigenous communities governed by various tribal authorities. A total of number of one hundred and twenty students participated and gave their views on whether they do enjoy or do not enjoy LO; as well the reasons to explain their response. Students were also asked about the dominant teaching methods applied by educators in LO education. National Certificate Vocational (NCV) level 4 (final year students) students were recruited to take part in the study through a *purposive sampling* strategy. This strategy involved selecting only experienced and senior students doing LO subject and in their final year (Level 4). The main reason for this was that these students were more conversant with the issues in LO education since they had been attending the subject from level two. In that regard, they contributed meaningful and rich data necessary for the study. All LO level 4 students were invited to take part in the study; and only those who accepted and filled in the consent forms were recruited. Both male and female students, black, white and coloured formed part of the participants, even though boys, white and coloured students were

significantly few. Students' age groups ranged from 20 to 38 years old, and the average age was 26 years old; therefore, they did not need parents' consent and clearance to participate. During the study, students were grouped into **10** focus groups; with each group consisting of **12** members respectively.

4.3.2 Data Sets Used

There were two sets of data collected namely: (i) *primary data* which was the data collected from participants through interviews and focus group interviews, and (ii) secondary data which was the data gathered through observations and policy document analysis processes.

4.3.2.1 Primary Data

In-depth face to face interviews with LO educators were conducted to collect the first primary data set from participants by using interview guides (see appendix one). It is important to note that participants (educators and students) were purposively chosen. For educators, the criteria used was to choose **all** LO educators either teaching life skills or Integrated Computer Technology (ICT) within the three different colleges in North West Province. For students, only those attending LO as subject and doing their final year (level 4 students) were invited; and only those who accepted and filled in consent forms became part of the participants. Only participants with the richest sources of data (LO educators and LO level 4 students) were chosen; however, they were not coerced to participate and were assured of their right to protection from any harm as well as to withdraw at any given time. All participants were asked to sign an invitation and consent letter (see appendix five and six) as evidence of agreement. The second set of primary data was gathered from students through focus group interviews. The *indigenous concentric strategy* of forming a talking circle during focus group oral discussions was used. To increase active involvement from all participants in the study, an indigenous talking stick strategy was also used. It works as follows: a stick is brought in and is announced to be a sacred stick which must be touched and passed by each participant. As the participant touches the stick they have to say something in relation to the question.

4.3.2.2 Secondary Data

Two categories of secondary data included the lesson observation and the document analysis process.

(a) Lesson observation

LO lesson observations were conducted using lesson observation forms designed by the researcher (see appendix eleven), even though the ideas were adapted from the validated Research Teaching Observation Protocol (RTOP) instrument (Stem learning and research centre, 2017). The observations focused on seven teaching strategies and themes namely observation on year planning, daily planning, updated teaching portfolios, classroom situation (student-centred environment), instruction, facilitating community development and monitoring and evaluation done by educators. Various categories were examined on each theme and the following table provides details of the observation criteria followed.

Table 4. 2: Themes and categories for lesson observations

No.	Theme Observed	Categories (Sub-themes) Observed
1.	<i>Year Planning</i>	<ul style="list-style-type: none"> • Subject and Learning Outcomes • Indigenous resources planning • Indigenous methods planning • Evaluation and standards • Remedial planning
2.	<i>Daily Planning</i>	<ul style="list-style-type: none"> • Topic and objectives • Resources: Indigenous resources planned • Methods: indigenous teaching practices • Evaluation process
3.	<i>Updated teaching files/portfolios</i>	<ul style="list-style-type: none"> • Availability of teaching files • Lecturer's file-updated • Student's file-updated
4.	<i>Classroom: student-centred environment</i>	<ul style="list-style-type: none"> • Neatness • Wall space-teaching information • Floor space-ease of movement

		<ul style="list-style-type: none"> • Ventilation • Sitting arrangements
5.	<i>Instruction</i>	<ul style="list-style-type: none"> • Attendance • Teaching resources • Subject matter and preparation • Lecturer student relationship • Instructional strategy • Indigenous knowledge • Teaching style
6.	<i>Facilitating community development</i>	<ul style="list-style-type: none"> • Trustful, caring and kindness • Command and instructions • Grouping and sharing • Sensitivity towards the disabled • Value and respect
7.	<i>Monitoring and evaluation</i>	<ul style="list-style-type: none"> • Marked assignments and tests • Assessment schedule • Rubrics, scales and standards • Cognitive development schedule

Source: Own table

(b) Policy documents

The following twelve teaching policies and guidelines which currently inform the LO education as well as the teaching strategies used by LO educators in TVET Colleges in South Africa were gathered. Table 4.3 presents the list of documents used in this study.

Table 4. 3: List of LO teaching policies

	DOCUMENT	AUTHORITY	YEAR PUBLISHED
1.	<i>National Education Policy Act</i>	<i>RSA-Education Labour Relations Council</i>	1996
2.	<i>South African Schools Act</i>	<i>RSA- Education Labour Relations Council</i>	1996
3.	<i>Further Education and Training Act</i>	<i>RSA- Education Labour Relations Council</i>	1998
4.	<i>National Curriculum Statement (Life Orientation)</i>	<i>Department of Education</i>	2003

5.	<i>National Policy on the conduct, administration and management of the assessment of the National Certificate (Vocational)</i>	<i>RSA-Department of Higher Education and Training</i>	2007
6.	<i>Guidelines relating to planning for public school infrastructure</i>	<i>RSA-Department of Higher Education and Training</i>	2012
7.	<i>Internal continuous assessment guidelines for the NC(V) qualifications in TVET Colleges</i>	<i>RSA-Department of Higher Education and Training</i>	2017
8.	<i>Life Orientation L2 Subject guidelines for NC(V)</i>	<i>RSA-Department of Higher Education and Training</i>	2013
9.	<i>Life Orientation L3 Subject guidelines for NC(V)</i>	<i>RSA-Department of Higher Education and Training</i>	2014
10.	<i>Life Orientation L4 Subject guidelines for NC(V)</i>	<i>RSA-Department of Higher Education and Training</i>	2015
11.	<i>Life Orientation L4 Assessment guidelines for NC(V)</i>	<i>RSA-Department of Higher Education and Training</i>	2015
12.	<i>Indigenous Knowledge Systems Policy-Republic of South Africa</i>	<i>World International Property Organisations-Geneva</i>	2006

Source: Own table

In South Africa, three major curriculum revisions have been done since 1994 (Khupe, 2014). The first post-apartheid curriculum was introduced in 1997, and was named *Curriculum 2005*. Revisions to Curriculum 2005 produced the *Revised National Curriculum Statements* (RNCS) for Grades 0 - 9 and *National Curriculum Statements* (NCS) for Grades 10 – 12 and FET phase which were implemented in 2000. The latest curriculum revision conceived the *Curriculum and Assessment Policy Statements* (CAPS), which was then introduced in 2011. Quite significantly, the theme: *Integrating Indigenous Knowledge Systems* (IKS) continuously appeared among other themes as the underpinning principle in education within the three post-apartheid

curriculum documents. This theme then became the centre of focus during the analysis process. Emerging themes from LO education policies, interviews and observations were analysed and interpreted using the interpretation map drawn in figure 4.1.

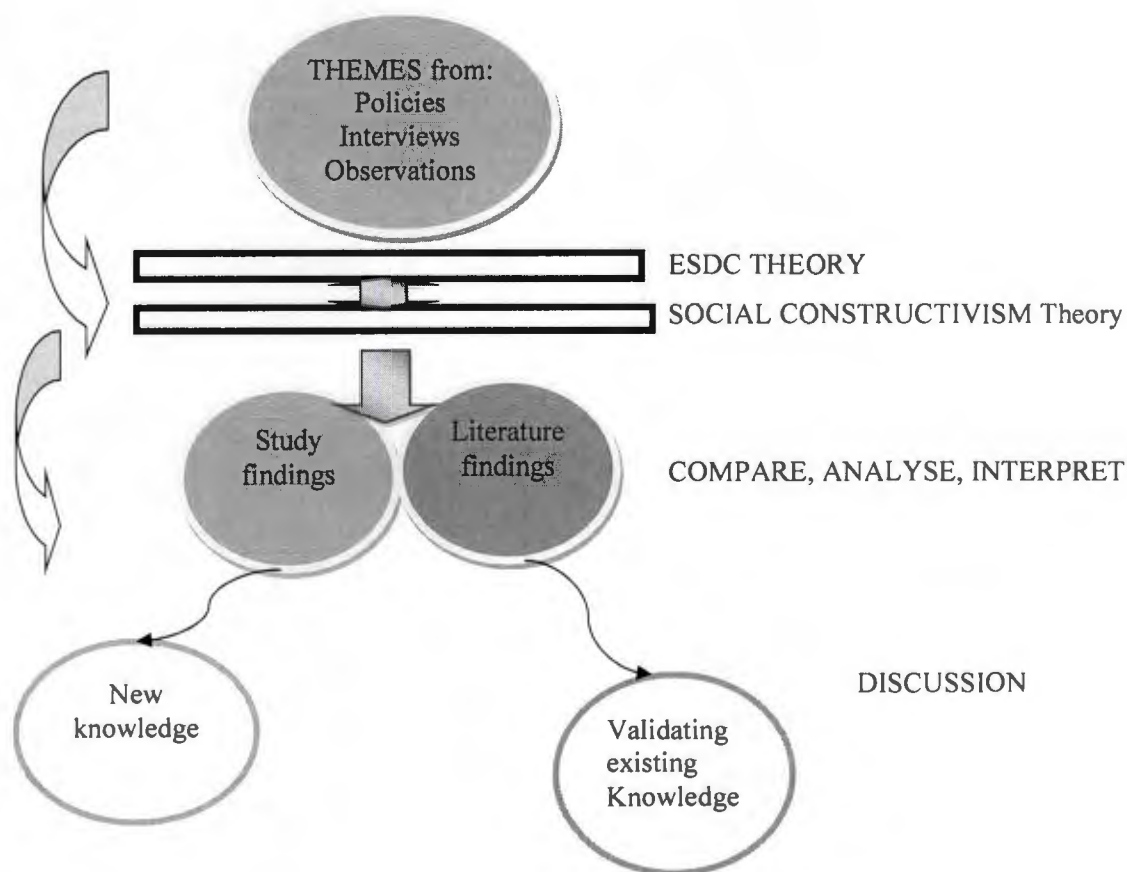


Figure 4. 1: Interpretation framework

Source: Own design

As shown in figure 4.1 above, all emerging themes from policies, interviews and observations were filtered against identified theoretical constructs. Five identified constructs drawn from literature include (1) *principles*; (2) *teaching approaches*; (3) *epistemologies*; (4) *pedagogies*;

and (5) *resources*. Theoretical descriptions of these constructs were used as filters in interpreting and making meaning of the findings. The study findings were also compared to literature findings for the purpose of either identifying new knowledge or validating existing knowledge.

4.4 FINDINGS

Research findings from policy documents as well as empirical investigations are reported on. All study findings were presented in relation to the theoretical constructs observed. The identified conceptual-theoretical constructs (*principles, teaching approaches, epistemologies, pedagogies, and resources*) were used as the sub topics and themes during presentations and discussions.

4.4.1 Findings from Policy Documents

The following table (table 4.4) provides pedagogical themes and findings emerging from education policy documents and guidelines informing LO education in South Africa.

Table 4. 4: *Emerging findings from LO policies*

Theme	Findings
i.	<i>Principles</i>
	<ul style="list-style-type: none"> • <i>LO education is underpinned by the principles of “outcomes-based education philosophy, valuing indigenous knowledge systems, social transformation, social justice-high knowledge and high skills, integration and applied competence, progression, access-articulation and portability, human rights, inclusivity, environmental and social justice, and credibility, quality and efficiency.”</i>
ii.	<i>Teaching Approaches</i>
	<ul style="list-style-type: none"> • <i>LO education should be a two-way process; which involves the inputs and commitments of both the student and the educator.</i> • <i>LO educators should use student-centred and activity-based approaches, which are the applied competence allowing students to</i>

		<p><i>master the teaching concepts.</i></p> <ul style="list-style-type: none"> • <i>Students must commit themselves to do their work during classes, complete assigned homework and catch up on work missed because of absence.</i>
iii.	Epistemology	<ul style="list-style-type: none"> • <i>Epistemologies should recognise, affirm and promote the inclusion of indigenous knowledge in education, teaching and learning processes.</i> • <i>Wide diversity of knowledge systems through which people make sense of and attach meaning to the world in which they live should be part of the education epistemologies</i> • <i>Teaching and learning should aim to develop a high level of knowledge and skills in students.</i>
iv.	Pedagogies	<ul style="list-style-type: none"> • <i>LO pedagogy is systematic and programmed.</i> • <i>The pedagogy or teaching process involves five major tasks which include teaching administration, planning for teaching, teaching and learning delivery, teaching assessments and student guidance and support.</i>
v.	Resources	<ul style="list-style-type: none"> • <i>Students have a right to clean and safe environment, security of property, well cared school facilities, school furniture and equipment, clean toilet facilities, water and green environment, absence of harassment in attending classes and writing tests and examinations, all create an atmosphere that is conducive for education and training.</i>

Source: Own diagram

As seen in table 4.4, it is evident that teaching strategies in South Africa are informed by five different domains namely: principles, teaching approaches, epistemologies, pedagogy and resources. All nine LO education principles from policy documents (as seen in table 4.4) are aligned with the social constructivism ideologies. Policy findings suggest that LO pedagogical

approaches should utilise student-centred and activity-based strategies which from the social constructivist view point oppose the input-output banking approach and model.

It is also stated in the policy documents that *LO pedagogical epistemologies* should *value and use indigenous knowledge* as well as other diversified knowledge for the development of high level knowledge among students. *LO pedagogy*, as indicated in table 4.4, should follow five systematic processes namely; *teaching administration, planning for teaching, teaching and learning delivery, teaching assessments and student guidance and support*. It seems the LO policy documents in South Africa are well designed and most of the content in it is aligned to the social constructivism agenda. The gaps identified in policy documents, are (i) lack of detail on indigenous *pedagogical resources*, and (ii) unavailability of suggestions for specific teaching strategies for LO educators to use, even though it mentions that there is need for student engagement and educators should use student-centred and activity-based pedagogies. It is evident that the policy documents are confined more on qualified educators as the only teaching human resource; and they seem to be silent about the indigenous inputs of IK holders. Equipped with this evidence and information on what the LO education and IK education policies advocate, it was deemed necessary to do an empirical investigation on the implementation of policy requirements being done by LO educators. To better understand this phenomenon, lesson observations and interviews with LO educators as well as focus group interviews with LO students were done and the following findings were obtained.

4.4.2 Findings from LO Lesson Observations on LO educators

As indicated before, seven major themes obtained from prior literature findings and coding namely year planning, daily planning, updated teaching files, student-centred environment, instruction, teaching relationships, and monitoring and evaluation were assessed during lesson observations. Each participant, as shown in table 4.5 was assessed using the afore-mentioned seven themes. However, on each theme, there were varied numbers of sub-themes as shown in table 4.2 as well as in table 4.5 (column three). The total score for each participant was depended upon satisfying all the sub-themes; for instance, lecturer 1, in the table (table 4.5) scored 0 meaning there was no year plan in the lecturer's PoA file. For the one who got three it means there was a year plan but only three elements out of five were satisfied. The following table (table 4.5) presents the findings obtained during lesson observations. Participants, themes,

number of sub-themes measured, and the score obtained per each participant are given in table 4.5.

Table 4. 5: Observation findings: Themes and Scores obtained

PARTICIPANT	THEMES	No. of Sub-Themes	SCORE						
			0	1	2	3	4	5	6
LECTURER 1	1. Year planning	5	X						
	2. Daily Planning	4			X				
	3. Updated teaching files	3	X						
	4. Student-centred environment	5					X		
	5. Instruction	6						X	
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4		X					
LECTURER 2	1. Year planning	5		X					
	2. Daily Planning	4			X				
	3. Updated teaching files	3	X						
	4. Student-centred environment	5				X			
	5. Instruction	6		X					
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4		X					
LECTURER 3	1. Year planning	5		X					
	2. Daily Planning	4	X						
	3. Updated teaching files	3	X						
	4. Student-centred environment	5	X						
	5. Instruction	6					X		
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4		X					
LECTURER 4	1. Year planning	5	X						
	2. Daily Planning	4	X						
	3. Updated teaching files	3		X					
	4. Student-centred environment	5		X					
	5. Instruction	6			X				
	6. Teaching relationships	6				X			
	7. Monitoring & evaluation	5		X					

LECTURER 5	1. Year planning	5		X					
	2. Daily Planning	4		X					
	3. Updated teaching files	3			X				
	4. Student-centred environment	5		X					
	5. Instruction	6			X				
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4			X				
LECTURER 6	1. Year planning	5			X				
	2. Daily Planning	4	X						
	3. Updated teaching files	3				X			
	4. Student-centred environment	5				X			
	5. Instruction	6		X					
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4			X				
LECTURER 7	1. Year planning	5		X					
	2. Daily Planning	4	X						
	3. Updated teaching files	3				X			
	4. Student-centred environment	5				X			
	5. Instruction	6				X			
	6. Teaching relationships	6							X
	7. Monitoring & evaluation	4				X			

Source: Drawn by the researcher

As shown in table 4.5, (7) participants were selected for lesson observations; another seven (7) for interview sessions; and (14) participants took part in group discussions. Pseudonyms (Lecturer 1, 2, or 3) were used to protect the identities of participants. Seven major themes namely year planning, daily planning, updated teaching files, student-centred environment, instruction, teaching relationships and monitoring and evaluation were measured using different scales. Seven major themes which impact on effective teaching strategies were observed and these include: year planning, daily planning, updated teaching files, student-centred environment, instruction, teaching relationships, monitoring and evaluation. These themes were drawn from literature on effective teaching and learning as well as guidelines from the validated Research Teaching Observation Protocol (RTOP) instrument. The total number of sub-themes on each

category as seen in table 4.2 as well as the observation form (see appendix eleven) determined the scale and or score of each participant.

4.4.2.1 Theme one: Year planning

It was observed that (5) out of (7) educators compiled their year plans for LO; and only two (2) did not have year plans. This implies that (10) Portfolios of Assessments (POAs) and (10) Subject files were observed. One positive item noticed in the year plans was that the subject outcomes (SOs) and learning outcomes (LOs) planned were related to the SOs and LOs stated in the LO subject guidelines. However, four sub-themes namely resources, methods, evaluation, and remedial action yielded unsatisfactory findings. There were no indigenous resources or subjects planned by all educators observed. The teaching methods followed, for instance indigenous or western teaching, lecturer or student oriented methods were not stated in the plans. All observed educators did not specify the evaluating methods, standards or benchmarks to be achieved. More so, all educators did not mention the cognitive or remedial action to be done to needy students.

Findings from yearly lesson plan observations also showed that most LO educators do not state the pedagogical principles followed during their planning. In all (10) Portfolios of Assessments (PoA) and (10) Subject files for educators, there was no evidence found suggesting that educators at some point refer to social constructivism pedagogical philosophy, by using for instance group work, or active learning activities. They also did not mention that they value indigenous knowledge nor use integration of IK and western teaching strategies or knowledge. Such inconsistencies may lead to lack of knowledge and direction during pedagogical planning for one might not know the policy requirements and philosophies guiding the intended pedagogical process.

4.4.2.2 Theme two: Daily lesson planning

A total of (6) educators out of (7) did not do their daily lesson planning. This implies that (86%) of the educators observed did not prepare daily lesson plans during LO teaching. Only one lecturer (L5) was found in possession of daily lesson plans. One positive item observed in the daily lesson plan seen was that the topic and objectives of the lesson were clearly stated.

However, no indigenous teaching methods, student-centred methods nor evaluation criteria were highlighted in the daily lesson plans.

4.4.2.3 Theme three: Teaching files/portfolios

Teaching files were observed in order to assess the extent to which educators do their teaching administration processes. Three educators did not have teaching files (Portfolio of Assessments (PoAs) and Subject files; while only one lecturer had all the files required. Two educators (L2 and L5) had only a PoA file and their subject files were missing. One lecturer (L3) stated that:

“Sorry meneaar, I haven’t finished preparing my files....but I promise in two days time all files will be eady and you can come back and see them” – L3

Thus, only three files were then observed to check if they were up to date. Out of the three files, only one was up to date. The other files did not have a subject guideline, assessment guideline, subject assessment plan, record sheet, or tests and memorandum.

4.4.2.4 Theme four: Student-centred environment

Most educators observed, obtained a low score on student-centred classroom environment since most wall spaces and the arrangement of tables in many LO classes did not promote student-centred teaching and learning. Most educators did not paste any subject related teaching material such as learning charts on the walls or anywhere in class and the chairs were not properly arranged for ease of movement. It was found that the seating arrangement in many LO classes (figure 4.2) did not allow for collaborative learning or grouping for the *formation* of indigenous concentric circles during teaching and learning. The following picture taken by the researcher at one college shows the seating arrangement that is common in most LO classes in TVET Colleges in the North West Province of South Africa.



Figure 4. 2: Picture taken in Class A at College C

Source: Picture taken in one LO classroom

Nonetheless, there were also positive observations made. Many LO classroom had wide floor spaces which allowed ease of movement, movable desks and chairs, and classrooms were ventilated and lighted. However, a few classes were messed up with papers, used tissue papers, bottles and empty packets of snacks were seen lying all over the floors and desks. Overall, many LO classes observed were tidy and clean.

4.4.2.5 Theme five: Instruction

Only 43% of educators scored higher on the instruction or teaching delivery category. At least there was a positive realisation that few participants served well on punctuality, attendance, evidence of preparation, and lecturer-student relationship. These educators and their students were punctual, and students marked attendance registers, had textbooks, and were participating by raising their hands during LO lessons. What seemed missing was relating the epistemologies and pedagogies to the indigenous world of the students in order to motivate them more.

Apart from the few, most participants were lagging in instruction and it was observed that they relied more on teacher-centred teaching strategies such as *reading text-books* during lessons and with this, students were either less participative, had no time to talk or were disengaged. These LO educators showed no signs of confidence and seemed less prepared for the lessons. Their instructions were *disconnected to students' indigenous knowledge* and educators failed to link concepts to real life community-related situations. With the exception of few lessons, many LO lessons lacked the live indigenous holistic styles that arouse the body, mind and the spirit of students (Makhubele & Qalinga, 2008). No thought provoking activities, group discussions or story telling or questioning techniques were utilised by educators for critical assessment of the knowledge and depth of students.

4.4.2.6 Theme six: Teaching relationships

This category had the highest scores with 5 out of 7 educators scoring 6 out of 6) The intention of this theme was to assess the trustfulness, command, management traits, sharing, sensitivity, and ethical considerations among LO educators. Findings in this category revealed positive results and the majority of educators showed that they are trustful and caring; and kind to students. Based on the attentiveness and cooperation of students, it was observed that many LO educators are authoritative in giving command and instructions. Although many educators faltered on grouping students, some LO educators appear to be sensitive, and promote and value respect from students. However, many lessons were somehow teacher-dominated and it seems students were scared to criticise or challenge some educators.

No evidence was found among educators' and students' suggesting that LO educators involve the indigenous community during pedagogy. Cognitive assignments set did not provoke the indigenous students' experience and developments. In most classes many LO educators lacked the initiative to group and share with students. However, many students showed respect for authority as well as value for one another. Implementation of findings in this category were then compared to policy-related findings (in table 4.6) for the purpose of identifying areas of weaknesses as well as to map the way forward.

4.4.2.7 Theme seven: Monitoring and evaluation

Evaluation and monitoring theme was designed to assess educators' competence in assessing students, informing students about assessments, standardization of assessments, and remedial actions activities by LO educators. Findings measured on a scale of 1-4 as shown in table 4.5 provide negative results. Four educators out of seven scored 1 out of 4 meaning they are challenged with monitoring and evaluation of students' work and assignments. It was surprising to note that some educators do not mark students' assignments nor give students assessment schedules and plans. In most PoEs checked, there were few marked assignments and tests available in the files. This suggested that most LO educators were either still marking or that the students did not simply file their assessments. It was found difficult to compare the number of tests or assignments which should have been marked since there were no assessment schedules available in students' files. This also made it difficult to compare the rubrics, scales or standards used for assessing the LO assignments and tests. The unavailability of assessment schedules in students' files suggested that there was ineffective teaching administration among LO educators. Soon after the observations, educators were interviewed on teaching strategies and approaches used in order to verify and triangulate the observation findings obtained.

4.4.3 Findings from Interviews with LO Educators

LO educators were asked to state the teaching strategy or method they use during LO pedagogy. This question was designed to confirm or disconfirm the observation finding that LO educators dominated their teaching with teacher-centred strategies and methods. Two main themes namely teaching method and assessment emerged from the inquiry.

4.4.3.1 Theme one: Teaching Methods

Individual in-depth face to face interviews with LO educators yielded surprising and contradicting findings. When asked about their pedagogical strategies, many LO educators indicated that they use group work, research project (case studies), lecturing, and participatory and discussing with students.

- ***Group work***

27% of the educators who participated in the study indicated that they use group work during LO lessons. The following quotes were gathered from participants.

"I use individual task, group work, research and project" – L1

"I use individual task, group work, research and project"-L2

"I encourage my students to be in groups" – L7

"I use lecture method, group discussion and group work" - L12

- ***Research project-case study method***

Only 20% of the educators reported that they use research project particularly the case study methods. Participants explained that:

"I use individual task, group work, research and project" – L1

"Lecturing, case studies, PowerPoint presentation" – L3

"Case study-because it provides an opportunity to relate and apply what the learn in class to real life" – L14

- ***Lecture method***

Again 20% of educators confirmed that they use the lecture method which is more inclined to teacher-centred method. The following evidence from educators was gathered.

"I use lecturing, case studies, PowerPoint presentation" – L3

"Lecture and student involvement because when you involve them they turn to see things in a good way" – L11

"Lecture method, group discussion and group work" – L12

- ***Participatory and discussion method***

About 40% of the educators argued that they use participatory teaching methods: which embrace lesson discussions, debates, role playing, sharing and engagement. Responses from educators were as follow:

"I use discussion method-say I ask students to open books and look at the topic. I then tell them to discuss about the thing they know. I then focus only on the percentage say 5% which they do not know or understand" – L4

"I use participative method such as asking questions and debating about it" – L5

"I use both discussion and participative methods" – L6

"Role players-because I want everyone to participate in class" – L9

"Introduce the topic, allow the students to say everything they know/understand about the topic, let them share/discuss. At the end I engage them advising them how to do the right thing" – L10

"Lecture and student involvement because when you involve them they turn to see things in a good way" – L11

4.4.3.2 Theme two: Assessments

Instead of specifying the teaching method followed, only 13% of the educators' response was more inclined to teaching and assessment methods. The following responses were realised in this respect.

"I use question and answers since it helps students to say what they know" – L8

"I use individual task, group work, research and project" – L1

Indeed, these methods mentioned by educators promote student-centred pedagogical strategies. However, the findings contradicted with the findings obtained from observations, portfolios as well as from students' responses below. Drawing conclusions from the three sets of findings, it can be reasoned that it seems many LO educators are aware of various student-centred teaching strategies, but do not always apply them. It seems again that they simply do not use them or else they do not know how to apply these pedagogical strategies. Evidence to this effect is reflected in the following response from one lecturer who said:

"I use my text books. There are times when I use group discussions especially when I want to finish my syllabus, so I give students topics to read and discuss in class-this helps me to cover topics very fast" – L15

The application of group discussion method as seen in the above synopsis is wrong. Telling students to read text-books and present and discuss for the purpose of finishing the syllabus is wrongly applying the method. This could be an area for further future investigations; and auxiliary studies could assess the extent to which LO educators understand the application of student-centred teaching strategies. Maybe, this also shows the weaknesses with regard to monitoring of the teaching and learning processes.

4.4.4 Findings from Focus Group Interviews with LO students

Two questions relating to teaching strategies were asked to students. One of the questions stated: kindly describe your LO lesson in general, say, do you enjoy your lessons? If YES give reasons; and if NO, explain why you do not enjoy them. This question was intended to inquire about the satisfaction, enjoyment and experience of LO education by LO students in TVET Colleges in North West province and the reasons behind enjoying or not enjoying LO. The following themes and findings were obtained.

4.4.4.1 Theme One: Students enjoying LO

Many students responded positively that they always enjoy their LO lessons. Three main reasons stated by students were that LO education adds value to their life, it is composed of meaningful pedagogical content, it engages them and it is easy to understand.

- ***Reason 1: Add value to life***

Students stated that through LO they have learnt a variety of knowledge, skills and values ranging from ranging from time management, boosting their self confidence, self-esteem, being motivated, to having increased knowledge on coping with life. The following statements from students describe their enjoyment about LO education and how the subject has increased value in their life.

"I have learnt how to manage my time. I am a lazy person so LO taught me to be active and my life has changed and I am now coping with time management" - FG1

"It teaches us on how to make right decision in life" – FG4

"Yes we enjoy it because it boosts our self esteem" – FG5

"It helps us to avoid unprotected sex" – FG5

"It motivates us" – FG6

"It encourages us to come to school, to read our books and to be serious" – FG6

"And career opportunities" – FG6

- ***Reason 2: Meaningful pedagogical content***

Students alluded that LO education provides meaningful and real pedagogical content. The link between LO education and the real life experienced by students usually allow them to make easy cognitive connections and understanding. One student summarised this by saying that:

“I do enjoy our lessons because we talk about life in general so there is nothing difficult in LO education” – FG1

- ***Reason 3: Engages students***

LO students explained that they did enjoy LO lessons because LO education engages them. It seems students want to be engaged, to participate in the learning, to be free, to talk at will, and to discuss in class. These sentiments emanated from the students’ views and they expressed that:

“The lessons are good because we are free to talk” – FG10

“Our lecturer is very accommodating, she allows us to participate and make sure we understand” – FG1

“She teaches us how to be confident, how to behave ourselves or it helps us to be free and talk about something secret” – FG2

“In class we discuss more things we do not know” – FG4

4.4.4.2 Theme two: Students not enjoying LO

Interestingly, it was found that a group of students stated that they did not enjoy the LO lessons at all. The main reasons for their dissatisfaction were linked to the educator and the pedagogy of educators.

- ***Reason 1: Educators' absenteeism***

Students blamed some educators for not attending their LO lessons. This frustrates the students who in turn reciprocates by not also attending the LO lessons. The following two students blamed educators by saying that:

"It depends on educators when they don't attend we also don't attend" – FG3

"It depends on the teacher, because sometimes honestly nah I don't enjoy it" – FG7

This clearly shows that educators at times are to blame for the dissatisfaction of some LO students about the lessons and subject in general.

- ***Reason 2: Educators' pedagogy***

Students' dissatisfaction in LO lessons was blamed on some educators' teaching or pedagogical approaches. Students regarded the educators' teaching approaches such as reading textbooks as boring. This compelled them to clearly state that they really did not enjoy the lessons at all. Evidence such as the following describes the students' dissatisfaction with some educators' pedagogy.

"It's boring because our lecturer is always reading the book for us" – FG8

"Eish it's boring because we can read for ourselves" - FG9

4.4.5 Students' Responses on Teaching Methods

The second question was asked to determine the teaching methods which are normally used by LO educators. The researcher inquired whether educators allow students to participate and share ideas in class. The investigation was also hinged on inquiring about the link between LO lessons/school and the indigenous knowledge/community. Thus, the following themes and findings were obtained.

4.4.5.1 Theme one: Teaching method

It was surprising to note that most students indicated that the main teaching method applied by educators is the reading or telling method. Almost all students stated that their educators read text books or lecture to them. Only one participant mentioned that they do participate in groups. The following sentiments regarding the teaching methods used were raised by students.

"Our lecturer read the book for us" – FG1

"They read books, talking and making examples" – FG3

"They read the book and ask questions" – FG4

"She tells us to read and ask questions" – FG9

"We sit and she start telling us about things in the book"- FG10

"We answer individual, we participate even in groups and present" – FG5

The above synopsis and findings from students confirm that most LO educators use teacher-centred teaching approaches. Reading text books or just lecturing to students are behaviourist modes of teaching (Wilson, 2014), and researchers acknowledge that it rarely benefit students. This could be the reason why some students mention that the teaching is *slow* or boring. Because of this, some students decided to bunk LO lessons.

4.4.5.2 Theme two: Participation

The type of participation of students in class was asked to verify the teaching methods indicated above. The word "method" was replaced by participation in order to provoke students to remember many other teaching methods used such as grouping, class discussion, including indigenous methods such as drama, music, dance or activity-based methods. This question did not yield much response. One student indicated that they did participate and what they learn mirrors what is outside the class or school premises.

"Educators give us time to participate and what we learn is what we see outside"
– FG2

There are two assumptions to this response; (i) its either the student meant that they do not participate in class and the only time they feel free is while outside the class, or (ii) the student intended to say that they do participate in class, even though the student failed to clarify the how part of it. Adding to this confusion, another student mentioned that she does not know since she doesn't attend LO lessons.

"I do not know because I do not attend LO lessons" – FG4

4.4.5.3 Theme three: community-school relationship

In the community-school relationship inquiry, participation and school-community relationship were mentioned. One student mentioned that they feel free to participate in class than in communities.

We are free to participate in class and not in our communities – FG1

This implies that there is no link between the class pedagogy and the indigenous community. It seems the LO education operates in unison and is completely detached from the indigenous knowledge, practices, methods and resources.

4.4.5.4 Theme four: Educators' absenteeism

It was surprising to note that some LO educators do not attend LO lessons as mentioned by some LO students. Such students could not give detail on the teaching methods, participatory methods used and the relationship between what they learn and the indigenous community. Evidence to this effect was given through the following quote from one student.

"Teaching is slow because educators sometimes they are not there" – FG6

4.4.5.5 Theme five: Lack of content knowledge

It was also shocking to realise that some educators lacked the pedagogical content knowledge. What was more surprising was that the educators themselves, as clarified by students, confirmed that they did lack some LO content knowledge.

“Some LO educators say they do not know the content” – FG7

4.4.5.6 Theme six: Teaching and learning files

With regard to students' Portfolios of Evidences (PoEs), it was identified that many students have prepared their files and they are in the custody of educators for safe keeping. However, the files were still not up to date since some information such as student's *identity copy*, evidence of *marked assignments* and *assessment schedules* were missing. In some files, the records of results were not updated.

4.5 SUMMARY OF FINDINGS OBTAINED

The following table (table 4.6) gives a consolidated and comparative summary of the policy-related findings and implementation findings obtained under the objective: teaching strategies for LO educators in TVET Colleges in North West province. A brief paragraph on lessons learnt based on the findings is also elucidated.

Table 4. 6: Summary of findings on teaching strategies

Theme	Policy-related Findings	Implementation findings
LO Principles	<ul style="list-style-type: none">• <i>LO Education should be outcomes-based; value indigenous knowledge systems; aiming at transforming society; integration and applied; and be credible and efficient</i>	<ul style="list-style-type: none">• <i>LO educators do not specify the pedagogical principles and philosophies followed in teaching</i>• <i>Valuing of indigenous knowledge is not specified by educators; hence there is no integration teaching done.</i>• <i>No community-related teaching and learning</i>

		<i>tasks aimed at transforming indigenous communities were set by educators</i>
LO Teaching approaches	<ul style="list-style-type: none"> • <i>LO education should be student-centred and activity-based; allow the interaction among students to master the teaching concepts; and be involved in their studies.</i> 	<ul style="list-style-type: none"> • <i>LO educators dominate their teaching with teacher-centred teaching strategies; use behaviourist modes of teaching and do not use varied teaching strategies</i>
LO Epistemologies	<ul style="list-style-type: none"> • <i>LO epistemologies should promote the inclusion of indigenous knowledge in education; be composed of diversified knowledge; and aimed to develop a high level of knowledge and skills in students.</i> 	<ul style="list-style-type: none"> • <i>LO educators do not use diversified knowledge such as indigenous knowledge in teaching</i> • <i>Although educators focus much on theoretical skills knowledge inscribed in text-books, students are not exposed to practical and real-life skills training.</i>
LO Pedagogies	<ul style="list-style-type: none"> • <i>LO pedagogy should follow a systematic approach which includes teaching administration, planning for teaching, teaching and learning delivery, teaching assessments and student guidance and support.</i> 	<ul style="list-style-type: none"> • <i>LO educators are challenged with teaching administration; and the planning for teaching do not indicate the epistemologies, pedagogies and resources used</i>
LO Resources	<ul style="list-style-type: none"> • <i>LO resources should be safe and secure environments, and should be clean and cared for; and the atmosphere should be conducive to education and training.</i> 	<ul style="list-style-type: none"> • <i>Classroom arrangements for LO education make it impossible to group students</i> • <i>LO educators do not use indigenous resources at all</i>

Source: Drawn by the researcher

4.5.1 Lessons Learnt

The summary presented in table 4.6 shows a wide gap between policy requirements and the actual implementation or practice. In all five categories examined above, many LO educators flawed to execute the policy requirements. It seems many LO educators seem to be unaware of

the philosophy and principles guiding LO education. Most teaching approaches used by many LO educators are Euro-centred and teacher-centred. They rely much on the western banking approach to education and this does not benefit the students. No varied epistemologies are used by educators; and this contributes to ineffective pedagogy among LO educators. Again, educators do not capitalize on the available indigenous knowledge resources and this makes it difficult to get to terms with most indigenous students who seem not to cope with the western pedagogical discourses. This entails that there are inconsistencies between the LO education policies and implementation processes. The two do not speak to each other. Indeed, the implementation of LO education by LO educators in TVET Colleges in North West Province is too teacher-dominated, and lacks diversified inputs from the indigenous knowledge domains and subjects. With this, LO education is likely not to transform the indigenous communities; hence, it needs improvement in areas concerned with teaching and learning delivery. LO educators are challenged with teaching administration, planning for teaching and learning delivery, evaluating teaching assessments, and student guidance and support. With specific regard to teaching resources, LO educators in TVET Colleges in North West Province in South Africa do not use available indigenous resources such as local communities or IK holders. Above all, the teaching and learning environment or classrooms do not promote social constructivist student-centred teaching strategies, for instance, grouping of students. Efforts to eradicate these might lead to effective pedagogy in LO education.

4.6 DISCUSSION OF FINDINGS

What emerged from this study are the answers to the first main objective and question which was posed to determine the teaching strategies being used by LO educators in TVET Colleges in North West Province. This question was set to analyse the LO teaching policies in order to *outline* the teaching strategies set as well as to assess the implementation of these policy outcomes by LO educators. The final objective therefore, was to compare and evaluate the relationship between policy and implementation findings.

With specific regard to policy-related findings, it was found that LO education policies and guidelines (DHET, 2017) in South Africa promote Social Constructivist pedagogy, particularly student-centred teaching strategies. These affirm the Social Constructivists theory which argue that students should not be treated as empty vessels, but should participate and construct their

own knowledge, within their own cultural world; and that knowledge should be useful to their own lives (Jacobs, 2012; Vygotsky, 1978). This view is also supported by the sub-theory of Social Constructivism namely the Embodied Situated Distribution Cognition (ESDC) theory. Again, the ESDC theory advocates for the use of student-centred teaching strategies (Barab & Plucker, 2002) such as using drama, poems, imitation; music, dance or oral dialogues and discussions.

Teaching principles, approaches, epistemologies, pedagogies and resources mentioned in the South African LO education policies support the Social Constructivism philosophical principles. It is stated in the LO policies that educators should value indigenous knowledge, use student-centred approaches, plan and assess students, and ensure that the classroom environment is conducive to teaching and learning. These findings confirm Moore's (2009) findings, that effective curriculum guidelines in the 21st century should use social constructivist philosophical ideologies. Therefore, policy-related findings reveal that LO policies and guidelines in South Africa are mostly well designed and sound, even though the implementation of these policies does not speak to the policy requirements.

It is important to note that teaching strategies are an embodiment of teaching (principles), knowledge being parted (epistemologies), teaching delivery (pedagogies), teaching environment, and teaching resources (Jacobs, 2012). Implementation findings obtained from lesson observations, interviews and focus group investigations contradict the policy requirements. While the policies advocate for the valuing of indigenous knowledge in teaching, it was observed that LO educators do not understand, value or include IK in teaching and planning. Indigenous teaching methods such as collaborative teaching, using drama, dance, music, poetry, proverbs, imitation or real-life experiences were not planned. In the year planning documents, it was also observed that the assessment of students is only dominated by tests and theoretical assignments and no skills training or practical and real-life student-centred tasks were planned or used. The knowledge of teaching is void of diversified knowledge for instance the value of indigenous knowledge or cultural knowledge. This, in the view of social constructivists (Dubinsky, Roerig & Varma, 2013), impact on students' cognition since it disconnects students from their sensory and situated indigenous environment, resources and resource persons.

In the present study, it was observed that Educators' pedagogy is dominated with teacher-centred teaching delivery which in the view of Barab and Plucker (2002) disengages students. This finding is against the ESDC theory which states that embodied students' cognition is enabled by sensory and motor (participatory) actions (Maxwell & Chahine, 2013). Teacher-centred instruction such as lecturing concentrates on pouring knowledge to students and it is believed to be ineffective from the social constructivist point of view (Moore, 2009). No diversified knowledge such as indigenous knowledge values, morals and culture, religion or survival techniques (Omolewa, 2007) were seen in the plans of participants; and this again clashes not only with the policy requirement, but with the ESDC theory and the Social Constructivist ideologies.

Although it was found that most classrooms were cleaned, secured and well furnished in support of Tollefson and Osborn(2008) classroom environment suggestions, the arrangement of chairs did not promote student-centred method of grouping students (DHET, 2015). Indigenous resources and resource persons such as indigenous knowledge holders are not utilised in teaching and learning. As noted by Makhubele and Qalinga (2009), this leads to ineffective pedagogy. Therefore, the implementation of LO education by LO educators is not always experienced by students as effective and do not only contradict with the policy requirements (DHET, 2012), but refutes the ESDC as well as the Social Constructivist theoretical paradigms (Moore, 2009).

Relating the findings obtained to existing literature, the following brief descriptions should be noted herein. First, the present study confirms Govender's (2015) findings that most educators in South Africa rely more on the one-way lecture method which makes many students to feel passive. The findings were also similar to Magashoa and Maila's (2013) findings that educators in Gauteng Department of Education, particularly in North District utilise teacher-centred teaching methods. Second, findings presented in this chapter provide new evidence that there is a gap between policy and practice in TVET Colleges in North West Province, South Africa; and also respond to previous queries, debates and questions concerned with the success and ineffective implementation of LO policies (Botha, 2010; Chisholm, 2000; Killen, 1996; Jansen & Christie, 1999). Three, the qualitative and subjective empirical findings obtained in this study differ from old-conventional wisdom where previous researchers assessed the effectiveness of teaching strategies using the input and output process and methodology (Botha, 2010).

Findings at hand were based on a qualitative and triangulated empirical investigation methodology where subjects gave their views and understanding of the problem questions. A point to note is that the present study was only limited to TVET Colleges in North West Province in South Africa. As such, its findings cannot be generalised to the whole South African set up. However, the empirical findings obtained in the present study provide both opportunities and possibilities for LO educators and education planners. It is acknowledged that these findings provide empirical evidence and information about the need to effectively interpret the LO policy documents during pedagogy.

4.7 CHAPTER CONCLUSION

This chapter responded to the first objective which was set to determine the teaching strategies being used by LO educators in TVET Colleges in North West province. The chapter initiated with a description of the gap related to teaching strategies in LO education. The philosophies underpinning teaching strategies were discussed and elaborated. This was followed by a brief discussion of the method followed in gathering the research data as well as the description on the analysis structure and format. Demographic characteristics indicating the profiles of educators and students, particularly those who participated in the study were outlined. Research findings from policy documents empirical investigations were given and explained. This was followed by a discussion the findings in relation to theory. With this, two major conclusions were noted that: (i) LO education policies are well designed and do promote the inclusion of social and cultural agents inscribed in the Social Constructivism theory; (ii) LO educators operate at tangent with the LO policies and dominate their teaching with western teacher-centred teaching strategies. This finding does not fully put us in picture about the integration of IK as specified also in the LO policy documents. For more clarity and understanding, the coming chapter presents the findings obtained on the extent to which LO educators in TVET Colleges in the North West Province of South Africa integrate IK in teaching.

Looking into the future, the possibility is to use the findings given to change the status quo by allowing policy planners and education managers to re-orientate or train LO educators about the expected planning for teaching, pedagogies, and resources as prescribed in the policy documents. In as much as the teaching framework was designed in chapter seven to assist LO educators,

more student-centred teaching guidelines and frameworks should be formulated to support the LO implementation process. Future intervention investigations should train LO educators on student-centred strategies, implement and investigate or reflect on the intervention done. More so, there is need to monitor the implementation of policy documents and more evaluation reports should be compiled.

CHAPTER FIVE

THE EXTENT TO WHICH LIFE ORIENTATION EDUCATORS INTEGRATE INDIGENOUS KNOWLEDGE

5.1 INTRODUCTION

In South Africa, numerous education policies have been amended or revised to suit the current IK integration motive. For instance, the revised National Curriculum Statement (NCS) policy (DoE, 2002) and the NCV subject guidelines (DHET, 2015) for Life Orientation (LO) education have been redeveloped to allow educators to integrate IK in pedagogy. However, no empirical research (Makhubele & Qalinga, 2008) on the integration of LO and IK has been conducted so far in Technical Vocational Education and Training (TVET) Colleges in North West Province in South Africa. Therefore, the present chapter investigated and explored the extent to which LO educators understand, value and integrate IK during LO education in TVET Colleges in North West Province in South Africa. Figure 5.1 shows the chapter outline followed.

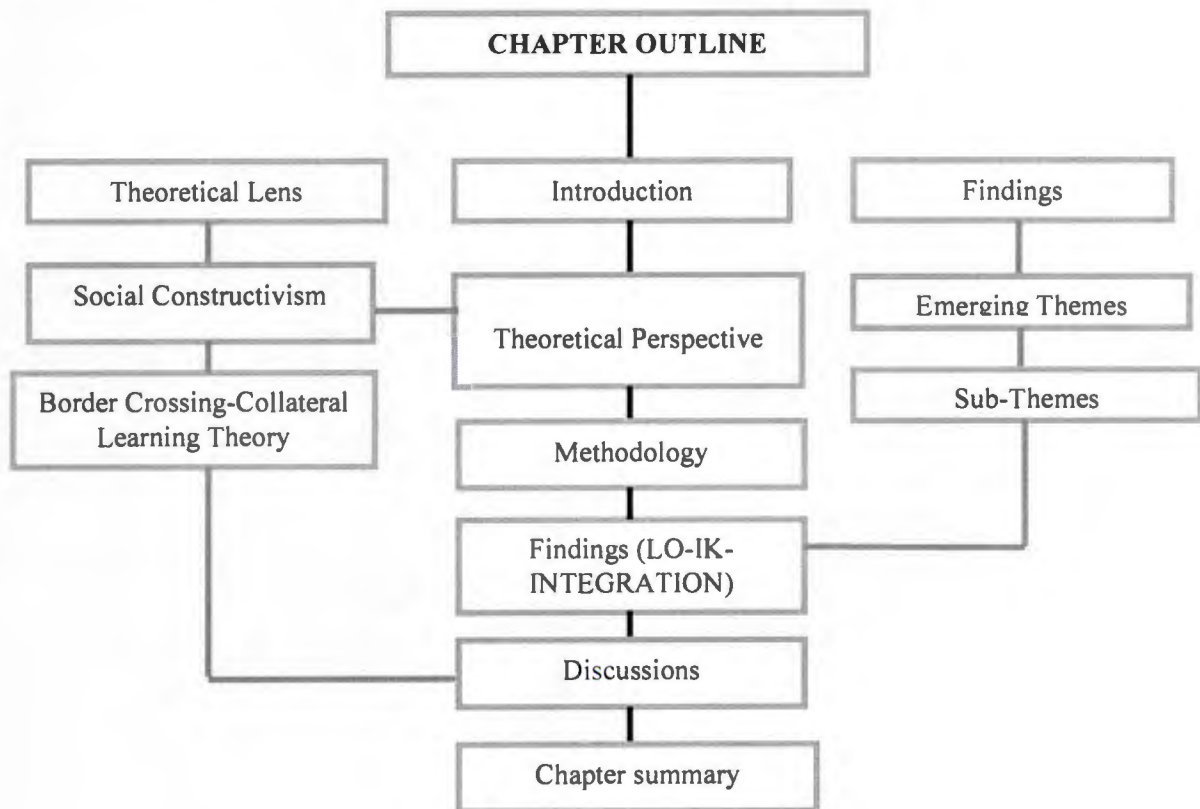


Figure 5. 1: Chapter Outline

Source: Own design

The outline of this chapter as illustrated in figure 5.1 initiates with an introduction, which mainly highlights the problem under study. This is followed by a description of the theoretical perspective or paradigm underpinning the findings obtained in the chapter. The methodology followed is then elaborated on as well as the presentation of findings obtained. It is important to note that only empirical findings, emerging themes and sub-themes related to objective two are presented in this chapter. In the last segments of the chapter, a discussion of the findings obtained is done, while the chapter summary concludes the chapter.

5.2 THEORETICAL PERSPECTIVE

The extent to which LO educators understand, value and integrate IK in LO pedagogy is mainly informed by the Social Constructivism Theory developed in the 19th century psychologist, Lev Vygotsky (Driscoll, 2005). Social Constructivism Theory believes that learning is influenced by two main components namely the social interaction and culture. These two variables filtered all the findings obtained during empirical investigations; where the researcher examined the synergy between LO curriculum implementation and the social and indigenous cultural surrounding. To be more specific, this chapter responds to objective two of the study; which was set to determine the extent to which LO educators understand, value and integrate IK in LO pedagogy as well as the challenges experienced by the LO educators in teaching LO. Understanding and valuing IK in teaching does not only benefit the students but bridges the gap between school-college and the social indigenous community. Both contemporary and old literatures in education agree that effective teaching and learning should recognise the social context as well as the students' socio-cultural backgrounds (Kovach, 2010; Makhubele & Qalinga, 2008; Meoka, 2015; Owuor, 2007). In this regard, the study is mainly guided by the social constructivism theory and ideologies.

Although Social Constructivism explains the relevant pedagogical processes, it was limited in explaining the feelings and personal experiences of the subjects as they move from one dominant culture to another. In this respect, Cultural Border Crossing-Collateral Learning Theory (CLT) developed by Jegede and Aikenhead in (2002) was used to assess the participants' level of

integration, understanding, valuing and experiences as they cross from Western culture to an indigenous culture. The cultural border crossing process in the view of Jegede and Aikenhead (2002) is the movement from one culture to another which is experienced differently by different people. The stages of experiences vary from being smooth, manageable, and hazardous to being impossible (Nnazodie, 2009). As such, *smooth* is experienced when two cultures are congruent, while *manageable* is realised when the cultures are somewhat controlled. *Hazardous* is seen when the cultures are diverse and *impossible* happens when the cultures are highly discordant. In that respect, the integration of LO and IK was interpreted using the border crossing and collateral theoretical scale which was re-designed by the researcher, as shown in table 5.1.

Table 5. 1: The border crossing and integration collateral scale

Border Crossing	Integration Category	Evidence	Collateral Learning
Smooth	Fully integrate IK & LO	Plans and implement IK-LO integration	Secured
Managed	Partially integrate IK and LO	Integrate IK-LO to some extent	Simultaneous or secured
Hazardous	Do not integrate at all	Lack of integration	Dependent, neutral or Parallel
Impossible	Impractical integration of IK and LO	Assumes it is highly impossible to integrate IK & LO	Parallel

Source: Own table developed using collateral theory of Jegede & Aikenhead(2002)

The processes and experiences of border crossing from a Western culture to an indigenous culture cognitively affect concerned individuals who either settle or transform their experiences through a collateral learning process (Jegede & Aikenhead, 2002). In their argument, Jegede and Aikenhead (2002) reveal that border crossing is felt by individuals as their conflicting schemata interact until the conflict is resolved. These conflicting experiences follow a linear continuum from one extreme end called parallel, to another extreme end known as the secured collateral learning (Nnadozie, 2009). While parallel collateral learning happens when the two schemata do

not interact at all, secured collateral learning shows satisfactory convergence and reaching commonality (Nnadozie, 2009). In between the two extremes are conflicting points namely, the dependent and the simultaneous collateral learning. Depending on various factors such as the individual's will to integrate to another culture or the simultaneous resistance to integrate conflicting cultures, the individual may slide either to the parallel or move towards the secured collateral learning pivot (Cronje, 2014). The extent or level of LO educators' IK and LO integration was mirrored or sieved through the above mentioned border crossing continuum levels. This implies that the border crossing and collateral learning theoretical constructs were used to filter findings gathered from participants. Therefore, this chapter evaluates the extent to which LO educators integrate IK, in order to assess the integration level, strategies for integration and the challenges being faced by LO educators.

5.3 METHODOLOGY

The demographic characteristics of participants namely, strategy of inquiry, data collection process, and data analysis help to describe the methodology followed in this particular study.

5.3.1 Demographic Characteristics of Participants

LO educators and LO students (doing their final year) were the key participants in the study. There were 120 LO students and 28 LO educators who were purposively chosen to participate in the study. All educators teaching LO subject in the three different TVET colleges in North West province participated in the study. The reason for choosing on LO educators was that the focus of the study was only inclined in specific area of study, namely, LO education. These LO educators included were either teaching life skills or computer skills subject since the two all fall under LO education. For the students' category, only level four final year students were conveniently chosen since they are the senior students within the colleges capable of providing rich data. These students were deemed to have a wide experience with specific regard to the teaching and learning processes within Technical Vocational Education and Training (TVET) Colleges.

5.3.2 Strategy of Inquiry and Data Collection Process

The study followed a phenomenological qualitative methodology, proposed by Edmund Husserl in 1970 (Rudestam & Newton, 2015); and all participants (students and educators) were voluntarily recruited from the three different TVET Colleges in North West Province. The phenomenological form of inquiry was chosen since it enabled the researcher to interact, share, converse and listen to participants' lived experiences of two phenomena, namely indigenous knowledge and life orientation, in order to get rich information and data for the study (Creswell, 2009). To source information from participants, face-to-face in-depth interviews (with LO educators); focus group interviews (with LO students); and document analysis (on LO educators' Portfolio of Assessment (PoA) files and Subject preparation files were conducted. Various instruments used by the researcher include interview guides, focus group interview guides, open-ended qualitative questionnaire, a voice recorder, and field notes. An ethical clearance was granted from the North West University and participants could withdraw at any stage of the research. Pseudonyms such as L1, L2 or L3 (representing lecturer one, lecturer two or lecturer three) and FG1 or FG2 (representing focus group one or focus group two) were used to protect educators and students.

5.3.3 Data Analysis

In analysing the data collected, a reiterative and descriptive Thematic Data analysis process was followed. Open coding and latent coding, which include data reduction and clustering processes, were done to outline conceptual codes, relationship codes and participant perspective codes. The codes were re-arranged or grouped based on the similarities and differences within the codes. Precisely, prior research findings from literature, theoretical arguments (referential) and internal empirical data were used to generate categories. This process followed the conceptualisation and abstraction of categories and the consolidation of research themes. The following table (table 5.2) illustrates the theme development processes done from initialisation, construction, rectification and finalisation.

Table 5.2: Thematic data analysis process

Phases	Stages
Initialisation	Reading transcriptions and highlighting meaning units; Coding and looking for abstractions in participants' accounts; writing reflective notes.
Construction	Classifying; Comparing; Labelling; Defining and describing.
Rectification	Relating themes to established knowledge; stabilising.
Finalisation	Developing the story line

Source: Table developed by the researcher

5.4 FINDINGS

The aim of the study was to investigate the extent to which LO educators understand, value and integrate indigenous knowledge and LO as well as the general challenges faced in teaching LO subject. Six main themes namely: the purpose of LO, the impact of LO, challenges in LO, meaning of IK, IK and LO integration, and IK and LO integration methods, processes and partnerships were investigated and the findings obtained are presented in this section. The sub-themes which emerged under each theme are also highlighted and reported.

5.4.1 Theme One: Purpose of LO Education

The aim of the question: what is your view about the LO subject; was intended to assess the perceptions of both educators and students on LO education for the purpose of assessing their understanding of the subject. Educators were expected to state the purpose and benefit of the subject to individual students and to the wider indigenous community. The following educators' views and students' views on the purpose of LO education were obtained.

5.4.1.1 Educators' views on LO education

Responses to this question generated three sub-themes namely: *shaping life, providing knowledge, and gaining personal skills.*

- ***Shaping life***

LO educators in TVET Colleges perceive that LO shapes the lives – both current and future – of students. In their view LO directs and helps students to achieve their personal goals and to make informed decisions about life. They also stated that the importance of LO is that it helps students to understand and solve life’s problems and challenges. It also emerged that LO education is holistic in nature since it shapes the whole person by providing mental, emotional, spiritual, and physical education. The following quotations from educators support these views.

“LO is life and it is good for the students” – L4.

“LO gives insight to real life situations, for example, the achievement of goals in life” – L2

“LO equips students with life skills so that they can make informed decisions in life” – L4

“LO unpacks the challenges of life and informs students about possible strategies to solve such confrontations” – L7

“LO is a subject that covers every subject of life...for example...mental, emotional, spiritual and physical being of students, in preparation for the future life” – L23

This implies that the main purpose of LO is to educate students about real life situations, experiences and challenges in order to prepare them for a better and successful future life.

- ***Providing knowledge***

Some LO educators assume that the subject provides useful content knowledge to students, for instance on the HIV/AIDS content. One lecturer stated that LO:

“Needs more attention since the majority of our people still have less knowledge about HIV/AIDS and so LO as a subject must be taken seriously” – L17

Similar sentiments were added that LO education teaches students on various topics related to life experiences so that the students can live a successful life.

“LO incorporates many aspects of life and the topics dealt in LO relate directly to the students’ personal lives. It enables students to achieve their full potentials” – L22

- ***Gaining personal skills***

Findings from LO educators also suggest that the main purpose of LO education is to inculcate valuable personal skills to students. For instance, *behavioural skills; attitudinal skills, values or morality skills; relationship skills; responsibility skills; citizenship skills and computer skills* were identified as key developmental skills necessary for students. The following evidence from educators reveals that LO is an imperative ‘skills bank’ for students.

“LO helps in terms of behaviour, values and skills like computer skills to students” -L5

“LO is a subject that is important in changing students’ behaviour” ...-L11

“It is a life-changing subject which creates an awareness of attitude and behaviours and also helps the new generation to acquire good life skills”-L14

“It is a subject that helps students to have a good positive relationship with others”-L16

“It is a very important subject that give students opportunity to learn and explore different ways of living, setting goals & being responsible citizens”-L21

5.4.1.2 Students' views on LO education

The purpose of LO education in the views of student participants yielded both (a) negative reactions; and (b) positive reactions. Students who reacted positively also shared (c) useful pedagogical content knowledge gained in LO education.

(a) Positive reactions on LO

When asked about the purpose of LO, student participants noted that:

"It benefits us a lot" – FG3

"I think I enjoy it" – FG5

"It helped me a lot because there are so many things I didn't know in life" – FG7

"I love LO because we are free to say things about life and ask questions" – FG8

"LO is good, especially to us youths today" – FG9

These responses summarise the positive reactions gathered from the majority of students who participated in the study. Some indicated that they do enjoy the subject since it benefits them tremendously, and in most cases they feel engaged during LO lessons.

(b) Negative reactions on LO

Few students responded negatively on the purpose of LO. They indicated that they gain nothing new from LO education since they are already conversant with the knowledge and skills provided. However, students indicated that this is worsened by the repetition of topics within different levels. For instance, the same topic on personal development appears in level 2, 3, and 4; making the subject to be boring. There were also sentiments raised by students depicting that

LO education lacks some depth particularly in its content knowledge. This is reflected in the following negative views gathered from students.

“LO is LO there is nothing new” - FG9

“LO teaches us about general things around, things we know already. I think it should be for kids because what we do are the things we know already. At least we need something deeper” – FG4

(c) Pedagogical Content shared

Many students, who reacted positively on the purpose of LO, shared that they continuously gain various pedagogical content-related skills from LO teaching. Five sub-themes namely general life skills content, critical thinking skills content, health related skills content, personal development skills content, and preparing for the world of work content were given by students.

- ***General life skills content***

Student category participants shared that the main purpose of LO is to teach them the general life-related skills such as having good conduct, making informed choices in life, and time management skills. Some of these students stated that:

“Yes I think it talk about life in general” – FG4

“LO teaches us how to conduct our lives” – FG1

“I helps us to correct our poor choices” - FG1

“I have learnt how to manage my time” – FG1

- ***Critical thinking skills content***

It emerged that LO also help students in developing their cognitive skills such as critical thinking skills. One student noted that LO education is essential since:

“It helps us to think critically” – FG1

- ***Health related skills content***

The purpose of LO in the view of students is to teach them about health-related matters. One student summarised that LO is indispensable because:

“It teaches us everything in life, including issues such as personal hygiene and to handle ourselves well, and sexual intercourse” – FG2

- ***Personal development skills content***

Participants indicated that LO develops them personally by furthering and making them to understand themselves better, knowing their strengths and weaknesses as well as facilitating their physical, mental and emotional development. The following statements were recorded from student participants as they summarised how LO helps in shaping their personal development.

“It teaches us the knowledge about ourselves” – FG2

“It is through LO that we learn about our strengths and weaknesses in life” - FG3

“LO helps us physically, mentally and emotionally and how to change our attitude” – FG3

- ***Prepare students for the world of work***

It emerged that LO education also helps students in mastering various work-related skills and boosting individuals' self-esteem.

"For me LO teaches us how to behave in a work environment, it builds self esteem. It benefit us a lot" – FG3

5.4.2 Theme Two: Impact and Value of LO Education

Both educators and students responded on the impact of LO education. The following views were gathered.

5.4.2.1 Educators' views on the impact and value of LO

Although all educators agreed that LO education is making an impact in students' lives, the majority strongly agreed while some few educators partially agreed. On the impact being made, many sub-themes were realised from participants.

(a) Educators who strongly agree

Participants who strongly agreed that they are making a great impact in students' lives suggested that they are giving light, providing marked changes, giving support and helping LO students in many life-related matters. The following statements were recorded from LO educators.

"Yes I am, I bring light to those who were in the dark about Life Orientation" – L7

"Definitely, since I started teaching the LO subject I have made changes to most of my students" – L14

"Yes-always support students and colleagues in all what they need" – L16

"Yes-every time students have problems I try and help them" – L17

(b) Educators who partially agreed

Some educators were really not sure about the impact they are making to students and some indicated that they are affected by issues such as limited resources and lack of support. The following participants stated that she is:

“Not really sure but am trying” – L6; while another said that:

“Yes but very constraint by the resources and support from the college” – L20

(c) Sub-themes on the impact being made by LO educators

Six sub-themes emerged on the impact of LO education as perceived by LO educators. Participants indicated that LO changes the lives of students; helps them to gain knowledge and skills; facilitates behavioural changes; provides social, emotional and psychological support; prepares students for the world of work; and promotes health living among students.

- ***Changing the lives of students***

LO educators alluded that LO education is making a great impact in *changing the lives* of students. Educators stated that various noticeable changes have so far been witnessed among LO students. They stated that, through LO education, students become more focused, become responsible, grows and become knowledgeable, leading to changes in their perceptions. The following quotations describe these views from LO educators.

“Yes I am. Most of our students are not focused and since in LO we deal with real life issues, its easy to bring them back on track” – L3

“Yes- the teaching of LO is effective to the lives in order to be responsible citizens of this country’ – L8

"Yes a lot, am changing lives of society at large" – L9

"Yes everyday interaction with these students grows me and them" – L24

"It's making an impact because students change and become wiser than before. It changes their perception about life in general" – L26

- ***Gaining knowledge and skills***

LO educators indicated that LO students are *gaining more knowledge and skills* provided in LO. This knowledge and skills in the view of LO educators range from citizenship knowledge, health-related knowledge and skills as well as life-related knowledge and skills. In this regard, the following descriptions were noted.

"Yes, students who have done LO are more aware about their rights as well as respecting those of others" – L2

"Yes, many students are now aware of HIV and all infections" – L10

"Yes, I give students information about the things that happen in our daily lives" – L25

- ***Facilitating behavioural changes***

Issues such as noticeable behavioural changes among students signify the extent to which LO education is impacting the lives of students. It surfaced that there are observable behavioural changes as well as moral transformations among LO students. The following views from educators confirm this finding.

"Yes, you can see by the change in students' behaviour" -L1

"Yes, the behaviour of our students has changed for the better" - L21

“Yes, I have made so much impact considering the moral conduct and healthy living among LO students now” - L23

- ***Promoting social, psychological and emotional support***

Social, psychological and emotional *counseling* done by educators emerged as one of the impacts realised in LO education. Educators felt that students need social, psychological and emotional counselling since they are faced with multitudes of problems in their school life. For instance, one lecturer indicated that:

“As an LO lecturer, I am a counselor at the same time breaking my students' sensitive issues” – L15

This counseling, in the views of educators, promotes personal dialogues between educators and students, interaction, and empowers students to excel. The following quotations from participants show these sentiments raised by LO educators.

“Yes, I got the opportunity to talk to students especially the young ones on things that hinders their future” – L12

“Yes, because it helps me to interact with my students in any way” – L13

“Yes I am empowering my students to use their full intellectual, physical, emotional and social potentials” – L22

- ***Preparing students for the world of work***

It also emerged that one of the impacts made in LO education is that it prepares students for the world of work as LO provides them with essential practical skills such as computer skills. LO educators agreed on the impact being made by LO education as evidenced in the following responses:

“Yes, because I prepare them to be young adults. I also prepare them for the world of work” – L18

“Yes, because students put what they have learnt on their CVs; and always when students look for a job they are asked whether or not they have done computers....so LO is making an impact” – L28

- **Promoting healthy living**

LO education in the views of LO educators promotes health living in students. One lecturer summarised that:

“I have made so much impact considering the moral conduct and healthy living among LO students now” – L28

5.4.2.2 Students’ views on the impact of LO education

There were positive and negative views emerging from students about the impact of LO education.

(a) Positive views on the impact of LO education

The majority of students indicated that LO education is essential since it develops them holistically; capacitate their knowledge and skills; enables health living and understanding; influences the students’ world of work and promotes positive relationships.

- ***holistic development***

All students stated that LO is essential for their total self-development which includes personal development, physical growth, emotional healing and social development. These sentiments were echoed by the following student:

"It helps me personally, physically, emotionally and socially. Emotionally, it is helping me when I am hurt and it is in LO that I learn how to handle and pick up myself and move on" – FG1

- **knowledge and skills**

Some students acknowledged that LO education enable them gain diverse knowledge and skills which include health-related knowledge, time-management skills, personal care and emotional controlling skills. In this regard, some students stated that:

"Yes, it is developing us a lot in terms of knowing about the dangers of teenage pregnancy, protecting ourselves during sexual intercourses, relationships" – FG6

"Yes, I have learnt how to manage my time. I am a very lazy person and now I have learnt a lot. I have changed, and I can now manage my time well" – FG2

"Now, I know how to use a condom because of LO" – FG7

"I am an emotional person but now I know how to control myself" – FG8

- **health living and understanding**

It was emphasised by students that LO education impacts their lives through promoting health living and understanding. Besides learning health-related matters, many students indicated that they now understand the consequences of various issues such as teenage pregnancy and unprotected sex. In their views they said:

"I have learnt a lot in LO especially things about my health" – FG9

"Yes its developing us a lot in terms of knowing about dangers of teenage pregnancy, protecting ourselves during sexual intercourse, relationships" – FG6

- *career and the world of work*

LO education, in the view of students, impacts also across career and work development. One student quoted below alluded that through LO she has learnt behavioural interview skills normally found within the work environments. She noted that:

“Because of LO now I know how to behave myself during interviews” – FG3

- *positive relationships*

It also emerged from students that LO education builds positive relationships. Students explained that the knowledge gained in LO assist them in making good healthy choices and relationships. One student summarised this view through the following statement.

“Yes, it’s developing us a lot in terms of knowing about dangers of teenage pregnancy, protecting ourselves during sexual intercourses, relationships” – FG6

(b) Negative views on the impact of LO education

Some students had negative views on the impact of LO education. They perceived LO education as making little or no impact in their lives. In the view of these students, the main reasons for this are that LO education provides common and simple knowledge, and hence they see no reason to attend it. Some suggested that their marks are always dropping, as such; they do not see the impact of LO. Other students pointed out that some topics in LO as well as some other educators are indeed boring, which in turn makes them not to see the LO education impact.

- *Common knowledge*

Some students reasoned that LO education only gives them common knowledge that which they already know, and hence, they do not feel challenged. This is worsened by educators who utilise the book-reading strategy. In this regard, students stated that:

"I do not enjoy LO because everything we know it. And everything is in the book"
– FG4

"All things we learn are common, it's like we know them" – FG10

It seems students want new and exciting knowledge, that which provokes and challenge them. They also want to be taught using different and engaging teaching strategies. A close look at this suggests that it is not the education which is not making an impact, but the way the knowledge is being disseminated speaks volumes to students.

- ***Non-attendance***

It was surprising to note that another group of students could not describe the impact of LO education since they do not attend LO lessons. The following students confessed that they do not attend LO lessons at all.

"I think we take advantage of LO and some of us honestly don't attend LO lessons" – FG4

"I don't attend but I still pass LO" – FG10

Two reasons for not attending LO education lessons emerged from student participants. One, it appears that students perceive LO to be simple, and in that regard they abscond the lessons. Two, some students even if they don't attend LO lessons they do still pass the subject. To the students, LO education is therefore simple and common education in which one can simply read at home and pass the subject.

- ***Marks do not favour me***

One student pointed out that she does not enjoy LO education because her marks are always going down.

“I do not enjoy LO because my marks keeps on dropping” – FG5

In her perspective, the impact of LO education only depends on the marks she get in class and not the practical holistic individual development. This could be a problem with many students who assume that the impact of education is only realised through scoring high marks.

- ***Boring topics and educators***

Some students assume that the nature of the topics and teaching styles of some educators have an impact in LO education. It emerged that boring topics and educators who read books to students impact the LO education negatively.

“I think it depends with the topic or teaching....some topics are very interesting and also the teacher if she is serious then we also become serious” – FG5

When the topics are boring students do not pay attention and hence the impact factor drops. Similarly, if the educators are ineffective, the whole education processes also become unfruitful. These results provide interesting pointers to many LO educators. There is need to improve on the methods of delivery and educators should impart new and current content which in turn motivates students. It seems the impact of LO education to a greater extent surely depends on the teaching strategies among educators.

5.4.3 Theme Three: Challenges in LO Education

Five sub-themes related to LO education challenges surfaced from interview findings. It emerged that the challenges in LO education in TVET Colleges in South Africa include *ineffective pedagogy, absenteeism, lack of resources, limited time allocation and lack of professional support*.

5.4.3.1 Ineffective pedagogy

Lecturer 19 (L19) revealed that some LO students have an “attitude” problem and some of them are even difficult to control “especially when presenting certain topics”. Similar sentiments were

echoed by Lecturer 26 (L26) when she said that “some students do not want to speak in groups.” Another lecturer (L22) adds that some students “are not co-operative” especially during case studies. Challenges such as negative attitude and lack of co-operation among students indicate ineffective pedagogies on the side of educators. This suggests that some LO educators cannot effectively manage or control students. Ineffective teaching methods such as using teacher-centred method or lack of experience could be some of the contributory factors to this challenge.

5.4.3.2 Absenteeism

It appeared that LO education is mauled with “poor attendance of students” as summarised by lecturer 25. Many LO educators indicated that:

“Sometimes students do not attend classes”- L4

“LO students absent themselves and bunk classes” – L3

“Many students bunk LO classes and this is a main challenge for us as educators” – L17

Reasons for poor attendance and bunking of LO classes among students were linked to the assumption that LO is boring or that students do not just take the subject seriously. These views were echoed by the following educators:

“Sometimes students think Life Skills is boring” – L3

“Students also do not take the LO subject serious” – L17

5.4.3.3 Lack of resources

It was realised that part of the LO subject which is the Integrated Computer Technology does not have enough computers to accommodate all students. One lecturer summarised that:

“Computers in many times are not working and our LO students suffer a lot. The painful thing is that management do not fix them and that is the problem. We need interns to be here always and fix our computers but they always stay at corporate centre and this affect us” – L28

Shortage of computers is also exacerbated by the issue of large classes. Lecturer 21 insisted that “another problem is of large classes but we improvise like having two students to sit on one computer; but again this does not work during exams.” More so, educators (L21 and L9) revealed that the other challenge is having access to internet and *wifi* necessary for teaching purposes in computer labs. Although educators identified computers and internet as their limitation, they did not mention whether indigenous resources are also a challenge to them. Perhaps, it is because they do not integrate indigenous knowledge, and this probably could be the reason why they did not mention any.

5.4.3.4 Limited time allocation

The time allocation (of 2 periods per week) is believed to be insufficient in LO education. The following responses from educators indicate that they need more time to cover all the content in LO education.

“More time should be allocated to the subject” – L18

“I need more time for LO because they gave short time or 2 hours per week and LO needs more time to discuss since this is a reality” – L13

“Sometimes I do not cover enough content” – L5

5.4.3.5 Lack of professional support

LO education does not get enough support from management and other colleagues such as educators teaching other subjects. According to educators who participated in this study, it is evident that other educators undermine the subject and spread negative comments towards LO education. Many educators confirmed that there is:

“Lack of support from management” – L2

“Lack of support from colleagues, thinking LO is a useless subject yet they fail to conduct themselves in a positive way in front of students. LO educators are labeled as people who are not highly educated” – L12

*“Lack of support from other educators who say negative things about the subject”
– L5*

Findings presented in this section specify that there is *ineffective pedagogy, absenteeism, lack of resources, limited time allocation and lack of professional support* in LO education. It seems LO educators are struggling to effectively manage and control students; and this could be partly linked to their continuous use of teacher-centred teaching methods. Revelations by students that LO is boring confirm that there is a problem with the teaching itself, which result in students bunking lessons. Instead of blaming students, LO educators need to find the root cause of the problem and address it accordingly. Lack of resources such as computers was identified as a limitation by participants, and in their view this is contributing to ineffective pedagogy. Participants also complained that there is lack of professional support from peers who continuously undermine the LO subject. This problem could be examined from a different perspective, for instance, a question could be asked as to what the LO educators are doing about the identified problem. It seems this lack of collaboration by other educators is being contributed by LO educators themselves who do not show to others the importance of the subject. Engaging students in practical activities such as campaigns, drama, poetry, music and dance to portray the purpose and significance of LO could possibly make others pay serious attention and value the subject. In addition, the strategy may also help students to change their negative attitude about the subject.

5.4.4 Theme four: Meaning and Value of Indigenous Knowledge (IK)

The following findings from LO educators and LO students were identified.

5.4.4.1 Findings from LO educators

The question: “what is the meaning of indigenous knowledge?” attempted to encourage LO educators to talk about the meaning, purpose and value of IK from their own understanding since it has been included in the LO policies and subject guidelines. Sub-themes which emerged from this inquiry include *not sure*, *old or past knowledge*, and *cultural knowledge*.

- *Not sure*

Despite the inclusion of indigenous knowledge in LO education policies and subject guidelines, it was quite surprising to realize that some LO educators do not even know the meaning of indigenous knowledge (IK). Educators’ short answers such as “*not sure*” (L10, L11, L12, L13) and “*I’m blank*” (L24) have deeper meanings about their perceptions towards IK. From the researcher’s perspective, it is either the concerned educators do not read or use the subject guidelines and policies when planning or that they use teaching plans which were compiled by others. The other reason could be linked to the type of knowledge (Western) gained by some educators (Makhubele & Qalinga, 2008) which has drowsed their minds to an extent that they do not want to associate themselves with indigenous terms and meanings. However, it can be argued that some LO educators do not know or understand the term indigenous knowledge.

- *Old-past knowledge*

It was observed that some LO educators refer to indigenous knowledge as old or outdated knowledge of the past. Educators’ responses in this category suggest that they perceive IK as only belonging to the past and cannot be matched with the current knowledge. For instance, the following five educators pointed out that:

“Indigenous knowledge is the older knowledge used many years ago, that time when it was mouth to mouth or generation to generation and nothing was written down” - L16

“The so-called indigenous knowledge is the native knowledge and teaching of the past done by old people” - L17

“Maybe, it is the past knowledge or knowledge from the past” - L5

“Indigenous knowledge is the one passed on from generation to generation” - L25

“It is the knowledge passed from one generation to another over time” - L4

In this category, only one lecturer seemed to value IK, based on his response that “Indigenous knowledge is the knowledge that is passed on from our fore-fathers to other generations and it has been useful over time.” The word “useful” indicates that the participant understands the importance and value of indigenous knowledge. Based on the views of many educators, in this category, it can be revealed that most LO educators understand IK only from a rhetorical perspective. In opposition, Makhubele and Qalinga (2008) state that human beings should be conscious, aware, understand, accept and internalise their culture, history and ethos since these enhance positive and life-enhancing thoughts and behaviours. Also defining IK as past or outdated knowledge put IK into the oblivions of the past and opponents use these to shut out IK from being included into the current education discourse (Dei, 2002). It is assumed that LO educators in TVET Colleges do not understand the meaning and value of IK. Perhaps, because of the educators’ negative perceptual beliefs, they are probably not even aware that IK has been included in the policies in South Africa.

- ***Cultural knowledge***

It also emerged that some LO educators relate indigenous knowledge to cultural knowledge. Views from educators suggest that indigenous knowledge is the past cultural ways of doing things. One lecturer (L6) said that: “I think it has to do with culture” still sounded unsure about the meaning of IK. Findings in this category were similar to the findings obtained in the previous category which point to the assumption that indigenous knowledge has not yet found its place in the current LO education. This view was captured by one lecturer who eluded that:

“Yes, ...because when you teach about HIV/AIDS our students are still confused due to their religious and cultural beliefs” -L15

Again, the expressions such as “...confused due to their cultural beliefs” summarises the negative perceptions of LO educators towards indigenous knowledge.

5.4.4.2 Findings from LO students

Two sub-themes namely lack of knowledge in IK and limited knowledge in IK were identified from students.

- ***Lack of knowledge in IK***

It was realised that the majority of students do not know the concept of IK at all. Many students stated that they are not sure or they do not have any clue at all, while others revealed that they haven't heard about it. Some indicated that they were never taught about indigenous knowledge. In this regard, students' participants said:

“No, we haven't heard about it” – FG1

“Not sure” – FG5

“I don't know about it” – FG4

“Oh, I have no clue” – FG7

“We were never taught about it” – FG9

- ***Limited knowledge on IK***

A small number of students seemed to have little knowledge about IK. Some indicated that it is related to communities while others revealed that they only know indigenous games. It was surprising that others even assumed that IK is traditional dance. At least those who were nearly

correct said that it is the knowledge from old people. Evidence to this effect is reflected in the following quotes from participants.

"Yes., but I am not sure..., I think its knowing something from your community"
– FG1

"Aaah we not sure..., all we know is indigenous games and not knowledge" –
FG3

"Is it the traditional dance eish am not sure" – FG8

"Maybe, its knowledge from old people" – FG9

5.4.5 Theme five: IK and LO Integration as viewed by both Educators and Students

In this category, findings from LO educators as well as findings from LO students are presented.

5.4.5.1 Findings from LO educators

Findings obtained revealed that there is little or no IK integration at all in LO education in TVET Colleges in South Africa. This is contrary to the NCV LO subject guideline (DHET, 2015) or policy, which states that LO education should integrate indigenous knowledge. Some participants (LO educators) reacted that they did not know the meaning of IK while some acknowledged that they do not even attempt to integrate IK in their teaching and learning:

"Yoo! I must say it's my first time to hear that.....mmmmmm.....may you please explain to me the meaning of indigenous knowledge" - L 15

"No I do not use it...in fact I do not know how to include it in class. I know the last chapter talks about diversity but it does not talk much about indigenous knowledge, so it is not there in our books"- L 16

5.4.5.2 Findings from LO students

Having realised that LO educators do not integrate IK during LO pedagogy, students were asked about the relationship or link between school (Western) knowledge and indigenous (home) knowledge. The interrogation was intended to ascertain the differences, similarities and compatibility between LO lessons and indigenous home lessons. Three sub-themes namely the balance (similarities), rejection of IK (differences) and theory versus practice (compatibility) were realised.

- ***The balance (similarities)***

Few students acknowledged that there is a relationship and link between the things they learn in school (Western) and what they are taught at home (indigenous). This is reflected in the following views from students:

“LO teaches us about what we must do at home and everything about life so it’s almost the same” - FG2

“There is no difference, I feel like it’s the same” – FG5

“What we are learning at home is the same thing as here” – FG3

- ***Cultural divide and the rejection of IK (differences)***

Some students indicated that there is actually a cultural divide between the school (Western knowledge) and the indigenous knowledge acquired from home. In the centre of this division, it seems many students reject IK and believe it is valueless, lacks content, depth and structure. The following sentiments from students explain the cultural division and the rejection of IK by students.

“When at home we do not learn anything at all so there is a difference” – FG1

“Some parents do not talk about sex or HIV so at least we learn it in school” – FG4

“There is a difference because we don’t learn anything at home” – FG6

“At home they don’t teach us anything” – FG7

“Our grandmother sometimes teaches us but we don’t listen to her” – FG9

- ***Theory vs Practice (compatibility)***

Students’ views suggest that there is a gap between theory and practice. Many students indicated that the school knowledge (which is Western-biased) is more theoretical in nature while the experienced indigenous knowledge from home is more practical and reality based. However, the positive thing realised was that students confessed that they apply the theory learnt at school during their practical experiences at home. This is evidenced in the following outline from students.

“Yes, because at home we experience things and here we learn the theory and they teach us on how to take care of ourselves” – FG1

“What we learn here we apply it at home” – FG3

“The difference is at school we talk and write about things like sex but at home we do it practically and we don’t talk about it” – FG5

“At home we practice what we learn here for example sex” – FG9

5.4.6 Theme Six: IK Integration Methods, Processes and Partnerships

Despite the finding that LO educators do not integrate IK; educators were asked to suggest methods, processes or partnerships necessary for LO and IK integration. Two sets of findings

were observed namely, (i) Negative findings: educators with no integration knowledge; and (ii) Positive findings: Educators' views on integration.

5.4.6.1 Negative findings: Educators with no integration knowledge

It was found that 53% of the educators have no clue on the methods, processes and partnerships necessary for integrating IK and LO. Some educators as indicated below said that it is highly impossible to integrate the two knowledge systems, while others clearly stated that they do not know how to integrate the two.

"No, we cannot integrate past knowledge and current knowledge. That is impossible" – L5

"I am not sure about that" – L6

"Not sure" – L7

"Not sure to be honest" – L8

"Sir, a ke battle go bua maka (I don't want to lie) but honestly I don't know" – L10

"Are you saying we can use traditional dances or games to teach...hahaha....how do we do that...Aketse waitse (for me I don't know)" – L12

"Not sure. I don't know hey" – L13

5.4.6.2 Positive findings: Views from educators on integrating IK and LO

Surprisingly, some educators raised and suggested important suggestions on integration processes. About 47% educators suggested the following possible methods, processes and partnerships necessary for integrating IK and LO education.

(a) Methods

Four methods such as using the indigenous content, linking indigenous teaching methods, using indigenous practices and allowing indigenous participatory actions were suggested by educators.

- ***Using indigenous content***

Some participants suggested that there is need to integrate some indigenous content into the current LO education in order to enhance effective teaching and learning. One lecturer stated that teaching and learning can be made effective:

“By teaching native ways of taking care against diseases such as sexually transmitted infections and try and combine it with modern ways” – L1

- ***Indigenous teaching methods***

It was suggested by a one participant that LO educators should use various indigenous teaching and learning methods such as drama, games or music. This view is evidenced from the following participant.

“We can make use of dramas, case studies and games and music” - L3

- ***Indigenous practices***

All participants agreed that the inclusion of indigenous practices as a teaching and learning method can enhance students to re-think and probably use indigenous knowledge for their own benefit. Such sentiments were raised by the following participants.

“Cultural practices like ukusoma can help students understand that delayed intercourse is not only safe but also cool” - L2

“Learning different cultural practices; engaging students to dramatise their cultural differences in a form of drama” - L9

- *Allowing indigenous participatory actions*

It was also suggested that LO educators should allow sharing of indigenous knowledge in class among students. This enables students to appreciate others’ cultures and to become sensitive. The following participant also stated that educators should allow students to do more research and projects through their learning process.

“Allow the children to bring their indigenous knowledge to the classroom and participate. Also encourage them to do research, ask questions from home, and give the students more projects”- L23

(b) Processes

One major process necessary for integrating IK and LO education was suggested by participants. In the view of the following participant, it is mandatory to re-align the LO subject outcomes so that they do incorporate indigenous knowledge. This will enhance educators to integrate IK during LO pedagogy. Thus, the following quote was realised in this regard.

“Match indigenous knowledge to outcomes and try to integrate the two” – L2

(c) Partnerships

Participants indicated that successive integration of IK and LO education can be made possible through formulating partnerships with various education stakeholders. It was suggested that meaningful engagements with stakeholders such as the community elders, traditional healers, culturalists, and non-governmental organisations could be made to fast-track the integration motive. The following explanations were gathered from participants.

“Partnering with our indunas and traditional healers can have a positive impact on the delivery of LO hence Life skills” – L14

“To call (elders) grandparents to come and lecture students in colleges about how to behave and the discipline that they have before” – L11

“We can invite culturalists and the pastors when we deal with certain topics. We can also incorporate those non-governmental organisations to come and assist” – L11

5.5 SUMMARY OF FINDINGS OBTAINED

As mentioned before, this chapter responded to objective two which were set to determine the extent to which LO educators **understand, value and integrate** IK and LO education. Table 5.3 summarises the findings obtained in response to the given objective.

Table 5.3: Summary of findings obtained

Objective Theme	FINDINGS	
	LO	IK
<i>1. Understand</i>	<p><i>LO educators understand that the purpose of LO is to: shape life; provide various rich knowledge about growth; and to provide essential life skills</i></p> <p><i>LO students understand LO as giving them various skills such as: general life skills; critical thinking skills; health-related skills; and preparing them for work</i></p> <p><i>LO educators understand that the challenges in LO are: ineffective pedagogy; absenteeism of students; lack of resources; limited time allocation; and lack of</i></p>	<p><i>LO educators do not understand the meaning of IK. Some were not sure, while others regard it as old or past knowledge-and-cultural knowledge</i></p> <p><i>Many LO students stated that they are completely unaware of the concept of IK and were never taught about it.</i></p> <p><i>Some LO students misrepresent IK as indigenous games, traditional dance or knowledge of the old people</i></p>

professional development

Students assumed that LO is more theoretical.

2. Value

LO educators stated that the impact or value of LO is to change the lives of students; help students to gain knowledge; facilitates behavioural change; promote social, psychological and emotional counseling of students; and to help students to achieve their educational outcomes

LO educators do not value IK.

They assume IK is the inferior knowledge of the past

They have a negative perception on IK

Students indicated that LO develops them holistically in areas such as physical growth; emotional being, social development; building positive relationships; healthy living; and to increase their knowledge and skills

Students regards home education (IK) as valueless; and it lacks content, depth and structure

Students stated that home education is practical in nature

IK and LO

3. Integration

LO educators indicated that:

They do not integrate IK and LO

They do not know how to integrate the two

They are not supported or informed about the urgent need to integrate IK

There are no guidelines, frameworks or models for IK integration

LO students indicated that:

There is no relationship or link between the school and home

LO educators' suggestions on possible integration methods, processes and partnerships were that:

Methods should involve allowing LO teaching practices to include IK practices
IK methods such as drama, games or music should be included in LO teaching methods. LO educators and students can learn from other indigenous students with rich IK

Processes to include integrating LO subject outcomes and IK outcomes

Partnerships to involve College communities engaging with IK holders and community elders and discuss on ways to integrate IK and LO

All stakeholders such as community elders, traditional healers, culturalists, non-governmental organisations and education representatives to partner together

Source: own table

As shown in table 5.3, the main objective themes include understanding, valuing, and integrating IK and LO. While the question on the purpose and challenges in LO and IK provided information on how participants understand the two separate knowledge systems, the question on the impact revealed how they do value LO and IK respectively. The question on integration then was set to determine the extent of LO and IK integration as well as the suggestions necessary to strengthen the integration process. Empirical findings revealed that LO educators and LO students fully understand the main purpose of LO education. They noted that LO education shapes life, provide knowledge; and facilitate skills such as general life skills, critical thinking, healthy-related skills, and work-related skills. However, the majority of participants do not understand the meaning of IK. Some said that they are not sure or referred it as past, cultural and old knowledge; while others related IK to indigenous games, traditional dance or knowledge of the old people. Participants (students and educators) also were fully aware only about the challenges in LO education. They mentioned that LO education is mauled by ineffective pedagogy; absenteeism of students; lack of resources; limited time allocation; lack of professional development; and being theoretically inclined.

On one hand, empirical findings suggested that participants only value LO education and not IK education. Some LO educators and students described the impact and value of LO education and stated that it helps students to gain knowledge, change their behaviours, transform them socially and support them emotionally and psychologically. Furthermore, some students added that the value of LO is to develop them holistically by providing physical growth, emotional growth, social development, healthy living, and enhancing positive relationships. On the other hand, many LO educators and LO students do not value IK and regard it as inferior knowledge of the past.

It also emerged from the findings that there is no IK and LO integration in Technical Vocational Education and Training (TVET) Colleges in North West Province. LO educators admitted that they do not include IK in teaching and also do not know how to integrate it. Some LO educators confused IK with the topic on diversity in their subject outcomes and syllabus and assumed it

could be IK. LO students also assumed that there is no relationship or link between what they learn at school or college (Western) and home (indigenous). Therefore, the extent of LO and IK integration from border experience perspective is **neutral** since the two systems are parallel to each other. Despite these, educators were able to contribute possible integration methods, processes and partnerships that can be used during IK and LO integration processes. One important contribution made by participants is that IK should be linked to subject and learning outcomes. Engagements and discussions with the IK holders and community members were also overemphasised by participants.

5.6 DISCUSSION OF FINDINGS

Despite the policy requirement to include indigenous knowledge (IK) in teaching in South Africa, it was realised that LO educators in TVET Colleges in North West province do not include IK during LO pedagogy. Findings obtained in this category revealed that LO educators do neither understand the meaning of IK nor value it; and that they have a negative perception on IK. This finding disputes the Social Constructivism theory which argues that learning is influenced by two main components namely: the social (classroom) interaction and the cultural (indigenous) interaction (Driscoll, 2005). The findings obtained in this study correlate with Jacobs (2015) findings which also divulged that science educators in Western Cape Province do not fully understand IK nor integrate it in teaching. Contemporary literature in education agrees that effective teaching and learning should recognise indigenous knowledge as well as the students' socio-cultural and experiences (Makhubele & Qalinga, 2008; Owuor, 2007). Lack of understanding, valuing and including IK in teaching in South African schools and colleges creates an epistemological vacuum in teaching and learning processes. Surprisingly, these findings were not only unique as compared to other empirical findings observed in Australia (Arnold, 2013); United Kingdom (Briggs, 2013); or Kenya (Owuor, 2007); but were also puzzling in that some indigenous people such as LO educators do not understand the meaning and value of their own indigenous knowledge. This indicates that there could be a new twist of events indicating that the current indigenous educators in South Africa are now unaware of their own indigenous cultures, traditions and knowledge. Makhubele and Qalinga (2008) suggest that this could have been influenced by the western dominated education acquired by many African educators. These current empirical findings obtained herein builds up on Makhubele and Qalinga

(2008)'s view that the South African education is more Eurocentric and Educentric and it disregards indigenous knowledge and moral development.

It also emerged from the findings that LO educators do not integrate IK and LO education in TVET Colleges in North West province in South Africa. As indicated in the summary of findings, LO educators admitted that they do not integrate IK during LO teaching. This negatively impacts on the cognition processes of students. The border crossing Collateral Learning Theory (CLT) indicates that students from a different culture often experience cognitive challenges as they try and learn from a different cultural perspective (Jegede & Aikenhead, 2002). By not integrating IK in teaching, indigenous students find it difficult to understand and master western concepts being delivered using western approaches or strategies (Cronje, 2014). Social Constructivists argue that situated cognition enables students to learn effectively as they move between different contexts or environments such as the school, out-of-school activities and home. If the connection between the school (western) and home (indigenous) is not there, indigenous students usually experience culturally related cognitive dissonance during the teaching and learning processes (Jegede & Aikenhead, 2002). In relation to the findings obtained in this chapter, the extent to which LO educators integrate IK and LO education in TVET Colleges in North West province in South Africa; is therefore *hazardous*. As seen from the border crossing collateral scale in table 5.1, lack of integration empirical evidence from participants converge on the assumption that IK and LO education are currently incongruent and parallel. Yet, the college (western LO education) and the indigenous community and its knowledge should be two open systems tied towards a common goal of developing well cooked future indigenous citizens (Makhubele & Qalinga, 2008). Researchers warn that there is an urgent need to free children from western edu-centric or logo-centric boundaries of hegemonic practices through integrating IK and LO education (Makhubele & Qalinga, 2008).

Although, the present study only took place in TVET Colleges in North West province, and focused only, on LO education; findings obtained provide empirical evidence showing the pedagogical and epistemological gaps in LO education. These gaps negatively impact on many attempts being done by the government to solve South African indigenous community needs, problems and challenges. Already, in many South African indigenous communities, the crime rate among the youth is so alarming; students are increasingly becoming immoral; for they

disrespect their elders; and do not value their bodies and health anymore (Karstens, 2010). Although educators suggested that LO education is making a great impact in the lives of students, disconnections between the LO policy requirements and the LO implementation process still raises eyebrows (Mosia & Steyn, 2013). The college and the indigenous community should be two open systems tied towards a common goal of developing well cooked future indigenous citizens (Makhubele & Qalinga, 2008). In countries such as Namibia, Klein (2011) reports the findings for integration attempts that have been made to link education towards solving Namibian community problems; and the results were promising. The present chapter findings provides a spring board for South Africa to fast track the integration of IK and LO to match the pace with other global integration developments happening in countries such as America, Australia and New Zealand (Brown, Muzirambi & Pabale, 2006; Khupe, 2014).

Furthermore, findings gathered in this chapter validate Makhubele & Qalinga (2008) as well as Semali (2011) observations that the current life skills education does not consider real identities of children nor arouse their indigenous worldviews and perceptions. They also relate and share the level of integration knowledge in North West province in South Africa. Thus, the present findings close a gap raised by many indigenous researchers (Bohensky & Maru, 2011; Ngai & Koehn, 2010; Owuor, 2007) about the need to report advances towards integrating IK in various education disciplines elsewhere. Suggestions by LO educators to *engage IK holders and community elders; use oral discussions; and learn from indigenous students* confirms Omolewa (2007)'s observation that *language; music; dance; drama; oral tradition; proverbs; myths; stories; culture; religion; and elders* can be used as pedagogical integration methods. However, the current findings such as *linking IK to subject outcomes*, and connecting *indigenous practices* to *LO teaching practices* contributes new knowledge related to integration methods and processes. These findings build up on Bohensky and Maru (2011)'s findings which failed to give practical examples of sustainable methods, processes and partnerships necessary for integrating IK in education disciplines. However, it must be acknowledged that the present study was only limited to one province and therefore the findings may not be generalised to the whole South African community. Perhaps, more integration related researches should be done in other provinces in South Africa in order to have a holistic account of LO and IK integration processes.

5.7 CHAPTER CONCLUSION

This chapter presented the findings obtained under the second objective namely: to explore the extent to which LO educators understand, value and integrate indigenous knowledge (IK) in TVET Colleges in North West Province in South Africa. The chapter initiated with an introduction and description of the problem under study. This was meant to outline the main objective and aim of the chapter, as well as explaining the chapter map. The specific theoretical lens underpinning the study findings was discussed. This was followed by a description of the demographic characteristics of participants, strategy of inquiry followed, and the data collection and analysis method followed. Research findings were then given and were categorized under the themes: (i) purpose of LO; (ii) challenges in LO; (iii) impact of LO; (iv) the meaning and value of IK; (v) IK and LO integration; and (vi) IK integration method, processes and partnerships. While the themes on the purpose and challenges in LO as well as the meaning of IK answered how LO educators understand LO education and IK; the theme on the impact of LO assessed the value of LO education to participants. Findings on the meaning and value of IK were also used to assess the perceptions of both educators and students on IK. The theme on the LO and IK integration determined the extent to which LO educators integrate IK and LO in TVET Colleges in the North West Province of South Africa. The last theme on the IK integration method, processes and partnerships provided extended suggestions on the possible methods, processes and partnerships which can be applied in integrating IK and LO education. A summary of conclusions on findings obtained in the study was done. In the last part of the chapter, a discussion was done to relate the findings to theory, and to compare the findings with the existing literature.

It is crucial to note that five conclusions can be made in this chapter, that: (i) LO educators in TVET Colleges in North West province understand and value the impact of LO education; but, have little understanding of indigenous knowledge and do not value it at all; (ii) LO students do understand the essence of LO, but, are unaware of the concept of indigenous knowledge; (iii) LO educators do not integrate indigenous knowledge and are not supported with integration guidelines, frameworks or models; (iv) Students confirmed that there is no relationship between the school-college and home or community; and (v) educators suggested important methods, processes and partnerships necessary for integrating IK and LO. This chapter findings, together

with the preceding findings in chapter four, put us in full picture about the implementation of LO policies being done by LO educators in TVET Colleges in the North West Province. However, it was deemed necessary to also inquire about the views of indigenous knowledge holders, and gather their suggestions also, on the methods, processes and partnerships necessary for integrating IK and LO. Thus, the next chapter responded to objective three and presented the findings on the views of IK holders towards decolonising LO by integrating IK and LO education.

CHAPTER SIX

VIEWS OF LOCAL COMMUNITY IK HOLDERS ON DECOLONISING AND INTEGRATING LO AND IK EDUCATION

6.1 INTRODUCTION

Despite the increasing worldwide trend to integrate indigenous knowledge (IK) in education, there have been little empirical investigations and findings reported on collaborating with indigenous knowledge holders for educational purposes (Lwoga, Ngulube & Stilwell, 2010; Makhubele & Qalinga, 2008). This chapter reports the empirical findings on integrating Life Orientation (LO) or life skills and IK education obtained from Barolong Bo ra Tshidi Indigenous Knowledge Holders in Mahikeng Municipal District. Knowledge integration in the view of Maru and Bohensky (2011) facilitates productive and beneficial relationships between indigenous people and the education sector, provides new frames of integration, and formulates inter-cultural knowledge bridges in education.

This chapter responds to objective three which was set to determine the attitudes, views, perceptions and suggestions from local IK holders on (i) decolonising LO education, and (ii) integrating IK and LO in Technical Vocational Education and Training (TVET) Colleges in North West Province of South Africa. Thus, the chapter outline includes subtopics such as the description of the theoretical perspective followed; demographic characteristics of participants and data collection method used; findings obtained; and the concluding chapter summary.

6.2 THEORETICAL PERSPECTIVE

Empirical investigations in this chapter were underpinned by the Indigenous Standpoint Theory (IST) which filtered the findings obtained in the chapter. IST was conceived from two underpinning viewpoints namely the social constructivism theory and the feminist perspective (Nakata, 2002). Social Constructivism theory as well as its sub-theories such as the ESDC theory or the Border Crossing Collateral theory acknowledges that meaningful learning only takes place when it is culturally and socially contextualised (Choy & Woodlock, 2007). The feminist perspective advocates that there is no such thing as objective knowledge that is not situated in a

social environment. Feminists argue that the social environment can only be best understood from within (Foley, 2003). In relation to IK, feminist standpoint explains that it is only possible to make sense of IK epistemology by learning from within a certain socially constructed world or using the insiders to obtain knowledge (Foley, 2003). Proponents of IST include authors such as Herkman, Harstock, Harding, Smith and Collins (Wylie, 2003). In essence, the IST advocates for the inclusion and recognition of indigenous knowledge holders in the central academic discourse (Nakata, 2004), to partake and share IK which in turn strengthens the present educational systems (Choy & Woodlock, 2007). As things stand, indigenous people are subject to structural domination, manipulation, subjugation and systemic marginalisation by the West orientated academy (Wylie, 2003); in this case by the new democratic educational structures such as schools, colleges and universities. However, the rich knowledge, wisdom and experiences of the indigenous people remain unknown within the academy (Foley, 2003) and are slowly disappearing, yet, it is the hope for community development and emancipation.

Therefore, IST interprets findings between the indigenous knowledge holders and the Western academy and dismisses the crafted normative claims related to epistemic privilege or knowledge authority (Foley, 2003; Wylie, 2003; Woodlock & Choy, 2007). It explains and makes it easy to understand how the insiders (indigenous cultural people) enrich the outsiders (the Western inquirers) (Wylie, 2003). For this study, indigenous knowledge holders represent the marginalised standpoints whose beliefs, values, systems, practices and traditions can complement today's LO (life skills) education with its cultural pluralistic methodologies (Choy & Woodlock, 2007). It is hoped that IST has the potential to facilitate IK and LO integration; and elevate the pedagogy of indigenous students while impacting their social indigenous communities. Teaching and learning in the view of Choy and Woodlock cannot fully materialise without taking culture into consideration. Based on the view that the current formal pedagogy is not doing enough to benefit indigenous communities (Nakata, 2004), the inclusion of IK holders within the education matrices is believed herein to strengthen the pedagogical strategies, integration techniques and promote cultural diversity (Choy & Woodlock, 2007).

Important considerations to be followed when integrating IK into education disciplines (Choy & Woodlock, 2007; Foley, 2003) relate to accessing, translating, negotiating, ownership, partnership, involvement, respecting and trusting relationships between the IK holders and

education stakeholders. In this study, the researcher shared, discussed, negotiated and involved the IK holders in sharing their views on LO and IK integration; through respectful and trustful oral discussions. Indigenous protocols such as respecting the indigenous peoples' identities, cultures and traditions were also followed; and more is elaborated in the methodology section (6.3). Sustainable relationships and working partnerships were formed between the researcher-indigenous knowledge holders and the local community leader or Kgosi (Chief). This should follow suit in any integration attempts including the IK and LO integration processes. For Miller (2005), true partnerships allow community ownership, involvement, participation and the establishment of networks. The implementation of IST according to Choy and Woodlock (2007) is facilitated by the Indigenous Standpoint Pedagogy (ISP).

The ISP considers two important strategies namely, (i) integrating IK into educational programmes; and (ii) involving indigenous community participation in the development and teaching of indigenous students (Winslett & Phillips, 2005). The inclusion of indigenous knowledge holders within the academy enhances the realisation of new outcomes (Winslett & Phillips, 2005) formed from the indigenous standpoint. These outcomes in the view of Choy and Woodlock (2007) facilitate plural teaching and does not only elevate indigenous pedagogy, but contextualise the teaching content to include both cultural and social perspectives. To implement ISP, Choy and Woodlock (2007:44) advise that one is indeed challenged to follow the following strategies:

- ...i. Begin with the documentation of indigenous knowledge through the involvement of indigenous knowledge holders who are familiar with the local contexts, cultural sensitivities and language;
- ii. Gather strategies and solutions suggested by indigenous knowledge holders, that which is necessary in solving the current local issues and problems;
- iii. Critiquing and reflecting on meanings, assumptions and contributions for the purpose of validating discourses;
- iv. Follow and respect indigenous protocols of the local communities which include communication channels, beliefs, values and morals;
- v. Develop and maintain working partnerships which are principled through trust and rapport; and
- vi. Engaging in cross-cultural awareness campaigns; which are sensitive to unique and diverse cultures and sub-cultures within communities.

Assumptions and strategies gathered from the IST and ISP theories were then used to filter the findings obtained in this chapter. The following methodology for collecting and analysing data is presented.

6.3 METHODOLOGY

The following section describes the empirical research methodology followed in gathering data from IK holders. The following issues are discussed in detail: (i) the research strategy followed; (ii) how the researcher gained access, followed protocols and the methods used; (iii) how the data was collected; and (iv) how the data was analysed.

6.3.1 Research strategy

The Medicine Wheel Cultural Intrinsic strategy was adopted during data collection process. This strategy involves a cyclic medicine wheel divided into four parts or directions (Shield, 2003). At the centre of this wheel, is where the precious self is situated (Conti, 2001). For this study, the self represented the IK holder, as the most respected individual to give us directions to overcome IK integration problems in LO. The yellow power, (east direction), of the medicine wheel, sometimes given an analogy of a pure woman, provided insights, compassions and illuminations for gathering rich data (Engelbrecht, 2011). The researcher used this strategy introspect, become pure, open and trustful; and surprisingly, this was naturally reciprocated by IK holders who also gave their genuine views, perceptions, ideas and suggestions about the problem. The white south power direction is the still connection between the self and others, and it is shared through connections, relationships and sharing among human beings (Swam, 2004). For the study, the researcher asked for connection with the IK holders through seeking permission from the Chief and later inviting and getting consent from IK holders to participate. The black power is the physical or the action which has an impact on the environment and others (Dyck, 2009). In application, IK holders were engaged in oral discussions and they provided suggestions based on their desire to free the educators and students from problems created by the Western-biased LO education system. The last colour which is the red colour (north direction) symbolises the emotional power, motivation and trusting drive among individuals

(Anishnaabemdaa (2010). This power was utilised in recruiting IK holders to participate; and the researcher conformed to indigenous protocols and ethics in order to win the hearts of participants. The researcher used local language, and being black, made it easier for the researcher to connect with IK holders.

6.3.2 Access, Protocols and Methods

In order to investigate the attitudes, perceptions and suggestions from indigenous knowledge (IK) holders, the researcher negotiated for *access*, followed indigenous *protocols*, and utilised indigenous *methods* to collect data. First, the ethical clearance to conduct the study was granted from North West University. The researcher then visited *Kgosi* (Chief) Montshia's office (Puso) at Barolong Bo ra Tshidi in Mahikeng District. He negotiated for permission to conduct the study with the local community indigenous knowledge holders as participants. All indigenous protocols such as wearing a closed jacket and long trousers (as a sign of respect) were observed. Permission was granted, and the Chief signed and stamped the researcher's request form as a sign of acceptance. He then instructed the researcher and his team to enter his village consisting of eleven households or cluster villages. The following picture shows all the different names of households in Barolong Boora Tshidi's district and it is placed at the gate of Kgosi's office.



Figure 6. 1: Households in Barolong Bo ra Tshidi's district

Source: picture taken at Chief's office entrance

The data collection process initiated with the *Kgosi* referring and directing the researchers to one IK holder (Mme/Mrs Modiragabo) while indicating that other IK holders were scattered around the community and all we had to do was to ask for directions from participants interviewed. *Mme* Modiragabo revealed that there are only six to seven IK holders around the whole community and after the interview she directed us to another IK holder (*Rre* (Mr.) Tholo). Through this snowball (referral) process, all seven indigenous knowledge holders were visited and interviewed. Although an interview guide was prepared, all interviews took the form of indigenous oral discussions, and lasted for an hour or more per session. This is an acceptable practice in IK research and methodology (Chilisa, 2012). Deliberations were more of natural conversations, and were done in a respectful and mutual manner. All oral discussions were conducted in the homes of indigenous knowledge holders. In other sessions, the IK holders discussed so many issues at once, most probably covering all items listed in the discussion guides. However, the researcher could not limit the participants' contributions and as such, more information than required was gathered.

6.3.3 Data Corpus and Collection Process

The Data corpus in this study involved oral discussions with seven key indigenous knowledge (IK) holders in Mafikeng district in North West Province. These IK holders were contacted through a snowball referral and directed process. As indicated before, one IK holder would refer the researcher to another IK holder either staying somewhere far or near the IK holder's home. Through this process, the researcher visited all IK holders in the company of two local indigenous translators for guidance, facilitations, scribing and translations. The main reason for recruiting indigenous translators was in respect of the indigenous cultures and communities (Chilisa, 2012; Choy & Woodlock, 2007); and to avoid data contamination since the researcher do not fully comprehend some other deep local Setswana dialects.

All IK holders spoke Setswana which is the common indigenous language in North West Province, *inter alia*, the language of their forefathers. All oral discussions were recorded on a voice recorder after getting the permission to record from participants. The researcher noted all

crucial field notes which include the actual time and place where the discussions were done as well as the personal details of all IK holders. More so, the researcher attentively observed and noted all actions such as enthusiasm, excitement, disappointment and other body languages shown by participants. All IK holders who participated in this study were asked if they wanted their identities or names to be included in the study and they all agreed and indicated that it was not a problem to them. These ideas are supported by Chilisa (2012) who note that it is essential to acknowledge or include names and identities of indigenous participants when conducting indigenous-related studies. Immediately after collecting the data, all research officials gathered and translated all the data from Setswana to English. The translated data was then transcribed verbatim, typed and saved in the researcher's e-mail and server.

6.3.4 Data Analysis process

Analysis of empirical data followed a descriptive and thematic data analysis process. Two major milestones done during data analysis include (i) the ocular scan method, and (ii) systematic analysis and abstraction process. The following sections provide detailed descriptions of the processes followed.

6.3.3.1 Ocular scan method

All translated, transliterated and transcribed data was first handed to one representative participant for verification and confirmation of the data. He then signed at the bottom of the data sheet to indicate that the data was a true reflection of the participants' contributions. Thereafter, the data was immersed through the researcher's *ocular scan* or *eyeballing* scrutiny to generate ideas and make sense of the data and relate it to existing theoretical perspectives. In simpler terms, the researcher repeatedly read over the data text to proof-read the material, identify recurrent ideas as well as to understand the key issues in the data. Researchers such as Ryan and Bernard (2017) define this process as the *pawing* process. Different coloured highlighter marking pens were used to mark major concepts, reappearing ideas, connected words or comments that were unusual, noteworthy or contradictory from the researcher's perspective. Implicit and explicit ideas based on participants' meanings were not only outlined but assessed with regard to their connections.

6.3.3.2 Systematic data analysis and abstraction

Multiple data analysis techniques such as the word-based technique, indigenous categories and the scrutiny-based techniques were used. Word-based technique was used to identify recurring words, repetitions within the data, semantic codes and the latent codes (Ryan & Bernard, 2017). A rough frequency table was designed to record the times in which the words appeared in the texts. Indigenous categories or *In Vivo* coding was done to examine local terms that were sounding unfamiliar or were used in unfamiliar ways. This process was done in order to understand the concepts based on how they are used by participants. Scrutiny based-technique of comparing and contrasting, querying the text and examining absences was also applied. The researcher compared and contrasted the identified meanings to theoretical constructs and literature typologies for the purpose of querying, and questioning the missing information or generating new knowledge.

6.4 FINDINGS

This section presents the empirical oral discussion findings obtained from local community IK holders on integrating IK and LO education in TVET Colleges in South Africa. The oral discussions and questions covered seven major themes which include IK holders' views on life skills education; recognition of IK holders; decolonising life skills education; clarification on indigenous life skills education; information on indigenous content and methods; possible integration methods, processes and partnerships; and the expected challenges in integrating LO and IK. The following themes and sub-themes detail the findings obtained in the study.

6.4.1 Theme One: IK Holders' Views on the Current Life Skills Education

Participants were asked about their views on the current life skills education. The reason for this interrogation was to assess whether the current life skills education is doing enough to develop students personally, socially and emotionally. It was evident that all IK holders showed a negative perception on the current life skills education. They lambasted the present education by stating that it is not effective enough; lacks spiritual guidance; lacks moral guidance; is void of cultural customs and norms; lacks innovation; embraces mediocrity; lacks discipline; is loosely controlled; more theoretical in nature; below standard; and it is disintegrated in nature.

6.4.1.1 Views about the present Life Skills education

Participants indicated that life skills education is slowly becoming ineffective for it is doing little to develop students and solve the socio-economic and political problems. They assumed that the education system itself is mauled by numerous flaws, discussed later in this section, which are contributing to its downfall. The following comments from participants confirmed this view:

“The education is not effective at all” – Rre Tolo.

“Life skills education is not effective enough” – Mme Mmusi.

Participants hinted and described many reasons adding to this claim on life skills education. Although more of these reasons and causes will be elaborated later in this section, one major reason contributing to the ineffectiveness of LO (life skills) education is the issue of lowering the standards of education. Participants stated that the present adjustments of policies to lower the pass rates to (30%) are unjust to the education standards. To add to this list are the assessment levels which have also been lowered. The main concern about this lowering of standards is that it affects students later in their work life for many students will be having certificates and yet they do not know anything.

“The problem with the education today is that the standards are low. The policies are affecting teaching and learning, imagine how lowering the pass rate to 30% this is total madness” – Mme Mmusi.

“The assessment levels are being lowered and this affects students later in their life say in the workplace. Students will be having certificates yet they know nothing” – Mme Mmusi.

i. Mediocrity and dysfunctional

There were further descriptions on the nature and extent of life skills education from participants. They indicated that the present LO (life skills) education system embraces mediocrity and this is reflected in the poor results obtained by students each year. To them, the education system as a

whole is in a non-functional state for it does not provide its mandate – of developing students. In the view of participants, the ineffectiveness of LO (life skills) education is more of a systemic issue than the sole educators' problem. Participants suggested that LO (life skills) education system needs more attention for it to be fully functional; and it urgently needs to be developed. These views emerged from the following precepts recorded from participants.

*"Haaa!, my son, our system embraces mediocrity, results are poor – Rre Tolo
The education today is not non-functional and it does not prepare our students
enough"* – Mme Mmusi.

*"We have educators who are skilled but the system is failing them. There are so
many problems which are happening today; our system is far less developed as
compared to other education systems in other countries"* - Rre Tolo.

Many reasons linked to the ineffectiveness of LO (life skills) education were raised by participants. These include, among other things, the disintegration of education; the impractical nature of LO-life skills education; its lack of control and discipline; and the lack of seriousness and strictness among educators.

ii. Non-inclusion of IK holders

The isolation and non-engagement of IK holders and indigenous communities in the education matrix was said to be contributing to the deterioration of education quality in the country. Participants highlighted that this disconnection between indigenous knowledge and LO education has caused more harm than good. Participants were concerned about the government's conduct of not making an effort to include IK holders within the education sector. IK holders indicated that they do understand their own children better; and by getting involved, it makes it easier for them to assist in shaping the behaviour of children. The following concerns and views from IK holders were raised:

*"The government says that they teach our children (ba ba ruta eng?)-what are
they teaching them. Why don't we work together so that we can take a hand in*

teaching our children; we can do lot to assist our students on how to behave and do handwork” – Rre Simon.

Participants were also worried about the disconnection between the indigenous world and the academic world. In the view of participants, children take advantage of this disconnection and engage in unruly behaviour. Participants implicated this disjoint on the current laws and rights which over protects children; as well as the submission of absolute power to the police alone. They viewed the law enforcing process as being important mostly during corrective retribution; and acclaimed that children still need guidance and nurturing from their own parents and community members. The steering and rearing of children is essential and should be given more preference since it reduces many crimes committed by children. Rre Mokwa summed up this contribution by saying:

“There is now no connection between the home, the school and the community. Crime has risen, problems such as criminality, child abuse, drugs and teenage pregnancy can be solved by parents and community members not police or government” – Rre Mokwa.

iii. Impractical and hindering innovation

LO (Life Skills) education in the view of participants is more theoretical in nature; hence, students are not exposed to practical orientations. It seems students do not practice what they are taught, worse still, no one hold them accountable. According to one participant (Mme Mmusi), Life Skills education is therefore non-functional, impractical and unspecialised. She added that in this respect, students are not prepared and developed enough particularly on moral and social-related issues. In her words:

“Life skills education is not effective enough because it does not train students to be innovative; our students lack specialisation; the education today is not practical and it is non-functional and it does not prepare our students enough; our students are not being developed socially-they lack moral guidance and they do not value our own culture anymore” – Mme Mmusi.

iv. Lack of control and discipline among students

Participants raised new and meaningful perspectives about other variables impacting LO education. In the view of participants, the non-functionality and ineffectiveness of LO education is worsened by lack of control or discipline among students. Participants indicated that the current LO education is affected by three main things namely, (i) lack of monitoring of educators and students, (ii) the advent of children's rights and overprotection, and (iii) the removal of corporal punishment in schools and colleges. Mme Modiragabo and Rre Mokgwe summarised these views thus:

"Bogologolo barutabana ne ba jela barutwana nala kwa gae go tlhola gore ba itse maitsholo a bona kwa gae, jaanong malatsi a ga gona morutabana ope oka etelang ngwana kwa gae ka ntlheng ya boikgatoloso jo bo leng teng gompieno le puso e ya jaanong e emela bana thata jaanong barutabana ga ba kgone go ruta bana maitseo le gore ke eng se se phoso (Long time ago educators were respected and they controlled children, but nowadays children have so many rights and they do not listen to their elders)" – Mme Modiragabo.

"In our times we had inspectors checking 'us' at schools to see if we were being taught well or passing. We did not have grades it was Sub A, Sub B and first Prem. We were beaten up (ne re itewa) for misbehaving. It was not abuse but it was discipline; but not we can't beat our children if we do they will take us to the nearest police station. At home and school being beaten was common and we are who we are because of the beatings that are now called abuse" – Rre Mokgwe.

v. Lack of seriousness about education

Students, educators and other stakeholders in education were said to be not serious. One participant compared the past system to the present and argued that the previous one was better than the current one. She said that she was even baffled that the new system looks down upon the previous system yet there is much to learn from the past.

“Thuto ya segologolo ene e gagamatsa molao mo baneng gore botlhe ba itse botlhokwa jwa go fafola. (The new school system does not take education seriously, the previous education system is taken for granted, they undermine it not knowing that it has the most important knowledge on how to help students pass their studies)” – Mme Modiragabo

The points raised by participants in this category converge toward the idea that there is an urgent need for having a working relationship among various stakeholders in education. From participants’ view, much can be learnt from the two different worlds which are the indigenous world and the present world.

6.4.1.2 Life skills education and its impact on students

IK holders further supported their claim that LO (life skills) education is not doing enough to help the present generation of students. They all agreed that many reflections from students such as lack of spiritual guidance, lack of moral guidance, being void of cultural customs, and lack of control are enough proof to show that the present education has lost its direction. The following descriptions emerged.

i. Students lack spiritual guidance

Lack of spiritual guidance among students was said to be the contributory factor to LO education’s ineffectiveness. Participants pointed that the present generation of students lacks God and therefore are deficient in spiritual guidance. In the view of participants, students do not have a compass to guide them and so they do not have any direction. Their actions such as being fearless, having no control, and lacking respect indicate that they are misinformed. To add to this list of misfortunes, is the issue of rights. In the view of participants, Western-biased rights as advocated in South Africa have actually corrupted the students’ spirit. In the plight of children’s rights, some students do as they please, for example, sleeping outside and committing adultery. Below stated, are the sentiments raised by one participant on the issue of spiritual guidance and the dark side of human rights among students:

“Bana ba tobekane ba senyegile maikutlo le ditlhaloganyo (The children nowadays are holistically affected everywhere-their soul, mind and bodies are just a messy). They do not involve God in their lives and studies. They do not fear anything; they do not have control, boundaries or respect for life-elders-or culture. The children today can sleep outside after school and they have no respect for parents all because they are protected by rights. Nna oka rona oka se bona ga oka lala koo ole ngwanake nna ke ise ke lale koo ga kele mosetsanyana (If you are my child you will see it when you sleep outside because I never slept outside when I was a girl)” – Mme Modiragabo.

ii. Lack of moral guidance among students

Participants were also concerned about the issue of moral guidance. They felt that the weaning of children from the indigenous cultural system to the Western democratic school system left a vacuum in the lives of students. It seems the parents’ hands are now tied by the new school system and the democratic rights for children. Students spend more time of their lives in schools and are protected by many rights, particularly during their wrong doings. These do not offer enough time to the indigenous guardians to offer their moral support and guidance to children. Henceforth, participants blamed the LO (life skills) education for not being there to properly guide the children. This situation is painful more in that the children now do not listen anymore to the extent that they now tell their parents what to do. Back then, in the view of participants, every elder was a guardian for every child in the society. It did not matter whether you are the real parent or not, moral guidance was the equal responsibility of every elder or parent. The advent of Western-biased rights has changed this setup and this could be the reason also for moral decadence.

“Our students are not being developed socially-they lack moral guidance and they do not value our own culture anymore” – Mme Mmusi.

“The previous school system used to punish students and so they were afraid ...Nowadays there is no punishment for misbehaving at school because of the rights that the children have” – Mme Modiragabo.

“Go tlhakatlhakane fela gompiano bana ke bone ba bolellang barutabana gore badire eng ibile gape balaola barutabana (It’s just a messy these days our children do not listen anymore but they rather tell their elders what to do)” – Mme Modiragabo.

“Bogologolo gao le mogolu, o ne o kgona go kgalemela ngwana le ga e se wa ga go, kgotsa gomo itaya.jaanong ka gore gompiano go na le ditswanelo tsa bana tseo di tlisitsweng ke yone phuso enchwa e ebidiwang democracy kapo ditshwanelo (rights) (Back then elders would teach or discipline the young ones even those not their own kids but now because of rights and democracy all have changed)” - Mme Modiragabo.

iii. Students being void of cultural customs and norms

Lack of cultural customs and norms among students also concerned participants. They felt that the children of today do not have cultural customs, norms and values to observe anymore. As a result, children nowadays do not fear anything nor have boundaries. The intensity of this matter, in the view of participants was that the children now even do not respect their elders nor value their culture.

“They do not fear anything; they do not have control, boundaries or respect for life-elders-or culture” – Mme Modiragabo.

“Our children nowadays are now fearless due to the vanishing of our customary myths” – Rre Tolo.

iv. Students are loosely controlled

Among numerous sentiments raised above, it emerged that the loose control among students is also fuelling the ineffectiveness of LO (life skills) education. The present education system, in the view of participants, is too formal and not strict. It seems that there are insufficient tools and mechanisms to control students. For example, students’ failure could be linked to the idea that

educators allow it to happen that way. Unlike the previous education system where students were punished for failure, the present so-called democratic system overprotects children through the so-called children's rights. One participant noted thus:

Thuto ya gompieno ga ba gagamaletse bana ba(They are not strict or formal when it comes to education; they let these students get away with failing. The previous school system used to punish students and so they were afraid to fail in case they will be punished)" – Mme Modiragabo.

6.4.2 Theme Two: Indigenous life skills education and pedagogies

The researcher interrogated the previous indigenous life skills education and pedagogies in order to assess the differences between the past and the present education systems. Four sub-themes which emerged from this empirical investigation include moral education; multiple life-related skills education; IK content; and teaching methods.

6.4.2.1 Moral education

It emerged in this study that the Batswana traditional life skills education involved teaching children about moral education. This education was mainly concerned with inculcating values, beliefs and culture; which were intended to transform an individual child. Mme Modiragabo reiterated that she was taught the basic traditional values; beliefs and cultures; as well as the knowledge and history of her forefathers. She conversed that:

"We were taught how to respect everyone, to give and assist the needy, to control ourselves and value relationships" – Mme Modiragabo.

6.4.2.2 Multiple life-related IK skills education

Participants in this study mentioned that they were taught various skills such as *cooking, farming, milking cows, making maize meal, making storage tanks, fetching fire wood, making clothes, shoes, hand work skills, crafting skills, sewing, drying meat, making cups and plates, knitting, beading, making necklaces, wood-work, cane work, pottery and sieving*. The following pictures show some of the skills mentioned and products made by IK holders.

"I make these traditional necklaces and bangles from beads and I earn a living by selling these. I wish our children could learn these skills and sustain their lives as well" – Mme Segotso.



Figure 6. 2: Mme segotso's Beadwork

Source: Picture taken by the researcher



Figure 6. 3: Beading Artwork and drawing done by Mme Segotso

Source: Picture taken by theresearcher



Figure 6. 4: Fine art and drawing done done by Mme Segotso

Source: Picture taken by theresearcher

"I make real leather shoes, bags and handbags from local animal skins such as cows or kudus. I design and make them and many people even companies come and buy them for re-sale. I support my children out of this project. However, it hurts me that our kids do not know some of important skills. One day I will be gone and all my skills will disappear"– Rre Tshepiso.





Figure 6. 5: Shoes and bags made by Rre Tshepiso

Source: Picture taken by theresearcher

“My great grandmother taught me how to weave and make baskets, hats sweeping brooms and pottery. I also design African cloths. I sell these products to the community members. Some even come and buy in bulk for resale. This is my way of living” – Mme Modiragabo

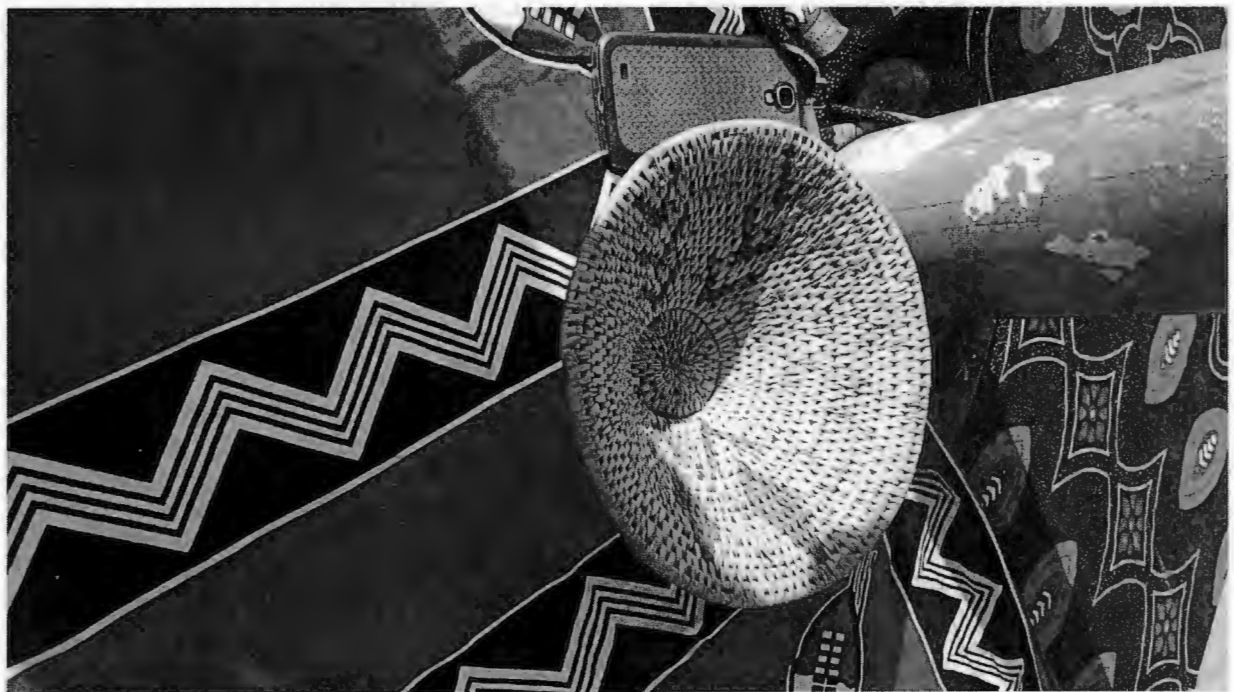


Figure 6. 6: Weaved basket made by Mme Modiragabo

Source: Picture taken by theresearcher



Figure 6. 7: Cooking pot made by Mme Modiragabo

Source: Picture taken by theresearcher

6.4.2.3 IK Content

The previous IK content in the view of IK holders was characterised by multiple useful knowledge and skills gains. Mme Modiragabo highlighted the nature of indigenous education content and gave the following examples.

Ne re iphekola ka ditlhare tsa Setswana re saye dingakeng ne re epa molemo mo mmung go fodisa malwetsi jaaka tlhogo, sehuba le tse dingwe (We were taught variable things such as how to do first aid, how to treat diseases-flue, headaches using natural herbs coming from the ground)" – Mme Modiragabo.

6.4.2.4 Teaching methods

The difference between the indigenous life skills education and current life skills education is that the former was conducted through real life experiences. Mme Modiragabo said:

"We were learning through real life experiences, for instance, making real objects and artifacts such as lekoka and makgabe (dresses)" – Mme modiragabo.

Although indigenous children were taught either under a tree or in a muddy grass thatched house, participants stated that they received quality and valuable education. Dances, dramas, songs or poetry were used also as mediums of instruction. This is evidenced by Rre Mokwa when he details that:

"We were taught poetry relating to our culture in the lower grades and in middle school we were taught how to read and write. In upper grades we learnt skills" – Rre Mokwa.

6.4.3 Theme Three: Recognition of IK Holders

Participants were asked if the present education system does recognise indigenous knowledge holders. This question was mainly intended to find the extent to which IK holders are being recognised in schools and colleges, bearing in mind the LO policy which stipulates that indigenous knowledge should be included during teaching. In response, five sub-themes describing the state of affairs, practices and the effects ofwere realised during the data analysis process. Emerging sub-themes include non-recognition, undermining of IK holders, no certificates, secluded from planning and meetings, and unfair practices such as not being rewarded.

6.4.3.1 Non-recognition

Findings in this category revealed that there is non-recognition of IK holders in schools and colleges. Participants pointed out that this missing link could be the root of many problems we are facing today, not only in schools and colleges, but all over the world. Despite the wish that participants want to train their children to have discipline and skills necessary for development, schools and colleges are training students to be generalists. Participants argued that this non-recognition of IK holders could be the cause of many problems such as indiscipline, lack of jobs and community underdevelopment. These sentiments were raised by many participants.

“Schools or colleges do not recognise us. We are so willing to transfer the knowledge and skills we got from our parents to our children. We want our children to have discipline, we want to create jobs, we want our province to have stability and have its own things” – Rre Mokgwe.

“Schools or colleges do not recognise us and this is no wonder why we have so many problems” - Mme Mmusi.

“Schools or colleges do not recognise indigenous knowledge; our education is now training our students to be too general” – Rre Tolo.

6.4.3.2 Undermining of IK holders

All indigenous knowledge holders concurred that things were not well with the present education system. Participants stated that they are not being recognised at all and they are usually undermined by different educational stakeholders. For instance, Rre Mokwa affirmed that in the education system;

“Ga gona se se siameng ngwanake (there is nothing right my son...); A ba re bone ebile ke lenyatso fela (they do not recognise us. Instead, they look down upon us)” – Rre Mokwa.

6.4.3.3 No certificates

It was realised that the government does not recognise IK holders because there are no structures which accommodate them. Instead, there are only Western professional structures where they rely mostly on certificates. With this, the indigenous skills and experiences of IK holders are neglected or rendered useless. Rre Tshepiso said that:

“The government and schools say we are not competent because we do have a paper (certificate) and they do not recognise us yet we have the skills”- Rre Tshepiso.

On the contrary, participants criticised the new ways of knowing saying that some educators only have the knowledge of certificates (theory) and lack the indigenous practical and experiential knowledge necessary for students' lives. On this viewpoint, one participant shared that:

Le bone barutabana ga ba na kitso ya rona ya segologolo, ba na le ya sekwalejwale sa setlankana sa thuto (certificate) ga ba itse go laya bana; ke ka moo nkabe batla mo go rona, batle go kopa thuso ya gore ba ka ruta bana jang le gore go tshwaragangwe thuto ya segologolo le ya segompieno gore bana ba ithute ba falole ba se ke ba palela batsadi le barutabana ba bone (Also the educators do not have our knowledge and skills all they have is the knowledge of certificates they do not know our old ways of teaching instead they are supposed to come and ask for help so that the children pass and do not become a burden to their parents)” - Mme Modiragabo.

6.4.3.4 Secluded from planning and meetings

It was surprising to note that IK holders are also being undermined even within their own community boundaries. It emerged that (DiKgosi) Chiefs do not involve or engage IK holders during planning and meetings. The following view from one participant explains this observation.

“Everyone – the government, schools and (Bo Kgosi) the Chiefs undermine indigenous knowledge holders. (DiKgosi) The Chiefs do not call us to their meetings to share our views” – Mme Modiragabo.

6.4.4.5. Unfair practices- IK holders are not rewarded

Participants were also concerned about some unfair practices done by some Chiefs or DiKgosi. They were distressed that some Chiefs benefit alone and they do not share anything with the IK holders. Their main worry was that the Chiefs send people to inquire and seek information from them yet when the Chiefs are rewarded as custodians of culture – indigenous knowledge included – , they forget and do not consider the IK holders. This makes them to feel that they are being used. Mme Modiragabo summarised this concern by saying that:

Dikgosi dija di le nosi ga ba kgathalle rona mme ka nako eo batho ba batla thuso ka ngwao le setso sa rona, ba ba romela mo go rona bao re nyaditsweng (The chiefs eat alone and do not care about us but when people come to them for knowledge they send them to us)” – Mme Modiragabo.

“Re dirisetswa kitso le bothale bo re nang naabo mme ga re fiwe sepe bone ba ja ka gore ba tshwere pene le pampiri ba na le thuto jaanong ba re tsietsa ba re nyatsa mme ga ba na kitso le bothale bo re nang le bone le ge ele Dikgosi (They use our knowledge and give us nothing; for them they eat because they have a pen and a paper they think they know and suppress us not knowing they do not have the knowledge and wisdom that we have)” – Mme Modiragabo.

6.4.4 Theme Four: Decolonising life skills education

All participants agreed that LO education should be decolonised. Five important decolonisation strategies were suggested by participants. These include the transformation process, action methodology, awareness and campaigns, research and engagement, and including IK in education.

6.4.4.1 Transformation

IK holders argued that transforming LO education involve processes such as changing the education to become *practically*-orientated, inculcating *skills* among students and *integrating IK* into LO education. This idea was captured from Mme Mmusi’s narration that:

“It is high time people should know that they do not live in a book; LO should be more practical; The how part of it is not there; Students should be taught skills and not theory; and through the national Constitution, IK should be also considered”
– Mme Mmusi.

6.4.4.2 Action methodology and holistic approach

The other way to decolonise LO education in the view of IK holders is to utilise an action methodology. According to participants, the action methodology requires doing the following: (i) seeking spiritual guidance; (ii) re-aligning the laws and policies; (iii) conducting community engagement meetings; and (iv.) doing more research and publicity. Mme Modiragabo summarised this view by saying that:

“First we need to ask God first to open our minds and hearts and give us wisdom so that we can be able to help our children. Community meetings should be convened to talk about the problems such as the deterioration of indigenous education and values within our communities. Indigenous people should come together and propose the solutions to solve this problem and then they must choose representatives who will meet with the school leaders and all speak with one voice – Mme Modiragabo.

Mme Modiragabo felt so much touched and talked at length about the urgent need and ways to decolonise LO education; and at last she concluded that:

The laws must be drafted according to the communities' needs and wants meaning to say the community must decide on what is wrong or right.

“Jaaka re le batsadi, Puso, ketelopele ya loago le barutabana tshwantse re kopane re bue puo ele nngwe (We as parents, government, community elders and educators must come together and caucus about this issue and speak with one voice in order to regain control over our children)” – Mme Modiragabo.

6.4.4.3 Awareness campaigns

One more important thing raised by IK holders is linked to publicising the integration motive through social media, television or social papers as well as to inform the public about the value of IK. Rre Tolo suggests that there should be more dialogues among stakeholders designed to inform and share information on the benefits of indigenous knowledge within communities or societies. One participant suggested that:

"We can use social media, television or social papers to inform the public about the value of IK...; ...More dialogue is needed e.g. chiefs, public, educators and parents should be informed about IK and its benefit within societies" – Rre Tolo.

6.4.4.4 Research and engagement

It was brought forward that the process of decolonising LO education required more research and engagements too. Participants alluded that subsequent studies should be done on the ways and methods necessary for decolonising LO education.

"More researches should be done and there is a need for engagement" – Rre Tolo.

6.4.4.5 Including IK in education

Participants suggested that integrating IK in education, for instance, LO education would facilitate the decolonising agenda. In that regard, one participant stated that students should be taught about IK and it should be included within the curriculum. The teaching content and methods should take cognisance of IK. This view was summarised by the following participant:

"LO topics should include IK and IK teaching methods should be used" - Rre Tolo

6.4.5 Theme Five: Integration Methods, Processes and Partnerships

6.4.5.1 Integration methods

Participants in this study mentioned four distinct integration methods such as utilising the *school or college learning method, community learning method, re-alignment* of learning outcomes, and teaching practical skills method.

(a) School or college learning method

One participant suggested that IK holders could visit schools or colleges and help in teaching students.

“We can come to schools and teach children only if proper agreements and arrangements are made” – Rre Tolo.

(b) Community learning method

It was also found that there are some cultural centres around the community; and students can be attached to these cultural centres for IK tutoring.

“We have cultural villages in our communities, so students can also come and learn different skills” – Rre Tolo.

“Teaching should not only be confined to the classrooms but students should learn and be productive at the same time” – Rre Tolo.

(c) Re-alignment of learning outcomes

IK holders advised that subject and learning outcomes as well as topics should be re-aligned to suit the current technological changes. In the view of IK holders, all learning should be productive and educators should utilise various methods such as fieldwork, observations and demonstrations. These methods contribute more information on the methods necessary for integrating IK and LO education.

“Technology is changing and newspapers are slowly fading away. Teaching should also be changed according to the current societal trends. Life skills topics on job searches should be re-aligned to the current life principles. Students should be exposed to fieldwork, observations, demonstrations and practical tasks” – Mme Mmusi.

(d) Learning through practical experience

Participants also suggested that there is need to infuse practical experience within the curriculum. They stated that students can learn better through practical or real-life experiences. The importance of learning through practical experience is that students can practice solving real-life problems and this has a knock on effect on community development. This was echoed by Rre Tolo who had this to say:

“Students should be exposed to real life situations to gain practical experience Teaching should not only be confined to the classrooms but students should learn and be productive at the same time. Students should be given real-life problems to solve e.g. ending poverty in community households”.

6.4.5.2 Integration processes

IK holders proposed three major processes necessary to facilitate IK and LO integration. First, participants recommended that the curriculum needs to be changed. LO education in the view of IK holders should be guided by a *problem solving* approach. This implies that the education content should be aimed at solving societal problems. According to Mme Mmusi, the acquisition of knowledge should not only include but be reflective of indigenous knowledge gains. Secondly, there must be *structural re-adjustments* and engagements in education. Participants proposed that IK holders should be placed within the education structures and the government should initiate this process. Thirdly, it was suggested that *Western knowledge* and *indigenous knowledge* should be complement each other. This, according to participants, will allow students to be exposed to productive indigenous skills.

“The curriculum should be reviewed. A problem solving-focused curriculum should be implemented. Curriculum contents should be context based and Ik holders should give their inputs. Teaching content should be linked to the current societal problems and challenges” – Mme Mmusi.

Traditional methods of disciplining students in the view of IK holders should be re-considered. All in all, Mme Modiragabo stated that there is need for equal participation of police, educators and IK holders in helping the students.

“The government must not take the side of the children they must listen more to the parents that would mean working together. When we discipline the children we must all talk with one language so that the children won't get a chance to misbehave. The police must also come in and be part of the team” – Mme Segotso.

6.4.5.3 Partnerships

Two major forms of partnerships suggested by participants include the formation of *community organisations* and *cultural community centres*. In the view of participants, government should facilitate the formation of various indigenous community, cultural and community organisations and centres where students can come quarterly and gain knowledge.

“Community organisations should be formed. These organisations should work with institutions like schools, colleges or the department of education. All stakeholders e.g. the department of arts and culture, department of education, university faculties, Premier's officers should work hand in glove” – Mme Mmusi.

“Community groups should be formed. Department of arts and culture, education, and indigenous knowledge holders should come together. The government can form various indigenous, cultural and community centres where students can come quarterly and gain knowledge” – Rre Mokgwa.

However, IK holders argued that to avoid further undermining, domination and marginalisation of IK holders, there must be working dialogues, and probably IK holders must be also accredited.

6.4.6 Theme Six: Challenges in integrating LO and IK

Six sub-themes emerged in this section. IK holders expressed their concern that the integration of IK and LO might be impeded by various challenges such as *lack of dialogue, undermining of indigenous knowledge and its holders; lack of clearly defined structures; lack of proper communication; stealing of ideas, lack of recognition, stealing of ideas, and lack of funding.*

6.4.6.1 Lack of dialogue

It emerged that lack of formal dialogue among education stakeholders such as the government, school or college representatives and indigenous knowledge holders posed a big challenge to the integration motive. Participants were concerned that this lack of dialogue might result in school and college officials not allowing indigenous knowledge holders into their premises. To solve this problem, participants suggested that the government should formalise the integration process through drafting policies to facilitate this intervention. The following concerns were raised by one participant.

“If there is no proper dialogue or engagement the school bodies might refuse to allow IK holders into schools and colleges.

If the government does not make it a policy it will be difficult to implement the programme” - Rre Tholo.

6.4.6.2 Undermining of indigenous knowledge holders

The majority of participants (90%) indicated that the present generation undermines indigenous knowledge as well as indigenous knowledge holders. It appears both IK and IK holders are being looked down upon in many societies. This, in the view of participants is impacting on the values, beliefs and cultures of indigenous people. Most participants were concerned that the present generation is slowly losing direction as well as the indigenous knowledge of their fore-fathers. Based on this happening, the integration of LO and IK is challenged in that the present generation might not support the integration process due to their lack of understanding of the discipline. Italicised below, are the views of participants on this matter.

"The undermining of indigenous knowledge holders is killing our culture, values and beliefs" – Mme Modiragabo.

"Lack of support from the public due to their lack of knowledge about the importance of indigenous knowledge" – Mme Mmusi.

"We are treated as uneducated people and so many times we are exploited for nothing" – Mme Modiragabo.

6.4.6.3 Lack of clearly defined structures

Participants also raised an important point which might affect the LO and IK integration process. They stated that there are no clearly defined structures for indigenous knowledge holders at both community and education levels. Lack of recognition of IK holders by various stakeholders could be attributed to these structural gaps within indigenous communities and in the education system. With this, all the efforts of IK holders then become fruitless since no-one recognises them. This view was raised by the following participant:

"The government should place us within their structures so that people can recognise us; we do not have roles within the community structures yet we help people a lot" – Mme Modiragabo.

6.4.6.4 Lack of proper communication

Lack of formal structures raised above has a knock on effect on lack of proper communication channels. Participants were concerned that the unavailability of a well co-organised channel of communication within the indigenous knowledge holders themselves leaves a lot to be desired. There are no controlling mechanisms or guidelines to enhance uniformity of teaching across indigenous settings. This concern is also another hurdle to be cleared since it has a negative impact on LO and IK integration process. The following participant highlighted this challenge:

"There are no proper channels of communication within our segments as indigenous knowledge holders" - Mme Modiragabo.

6.4.6.5 Stealing of ideas

Many participants were concerned about the stealing of ideas done by unscrupulous government officials and intellectuals. It is worse in that these personnel are similar to wolves dressed in sheep skins. The challenge with this kind of behaviour is that it becomes difficult in the future for IK holders to trust anyone and might not fully share their knowledge and information even with researchers. It seems, the mistreatment or name calling of IK holders as being uneducated exposes them to exploitation. The following sentiments about the stealing of ideas and information were captured from one participant.

“Sometimes the government officials also steal our ideas and make millions out of them like we wanted to celebrate our anniversary and the budget was R119 000 and they did not get back to us and instead inflated the price to R2 300 000” – Rre Mokgwe .

“Some educated people they come and take information like how to make umqomboti (traditional African beer) then they get funding and they make money out of what we tell them and they do not give us anything” – Rre Mokgwe

“Our culture is dying because of corruption, instead of using our knowledge and resources government officials only want to benefit themselves” – Rre Mokgwe

In a nutshell, IK related politics and marginalisation such as the externalisation of knowledge, systemic manipulation and self enrichment impact on respect, trust and relationships between IK holders and the entire education community. From the IK and LO integration perspective, these must be avoided.

6.4.6.6 Lack of funding

Participants also noted that they are not happy with the government funding procedure and processes. They argued that they are not remunerated or given any funding from the government yet they are expected to teach or impart knowledge to students. In their view, it is so appalling

that the government policy is designed to only disburse funds to youths while the IK holders are left outside the funding equation. As stated below, this discourages many IK holders who in turn feel are not valued enough.

“Government funding process and policies is affecting us and demoralising us. The problem is the government says that they only fund the youths younger than 35 years and they forget that these youths need our assistance and knowledge. How do we impart our knowledge and skills while we are not part of the system”
 – Rre Simon.

6.5 SUMMARY OF FINDINGS OBTAINED

Table (table 6.1) presents the consolidated summary of findings obtained in this chapter.

Table 6. 1: Summary of findings

No.	Theme	Findings
1.	IK holders’ view on the current life skills education	<ul style="list-style-type: none"> • <i>Participants indicated that the current life skills education is ineffective since it embraces mediocrity and is dysfunctional. It is disintegrated in nature; impractical; void of cultural customs and loosely controlled.</i>
2.	Recognition of IK holders	<ul style="list-style-type: none"> • <i>IK holders are not being recognised and are being undermined since they are seen as being less educated.</i> • <i>Often, IK holders are secluded from planning meetings and are not rewarded for assisting community members and the society in general.</i>
3.	IK holders’ view on the previous indigenous life skills education	<ul style="list-style-type: none"> • <i>It provided moral education and children were taught values, beliefs and culture.</i> • <i>Multiple life-related skills such as cooking, farming, milking, knitting, handiwork, beading etc were offered.</i> • <i>Teaching content included the teaching of first aid, treatment of diseases, and the knowledge of herbs</i> • <i>Teaching methods were based on real-life experiences and practical experiences. Children were taught through dances, songs and poetry.</i>
4.	Decolonising life skills	<ul style="list-style-type: none"> • <i>Participants suggested that LO</i>

	education	<i>education should be decolonised through transformation; action methodology; awareness campaigns; research and engagements; and the process of including IK in education</i>
5.	Integration methods, processes and partnerships	<ul style="list-style-type: none"> • <i>Methods: include utilising school or college institutions; community learning; and re-alignment of learning outcomes</i> • <i>Process: using problem solving approaches; structural adjustments and engagements; and merging IK and western (LO) together.</i> • <i>Partnerships: community organisations; and cultural and community centres should partner with schools and college officials.</i>
6.	Challenges in integrating IK and LO education	<ul style="list-style-type: none"> • <i>Lack of dialogue</i> • <i>Undermining of IK holders</i> • <i>Lack of clearly defined structures</i> • <i>Lack of proper communication</i> • <i>Stealing of ideas</i> • <i>Lack of funding</i>

Source: Own table

Table 6.1 shows a summary of the findings obtained in response to six themes and or questions interrogated in this study. The first question stated: May you kindly explain your views on the current life skills education? The question was intended to assess the effectiveness of LO (life skills) education through measuring its significance in developing and shaping students' behaviour, morals and conduct. Surprisingly, all IK holders stated that the present LO education is ineffective. As shown in summary table (6.1), their main reason was that the education is marred with mediocrity as well as that it's dysfunctional. To support this premise, participants noted that the present education is more theoretical and disintegrated. The behaviour of students is now out of control, since there is lack of control and discipline. Socially, it emerged that many students no more respect or values their culture as well as their parents. Then emotionally, it appeared that students nowadays lack spiritual guidance.

The second question was: does the school system recognise indigenous knowledge holders? This was designed to assess the level at which IK holders contribute their knowledge and wisdom to

the school/college community as well as the entire community. Despite the policy requirement that IK should be included in schools and colleges; it was startling to note that participants said they are not being recognised at all. Instead, they argued that they being undermined and are treated as being less educated. Quite surprisingly, participants raised that even within their own communities; they are also looked down upon. They indicated that they are often secluded from community planning meetings and this limits their contribution. Although, so many times they are consulted by the chief elders, community members and intellectuals on education related matters; they are not rewarded for it.

Thirdly, participants were asked to look back on the previous indigenous life skills education and highlight their view and perception about the previous system in comparison to the present one. Apparently, participants raised many positive items about the previous indigenous life skills education. They noted that it provided moral education to students and children grew up knowing and practicing their values, beliefs and culture. It also offered multiple life-related skills which include cooking, farming, fetching firewood, crafting, knitting, beading, wood-work, cane-work, pottery or sieving. Participants also noted that the indigenous life skills education provided useful life-related and sustainable content knowledge such as first aid, treatment of diseases, and the knowledge of herbs. The teaching methods were based on real-life experiences and practical experiences; and children were also taught through idioms, dances, songs, rituals or poetry.

The fourth question assessed the view of participants on decolonising the present life skills education so that it includes indigenous knowledge and wisdom. In response, all participants agreed that the present life skills education should be decolonised. The researcher asked a leading question on how this process could be achieved. Participants suggested five constructive methods which are through: (i) a transformation process; (ii) an action methodology; (iii) conducting awareness campaigns; (iv.) conducting more research and engagements; and (v) including IK in education.

The fifth question interrogated the integration of the two different education systems. Participants were asked about the methods, processes and partnerships which could be used to fast track the integration process. It emerged that participants provided very useful methods

which include utilising the existing schools and colleges; devising a community learning method; and re-alignment of life skills learning outcomes. Unexpected processes such as using the problem solving approach and the structural re-adjustment and constructive engagement of stakeholders were suggested by participants. They also shared that working partnerships among all stakeholders such as schools, colleges, universities, departments of arts and culture, and community organisations should be formed.

The last sixth question provoked participants to list the challenges which might negatively impact the LO and IK integration process. The good thing about putting forward these challenges is that they also help to provide solutions necessary for the integration process. About six challenges were raised by participants. These include lack of dialogue; undermining of IK holders; lack of clearly defined structures; lack of proper communication; stealing of ideas; and lack of funding. By closely examining these challenges raised by participants, one may also be able to come up with solutions by simply turning the challenges into solutions.

6.6 DISCUSSION OF FINDINGS

It emerged from the findings that the present LO (life skills) education is more centralised in nature and is mainly driven by structural domination; subjugation; epistemic privilege; lack of IK integration and to some extent it promotes IK marginalisation. These findings dispute the Indigenous Standpoint Theory (IST) of effective teaching and learning (Wylie, 2003). The Indigenous Standpoint Theory (IST) advocates for decentralising the academic discourse for a reason that the centralised system is viewed as being ineffective by not allowing inputs from its outside boundaries (Wylie, 2003). Similar arguments suggesting the ineffectiveness of LO or Life Skills education have been raised by many researchers in other parts of South Africa. For instance, Christiaans (2006); Prinsloo (2007); Theron and Dalzell (2006); and Rooth (2005) state that LO education is ineffective due to its ineffective teaching strategies as well as lack of qualifications among educators. Although the findings in this study agree with previous studies on the ineffective status of LO (life skills) education, it differs in perspective, particularly on the probable cause and factors contributing to this effect.

It emerged from the findings that lack of collaboration in teaching between LO educators and indigenous knowledge holders is one critical factor which requires urgent attention. This finding

defies the ISP theory which advocates for the inclusion of insiders (community indigenous knowledge holders) within the academy. Participants added that lack of IK integration and IK holders' participation could be the symptom of multiple social problems among youths in many parts of the world. Issues such as persistent violence, abuse, drug abuse, murder and misconduct are indirectly linked to the ineffectiveness of the western LO (life skills) education, gained by the children of today. Social constructivists and indigenous researchers (Choy & Woodlock, 2007; Nakata, 2004; Foley, 2003) agree that effective education is a result of cooperation and collaborative efforts of all stakeholders including the government and community members (Moore, 2009); and this is lacking in the present education system. Based on the summary of findings and integration challenges raised in section 6.5 above; it is deemed necessary to have dialogue with all concerned stakeholders; desist from undermining IK holders; re-align the educational structure to include IK holders; open effective communication channels; abstain from stealing ideas; and fund the integration proposal. It is important to note that empirical findings in this chapter also differ from the previous findings in literature in two ways. One, many of the IK integrated research projects were dominated by the science discipline and were not focused on LO and IK integration. Two, findings in this study were obtained through an empirical investigation process while many previous findings in IK were attained through literature review analysis (Bohensky & Maru, 2011; Makhubele & Qalinga, 2008; Ngai & Koehn, 2010; Owuor, 2007). Meaningful IK pedagogies, epistemologies, skills and methodologies raised by participants could strengthen the LO education as well as solve the national unemployment problems and lack of community development. The Indigenous Standpoint Theory provides that effective teaching and learning cannot fully materialise without culture (Choy & Woodlock, 2007). The implication for this is to design new integrated frameworks which are sensitive to both IK and LO education. Therefore, serious considerations related to epistemic politics, structural adjustments, decentralisation, negotiation, ownership of knowledge, partnership, involvement and respect, trust and sustainable relationships should be prioritised. IK holders' views, feelings and concerns raised herein might apply in different contexts worldwide; and can be used as evidence in facilitating other integration and decolonisation attempts elsewhere.

6.7 CHAPTER CONCLUSION

This chapter answered the third research objective which was set to determine the attitudes, perceptions and suggestions from local community IK holders on decolonising LO by integrating

IK integration in North West province in South Africa. The main suggestion which emerged from IK holders is to urgently transform LO (life skills) education initiating integration dialogues; re-structuring the educational organ grams; engage IK holders; and resuscitating the ailing life skills education. In realizing these findings and suggestions, the chapter initiated with an introduction which clarified the gap to be filled. This was followed by a description of the theoretical framework followed to achieve the set objectives. In brief, the study was underpinned by the indigenous standpoint theory (IST) which mainly advocates for the inclusion of indigenous knowledge holders within the current western academy. The demographic characteristics of participants and the data collection method used were also elaborated. The study findings were then presented-under the six identified themes. Many categories under each theme were also realised, presented and discussed. In the last sections of the chapter, a summary of conclusion on findings obtained; and discussion of findings was done to relate the findings to existing knowledge. Six conclusions are therefore made as follows: (i) the current life skills education is ineffective; (ii) Indigenous knowledge holders are not recognised within the present acdemy; (iii) Indigenous education was strong in that it taught morals, values, beliefs, cultures, and exposed students to multiple life-related content and skills; (iv) There is need to decolonise LO educationby including IK and use cultural institutions and existing school-college facilities; (v) Partnerships, community organisations and cultural community centres should be formed to facilitate IK and LO integration; (vi) it is essential to square the challenges such as undermining of IK holders, lack of defined structures, stealing of ideas and lack of funding in to allow smooth IK and LO integration. Findings in this chapter, including those in the entire research, provided a holistic view, understanding and new perspectives of the study phenomenon. Equiped with these, it was found necessary to consolidate the major findings obtained into an integrated framework for IK and LO teaching. As such, the next chapter presents the 6 C's model framework derived from the study findings.

CHAPTER SEVEN

DECOLONISING LO BY DESIGNING AN IK AND LO INTEGRATED FRAMEWORK FOR LO EDUCATORS

7.1 INTRODUCTION

Decolonisation as a concept has different meanings in different contexts and it is highly congruent and contested (Mackinlay & Barney, 2012). In the view of Lissovoy (2010), decolonisation is a process of confronting, challenging and undoing the dominative and assimilative force of colonialism; and the cultural and epistemological Eurocentricism. Nakata (2012) echoes that decolonisation entails re-asserting indigenous ways of doing; or generating new knowledge that is necessary for transforming indigenous social conditions. Battiste (2000) rather views decolonisation from the psychological point of view. He emphasises that there is an urgent need to decolonise indigenous minds from cognitive imperialism or *prisoning* in order to free indigenous subjects (Battiste, 2002). These multiple views from indigenous scholars, coin at the assumption that decolonisation is an attempt to redress, in this context, the educational imbalances crafted by the Western-biased pedagogy. For the purpose of this chapter, the researcher restricts the decolonisation agenda to scholarship concerned with finding and proposing amicable ways to integrate indigenous knowledge (IK) and Life Orientation (LO) education.

Owuor (2007) long suggested that the problems within the present education curricula and disciplines such as LO education need alternative thinking and approaches. He reasoned that local indigenous knowledge might address knowledge deficiencies formulated from the western perspective (Owuor, 2007). Many scholars such as Battiste and McConaghy (2005) and Madden (2015) supported this view and added that the integration and accommodation of IK will not only boost the education system, but will also assist and develop indigenous students and their communities. Various countries heeding to this call, inclusive of the United States of America, Australia and Canada have so far injected vast amounts of money towards the integration of indigenous knowledge (IK) in education disciplines (Ngai & Koehn, 2010).

In the context of South Africa, two advances made by the government were to: (i) pass the indigenous knowledge systems policy (IKS, policy, 2006); and (ii) re-state the LO education policies and include a clause which prescribes that IK should be included in teaching and learning (DHET, 2015). However, the unavailability of frameworks to guide educators and lack of communication and training on how to integrate IK has despised the integration motive. Findings obtained in chapter four of this study show that the LO policies and the LO teaching do not speak to each other. While the LO policies call for the integration of IK, LO educators do not understand, value nor integrate IK in teaching. This gap between IK and LO education has long been described by Jegede and Aikenhead (2002) as impacting on the success of LO education since the later does not enjoy the complementary strengths embedded in both parallel knowledge systems. Drawing not only from this background and problem, but from the literature and empirical findings gathered from the present study, this chapter proposes an integration framework which might assist LO educators in integrating LO and IK education in South Africa and elsewhere.

Therefore, the objective of the chapter is to design and propose an integrated IK and LO teaching framework for decolonising the LO education. While decolonising is not an event but a process (Mackinlay & Barney, 2012), it is important to note that the proposed integrated framework is only a scholarly contribution towards the process of effective implementation of policy requirements in LO education in South Africa. To this effect, this chapter partakes with a brief description of the theoretical lens underpinning the integration framework. The methodology followed in designing the framework is then described. This is followed by a presentation of the major findings obtained in both literature and empirical investigations done in the previous chapters. In the last segment of this chapter, the LO and IK integrated framework is presented and explained together with the application guideline on how to use the LO and IK integrated framework.

7.2 THEORETICAL LENS

The designing of an IK and LO integrated framework was fortified by the indigenous decolonising Kaupapa Maori Theory (KMT). The theory emerged from the radical move or revolution taken by the Maori people to free themselves from colonial dominance in New Zealand in the 1970's and 1980's. KMT is based on three major principles, namely that the

people concerned should become the change agents, who are geared to change their mindset and take action (Smith, 2003). Being a lecturer in one of the TVET Colleges in South Africa, the researcher took the same stance as the Maori people and undertook this investigation aimed at understanding the inconsistencies between LO policy and implementation, and navigated ways to find possible solutions to the problem. Part of the major achievement realised in the study, namely the designing of an IK and LO integrated framework was drawn from the following KMT design principles and ideas suggested by Bishop (2012) and Smith (2003), that:

Positive transformation of education is essential; transformation requires changing multiple strategies – for instance changing pedagogical and epistemological strategies or design frameworks; the framework should be accountable to many education stakeholders including indigenous community members; and it should involve both praxis and action methodologies.

In that respect, three major components of the Kaupapa Maori theory were utilised in formulating the IK and LO integrated framework. These components were outlined by Eketone (2008), as the conscientisation, resistance and transformation components.

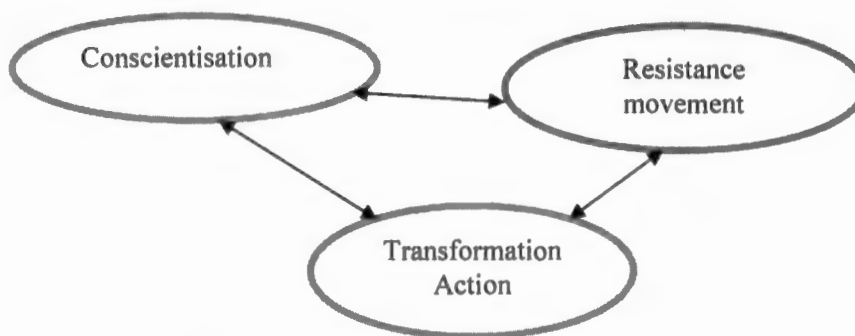


Figure 7. 1: The decolonisation cycle

Source: Adapted from Smith(2003)

The utilised *conscientisation* component is described by Smith (2003) as the process of revealing reality; critiquing and deconstructing the hegemonic forces of marginalisation. This was applied in the study through critiquing the relationship between policy outcomes and the IK

implementation processes in LO education in South Africa. While the Maori people defined and revolted their position as the colonised, they were impassioned to revolutionary change and prevent further loss of their language, knowledge, culture and values (Bishop & Glynn, 2003). Similarly, in this study, the passion to develop an IK and LO integrated teaching framework and prevent further non utilisation of IK, rose from the research evidence obtained in the previous chapters, which to a greater extent, insinuate marked dominance of Western knowledge in LO education. However, warnings by Eketone (2008), to be wary of being carried away by only critiquing the norm and the oppressor without looking inside to empower individuals with critical consciousness skills, was taken seriously, and stakeholders were advised to do awareness campaigns.

The second component of *resistance* calls for two oppositional actions, namely: the reactive realities and the proactive activities (Smith, 2003). As reactive realities are situations involving the concerned people responding and reacting to dominant structures of exploitation, oppression, manipulation and containment, proactive activities include collective actions done to spearhead the wider change (Smith, 2003; Smith, 2012). For this study, the inclusion of indigenous knowledge within the LO curriculum, calls for integration, researches on the integration processes, designing frameworks and models, finding ways to propel the integration of LO and IK, are all pro-active endeavours being done to decolonise education curriculum in South Africa.

The third *transformation* action component is defined by Smith (1997) as a reflective change. It is a process of not just critiquing what has gone wrong, but also working to find the best way forward through drawing on application processes, outcomes and what has been learnt (Smith, 2003). In relation to this study, all initiatives and suggestions were questioned, applied, re-examined and refined. This helped to fine-tune the decolonisation process and endeavour; which in turn might allow effective delivery of IK integration in LO. These three distinct design components assisted the present researcher in designing an LO and IK integrated framework

Therefore, in summary, the social constructivist Kaupapa Maori Theory and its typologies were used in designing the IK integrated framework to decolonise the LO education in South Africa. The framework followed a transformative action agenda to denounce the status quo by reclaiming equity in knowledge representation. The revolutionary move taken by the Maori

people and the theoretical perspectives explained propelled this particular study to engage educators, students and IK holders in participating towards decolonising the LO education in South Africa. It was the prerogative of the researcher to investigate the attitudes and perceptions of the mentioned stakeholders which in turn led to the move of designing of a new balanced teaching framework favouring both the indigenous and the western epistemologies and pedagogies. While IK holders' inputs were pivotal in building the integration model proposed in this study, it is important to note that the whole integrated framework designed is accountable to all indigenous participants involved in the study together with other concerned stakeholders. Thus, KMT, as a Social Constructivist tool responds to the last objective in this study.

The designed IK and LO integration framework is therefore expected to transform the implementation of LO education. By utilising a different approach or strategy such as the inclusion of IK in teaching, students and the wider indigenous communities might gain a lot. From the KMT's perspective, LO educators should change their pedagogical strategies, principles, epistemologies, and methodologies and adopt the ones suitable for both the Western (LO) and IK knowledge systems. Community IK holders should therefore constitute part of the teaching matrix and play their role as indigenous resource persons. Common working relationships, partnerships, and politics should be formulated and practised by all parties involved. Therefore, it was deemed necessary to develop a new and balanced teaching framework which constitutes both IK and LO education philosophies, approaches, epistemologies and pedagogies.

7.3 METHODOLOGY

The integrated LO and IK teaching framework was conceived from the major findings obtained in the entire research study. The study followed a qualitative empirical phenomenological and interpretive approach, guided by a post-colonial transformative paradigm. Four main categories of findings (components) (figure 7.1) were used in designing the integrated framework. These included literature findings, theoretical findings, empirical and objective findings, and the Kaupapa Maori Theoretical findings. The cyclic structure of the model was developed to resemble the *Medicine Wheel* universal structure (Dyck, 2009; Shield, 2003); where the centre represents the self and the other four circles represent the power directions. The following

diagram (figure 7.2) highlights the four major components and directions which were used in designing the framework.

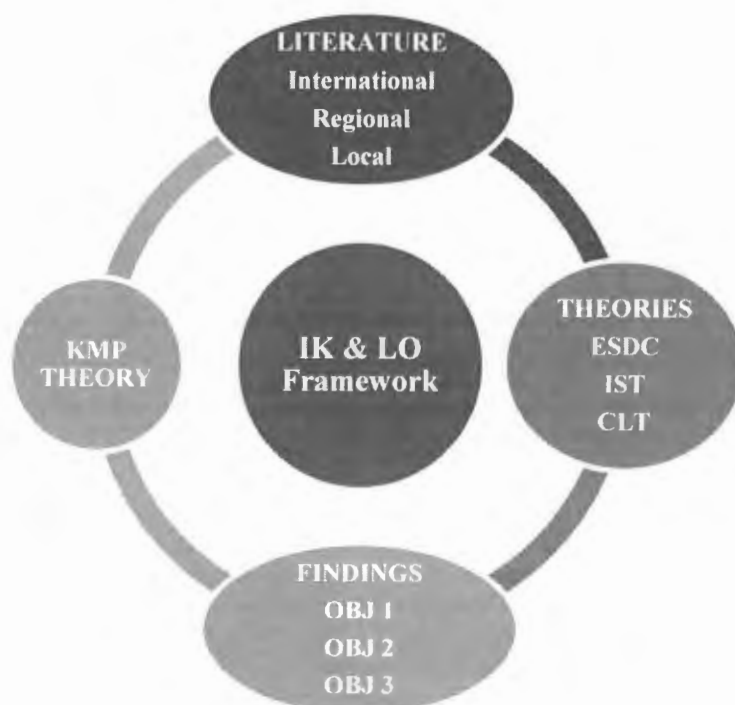


Figure 7.2: Major components for designing the integrated framework

Source: *Own design*

The methodological process for designing the integrated framework involved three intense processes namely, (i) identification of major study themes; (ii) grouping and classification in order to consolidate common themes; and (iii) analysis of the Kaupapa Maori theoretical Model; and (iv) re-designing the KMT model into an integrated 6 Cs model for IK and LO.

7.3.1 Identification of Major Study Themes

Firstly, all literature findings were divided into three sections namely the international literature, regional literature and local literature. All major findings from these three categories were consolidated for the purpose of identifying major themes; necessary for building the framework. Secondly, all major theories used in the study namely the Embodied, Situation Distribution Cognition (ESDC) theory, The Collateral border crossing Learning Theory (CLT), and the

Indigenous Standpoint Theory (IST) were outlined. Major themes from these theories were also identified and noted. Thirdly, all empirical findings gathered from participants such as those for objective one presented in chapter four; objective two findings in chapter five; and objective three findings in chapter six were also drawn and consolidated. These were analysed through a manual thematic analysis process intended to identify the common emerging themes. Then fourthly, the Kaupapa Maori theory was also analysed through the similar (manual thematic analysis) process to also identify emerging themes respectively.

7.3.2 Grouping and Classification

All consolidated findings from literature, theories and empirical findings were tabulated in preparation for grouping and classification. Common themes from all these findings were highlighted using different markers and this process was done manually. The identified common themes were then re-classified or given a common name. Uncommon themes also were highlighted; and automatically formed in their own class. This process was repeated several times so that all findings were at the end classified.

7.3.3 Analysis of the Kaupapa Maori Theoretical Model

The decolonising Kaupapa Maori Theory was analysed in order to identify the gaps within the context of LO and IK integration. The main challenge realised was that the identified common themes could not squarely fit into KMT model, probably due to differences in contexts. The researcher then tried to find an alternative model that suited the local indicators and components; without discarding brilliant ideas and suggestions from the Kaupapa Maori intervention model.

7.3.4 Re-designing the KMT model into 6 Cs model (for IK and LO integration)

After identifying and analysing the gaps in KMT, the KMT principles and themes were tabulated, categorised and grouped together. Again the same process of identifying the common themes was replicated on the literature, theory and empirical findings. Common themes from KMT and the study themes were then consolidated together. Without discarding the circle structural model of the KMT, 6 Cs model for IK and LO integration was then conceived.

7.4 FINDINGS

As indicated before, four categories of findings which emerged from the entire research study are: the literature findings, theoretical findings, empirical findings and the Kaupapa Maori findings. The following subsections present the key findings obtained in the entire research study.

7.4.1 Literature Findings

The literature unpacked three major components underpinning the entire research study. These key terms are Life Orientation (LO), Indigenous Knowledge (IK) and Integration. These key concepts were analysed and scrutinised in order to unpack the knowledge gaps emerging from international, regional and local literature. The main purpose for this inquiry was to try and find ways to close these gaps or add new knowledge. Two major themes or categories were observed; and these include: (i) the philosophical differences between LO and IK; and (ii) integration of IK and LO education.

7.4.1.1 Philosophical differences between IK and LO

To fast track the integration of IK and LO education; the researcher interrogated the philosophical differences which might affect the ultimate integration process. This enabled the researcher to find meaningful ways from literature to try and address the differences. Table 7.1 presents the philosophical differences between LO and IK education which were identified in literature findings.

Table 7. 1: Philosophical differences in IK and LO

	LO Knowledge (LK)	Indigenous knowledge (IK)
Ontology (What it is?)	That the knowledge is: <i>Reductionist in nature</i> It is compartmentalised e.g. LO subject is western oriented stand alone in nature and practice and does not use the whole method	That the indigenous teaching is: <i>Holistic in nature</i> Students are taught various knowledge and skills such as science, religion, psychology and other issues to address numerous life challenges.

	<p>Based on theories and laws LO subject knowledge is based on proven or tested facts, logic reasoning, scientific models and systems.</p> <p>Outcome oriented Teaching is objective and outcome related and it is based on universal scientific or empirical constructions.</p> <p>Tentative Teaching content and curriculum is always changing to suit current, social, economic and political needs</p>	<p>Based on functional application Teaching is based on practical application of knowledge and skills.</p> <p>Socially and culturally oriented Teaching is based on historical, political, cultural, socio-economic and future needs of community members. It is also metaphysical or determined by universal predictions</p> <p>Tentative Indigenous teaching is always changing depending on people's experiences, truth and elders' perspectives.</p>
Epistemology (ways of knowing)	<p>Empirically constructed Teaching knowledge is factual and is based on theories, laws and observable circumstances.</p>	<p>Culturally and Socially constructed Teaching knowledge is culturally and socially constructed and is aimed at upholds the traditional values and morals of indigenous people.</p>
Methodology (teaching methods or wisdom in action)	<p>Scientific teaching methods Teaching is based on various teaching methods which are scientifically tested and proven. Methods such as lecture method, group discussions, or collaboration teaching are used.</p>	<p>Indigenous teaching methods Teaching is based on every day trial and error teaching methods and experiences. Methods such as repetition, imitation, oral transmission, scolding, songs, dances, rituals, ceremonies, myths, or proverbs are used.</p>
Volition (values and beliefs)	<p>Scientific values Teaching is based on respect for research and</p>	<p>Human and moral values Teaching is based on the desire to survive and</p>

others, health scepticism,
human creativity,
imagination and ethical
considerations.

being loyal to the
community. Spirituality,
metaphysics, social order,
respect for others, healthy
scepticism, human
creativity, imagination
and myths determines the
teaching values.

Source: Adapted from Cronje (2014))

Indeed, literature findings revealed that there are philosophical differences between indigenous knowledge (IK) and Life Orientation (LO) knowledge. This entails that there are strengths and weaknesses within the two dual forms of knowledge (Iya, 2014). However, the disconnection flanked by the two knowledge systems implies that both systems do not enjoy the advantages embedded in the opposite system. In order to overcome this polarisation, the proposed integrated framework had to set aside the differences and integrate the philosophical strengths within the two systems.

Integration facilitates the connection of IK and LO values, beliefs and epistemologies. IK philosophical principles such as *preparationism*, functionalism, *communalism*, *perennialism* and *wholisticism* (Adeyemi & Adeyinka, 2003) strengthen LO personal, psychological and social values. In essence, preparationism implies the teaching of boys and girls for future roles in society; while functionalism enables the young to learn through imitation, initiation ceremonies, work or oral literature (Ocitti in Adeyemi & Adeyinka, 2003). Communalism involves all indigenous community members; to preserve the cultural heritage (perennialism) and wholisticism, entails the holistic ways of knowing which were used by elders to teach indigenous children (Ibid).

Connecting IK ontology, for instance, the African mode of transmission (Ogunniyi, 2004) to LO pedagogical strategies brings new promises and devotions. Delivery challenges in LO education, could be accomplished by allowing all adults and elders in communities to play the mother, father and teacher roles in guiding, scolding, advising, rewarding and punishing children in villages or communities (Adeyemi & Adeyinka, 2003:427). This kind of teaching is holistic in nature since it involves every member of the community and it helps in promoting community standards, spirituals, morals and principles (Cronje, 2014). Through this collective teaching

mode, LO education becomes perennial and functional, thereby promoting life and engagement within a society.

IK epistemologies strengthen LO pedagogical content and delivery since IK epistemologies are derived from empirical, metaphysical, tentative, inferential, creative and subjective experiences (Ankiewicz, 2013; Barnhardt, 2005; Bohensky & Maru, 2011; Ogunniyi, 2004); and they do connect to social real life situations. Linkages create possibilities for LO education to become needs-based, observable and informed by tested encounters, and further enhance the desire to create universal order, imagination, cultural and spiritual cosmology (Arnold, 2016; Owuor, 2007).

Real-life and practical experiences and skills in IK methodologies, such as farming, hunting, cooking or fishing could find meaningful consideration in LO education (Owuor, 2007). In addition, social and spiritual skills namely: purification, respect, honesty, generosity, diligence and hospitality (Adeyemi & Adeyinka, 2003), can help to contextualise the LO education. These values and principles in the view of Adeyemi & Adeyinka (2003:426) create a focused volition and can be used not only to transform the education system, but as gateways to community, national, social and economic recovery. The following integration findings were suggested as the key solutions for solving the philosophical differences between IK and LO.

7.4.1.2 Literature suggestions on Integration

The literature study interrogated the key areas necessary for the integration of IK and LO education by analysing the international, regional and local literature on integration processes. This was done to unpack the suggestions necessary for the integration of IK and LO education. Table 7.2 presents the findings obtained.

Table 7. 2: Integration findings from literature

CATEGORY	MAJOR FINDINGS OBTAINED
<p>1. <i>International Literature</i></p> <p>2. <i>Regional Literature</i></p> <p>3. <i>Local literature</i></p>	<ul style="list-style-type: none"> • Unpack similarities and differences in LO and IK • Link the strengths in both knowledge systems • Identify methods to integrate the two knowledge systems • Form partnerships • Do reflections • Use social contexts • In community and context • Value culture (IK) • Lack of IK content • Lack of clear pedagogical strategies • Lack of practical demonstrations • IK is seen as outdated (not valued) • Lack of training for educators

Source: Own table

As seen in table 7.2, the international literature perspectives suggests that the integration of IK and LO process should consider unpacking the similarities and differences between LO and IK; and find suitable methods to integrate the two knowledge systems. Working partnerships with IK holders and indigenous community members should be formed. Considering the fact that decolonisation is a process and not an event, stakeholders should meet regularly and reflect on the integration process, for the purpose of making some improvements. Literature also suggests that it is essential to initiate the integration from within the social contexts, rather than to wait for the government to take a first move.

From the literature findings obtained in this study, African regional literature support the international literature that the integration process will only be successful if it involves the community members and the context. The literature also emphasise the inclusion of culture or IK

within the academic discourse. Local literature focused more on the LO subject; its importance as well as the challenges affecting the subject. It emerged that there is lack of IK content; neither pedagogical strategies nor practical demonstrations to integrate IK into LO subject. Surprisingly, local literature also revealed that some LO practitioners see IK as outdated, meaning they do not value it.

7.4.2 Theoretical Findings

Three major sub-theories of Social Constructivism namely Embodied Situated Distribution Cognition (ESDC) theory; Collateral Learning Theory (CLT); and Indigenous Standpoint Theory (IST) were analysed for the purpose of outlining their contribution on integration. The following table (table 7.3) shows the major findings gathered from these theories.

Table 7. 3: Theoretical views on integration

Theory	Findings
ESDC	<ul style="list-style-type: none"> • Engagement of students • Active participation of students • Culture sensitivity of teaching material
CLT	<ul style="list-style-type: none"> • Build bridge between IK and LO
IST	<ul style="list-style-type: none"> • Involve indigenous communities • Engage IK holders

Source: Own table

As seen in table 7.3, the ESDC theory emphasised more on engaging students during pedagogy to allow them to actively participate. It also stated that cultural epistemologies and pedagogies arouse students' interests. The CLT focused more on educators and suggested that they should act as knowledge brokers who bridge the gap between LO education and IK education. Then the IST shifted attention to IK holders and indigenous community members. It argued that both IK holders and community members should be involved and engaged during integration.

7.4.3 Empirical Findings

Two categories of empirical findings were obtained, and these included: (a) empirical findings on integration; and (b) empirical findings on LO policies and implementation process.

7.4.3.1 Empirical findings on integration

Empirical findings were based on three main research questions or objectives. These research questions were: (i) which teaching strategies do LO educators use in teaching LO in TVET Colleges in North West province South Africa?; (ii) to what extent do educators integrate IK and which challenges do they face in teaching LO in TVET Colleges in North West province in South Africa? and (iii) what are the attitudes, perceptions and suggestions among local community IK holders on integrating IK into LO Life Skills education in North West province in South Africa? The following table (table 7.4) illustrates the findings obtained.

Table 7. 4: Empirical findings on integration

Research Question (RQ)	Findings
RQ 1 (Chapter 4)	<ul style="list-style-type: none"> • Teacher-centred teaching strategies • Lack of IK pedagogy • Students' boredom and absenteeism • Educators frustrated • Educators have little or no knowledge on IK • Do not value IK • Policies include IK but do not explain how to integrate it
RQ 2 (Chapter 5)	<ul style="list-style-type: none"> • Educators do not integrate IK • Educators lack IK, and do not value it • Students also lack IK and do not value it
RQ 3 (Chapter 6)	<ul style="list-style-type: none"> • Involve communities • Engage IK holders • LO deemed ineffective • Initiate the integration process • Organise awareness campaigns • Form partnerships • Lack of dialogue and communication

Source: Own table

Table 7.4 shows the empirical findings obtained in chapters four, five and six. These empirical findings answered the main research questions one, two and three respectively; and have a bearing on the integration of IK and LO education. Findings on research question one revealed that the teaching strategies for LO educators in TVET Colleges in North West Province are more

teacher-centred and are void of IK pedagogy. The challenges observed include students' finding that LO is boring, absenteeism and educators' frustrations. LO educators have little or no knowledge of IK and they do not value it. The implementation of LO education by LO educators contradicts the LO policy requirements which specifies that LO educators should integrate IK in teaching. The reason for non-integration of IK (from the empirical findings) could be linked to the fact that the LO policies fails to clarify or explain how IK should be integrated in LO education. Ideas to solve these problems in LO education were suggested by IK holders as indicated in findings linked to research question three. As seen in table 7.4, IK holders suggested that there is an urgent need to involve all stakeholders such as community members, IK holders and LO educators, to action the integration process. For the reason that the present LO education is ineffective, awareness integrations campaigns and working partnerships should be initiated. Also, they suggested that there was need for dialogues and communication between education stakeholders and the community members, together with IK holders.

7.4.3.2 Empirical findings on LO polices and implementation process

All teaching implementation findings gathered in chapters five and six were compared to the policy-related findings obtained in chapter four. The purpose of this comparison was mainly to outline the differences between LO policy requirements and the LO implantation process. This again provided enough information for designing the framework to address these inconsistencies. Table 7.5, highlights the policy and implementation findings obtained.

Table 7. 5: Policy and implementation findings

	Policy Findings	Teaching Implementation findings
Principles	The main principles for LO education are that it must involve the use of: <i>student-centred methods</i> <i>indigenouknowledge</i> <i>social transformation</i> <i>integration and</i> <i>Quality and efficient teaching</i>	The implementation of LO is: <i>Teacher-centred</i> <i>Does not include indigenous knowledge</i> <i>Is likely not to transform the community</i> <i>Needs improvement in teaching and learning delivery</i>
Teaching approach	Policy documents state that LO pedagogy should be: <i>Student-centred and</i>	LO teaching approaches are: <i>Teacher-dominated and</i>

	<i>Integrated in nature</i>	<i>there is little or no integration teaching</i>
Epistemologies	<i>Policies acknowledge, affirm and promote the inclusion of indigenous knowledge in education</i>	<i>No inclusion of indigenous knowledge is evident in LO education</i>
Pedagogies	<i>LO policies state that effective LO pedagogy should include teaching administration, planning for teaching, teaching and learning delivery, teaching assessments and student guidance and support.</i>	<i>In LO education, many educators are challenged with teaching administration, planning for teaching, teaching and learning delivery, teaching assessments and student guidance and support.</i>
Resources	<i>LO education policies state that LO educators should utilise all available resources such as environment, indigenous community, human resources and physical resources for effective teaching and learning</i>	<i>Lo educators do not use available indigenous resources or communities. Indigenous knowledge holders do not assist in life skills teaching processes. LO classroom environments do not promote indigenous strategies or grouping</i>

Source: Own table

Although principles informing LO education in South Africa conform or relate to social constructivism and IK related ideologies, the implementation of these policies is rather contradictory. Lessons learnt from the present empirical investigation revealed that LO policy stipulated principles, approaches, epistemologies, pedagogies and resources contradict with the observed implementation principles, approaches, epistemologies, pedagogies and resources followed and utilised by LO educators. Instead of including IK in teaching and utilising student-centred transformative strategies, LO educators rather do not integrate IK in teaching nor attempt to transform LO education. They promote the Euro-centred pedagogical principles and approaches of treating students as empty vessels (Botha, 2002); where knowledge should be poured into their heads.

Instruction investigations done in LO education reveal that most instructions are *disconnected from students' indigenous knowledge* and educators fail to link concepts to real or life community –related situations. LO pedagogy faces multiple challenges inclined to teaching administration, planning for teaching and learning delivery, evaluating teaching assessments, and student guidance and support. IK epistemologies such as indigenous values, cultures and traditions do not form part of the LO teaching content. Furthermore, LO educators do not use

available indigenous resources such as local communities or IK holders. More so, teaching and learning environments or classrooms for LO education do not promote constructivist student-centred teaching strategies, for instance, grouping of students. These identified gaps and inconsistencies in knowledge, policies and implementation provoked the current researcher to design the proposed integrated framework for LO and IK education.

7.5 COMMON THEMES EMERGING FROM THE RESEARCH STUDY

All findings from literature, theories and empirical investigations described above were analysed and consolidated for the purpose of, first, identifying common emerging themes from these findings. Secondly, these common emerging themes were then used as critical indicators for the development of an IK and LO integrated framework. Six common themes which materialised from the entire study are:

- i. Change inside out*
- ii. Community involvement*
- iii. Culture and context*
- iv. Coaching of pedagogies*
- v. Conscientise and Concretise the value of IK and LO*
- vi. Content of IK and LO.*

7.6 KAUPAPA MAORI THEORY (MODEL) AND THE LO AND IK INTEGRATION

The researcher tried to fit the common themes identified during LO and IK integration findings into the Kaupapa Maori Theoretical model, but, could not do so since the ontology, methodology and volition for the Maori people differs from that of LO and IK integration. More so, the contexts and focus of the Maori and LO and IK integration, even though they have similar characteristics, were not the same. In this case, the researcher had to examine the philosophical differences between the two components in order to find a way forward.

7.6.1 Philosophical Differences between KMT Model and LO-IK Integration

The following table distinguishes between the Kaupapa Maori Situational Model and the LO and IK integration process.

Table 7. 6: Philosophical differences between KMT model and IK and LO integration

	Kaupapa Maori	IK and LO
Ontology (what it is)	Holistic in that: It involves all Maori people Functional for the Maori Community	Holistic in that: It involves all LO stakeholders; IK holders and community members Functional for the academy and community members
Epistemology (ways of knowing)	Knowledge is: Mastering the Maori language, culture and values	Knowledge is: acquiring the content of IK and LO Acquiring IK culture, values, morals, skills and LO pedagogies (learning outcomes)
Methodology (ways of doing)	Use indigenous methods Community involvement is a must	Both western (LO) and indigenous methods are used Community participation and involvement is accepted
Volition (values)	Values the desire to belong, to survive and to be loyal to the Maori community	Concretise the value of IK and LO for the betterment of academic and social improvement

Source: Own table

Table 7.6 shows that there are marked similarities and differences between the Kaupapa Maori situational model and the proposed IK and LO integration process. The two are similar in that they believe in changing from the inside-meaning involving the stakeholders to take part in changing their status quo. Both processes advocate for the inclusion of indigenous members, indigenous knowledge, and community involvement. However, they differ mostly in focus and context. While the Kaupapa Maori focuses on the Maori people and Maori community; the IK and LO integration process focus on the LO stakeholders, IK holders and the indigenous community members. The generated knowledge from the Maori perspective include the Maori language, culture and values, while for IK and LO integration it entails acquiring the LO and IK content as well as mastering the indigenous community cultures and values. Lastly, the Maori desires to belong and be loyal to the Maori community while the IK and LO integration values both IK and LO for the improvement of the academic and social world.

7.6.2 Way Forward

Considering the similarities and differences between the Kaupapa Maori Model and the IK and LO integration process, the researcher did not discard the ideas from the Kaupapa Maori Model, but rather improved on them. The Kaupapa Maori decolonisation model focuses on three main components which are consentisation, resistance and transformation. These were found fruitful and fitting some of the themes such as changing from the inside, community involvement, and culture and pedagogies. Those themes which did not fit were incorporated into the improved 6 C's model for LO and IK integration.

7.7 IMPLICATIONS FOR (6 C's Model) IK AND LO INTEGRATION FRAMEWORK

Discussed findings in this chapter and the limitations of the KMT provide guidelines for the development of an integrated 6C's model for LO and IK integration process. The following schematic diagram (related to the cyclic medicine wheel structure) (figure 7.3) presents the proposed model with six components that guide the LO and IK integrated framework.

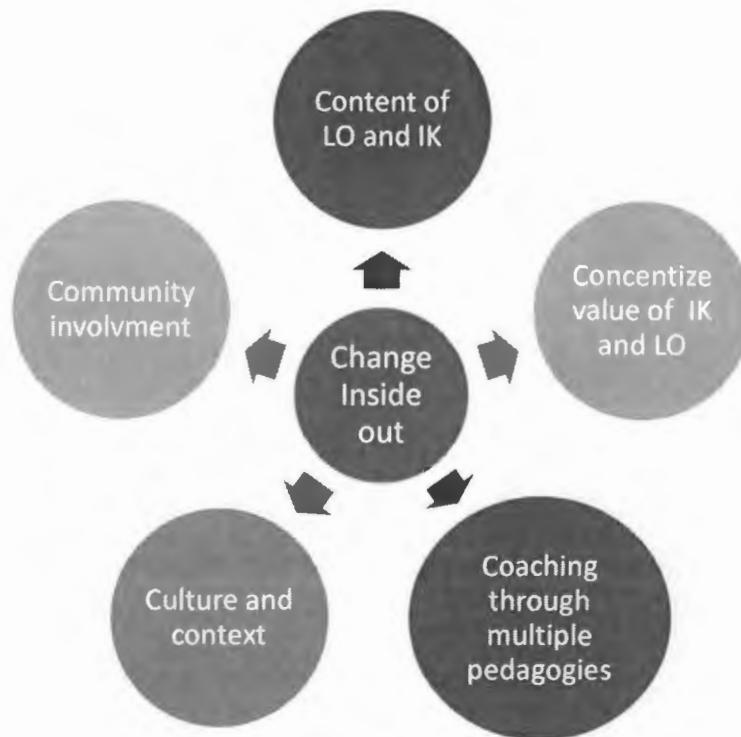


Figure 7. 3: 6 C's Model for integrating IK and LO

Source: *Designed by the researcher*

The model in figure 7.3 for integrating IK and LO (6 C's model) constitute six crucial components necessary for integrating IK and LO education. These six components (6 C's) are: change inside out; community involvement; culture and context; coaching effective pedagogies; concretize the value of IK and LO; and the content of IK and LO.

7.7.1 Change Inside Out

The change inside out component is the view that all stakeholders such as IK holders, community members, and LO educators should take the initiative and integrate IK and LO education. Similar to the Maori people (Simth, 2003; Eketone, 2008) who took a firm stance in liberating themselves, all concerned stakeholders should not wait for the government to tell them to decolonise LO education. Already, the government has included a clause stating that LO educators should integrate IK in teaching. It is now the prerogative of LO educators in

collaboration with IK holders and respective communities to operationalise the integration drive. The ontological view of the 6 C's model for IK and LO integration is therefore self-driven.

7.7.2 Community Involvement

The 6 C's model advocates for community members' involvement in the integration process. This involvement is twofold: namely that first, the community members should embrace the integration idea. This can be made possible through various forms of engagements such as meetings, dialogues or awareness campaigns. Omolewa (2007) warns that the success of the integration process is only enhanced through respectful, trustful and sustainable partnerships. IK and LO knowledge politics should be squared, and the scales of integration should be agreed upon (Bohensky & Maru, 2011). All education stakeholders including educators, IK holders, Chiefs (Bo Kgosi), education managers, community members and parents should convene or be informed about the integration collaboration motive. Meetings can be done in various communities or representatives can either meet at district or provincial level. Part of the agenda of these meetings should include the integration methods, linking scales, structural alignment issues, partnerships and knowledge politics. Once the community members or leaders (Chiefs) have understood and accepted the proposal, they can also cascade it to other members of the community. Two, IK holders as community members should fully participate or get involved in the integration and education process. From the epistemological point of view, IK holders are crucial since they must share their indigenous knowledge as part of the integration requirement. Already, IK holders have indicated their readiness to participate, and all they are waiting for is the green light from the relevant education stakeholders to partake the integration process.

7.7.3 Culture and Context

Social constructivists argue that no education can be successful without the culture and context (Barnhardt, 2005; Makhubele & Qalinga, 2008; Ogunniyi, 2004). The 6 C's model supports that a meaningful pedagogy should be linked to the indigenous culture and context. This allows students to develop cognitively by assimilating what they learn at home to what they are learning in schools or colleges. In a classroom situation, keeping artifacts such as traditional drums, crafts, beads, having pictures of different cultural activities on the walls, and having

cultural evenings, debates, discussions or feasting cognitively connects the students to their indigenous world.

7.7.4 Coaching through Multiple Pedagogies

The IK and LO integrated framework (6 C's model) is sensitive to multiple pedagogies from the two different knowledge systems. LO educators should be coached or trained in these pedagogies; and it is assumed that these strategies may arouse the interests of the students. Indigenous pedagogy uses rich teaching methods such as learning by doing, drama, dance, music, poetry and myths; which in turn make students more participative and pro-active. IK holders also indicated that students need to learn how to solve problems. Problem-based learning, case studies or scenarios, role play, drama and other activity-based strategies can be included. The integration of IK and LO will then allow these methods to be applied and this will also solve many problems related to teacher-centred teaching methods.

7.7.5 Conscientise and concretise the Value of IK

Various indigenous researchers acknowledge that there is need to acknowledge the value of IK within the academy (Adeyemi & Adeyinka, 2003; Ankiewicz, 2013; Bohensky & Maru, 2011). Empirical investigations in this study revealed that most of the LO educators do not understand and value IK at all. Reasons to this effect have been overemphasised already; and the turning point now is to re-do the injustices of the past and focus on understanding more and valuing IK. This has a positive impact on the integration of IK and LO since more comprehension of IK will give birth to more creative ways of integrating it into the academy (Cronje, 2016). This can be done by organising information sessions on the value of IK, IK holders visiting schools and colleges as guest educators, research assignments to students on indigenous aspects; just to mention a few.

7.7.6 Content of LO and IK

For the integration process to be successful, the LO teaching content should be reflective of the IK content as well. Various IK content such as the indigenous values, morals, cultures and skills for survival should be part of the LO teaching content. Owuor (2008) and Bohensky and Maru

(2011) support that the integration processes should outline and merge knowledge themes which are common in the two forms of knowledge. The learning outcomes should be re-adjusted to suit the indigenous content for effective integration to materialise in schools and colleges. Already, the LO education policies in South Africa, for instance, the National Curriculum Statement (NCS) Policy (Department of Education, 2003), specifies that educators should use *student-centred and activity-based approaches*. Teaching documents such as policies and guidelines should specify the integrated IK and LO pedagogies, epistemologies and resources to be used by educators. In sum, the designed integrated framework merges the empirically constructed knowledge and the socially or indigenous constructed knowledge. Empirical knowledge is valued for its validity and trustworthiness, its factualness; and the idea that it is based on theories, laws and observable circumstances. This equally applies to IK epistemologies which are considered since they are derived from empirical, metaphysical, tentative, inferential, creative and subjective experiences (Ogunniyi, 2004; Barnhardt, 2005; Bohensky & Maru, 2011; Ankiewicz, 2013) of indigenous people.

7.7 APPLICATION OF LO AND IK INTEGRATED FRAMEWORK

Table (table 7.3) presents the teaching application process necessary for LO educators when integrating indigenous knowledge (IK) and Life Orientation (LO) education. It provides guidelines to LO educators on the key areas and objectives necessary for IK and LO integration process.

Table 7. 7: The application of LO and IK integration processes by LO educators

<p>INTEGRATION OF INDIGENOUS KNOWLEDGE AND LIFE ORIENTATION: AN APPLICATION FRAMEWORK FOR LIFE ORIENTATION EDUCATORS</p>
<p>1. INTRODUCTION</p>
<p><i>This particular application framework is designed to close a gap concerned with lack of indigenous knowledge (IK) integration among Life Orientation (LO) educators. As such the application framework will assist LO educators in finding and realizing meaningful ways to integrate IK and LO education. This framework is divided into four sections namely the (1) introduction; (2) guiding integration principles; (3) Policies and guidelines; and (4) the teaching implementation process. The key areas</i></p>

provide the major teaching themes; and objectives provide the action steps necessary for integrating IK and LO.

2. GUIDING INTEGRATION PRINCIPLES (6 C's model)

Be the inside out Change agent and take initiative:

- 1. Involve the community*
- 2. Include indigenous culture and contexts*
- 3. Provide coaching on pedagogies and epistemologies (IK and LO)*
- 4. Conscientise and concretize the value of IK and LO*
- 5. Use IK and LO teaching content, methods and examples*

3. TEACHING POLICIES AND GUIDELINES

KEY AREA	ACTION REQUIRED
<p><i>Understand Policies and Subject guidelines</i></p>	<p>LO educators should invite specialists explain to explain the policies & guiddelines:</p> <ul style="list-style-type: none"> <i>• Read and understand LO-IK policies and subject guidelines;</i> <i>• Examine and understand the philosophical principles informing LO-IK education;</i> <i>• Utilise various epistemologies such as indigenous knowledge and content;</i> <i>• Apply multiple pedagogies embedded in both LO and indigenous education;</i> <i>• Utilise various indigenous teaching approaches; and</i> <i>• Use indigenous resource persons such as IK holders and community members.</i>

4. CREATING AWARENESS OF THE IMPORTANCE OF IK

- i. organize cultural events
- ii. visit cultural villages
- iii. make posters on IK integration
- iv. create online IK integration group chat and networks
- v. Post on social media e.g. facebook and whatsapp
- vi. make partnerships with traditional leaders, IK holders and interested parties

4. TEACHING IMPLEMENTATION PROCESS

<i>Planning</i>	<p>LO educators should:</p> <ul style="list-style-type: none"> • <i>Follow a constructive alignment process when planning learning experiences</i> • <i>Involve Ik holders when planning</i> • <i>Take the initiative to integrate IK and LO education and state the integration principles guiding LO-IK education;</i> • <i>Indicate the indigenous and western approaches, pedagogies, epistemologies, and resource persons to be used;</i> • <i>Relate the Subject Outcomes (SOs) and Learning Outcomes (LOs) towards indigenous and subject knowledge gains.</i>
<i>Instruction</i>	<p>LO educators should:</p> <ul style="list-style-type: none"> • <i>Use multiple teaching strategies such as lecture method, group discussions, practical demonstrations, indigenous practical tasks, indigenous project tasks, indigenous dances, oral discussions, poems, drama or indigenous games and plays.</i>
<i>Assessment</i>	<p>LO educators should:</p> <ul style="list-style-type: none"> • <i>Reconsider using rubrics and checklists to assess accomplished activities and tasks, particularly, indigenous related tasks.</i> • <i>Oral presentations, role plays.</i>

	<p><i>observations and other skills based assessment activities can be included.</i></p> <ul style="list-style-type: none"> • <i>Use IK relate scenarios and studies</i>
<p><i>Student guidance & support</i></p>	<p>IK holders and LO educators should:</p> <ul style="list-style-type: none"> • <i>Set dates and schedules for students guidance and support, particularly on issues related to personal development, indigenous practical learning skills, preventing and coping with HIV and AIDS, and citizenships skills.</i> • <i>Involve IK holders and community members to assist</i>
<p><i>Teaching resources and resource persons</i></p>	<p>LO educators should:</p> <ul style="list-style-type: none"> • <i>Organise cultural events at college for students and educators;</i> • <i>Provide and ensure that the teaching environment is enabling and student-centred oriented;</i> • <i>Use cultural indigenous posters and artifacts to decorate classrooms;</i> • <i>Arrange table and chairs in groups rather than rows;</i> • <i>Utilise indigenous knowledge holders during pedagogy and sessions such as counseling or invite them as guest educators on certain topics; and</i> • <i>Consult experts such as health workers or company representatives to offer their expert knowledge related to the subject content;</i> • <i>Invite IKS pedagogical experts to consult with</i>

Source: Own table

7.8 SIGNIFICANCE OF THE LO AND IK INTEGRATION FRAMEWORK

The significance of the proposed IK and LO integration framework is described under three categories namely:

7.8.1 Inferential

The LO-IK integrated framework links the philosophies of education to the epistemologies, pedagogies, approaches and resources. Through understanding the philosophical underpinnings in LO education, educators connect their teaching and understanding to the bigger world and ideologies. It will also help them to make predictions about the consequences of making changes in teaching.

7.8.2 Descriptive

The framework provides a knowledge base for integrating IK and LO education. LO educators will gain an understanding on the philosophical need to integrate the dual forms of knowledge as well as the conceptualisation process. Various epistemologies, pedagogies, approaches and resources highlighted will add knowledge within the confines of LO educators.

7.8.3. Application

The application framework provided informs LO educators about the key integration areas as well as the indicators to consider during IK and LO integration. Thus, the framework answers the how question posed by LO educators during empirical investigations.

7.9 CHAPTER CONCLUSION

In response to the fourth objective and question stated in chapter one, the present chapter answered the framework designing objective by crafting and presenting an IK and LO integrated framework for LO educators. Through a creative and cultural responsive design strategy, the integrated framework was conceived from a decolonising theoretical paradigm. The framework was consolidated from four main agenda items namely: (i) the literature findings observed in chapter one and two; (ii) theoretical findings gathered in chapter two; (iii) empirical findings

observed in chapters four, five and six; and (iv.) the decolonising Kaupapa Maori Theory. Major study findings such as the philosophical differences between IK and LO education and the implementation gaps fuelled the researcher to find meaningful ways to integrate IK and LO education. Therefore, the designed framework integrates the IK and LO teaching philosophies, approaches, epistemologies, pedagogies, and resources. An application guideline was also designed to help LO educators to implement the integration requirement inscribed in LO policies. It is noted herein that the proposed framework may also be used by other interested persons or parties with different but related integration motives locally and globally.

CHAPTER EIGHT

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The present study was conceived in response to spreading international calls to decolonise education and integrate indigenous knowledge (IK) in various education disciplines. The study initiated with an intense reading process, navigation and analysis of Life Orientation (LO); indigenous knowledge (IK) and integration literature which in turn enabled the researcher to identify some knowledge gaps. These gaps were not only used as indicators, but some were formulated into objectives of the study. Major gaps identified in the body of knowledge included: (i) lack of IK integration-related studies in North West Province of South Africa; (ii) lack of validated empirical evidence on teaching strategies used by LO educators in South Africa; (iii) lack of empirical evidence on the extent to which LO educators understand, value and integrate IK in teaching; (iv) lack of empirical documentation of IK holders' views and perceptions on LO education as well as the integration of IK and LO education, particularly in North West Province; and (v) lack of LO and IK integration frameworks and guidelines for LO educators in general. These gaps initiated the crafting of the study objectives which were to: (i) identify the teaching strategies for LO educators in North West Province in South Africa; (ii) assess the the extent at which LO educators understand, value and integrate IK and LO education in North West Province; (iii) document the views, perceptions and suggestions from local community IK holders on IK and LO integration; and (iv) design an IK and LO integrated framework for LO educators.

While all the objectives were reflected upon in the previous chapters, this chapter summarises the findings, conclusions and recommendations obtained in the entire research. Chapter outline presented in figure 8.1 highlights major concepts included and explained in the present chapter. Thus, the conclusions initiate with a brief introduction and background about the research study and gaps identified.

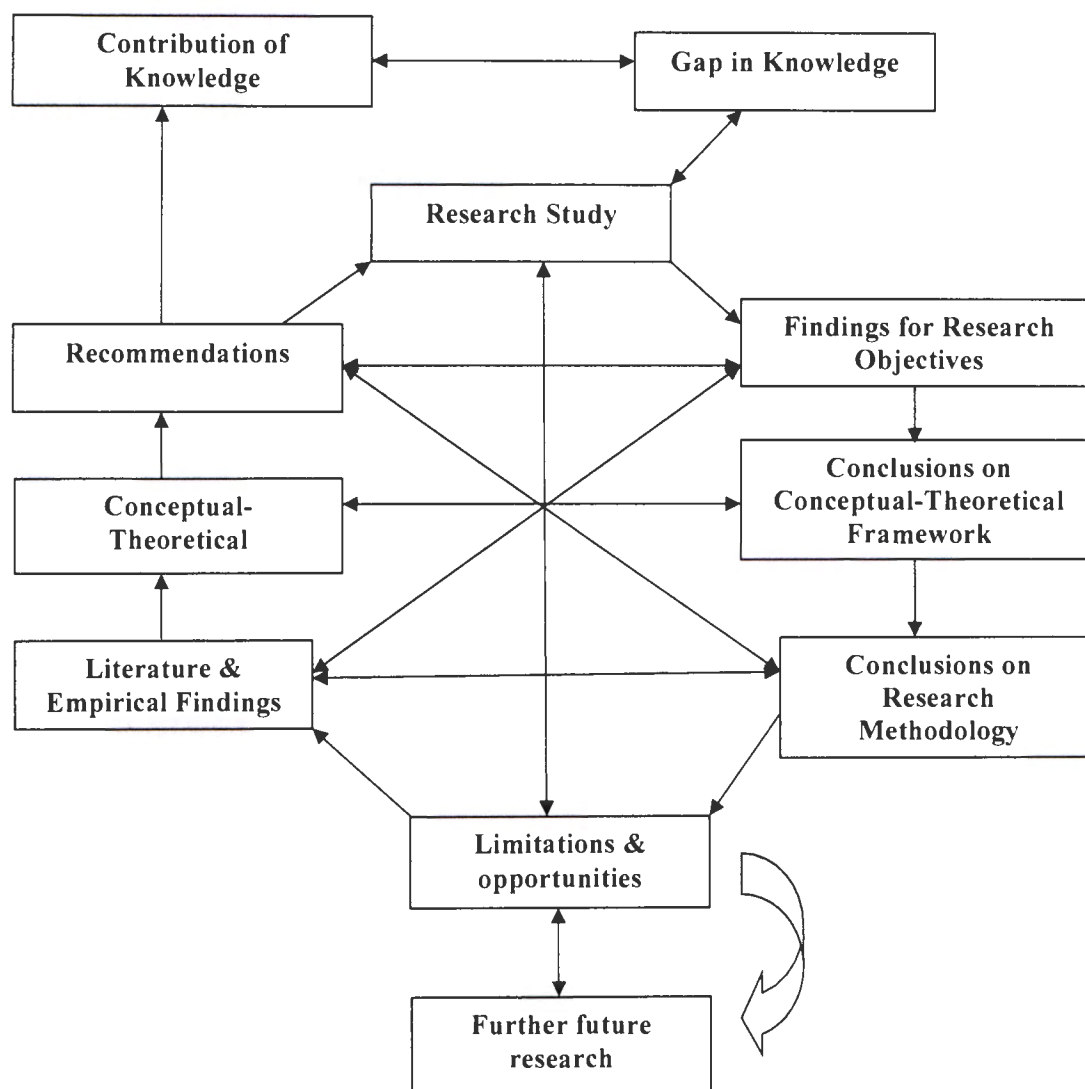


Figure 8. 1: Chapter Outline

Source: Drawn by the researcher

8.2 SUMMARY OF FINDINGS OBTAINED

The study was guided by four main objectives namely: (1) to identify the teaching strategies for LO educators in TVET Colleges in North West Province; (2) to assess the extent to which LO educators integrate indigenous knowledge in North West Province; (iii) to document the views, perceptions and suggestions of local community IK holders on IK and LO integration; and (iv) to design an IK and LO integrated framework for LO educators. The following sections briefly describe achievements and findings obtained per objective mentioned in the study.

8.2.1 Findings for Objective One

The achievement of this objective was done in order to answer research question one; and it was achieved through an empirical investigation conducted among LO educators and students in North West Province. Empirical findings gathered from multiple data collection strategies such as policies, face-to-face in-depth interviews, focus group interviews and observations were triangulated and discussed. All findings obtained were mirrored through the Social Constructivism Theory as well as the Embodied Situated Distribution Cognition Theory (ESDC). While the social constructivism theory filtered the student-centredness of the teaching strategies, the ESDC sieved the intricate cognition aspects related to student-centred pedagogy.

The filtration and sieving process implied relating and comparing emerging themes against the identified theoretical constructs such as *principles*, *teaching approaches*, *epistemologies*, *pedagogies*, and *resources*. Major findings obtained reveal that the LO education in South Africa is based on solid and well defined policies and subject guidelines. The policies promote the social constructivism student-centred philosophy and approach to learning, valuing of indigenous cultures and moral principles, student-centred inclined pedagogy and relationships; among other things. They also advance the ESDC student-centred cognition pedagogies, epistemologies, and blending of various resources.

However, the implementation of these policies by educators was found questionable. LO Educators pursue the behaviourist teacher-centred pedagogy and methodologies signifying the gap between policy and the implementation process. On this note, it was observed that LO educators do not use indigenous knowledge and this limits students' epistemological gains from multiple sources. The problem exposes LO students to theoretical teaching which is void of real and practical knowledge, experiences and skills. Furthermore, the students lack the indigenous community attachments values and experiences.

8.2.2 Findings for Objective Two

In achieving this objective as well as to answer research question two, LO educators and students were engaged through face-to-face in-depth and focus group interviews. Obtained findings were

discussed under the two Social Constructivism microscopic constructs namely the social interaction process and culture. More so, the feelings and experiences of educators and students were sieved through the Cultural Border Crossing-Collateral learning theory. Empirical findings in this objective reveal that there is no IK integration in LO education in Technical Vocational Education and Training (TVET) Colleges in South Africa. Mirrored from the border crossing theoretical perspective, it can be argued that the level of IK integration in LO education is *hazardous*; meaning there is an urgent need to intervene and assist LO educators and students. There was no evidence found to suggest that educators even attempted to integrate IK and LO during pedagogy. The border crossing experiences of educators was therefore neutral for they are not aware that they should integrate IK in teaching LO subject.

Findings gathered in this section expose the gap between LO education and the indigenous community. LO education is therefore not making an attempt to solve indigenous community needs and problems. This raises further questions than answers on whether LO education is making an impact. As seen from the findings, LO educators only measure the impact of LO education from the perspective of students such as students' performance, achievements and personal changes. LO educators' limitation as observed, is their inability to connect LO delivery to the bigger world, and probably assess the impact of LO through indigenous community development and achievements made.

It emerged that the challenges in LO education, particularly, in TVET Colleges in South Africa relate to the gaps identified above. Classroom management problems highlighted by educators signify ineffective pedagogy in LO education. Issues such as students' absenteeism, lack of discipline and drug abuse could be tackled through consented inputs from community members as well as indigenous knowledge holders. Educators mentioned that there is lack of resources for LO education such as limited computers and expert knowledge inputs. Again, human resources and expertise could be complemented through collaborative partnership effort from indigenous knowledge holders. The problem of limited time allocation indicated by LO educators, dovetails towards ineffective and teacher-centred inclined teaching strategies and approaches. However, challenges such as lack of professional support, need urgent attention; and the researcher intervened by designing an integrated framework to assist LO educators.

8.2.3 Findings for Objective Three

In documenting the findings for objective and research question three on views, perceptions and suggestions from IK holders, the Indigenous Standpoint Theory (IST) was used to filter the findings obtained. The main filtration constructs were the extent of recognition of indigenous subjects: degree of domination; subjugation, epistemic manipulation and sensitivity to cultural diversity. Participants were accessed through the snowball referral strategy and indigenous protocols were observed. Idiographic strategy was adopted considering that there are few numbers of IK holders within communities. Data collected was translated and transcribed verbatim. The analysis of data followed a descriptive and thematic analysis process. Findings were discussed in relation to themes drawn from conceptual and theoretical frameworks. As such, the themes identified were life skills education, recognition of IK holders, decolonising, integration of IK and LO, integration methods, processes and partnerships, and challenges in integrating IK and LO.

Participants regarded the current life skills education as being ineffective, non-functional, lacking control and isolating IK holders. They indicated that they are being undermined by many educational stakeholders. In that regard, participants agreed that IK should be decolonised through a transformation and action methodology. They indicated that there is need to re-align education policies, fast-track community engagements meetings, initiate constructive dialogues, advance researches and publicise the integration agenda. IK pedagogical processes in the view of IK holders entails teaching values, beliefs, traditions and cultures with the intention to transform the child. With regard to epistemological gains, participants mentioned that they were taught various life skills such as cooking, farming, pottery, milking cows, grinding maize meal, making shoes, hand work skills, wood-work, crafting and cane work.

In promoting the integration process, participants were asked to suggest possible integration methods, processes and form partnerships. In response, they indicated that the integration process can be done in existing schools and colleges or in community learning centres. However, they highlighted that this process will only be successful through structural adjustments and engagements between stakeholders. They also suggested that new community organisations and

cultural centres can be formed. Again, they suggested that the methods of disciplining students in south African schools and colleges should be revisited.

Participants mentioned three challenges which might impede LO and IK integration; and these are lack of policies, miscommunication, lack of support and unrevised educational content. Many IK politics were also mentioned as challenges. For instance, participants reiterated that the exploitation of knowledge, stealing of ideas, and lack of acknowledgement, corruption and selfishness among stakeholders may affect the integration process as well.

8.2.4 Findings for Objective Four

In answering research question four, an IK and LO integrated framework for LO educators was designed to fill the identified gaps in the problem statement, literature analysis and empirical investigations. Review of literature and empirical investigations' findings conceded that the current LO education is not only ineffective but it manipulates and marginalises IK education. As such, it exposes itself to multiple challenges ranging from ineffective pedagogy, knowledge deficiency, and teacher-centred strategies to student absenteeism. From this perspective, the decolonising Kaupapa Maori Theory was adopted to design an integrated framework envisioned to transform the LO education. A cultural sensitive approach was adopted since it hinges its assumptions on holistic integration and mutual relationships.

The integrated framework connects the philosophical differences between IK and LO education as well as other loose ends. It goes a long way in trying to close a gap between the policy and implementation processes in South Africa. The ontological structure of the framework is that it is integrated in nature; meaning it equally consolidates IK and LO education principles, approaches, pedagogies, epistemologies and resources. It favours the social constructivist agenda on social interaction, cultural diversity, multiple knowledge gains, practical and student-centred inclined pedagogy, skills training and community development. It is also important to note that the designed framework (6 C's model) further explains the actions goals related to planning, instruction, assessment, student guidance and support and teaching resources to be used. In sum, the designed application framework is hoped to assist LO educators in implementing the policy-related outcomes; and may provide opportunities for further integration developments.

8.3 CONCLUSIONS FROM THE STUDY

The following conceptual-theoretical and methodological conclusions are briefly explained.

8.3.1 Conceptual-Theoretical Conclusions

The main concepts underpinning the study were life orientation, indigenous knowledge, teaching strategies, decolonisation, integration, and technical vocational education and training colleges. Social Constructivism Theory, as the broad lens for the study, was used not only to inform but also to filter the methods, objectives, structure and findings obtained in this particular study. This main theory was supported by sub-theories such as the Embodied Situated Distribution Cognition (ESDC) Theory, Border Crossing-Collateral Learning Theory, Indigenous Standpoint Theory (IST), and the Kaupapa Maori Theory. While the ESDC theory filtered the teaching strategies, the Border Crossing-Collateral learning theory sieved the experiences and feelings of LO educators. IST sifted the views and perceptions of indigenous knowledge (IK) holders while the decolonising Kaupapa Maori theory was used in designing the LO and IK integrated framework.

8.3.2 Methodological Conclusions

This study adopted a qualitative research design process and methodology. It followed a transformative paradigm to decolonise, emancipate and suggest an IK and LO integrated framework aimed at transforming LO education in TVET Colleges in South Africa. Empirical investigations were guided by an empirical phenomenology inquiry strategy, which values peoples' views and experiences. The phenomenology inquiry also enabled the researcher to engage IK holders in oral discussions and constructive conversations about the research problem. Through a case study methodology, empirical investigations were done in TVET Colleges in North West Province of South Africa. Participants in the study included 28 LO educators, 120 students and 7 indigenous knowledge holders in North West Province. Multiple methods which were used to collect data are face-to-face in-depth interviews, focus group interviews, qualitative open-ended questionnaires, oral discussions, lesson observations and document analysis. Various research instruments such as interview guides, structured observation sheets, checklists, voice recorder, field notes, open-ended questionnaires, educators' POAs and Subject files were used.

Validity and trustworthiness were accomplished using multiple data collection methods and techniques; member checking; multiple observations; attentive listening; and using various questioning techniques. Descriptive and inductive systematic data analysis processes were followed in grouping data, classifying it, making categories, drawing patterns, identifying connections and re-occurrences, and identifying emerging themes and sub-themes. Above all, the research study conformed to general and IK related ethical considerations.

8.3.3 Limitations and Opportunities

Lack of prior empirical investigations particularly in LO discipline in South Africa, was found to be a major limitation in this study. Few integration studies related to LO or life skills' discipline (Iya, 2013; Makhubele & Qalinga, 2003; Meko, 2014) were only literature reviews and analysis studies. Many integration studies were focusing on either science discipline or ecological discipline. This signifies that LO or life skills integration processes is still a blue ocean and more explorations and investigations are still required from disciplines and perspectives. Henceforth, this limitation provides opportunities for future researchers to do more studies in this particular area and focus.

The researcher planned to utilise only local indigenous knowledge holders in order to mitigate and balance the time and financial constraints impacting the study. There was actually no problem with this convenient sampling strategy. However, during investigations it was realised that the number of indigenous knowledge holders within communities is limited. Reasons for this could be linked to the fact that most indigenous knowledge holders are old people and some of them could have possibly passed away. This creates opportunities for future researchers to conduct more investigations with different IK holders within their communities for further generalisation of IK holders' views and trends. These research investigations should aim to contribute, document and add more indigenous-related knowledge from IK holders, which in turn may assist future generations.

8.3.4 Further Future Investigations

Honouring, valuing and validating indigenous knowledge, particularly in Africa, is central to Africa's development and freeing itself from epistemic dominance which in turn will lead to the

realisation of its own rightful position once again. In this study, literature and empirical findings obtained, as well as the designed integrated framework: are only a drop in the ocean, promoting an ongoing decolonisation journey to integrate indigenous knowledge in education disciplines. More so, future investigations must be conducted with the aim to further the decolonisation agenda, develop, re-theorise, practice, refine, share and document related or modified empirical investigations. Future action-based research initiations are needed to complement this study. As the implementation journey commences, evaluation studies will be needed to re-assess the extent to which LO educators integrate indigenous knowledge in future. Comparative studies are also needed since they reflect on areas which might require improvement.

8.3.5 Contribution of Knowledge

The present study contributed the following to the body of knowledge: (i) two knowledge and peer-reviewed articles (still awaiting publication) were compiled and sent to publishers; (ii) an IK and LO integrated teaching framework for LO educators was designed; (iii) and it documented literature, conceptual and empirical evidence necessary for future investigations.

8.3.5.1 Peer-Reviewed Articles

Two research articles were compiled and sent to publishers. The first research article was consolidated from Literature findings and it was titled: *Linking Life Orientation and Indigenous Knowledge Education in South Africa: Lessons learnt from literature*. The article has already been sent to Indilinga Journal of Indigenous and lingual knowledge for publication. The researcher is still awaiting a response to this effect. However, the Journal representatives have acknowledged receipt of the article and indicated that it is now in procession.

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Figure 8.2: Screenshot taken from an e-mail conversation

The following abstract shows the summary of the article submitted.

LINKING LIFE ORIENTATION AND INDIGENOUS KNOWLEDGE EDUCATION IN SOUTH AFRICA: LESSONS LEARNT FROM LITERATURE

Tonderai Manyau, Annelize Cronje; and Philip Iya
tmanyau8@gmail.com

ABSTRACT

In spite of the worldwide trend to integrate indigenous knowledge (IK) in education disciplines, life orientation (LO) education in South Africa is void of literature on IK and LO integration. This paper investigated (1) the conceptual meanings of IK, LO and integration; (2) the main themes emerging from LO, IK and integration literature published in South Africa and abroad between 2000 to 2017; and (3) the lessons learnt to foreground IK and LO integration in South Africa. A systematic content analysis was done using ATLAS.ti version 8 (2015) to determine the themes, codes, co-occurrences, matching themes and networks grounded in the literature. Both inductive and deductive text analysis was done to identify, develop and consolidate the constructs and propositions. Broad themes identified and discussed were related to (1) the nature of LO, policies, content, challenges and teaching strategies; (2) the meaning of IK; (3) the philosophical differences of IK and LO, strengths and weaknesses of IK and LO, methods and partnerships and politics-scales-laws and policies. Considering the identified missing links in LO education, integrating IK and LO will strengthen the dual education processes in South Africa.

Key words: Life orientation; indigenous knowledge; integration; teaching strategies; challenges in LO

The second research article was compiled using findings from chapter four. The article was sent to Aarabs for a book chapter publication at North West University; and the article has been accepted for publication with minor changes. Changes have been effected already, and the article is expected to be published in due course. Pasted below is the title and abstract of the research article that was submitted:

FROM POLICY TO PRACTICE: ASSESING PEDAGOGICAL STRATEGIES FOR LIFE ORIENTATION EDUCATORS

T. Manyau; A. Cronje & P. Iya

Synopsis

Globally, many writers confirm that educators still dominate their teaching with teacher-centred Eurocentric pedagogical strategies. The aim of the study was to determine the nature and effectiveness of LO pedagogy among

LO educators in TVET Colleges in South Africa. While underpinned by the social constructivist theory, the study followed an empirical qualitative phenomenological case study methodology. A total of one hundred and twenty (120) LO students and twelve (12) LO educators, purposively chosen, were engaged as key study participants. Research data was collected through multiple strategies such as interviews with LO educators; focus group interviews with LO students; lesson observations; and policy document analysis. The data was analysed using both manual coding and the qualitative online software, *ATLAS ti*. Major findings revealed that there is no clear alignment between LO policy documents and LO implementation in TVET Colleges in North West province. On one hand, LO education policies, particularly pedagogical principles, approaches, epistemologies, pedagogies and resources informing LO education in South Africa, conform or relate to a social constructivism philosophy. On the other hand, LO educators dominate their pedagogy with teacher-centred approaches. The teaching and learning environment or classrooms do not promote social constructivist student-centred prescriptions. The LO policy documents also advocate for the integration of indigenous teaching strategies, resources or local community indigenous knowledge (IK) holders during pedagogy. Due to these factors, the implementation of the curriculum and pedagogy is ineffective and is doing little to benefit indigenous students and communities. Efforts to eradicate these problems might lead to effective LO teaching.

8.3.5.2. Integrated Teaching Framework

The study contributed to the body of knowledge by designing an integrated IK and LO framework for LO educators. The framework bridges the identified LO implementation gap and stand as a guideline designed to start the IK integration process in TVET Colleges in South Africa. For the reason that there are no IK and LO integration guidelines in South Africa, this particular initiative will assist educators and policy makers in adopting or adapting the framework and its ideologies. These can be used to facilitate the integration process and to design new related frameworks for LO educators.

8.3.5.3 Conceptual Knowledge Contribution

This study shares and contributes conceptual knowledge linked to LO and IK integration in TVET Colleges in South Africa. Definition of terms, descriptions, discussions and examples given with specific reference to this study add substantive and contextual knowledge which can be used by other authors when making referrals or comparing issues from a different context, background or perspective.

8.3.5.4 Literature Knowledge Contribution

The study documented and shared literature on the integration of IK and LO education. This literature can be used by other researchers elsewhere for referral purposes, or to compare the findings obtained with other related studies. Other researchers also might gain insights and utilise the design, methodologies, and theoretical frameworks followed and indicated in the study.

8.4 RECOMMENDATIONS

In view of the consolidated findings of this study, the following recommendations are made:

- Policy makers should consider re-visiting the LO education principles and try to create a balance between Western and indigenous principles. More emphasis should be made on integrating the two knowledge systems. Philosophical strengths in both systems must be integrated through a reasonable scale; and issues such as politics or differences should be ironed out to ensure symmetrical complementarity.
- There is an urgent need to re-draft LO subject guidelines to include IK and LO integrated epistemologies, pedagogies, approaches and resources. The fact that many LO educators use these LO subject guidelines, suggests the need to detail the guidelines through a process of including IK-related subject outcomes and learning outcomes. This will compel educators to re-consider integrating indigenous knowledge.
- The South African government should re-structure the education system in such a way that it accommodates IK holders. There is need for engagements, making collaborations, creating databases and forming sustainable partnerships with IK holders in different communities. The government should consider formalising the inclusion of IK holders into the education system through a re-structuring process.
- There is need for the government to establish more indigenous community centres where students can be taught indigenous values, traditions or cultures as well as skills. These community centres must be equipped with resources to allow students to gain relevant practical skills and knowledge from expert tutors. Indigenous skills such as crafting,

weaving, beading, woodwork, building, hand work or cooking can help students in future to become self reliant and create employment for themselves.

- LO content should be restructured so that it incorporates IK education and skills. For instance, the topic on personal development should include indigenous issues such as values, ubuntu, traditions, cultures, religions or spirits; and provide details on how these shape or develop an individual. The topic on learning skills can be adjusted to include indigenous education skills such as learning through experience, learning from elders as well as holistic learning ideologies. Health and well-being topic should include various indigenous ways which were used to prevent diseases. Citizenship topic should be aligned towards community development, volunteering and building, supporting and loving one another.
- Education managers should re-orientate LO educators towards the need to appreciate and integrate indigenous knowledge in teaching. LO and IK integration workshops and training should be done to inform, educate and prepare educators for the integration implementation process. There is need to monitor, evaluate or develop the integration processes within institutions.
- LO educators should integrate IK during planning, pedagogy and assessments. Educators' Portfolios of Assessments (PoAs) and Subject guidelines should reflect planned ways for IK and LO integration.
- LO educators should use student-centred teaching strategies, approaches and pedagogies which allow students to participate, experience, synthesize and create new meanings from their learning outcomes.
- LO educators should not only impart knowledge from the textbooks, but, should try and include tested and experienced knowledge from indigenous knowledge holders across communities.
- LO teaching assessments should not only be in the form of tests and assignments; instead, community voluntary assignments, community project tasks, creations by students or re-

designing things should constitute the amount of tasks given to students. Instead of scoring students with ticks and marks, LO educators can use rubrics and checklists.

- In disciplining students, LO educators should engage IK holders or respected community members or the Chief (Kgosi) of that particular community.
- LO educators should re-consider engaging indigenous knowledge holders within their communities for indigenous knowledge consultations, collaborations and working partnerships.

8.5 CONCLUDING REMARKS

This long research journey, started with an aim to decolonise LO education through a process of integrating indigenous knowledge, in TVET Colleges in South Africa. The initiative was in response to the LO implementation gaps I identified within my research voyages. As I seem to close this particular research expedition, it appears to me that this is only an end towards a new journey with fresh insights and novel discoveries ahead. Although the objectives of this study have been met, and an integrated IK and LO framework has been designed, this effort is only one positive step calling for others to also march in unison towards a similar and related transformation and decolonisation agenda. In essence, the present study provokes, re-ignites, and re-directs many LO stakeholders to pursue this contested epistemological paradigm and integration intention. LO educators should endeavour to advance and implement the integration ideas and guidelines suggested in this study, all for the benefit of students and the community at large. Based on the findings of this study, Policy makers as the key LO education drivers, are implored to re-consider developing IK and LO integrated subject and assessment guidelines, and probably frameworks, to fuel this LO and IK integration locomotive. Education managers and LO subject specialists should continue to play their meticulous gate keeping roles, and monitor the LO and IK integrated planning, instruction and assessment processes done by LO educators. Community members, IK holders, parents and Chiefs should also come on board, and offer support which in turn will make this integration journey a success. Unless this is done, it may be difficult to transform our students, use our indigenous knowledge for our own good, develop our communities and enjoy the world we need. With this, I conclude that it is time to embrace the ideas presented herein, implement them and create a new world we all desire to live in.

Vignette

A relational story is created and engraved:

Of a piece of gem buried in the soil
Unearthed by a tireless labourer
After tilling and digging anthills and masses of soils

Although his body suffocated
And at many times was tempted to quit
His desire to save his children, made him discover the glittering diamond.

He sold it to a local buyer
And it was re-sold to an Australian dealer
Before it was auctioned at the world market in Switzerland

It was send for polishing in Japan
Then verified and re-stamped in Canada
And was cut into three pieces in America

One part was bought by the British Queen
Another part was sold to a Chinese Bourgeoisie
While the last part was taken by a Spanish singer

Unfortunately, thieves stole two of the gems
And we still do not know which ones
And another cycle was created.

In all these cycles, there is one important message
Relating to the study and all of us
That many lives were saved.

As I celebrate today
Many will benefit too
And above all, souls will be saved.

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APPENDIX ONE

DATA TRANSCRIPTION
LO EDUCATORS: NORTH WEST PROVINCE

Question: What is your experience; college - campus; and area of specialization			
Lecturer	LO Teaching experience	TVET College & Campus	Area of specialization
L1	8 years	Orbit: Brits Campus	Life skills & ICT
L2	5 years	Ehlanzeni - Mpumalanga Campus	LO & English
L3	10 yrs	Orbit: Rustenburg Campus	Education
L4	5 yrs	Taletso – Lehurutshe Campus	Did not specialise in LO. The love and need for knowing new things motivated me to teach LO
L5	4 yrs	Taletso – Licternburg Campus	Did not specialise in LO
L6	10 yrs	Ehlanzeneni-Mpumalanga Campus	Did not specialise in LO.
L7	5 yrs	Ehlanzeni- Mlumati Campus	LO (Life skills)
L8	5 yrs	Gert Sibanda – Standerton Campus	English and LO
L9	7 yrs	Vuselela – Taung Campus	Life Skills & ICT
L10	2 yrs	Ehlanzeni – Mlumati Campus	ICT
L11	10 yrs	Ehlanzeni – Malumati Campus	Life skills & ICT
L12	7 yrs	Ehlanzeni – Mlumati Campus	Business Administration
L13	1 yr	Gert Sibanda – Ermele Campus	Life Orientation
L14	10 yrs	Ehlanzeni – Baberton campus	Life skills & ICT
L15	4 yrs	Vuselela	Life skills & ICT
L16	10 yrs	Orbit-Mannkwe campus	Life skills & ICT
L17	10 yrs	Orbit – Rustenburg campus	ICT
L18	6 yrs	Orbit-Rustenburg	Health and wellbeing
L19	2yrs	Gert Sibanda-Balfour campus	English
L20	9 yrs	Ehlanzeni-Kanyamazane campus	LO life skills
L21	4 yrs	Gert Sibanda-Sebaneseftu	LO ICT & Life skills
L22	3 yrs	Orbit-Rustenburg campus	Life skills
L23	5yrs	Gert Sibanda-Sebaneseifu	Science education
L24	1 yr	Ehlanzeni-Nelspruit	ICt & Life Skills
L25	5 yrs	Taletso-Lichtenburg	Life skills
L26	5 yrs	Taletso-Mafikeng	Accounting & Financial computing
L27	6 yrs	Taletso- Mafikeng	Fashion design and Technology
L28	6 yrs	Taletso-Mafikeng	Computer skills
Question: Explain your personal views towards the LO subject based on your teaching experience?			
L1	It equips students with Life skills so that they are able to make informed decisions in life		

L2	Gives clear insight of what real life situations can do on the achievement of goals. Exposure of students to ICT skills
L3	LO is a very special and important subject and the experience has been so nice since we attend workshops that motivates us and that will also brings out the best in us
L4	I feel LO is life and it is good for our students
L5	LO helps in terms of behaviour, values and skills like computer skills to students
L6	I enjoy teaching LO because it motivate me to teach what I believe is important
L7	LO unpacks all the challenges of life that we face in our daily lives
L8	A subject that helps students to adjust their lives in order to be responsible citizens of this country
L9	I am learning everyday from this subject, it also encourages me to be confident
L10	Very interesting and life-learning experience
L11	LO is a subject that is important in changing students' behaviour however it should be treated like other subjects
L12	LO is not a subject, it is a way of shaping an individual behaviour personally. It builds the inner person as well as the outer part, how a person should like
L13	We have a lot of challenges to deal with as LO educators because LO is reality
L14	It is a life changing subject which creates an awareness of attitude and behaviours and also helps the new generation to acquire good life skills
L15	This is a live subject which needs an energetic person because mostly you are dealing with things of personalities especially in the Life skills
L16	It is a subject that helps us to have a positive relationship with students. According to me I have done a lot to them and they understand me
L17	It needs more attention since majority of people still have less knowledge about HIV/AIDS and LO as a subject must be taken serious. ICT must be separated
L18	It play an important role in the lives of students it's a way o shaping their future
L19	It is great subject
L20	Very interesting subject aimed at equipping students to become responsible citizens
L21	It is a very important subject that give students opportunity to learn and explore different ways of living, setting goals & being responsible citizens
L22	LO incorporates many aspects of life and the topics dealt in LO relate directly to the students' personal lives. It enables students to achieve their full potentials
L23	It is a subject that cover every subject of life for example emotional, physical and spiritual and mental being of students
L24	It is the best subject I ever taught
L25	It is not taken serious by students and management as well as other educators. They think/believe it's a waste of time
L26	LO is very educative, it is in line with life in general. The topics we teach are related to challenges one face in life. Its an educative subject to teach and to know
L27	It is very important subject because we talk about issues that affect us directly or indirectly. It is also part of making an awareness to our students since we teach topics about HIV/AIDS
L28	I enjoy teaching the subject but the problem is when computers are not working
Question: Do you feel you are making an impact in LO teaching?	
L1	Yes too many things happen in the lives of students and partnering in teaching assist them a lot
L2	Yes students who have done LO are more aware about their rights as well respecting those of others
L3	Yes I am. Most of our students are not focused and since we deal with real life issues its easy to bring them back on track

L4	I would say yes
L5	Yes I do
L6	Not really sure but am trying
L7	Yes I am, I bring light to those who were in the dark about Life orientation
L8	Yes- The teaching of LO is effective to the lives in order to be responsible citizens of this country
L9	Yes a lot, am changing lives of society at large
L10	Yes many students are now aware of HIV and all infections
L11	Yes you can see by the change in students' behaviour
L12	Yes I got the opportunity to talk to students especially the young ones on things that hinder their future
L13	Yes because it helps me to interact with my students in any way
L14	Definitely I am since I started teaching the subject I made changes to most of my students
L15	Yes because as an LO lecturer I am a counselor at the same time breaking my students' sensitive issues
L16	Yes-always support students and colleagues in all what they need
L17	Yes-every time students have say their problem I try and help them
L18	Yes because I prepare them to be young adults. I also prepare them for the world of work
L19	Yes it contributes to saving lives
L20	Yes but very constraint by the resources and support from the college
L21	Yes the behaviour of our students has changed for the better
L22	Yes I am empowering my students to use their full intellectual, physical, emotional and social potentials
L23	Yes I have made so much impact considering the moral conduct and healthy living among LO students now
L24	Yes everyday interaction with these students grows me and them
L25	Yes I give students information about the things that happen in our daily lifes
L26	It's making an impact because students change and become wiser than before. It changes their perception about life in general.
L27	Yes I do finish the syllabus and we speak now we are in module 3 and we are about to finish. It can only take you two weeks to finish your modules. The interviewer asked how the lecturer manage to finish the syllabus in such a short period of time and the lecturer said: If you know what you doing it's easy plus as long as the attend two weeks are enough.
L28	Yes because students put what they have learnt on their CVs. Always when students look for a job they are asked whether or not they have done computers...so I am making an impact
Question: Which teaching strategies or methods do you normally use?	
L1	Individual task, group work, research and project
L2	Mostly group work, students search for and discuss information on topics and present in class
L3	Lecturing, case studies, PowerPoint presentation
L4	I use discussion method-say I ask students to open books and look at the topic. I then tell them to discuss about the thing they know. I then focus only on the percentage say 5% which they do not know or understand
L5	I use participative method such as asking questions and debating about it
L6	I use both discussion and participative methods
L7	I encourage my students to be in groups
L8	Question and answers-Helps students to say what they know
L9	Role players-because I want everyone to participate in class
L10	Practical, they are doing things practically
L11	Student-centred strategies by mostly involving the students

L12	Introduce the topic, allow the students to say everything they know/understand about the topic, let them share/discuss. At the end I engage them advising them how to do the right thing
L13	I use my computer and project and divide my students into groups so that they can solve
L14	I must first introduce myself to them and learn to know them by their names so that when in class teaching I call their names
L15	Lecture and student involvement because when you involve them they turn to see things in a good way
L16	Group work-they all participate
L17	Presentations and formal assessments
L18	It's student-centred. The focus is more on OBE
L19	Lecture method, group discussion and group work
L20	Group work because students interact with each other
L21	Role playing, students sharing with peers and class discussion
L22	Case study-because it provide an opportunity to relate and apply what the learn in class to real life
L23	Student-centred approach-group discussion
L24	Student centred
L25	Class discussions
L26	I use my text books. There are times when I use group discussions especially when I want to finish my syllabus, so I give students topics to read and discuss in class-this helps me to cover topics very fast.
L27	I use pictures, interacting with my students, sharing information where some students can share information and teach others on how to take care of themselves and how to do away with drugs.
L28	Practical exercises and tests
Question: Which challenges do you encounter in teaching LO subject?	
L1	Life skills: formulating questions and in ICT: Ms access
L2	Lack of support from management
L3	Students who absent themselves and bunking classes
L4	Sometimes students do not attend classes
L5	Lack of support from other educators who say negative things about the subject
L6	Sometimes I do not cover enough content
L7	Our fellow colleagues are mistreating us
L8	Less support in the college
L9	Resources-e.g. wifi and internet at computer labs
L10	In ICT there are not enough computers to accommodate all students
L11	Sometimes students think Life Skills is boring
L12	Lack of support from colleagues, thinking LO is a shame subject yet they fail to conduct themselves in a positive way in front of students. LO educators are labeled as people who are not educated highly
L13	I need more time for LO because they gave short time or 2 hours per week and LO needs more time to discuss since this is a reality
L14	There is lack of resources needed for the delivery of LO. Other people such as educators undermine the LO subject and there is insufficient teaching time. The periods are not enough
L15	Skills development-we need more workshops which will empower us as LO educators because in most instances LO is not taken seriously
L16	My periods are less=4 periods per week for my teaching, I don't have any problem
L17	Student bunking classes and students who come to me for help as a lecturer
L18	More time should be allocated to the subject

L19	Students' attitude-being uncontrollable-presenting certain topics
L20	When I have to delve into sensitive topics such as rape, suicide and abortions and wishing students to understand the value of LO. I wish counselors should come or they must take those emotional students for counseling
L21	The issue of access to internet and utilising IT for teaching purposes is a problem
L22	Case study-most students are not co-operative
L23	Students not taking the subject serious
L24	I am still a bit shy/skeptical about talking or demonstrating the use of condoms
L25	Poor attendance of students, lack of resources. Student support and management must intervene and make sure we have resources. Student support must deal with student attendance
L26	Students do not want to speak in groups. Some are scared to come out and discuss. It seems some students have experienced some issues we discuss so they don't want to speak or because it affects them I don't know. My other challenge is I am not always finishing my syllabus because you have to explain in detail you know.
L27	LO has to be more practical with visuals, I do not have more pictures to show students. Sometimes students do not attend classes especially this time of the year, others undermine the subject, and they take it to be easy. I usually have a lot of absenteeism.
L28	Computers which sometimes are not working and students suffer a lot. Again they do not fix them and that is the problem. We need interns to be here always and fix our computers but they always stay at corporate centre and this affect us. Another problem is of large classes but we improvise like having 2 students to sit on one computer. but..again this does not work during exams.
Question: Do you have enough teaching resources and support from colleagues and seniors?	
L1	There is enough support, the only challenge is the mindset of other colleagues about LO
L2	Resources are always a problem on the college
L3	For life skills resources are enough but with computer skills we have 30 computers per and sometimes some groups consists of 30 plus students
L4	The main problem is computers. We do not have enough computers
L5	We lack computers
L6	I do not have books-sometimes I have to make copies for the students and its tiresome imagine each and every topic I must make copies for them
L7	I do not rely much on the text book
L8	Physical resources are adequate
L9	Other staff members taking LO for granted
L10	Books are also a problem since they are not enough and students do share textbooks
L11	There is enough support in terms of resources
L12	Not enough resources; libraries, videos, computers or even a tour where they can hear or see people talking their personal development in their career
L13	Teaching resources to us is not enough e.g. books and we need more knowledge
L14	For me it is fine just that in ICT I need more computers
L15	Managers should support us with the necessary resources. We get textbooks late in the year which is not fair to the lecturer and the subject
L16	We don't have everything-we don't have speakers for audio lessons-support from colleagues-60%, 40%
L17	There aren't enough resources
L18	Resources are available-computers-flipcharts-projectors and posters
L19	Data projectors and internet connectivity is a problem

L20	Classes are fine but need more technology resources
L21	Senior management is very supportive but of course resources are not enough
L22	Teaching resources are available and students utilise them effectively to their benefits
L23	Projector and PC's will be needed to enhance effective teaching and learning of LO
L24	I lack a few but am managing
L25	No we do have enough books for LO L4 and L2
L26	I have all books, tables, chairs and everything is fine and I do get support fro my colleagues.
L27	The only problem is sometimes in photocopying that machine you find it is not working sometimes
L28	Some computers are not always working and it's a problem for us. Also the chairs we are using are designed for computers because the one we have are not straight. From colleagues yes we get enough support but from management there is no support they do not listen to our problems.
Question: Is the time allocation (2 periods per week) enough to accomplish your LO teaching goals?	
L1	Not enough
L2	Not at all at least five periods will do
L3	Yes it is enough I am able to complete the syllabus before the end of the year
L4	It is sometimes enough but not quite
L5	Mmmm the time is actually a challenge and sometimes we do not finish our syllabus
L6	The problem with the two periods is that sometimes miss the morning and afternoon periods and because they only have 2 periods it means the will only attend one period or none. On Fridays as well it is a problem since some periods are affected by sports and those within those timeframes will lose the teaching time
L7	Yes
L8	No we need more time to execute the resources
L9	Wifi and internet for computer labs-lack of new computers
L10	No it not enough at all
L11	Its not enough because there is ICT
L12	No because students need to play drama, reflect on what they have been taught and ask questions
L13	No it is not enough
L14	No it is not enough
L15	It is not enough because sometimes students come with touching stuff and you need to counsel and its not fair
L16	No
L17	No 4 hours per week is better
L18	No its not enough
L19	No
L20	NO
L21	In our case its 3 periods and its 1 hour 5 mins which is enough
L22	Time allocated is not enough
L23	Yes
L24	No
L25	No because students bunk some of the classes
L26	No it's not enough, I believe LO should be a daily subject and should be more than an hour. Children need special attention there are some issues a lot of them to discuss
L27	It is enough imagine for those 2 periods I mange to finish syllabus
L28	No, it is not enough because sometimes we are busy with the module and find that the time is

	not enough and students have to go and attend another subject. Practical assignments are difficult to do within the given time
Question: What is indigenous knowledge?	
L1	It means the prior knowledge influenced by culture and can broaden the scope of knowledge on LO
L2	Knowledge passed on from one generation to another over time
L3	I think it is when you incorporate culture and western modernized learning
L4	I am not sure about it
L5	Maybe it is the past knowledge or knowledge from the past
L6	I think it has to do with culture
L7	Not sure
L8	Knowledge that comes from our cultures
L9	Cultural engagement e.g. African proverbs
L10	Not sure
L11	Not sure about the meaning of IK but yes it can make a difference
L12	Not sure
L13	Not sure
L14	Yes charity begins at home. What I teach in class cant make such a difference if parents and communities are not supportive
L15	Yes because when you teach about HIV/AIDS our students are still confused due to their religious and cultural beliefs
L16	Indigenous knowledge-older knowledge where it was mouth to mouth-generation to generation-not written, Yes
L17	Native knowledge and indigenous teachings of the past
L18	Africa's cultural diversity
L19	Yes there is wisdom from our communities in how they have been going about living safe.
L20	Yes because students relate very easily with their indigenous practices
L21	Knowledge that we learnt from our forefathers. It can be useful since it carries a lot of moral development and principles
L22	It is the knowledge systems developed by community as opposed to modern or scientific knowledge, in LO peoples' diverse is recognized
L23	Yes. Indigenous knowledge is the knowledge that are passed on from fore-fathers to other generation and it has been useful over time
L24	I'm blank
L25	Previous knowledge one passed on from generation to generation
L26	Yoo I must say its my first time to hear that.....mmmmmm.....may you please explain to me the meaning of indigenous knowledge
L27	I am not sure...is it not playing different cultural games..or the plants or culture....mmmm I think also it is the knowledge of the past-When asked whether she use it, the lecturer said: No I do not use it...in fact I do not know how to include it in class. I know the last chapter talks about diversity but it does not talk much about indigenous knowledge so it is not there in our books
L28	I don't know that one maybe it might not be the same but I think it is the knowledge that we have that we teach the students.
Question: How can we integrate indigenous knowledge in teaching-the methods, process & partnerships	
L1	Change in life style and exposure to technology
L2	Match indigenous knowledge to outcomes and try to integrate the two

L3	We can make use of dramas, case studies and games and music
L4	I know nothing about it
L5	No we cannot integrate past knowledge and current knowledge that is impossible
L6	I am not sure about that
L7	Not sure
L8	Not sure to be honest
L9	Learning different cultural practices; engaging students to dramatize their cultural differently in a form of drama
L10	Not sure
L11	By incorporating those non-governmental organisations to come assist
L12	Not sure
L13	Not sure
L14	Partnering with our indunas, traditional healers can have a positive impact on the delivery of LO hence Life skills
L11	We can invite culturalists and the pastors when we deal with certain topics. We can also have the videos or youtube
	To call grandparents to come and lecture students in colleges about how to behave and and the discipline that they have before
L1	By teaching native ways of taking care against diseases such as sti and try and combine it with modern ways
	Cultural practices like ukusoma can help students understand that delayed intercourse is not only safe but also cool
L3	Make use of indunas and chiefs and traditional ceremonies where you ask for a slot and address crucial issues like women abuse and children abuse. Inyanga can also educate them about the impact of HIV/AIDS
L15	Partnerships with the chiefs, elders of the community to teach students certain knowledge and explain how it sustained them
L9	Indigenous knowledge and western knowledge can be taught together
L3	Allow the children to bring their indigenous knowledge to the classroom and participate. Also encourage them to do research, ask questions from home, give them a project
L12	I don't know hey
L2	Make partnership with customary houses
L3	Yes I do a lot..are you saying the knowledge I get from outside do I use it..haa that one I use it a lot. I think in my teaching for example we get issues like pregnancy from outside and we discuss those issues here. Peer pressure is another one and it is there in our books. Drugs also are here in our books.
L12	Are you saying we can use traditional dances or games to teach...hahaha....how do we do that...Aketse waitse (for me I don't know)
L10	Sir a ke battle go bua maka (I don't wat to lie) but honestly I don't know

APPENDIX TWO

DATA TRANSCRIPTION FOR INDIGENOUS KNOWLEDGE HOLDERS

<p>Question 1: May you kindly explain your views on the Life Skills education today? Do you think the current Life Skills education in schools is doing enough to develop students physically, psychologically, socially, spiritually and emotionally?</p>	
<p>Mme Modiragabo</p>	<ul style="list-style-type: none"> • (Bana ba tobekane ba senyegile maikutlo le ditlhaloganyo) The children nowadays are holistically affected everywhere-their soul, mind and bodies are just a messy. They do not involve God in their lives and studies. They do not fear anything; they do not have control, boundaries or respect for life-elders-or culture. The children today can sleep outside after school and they have no respect for parents all because they are protected by rights. (Nna oka rona oka se bona ga oka lala <i>Bogologolo barutabana ne ba jela barutwana nala kwa gae go tlhola gore baitse maitsholo a bona kwa gae, jaanong malatsi a gagona morutabana ope oka etelang ngwana kwa gae ka ntlheng ya boikgatoloso jobo lengteng gompieno le puso e ya jaanong e emela bana thata jaanong barutabana gaba kgone go ruta bana maitseo le gore ke eng sese phoso</i> Long time ago educators were respected and they controlled children but nowadays children have so many rights and they do not listen to their elders. • koo ole ngwanake nna ke ise ke lale koo ga kele mosetsanyana) If you are my child you will see it when you sleep outside because I never slept outside when I was a girl. • <i>Go tlhakatlhakane fela gompieno bana ke bone ba bolellang barutabana gore badire eng ibile gape balaola barutabana</i>-Its just a messy these days our children do not listen anymore but

	<p>they rather tell their elders what to do</p> <ul style="list-style-type: none"> • <i>Bogologolo gao le mogolo .o ne o kgona go kgalemela ngwana le ga e se wa ga go, kgotsa gomo itaya.jaanong ka gore gompieno go na le ditshwanelo tsa bana tseo di tlisitsweng ke yone phuso enchwa e ebidiwang democracy kapo ditshwanelo(rights).</i> Back then elders would teach or discipline the young ones even those not their own kids but now because of rights and democracy all have changed. • Thuto le mmuso wa gompieno ga o tseye tsia thuto tsa segologolo, ba e nyatsa ba re ga ena boleng kante ga ba itse gore ke yone e tshwereng kitso yotlhe e e ka fetolang thuto ya gompieno. Thuto ya gompieno ga ba gagamaletse bana ba.Thuto ya segologolo ene e gagamatsa molao mo baneng gore botlhe ba itse botlhokwa jwa go fafola.The new school system does not take education serious, the previous education system is taken for granted, they undermine it not knowing that it has the most important knowledge on how to help students pass their studies. They are not strict or formal when it comes to education; they let these students get away with failing. The previous school system used to punish students and so they were afraid to fail in case they will be punished. Nowadays there is punishment for failing or misbehaving at school because of the rights that the children have.
<p>Rre Mokgwe</p>	<ul style="list-style-type: none"> • There is now no connection between the home, the school and the community. • Crime has risen, problems such as criminality, child abuse, drugs and teenage pregnancy can be solved by parents and community members not police or government
<p>Mme Segotso</p>	<ul style="list-style-type: none"> • The previous life skills education was better because they disciplined us. We were afraid of our educators and we used to

	<p>respect them a lot. We would not face our educators in the eye when talking to them because we respected them so much.</p>
Rre Simon	<ul style="list-style-type: none"> • The government says that they teach our children (<i>ba ba ruta eng?</i>)-what are they teaching them. Why don't we work together so that we can take a hand in teaching our children-we can do lot to assist our students on how to behave and do handwork.
Rre Mokgwe	<ul style="list-style-type: none"> • In our times we had inspectors checking us at schools to see if we were being taught well or passing. We did not have grades it was Sub A, Sub B and first Prem. We were beaten up (<i>ne re itewa</i>) for misbehaving. It was not abuse but it was discipline; but not we can't beat our children if we do they will take us to the nearest police station. At home and school being beaten was common and we are who we are because of the beatings that are now called abuse.
Mme Mmusi	<ul style="list-style-type: none"> • The problem with the education today is that the standards are low. The policies are affecting teaching and learning, imagine. how you can lower the pass rate to 30% this is total madness. • The assessment levels are being lowered and this affects students later in their life say in the workplace. Students will be having certificates yet they know nothing • Life skills education is not effective enough because it does not train students to be innovative. Our students lacks specialization • The education today is not practical and it is non-functional and it does not prepare our students enough. • Our students are not being developed socially-they lack moral guidance and they do not value our own culture anymore •

<p>Rre Tolo</p>	<ul style="list-style-type: none"> • The education is not effective at all. • We have educators who are skilled but the system is failing them. There are so many problems which are happening today. • Our system is far less developed as compared to other education systems in other countries. • Haaa!, my son, our system embraces mediocrity, results are poor. • Socially, everything is going down, there is a low or minimal level of improvement. • Taboos are now being introduced into the Constitution for example homosexuality religion
<p align="center">Question 2: Does the school system recognise the local indigenous knowledge?...If Not...What do you think is the reason for this?....If YES, to what extent do they recognise it; you may give examples?</p>	
<p>Mme Modiragabo</p>	<ul style="list-style-type: none"> • Everyone, the government, schools and bo kgosi (the chiefs) undermine indigenous knowledge holders. Dikgosi (the Chiefs) do not call us to their meetings to share our views. • Dikgosi dija di le nosi ga ba kgathalle rona mme ka nako eo batho ba batla thuso ka ngwao le setso sa rona, ba ba romela mo go rona bao re nyaditsweng (The chiefs eat alone and do not care about us but when people come to them for knowledge they send them to us). • Re dirisetswa kitso le botlhale bo re nang naabo mme ga re fiwe sepe bone ba ja ka gore ba tshwere pene le pampiri ba na le thuto jaanong ba re tsietsa ba re nyatsa mme ga ba na kitso le botlhale bo re nang le bone le ge ele Dikgosi (They use our knowledge and give us nothing; for them they eat because they have a pen and a paper they think they know and suppress us not knowing they do not have the knowledge and wisdom that

	<p>we have)</p> <ul style="list-style-type: none"> • Le bone barutabana ga ba na kitso ya rona ya segologolo, ba na le ya sekwalekwale sa setlankana sa thuto (certificate) ga ba itse go laya bana; ke ka moo nkabe batla mo go rona, batle go kopa thuso ya gore ba ka ruta bana jang le gore go tshwaragangwe thuto ya segologolo le ya segompieno gore bana ba ithute ba falole ba se ke ba palela batsadi le barutabana ba bone (Also the educators do not have our knowledge and skills all they have is the knowledge of certificates they do not know our old ways of teaching instead they are suppose to come and ask for help so that the children pass and do not become a burden to their parents.
Rre Mokgwe	<ul style="list-style-type: none"> • Ga gona se se siameng ngwanake (nothing is right my son). A ba re bone ebile ke lenyatso fela (They do not recognise us instead they look down upon us)
Rre Tshepiso	<ul style="list-style-type: none"> • The government and schools say we are not competent because we do have a paper (certificate) and they do not recognise us yet we have the skills.
Rre Simon	<ul style="list-style-type: none"> • They do not recognise us and they do not want to make us known maybe they think we will get their jobs. All we want is to help the new education system by giving our knowledge and skills to the youths. Our children lack our indigenous knowledge and it pains us
Rre Mokgwe	<ul style="list-style-type: none"> • Schools or colleges do not recognise us. We are so willing to transfer the knowledge we got from our parents to our children. We want our children to have discipline, we want to create jobs, we want our province to have stability and have its own things.
Mme	<ul style="list-style-type: none"> • Schools or colleges do not recognise us and this is nowonder

mmusi	<p>why we have so many problems.</p> <ul style="list-style-type: none"> • Surprisingly other countries do recognise indigenous knowledge.
Rre Tolo	<ul style="list-style-type: none"> • Schools or colleges do not recognise indigenous knowledge. • Our education is now training our students to be too general
<p>Question 3: What is your view on decolonising the Life Skills teaching system, so that it includes indigenous Life Skills knowledge?</p>	
Mme Modiragabo	<ul style="list-style-type: none"> • First we need to ask God first to open our minds and hearts and give us wisdom so that we can be able to help our children • Community meetings should be convened to talk about the problems such as the deterioration of indigenous education and values within our communities. • Indigenous people should come together and propose the solutions to solve this problem and then they must choose representatives who will meet with the school leaders and all speak with one voice. • The laws must be drafted according to the communities' needs and wants meaning to say the community must decide on what is wrong or right • (Jaaka re le batsadi, Puso, ketelopele ya loago le barutabana tshwantse re kopane re bue puo ele nngwe) We as parents, government, community elders and educators must come together and caucus about this issue and speak with one voice in order to regain control over our children.
Mme Mmusi	<ul style="list-style-type: none"> • It is high time people should know that they do not live in a book. • LO should be more practical • The how part of it is not there

	<ul style="list-style-type: none"> • Students should be taught skills and not theory • Through the constitution IK should be also considered • Awareness campaigns should be done because our people have now been polluted with the western thinking.
Rre Tolo	<ul style="list-style-type: none"> • We can use social media, television or social papers to inform the public about the value of Ik • More dialogue is needed e.g. chiefs, public, educators and parents should be informed about IK and its benefit within societies. • More researches should be done and there is a need for engagement. • LO topics should include IK and IK teaching methods should be used. • Students can also learn from history
<p>Question 6: Which methods and processes can be used to integrate the two systems; and how can we sustain these processes or partnerships?</p>	
Mme Mmusi	<p>1. Partnerships</p> <ul style="list-style-type: none"> • Community organisations should be formed • These organisations should work with institutions like schools, colleges or the department of education • Cultural studies should be part of the teaching content • All stakeholders e.g. the department of arts and culture, department of education, university faculties, premiers officers should work hand in glove
Rre Tolo	<ul style="list-style-type: none"> • should be made between department of education, schools, chiefs, and IK holders

	<ul style="list-style-type: none"> • Working dialogues should be done among these stakeholders
Rre Tshepiso	<ul style="list-style-type: none"> • I am ready to impart my skills to our children and all we need is funding from the government to accelerate this. We must be engaged and accredited and provide us with machines and equipment. And please note that we are not after money but to teach and transfer skills to our kids
Rre Mokwa	<ul style="list-style-type: none"> • People should group and come together • Community groups should be formed • Department of arts and culture, education, and indigenous knowledge holders should come together • The government can form various indigenous. cultural and community centres where students can come quarterly and gain knowledge
Mme mmusi	<p>2. Processes</p> <ul style="list-style-type: none"> • The curriculum should be reviewed • A problem solving-focused curriculum should be implemented • Curriculum contents should be context based and Ik holders should give their inputs • Teaching content should be linked to the current societal problems and challenges
Mme Segotso	<ul style="list-style-type: none"> • The teaching in schools should accommodate us so that we can teach students some handwork, beading and knitting skills. There are those students who are called slow students, they can learn a lot from our skills and this will reduce unemployment rate in South Africa. • The government must meet with indigenous knowledge

	holders and help the children of today
Mme Modiragabo	<ul style="list-style-type: none"> • Sengwe seka dirwa gore, Sekgoa se kopane le Setswana (We must integrate western knowledge and indigenous knowledge) • The government must not take the side of the children they must listen more to the parents that would mean working together. • When we discipline the children we must all talk with one language so that the children won't get a chance to misbehave • The police must also come in and be part of the team • No one should undermine anyone and this issue of looking down upon indigenous people or old people must stop • Tshwanetse le rapele Morena Modimo ka pelo e botlhoko re kopane gore a bone gore re a mo tlhoka a kgone gore busetsa ko morago ko go neng gole monate go na le kagiso le tlhompofela (We need to pray to God with all our pained hearts so that he will see that we are in pain and he will take us back to our land where we used to live in peace in harmony).
Rre Tolo	<ul style="list-style-type: none"> • Teaching content should include historical knowledge, problem solving knowledge and Ik-related knowledge • Awareness campaigns should be done to inform the public • Formal and informal discussions on including IK in education should be done.
Rre Simon	<ul style="list-style-type: none"> • Children should be taught many indigenous skills so that they can self-sustain themselves or sell things they make unlike buying things from the white man's' shops • The government must employ skilled people in offices with a passion towards helping our kids
Mme	Methods

<p>Mmusi</p>	<ul style="list-style-type: none"> • Technology is changing and newspapers are slowly fading away. Teaching should be also changed according the current societal trends. Life skills topics on job searches should be re-aligned to the current life principles • Students should be exposed to fieldwork, observations, demonstrations and practical tasks
<p>Rre Tolo</p>	<ul style="list-style-type: none"> • We can come to schools and teach children only if proper agreements and arrangements are made • We have cultural villages in our communities so students can also come learn different skills. • Life skills teaching should be practical • Students should be exposed to real life situations to gain practical experience • Teaching should not only be confined to the classrooms but students should learn and be productive at the same time. • Students should be given real-life problems to solve e.g. ending poverty in community households.
<p>Mme Modiragabo</p>	<p>Indigenous knowledge and life Skills</p> <ul style="list-style-type: none"> • We were taught the traditional values, beliefs and culture, our history. • We were taught how to respect everyone, to give and assist the needy, to control ourselves and value relationships • Children were taught how to cook, farm, how to make soft and rough maize meal (go sila mabele ka tshilo), milking cows (go gama dikgomo) • They were taught how to make items such as clay and sand pots (Nkgo) • They made preservatives for storing milk (lekoka) using animal skins • They would fetch fire wood (Go rwalela, goya kgonnyeng)

	<ul style="list-style-type: none"> • They were taught how to make traditional attire clothing (makgabe le diope)
Rre Mokgwe	<ul style="list-style-type: none"> • We were taught traditional skills such as handwork skills, crafting skills, traditional cookery skills (mabele, brewing beer), sewing, skills for drying meat
Mme Segotso	<ul style="list-style-type: none"> • We were taught handwork and when you passed you would take your practical items like roko (dress) to go and show your parents. • Men were taught how to make cups and plates using newspapers or mmopa (clay) • We were taught beading and knitting skills. We made jewellerys such as rings, beads, necklaces and also knitting for ourselves. • Now I make a living out of this beadwork (ke kgona go tshela) I do not wait for the government to employ me I do it myself.
Rre Tshepiso	<ul style="list-style-type: none"> • We were taught how to do woodwork, cane work and beadwork
Rre Mokgwe	<ul style="list-style-type: none"> • All the things we were taught were related to our culture for us to understand. For example in Padiso 1 we were taught vowels such as A; E; I; O; U) and letters of the alphabet e.g. L was pronounced Lee (meaning an egg in our culture). • We were taught poetry and how to write essays. Poems such as “Koka koka nyane, O montle ka boletenyane bobo setlhanyane. Bo mabele ke gasagane ke tlhoka yo ntshelang (You are beautiful with a smoot skin and colour. I am in love I need someone like you to be my partner. • We were taught how to make shoes using animal skins and not plastics • A girl child was taught how to be reserved and cultured. They

	<p>were allowed to move around the streets or go out at night. They were taught not to raise their voice when talking.</p> <ul style="list-style-type: none"> • The girl child was also taught go herera le go sefa (sieving) mabele, sorghum or other grains. • When greeting children were taught to bow and show respect
<p>Mme Modiragabo</p>	<p>Indigenous teaching methods</p> <ul style="list-style-type: none"> • Ne re rutelwa motlase ga mokala re kwalela mo fatse mo mmung (We were taught under the tree and we used to write in the soils • Ne re dula mo ntlong ya mmu e dirilweng ka seloko e ruletswe ka bojang (Our classroom was a muddy house roofed by grass). • We were learning through real life experiences e.g. making real objects and artefacts such as lekoka and makgabe • We were taught variable things such as how to do first aid, how to treat diseases-flue, headaches using natural herbs coming from the ground (Ne re iphekola ka ditlhare tsa Setswana re saye dingakeng ne re epa molemo mo mmung go fodisa malwetsi jaaka tlhogo, sehuba le tse dingwe. • We were taught in our mother tongue and so it was easy for us to undersatand
<p>Rre Mokgwe</p>	<ul style="list-style-type: none"> • I wish If people were aware that knowledge is not school only • The education today teach English and English is not knowledge. • During our time we were taught how to sweep, clean and take care of ourselves. • We were taught poetry relating to our culture in the lower grades and in middle school we were taught how to read and write. In upper grades we learnt skills. • Bantu education was the best because educators were first

	<p>taught how to teach unlike this Christian education now it is not helping us</p> <ul style="list-style-type: none"> • The education system is now worthless and worse standards have been reduced • We were punished for misbehaving
<p>Question 7: Which challenges can be expected in the integration process, and how can they be solved?</p>	
<p>Mme Mmusi</p>	<ul style="list-style-type: none"> • Lack of support from the public due to their lack of knowledge about the importance of indigenous knowledge • People may resist to accept change say moving from what we know to what they do not know
<p>Rre Tolo</p>	<ul style="list-style-type: none"> • If there is no proper dialogue or engagement the school bodies might refuse to allow IK holders into schools and colleges • If the government does not make it a policy it will be difficult to implement the programme • Teaching content and methods should be changed to suit the indigenous motive.
<p>Rre Mokwa</p>	<ul style="list-style-type: none"> • If there is no support from government the integration will fail
<p>IK politics</p>	
<p>Rre mokgwe</p>	<ul style="list-style-type: none"> • Some educated people they come and take information like how to make umqomboti (traditional African beer) then they get funding and they make money out of what we tell them and they do not give us anything. • Sometimes the government officials also steal our ideas and make millions out of them like we wanted to celebrate our anniversary and the budget was R119 000 and they did not get back to us and instead inflated the price to R2 300 000.

	<ul style="list-style-type: none"> • Our culture is dying because of corruption, instead of using our knowledge and resources government officials only want to benefit themselves.
<p>Mme Modiragabo</p>	<ul style="list-style-type: none"> • The undermining of indigenous knowledge holders is killing our culture, values and beliefs • There are no proper channels of communication within our segments as indigenous knowledge holders. • We do not have roles within the community structures yet we help people a lot. • We are treated as uneducated people and so many times we are exploited for nothing. • The government should place us within their structures so that people can recognise us
<p>Rre Simon</p>	<ul style="list-style-type: none"> • Government funding process and policies is affecting us and demoralizing us. The problem is the government says that they only fund the youths younger than 35 years and they forget that these youths need our assistance and knowledge. How do we impart our knowledge and skills while we are not part of the system

APPENDIX THREE

FOCUS GROUP DATA TRANSCRIPTION FOR STUDENTS

Question 1: May you kindly explain your personal view about the LO subject?	
FG1	LO teaches us how to conduct our lives
	It helps us to think
	I helps us to correct our poor choices
	I have learnt how to manage my time
FG2	It teaches us the knowledge about ourselves
	It teaches us everything in life including issues such as personal hygiene and to handle ourselves well, and sexual intercours
FG3	For me LO teaches us how to behave in a work environment, it builds self esteem. It benefit us a lot
	It is through LO that we learn about our strengths and weaknesses in life
	LO helps us physically, mentally and emotionally and how to change our attitude
FG4	Yes I think it talk about life in general
	LO teaches us about general things around, things we know already. I think it should be for kids because what we do are the things we know already. At least we need something deeper
	We think we know but we don't know, so LO is good for us
FG5	Lo is all about life and skills
	I think I enjoy it
FG6	LO teaches us on how to behave ourselves
	We learn about many things like goal setting in LO
FG7	It is about life in general, health, taking care our ourselves and others
	It helped me a lot because there are so many things I didn't know in life

	It teaches us how to interviews
FG8	I love LO because we are free to say things about life and ask questions
FG9	LO is LO there is nothing new
	LO is good especially us youth today
FG10	LO is common knowledge about life
Question 2: Do you think LO subject is doing enough to develop you physically socially, psychologically, spiritually and emotionally? Explain your answer.	
FG1	<ul style="list-style-type: none"> • It helps me personally, physically, emotionally and socially. Emotionally, it is helping me when I am hurt and it is in LO that I learn how to handle and pick up myself and move on
FG2	<ul style="list-style-type: none"> • Yes It teaches us about ourselves and how to take care of ourselves
	<ul style="list-style-type: none"> • Yes I have learnt how to manage my time I am a very lazy person and now I have learnt a lot and I have changed I now can manage my time well
FG3	<ul style="list-style-type: none"> • Because of LO now I know how to behave myself during interviews
FG4	<ul style="list-style-type: none"> • I do not enjoy LO because everything we know it. And everything is in the book
	<ul style="list-style-type: none"> • I think we take advantage of LO and some of us honestly we don't attend LO lessons
FG5	<ul style="list-style-type: none"> • I do not enjoy LO because my marks keeps dropping
	<ul style="list-style-type: none"> • I think it depends with the topic or teaching...some topics are very interesting and also the teacher if he is serious then we also become serious
FG6	<ul style="list-style-type: none"> • Yes its developing us a lot in terms of knowing about dangers of teenage pregnancy, protecting ourselves during sexual intercourses, relationships • It motivates
FG7	<ul style="list-style-type: none"> • Yes it teaches us on how to behave ourselves
	<ul style="list-style-type: none"> • Now I know about how to use a condom because of LO • Before my friends were telling me lies
FG*	<ul style="list-style-type: none"> • I am an emotional person but now I know about how to control myself

FG9	<ul style="list-style-type: none"> I have learnt a lot in LO especially things about my health
FG10	<ul style="list-style-type: none"> All things we learn are common, its like we know them
	<ul style="list-style-type: none"> I don't attend but I still pass LO
Question 3: Is there a difference between what you learn at home or in your communities and in LO lessons? Kindly explain and give examples	
FG1	<ul style="list-style-type: none"> Yes because at home we experience things and here we learn the theory and they teach us on how to take care of ourselves
	<ul style="list-style-type: none"> When at home we do not learn anything at all so there is a difference
FG2	<ul style="list-style-type: none"> LO teaches us about what we must do at home and everything about life so its almost the same
FG3	<ul style="list-style-type: none"> What we are learning at home is the same thing as here
	<ul style="list-style-type: none"> What we learn here we apply it at home
FG4	<ul style="list-style-type: none"> Some parents do not talk about sex or HIV so at least we learn it in school
FG5	<ul style="list-style-type: none"> There is no difference, I feel like it's the same The difference is at school we talk and write about things like sex but at home we do it practically and we don't talk about it
FG6	<ul style="list-style-type: none"> There is a difference because we don't learn anything at home
	<ul style="list-style-type: none"> Our parents don't teach us
FG7	<ul style="list-style-type: none"> At home they don't teach us anything
	<ul style="list-style-type: none"> We learn most things from our friends
FG8	<ul style="list-style-type: none"> It is the same
FG9	<ul style="list-style-type: none"> At home we practice what we learn here for example sex
	<ul style="list-style-type: none"> Our grandmother sometimes teaches us but we don't listen to her
FG10	<ul style="list-style-type: none"> Yes we do it safe akere they tell us to be safe
Question 4: Describe you're LO lessons in general, say, do you enjoy your lessons? If YES, give reasons. If NO, explain why you do not like them?	

FG3	<ul style="list-style-type: none"> • It depends on educators when they don't attend we also don't attend
FG1	<ul style="list-style-type: none"> • I do enjoy our lessons because we talk about life in general so there is nothing difficult in LO education
	<ul style="list-style-type: none"> • I have learnt how to manage my time. I am a lazy person so LO taught me to be active and my life has changed and I am now coping with time management
	<ul style="list-style-type: none"> • Our lecturer is very accommodating, she allows us to participate and make sure we understand
FG2	<ul style="list-style-type: none"> • She teaches us how to be confident, how to behave ourselves or it helps us to be free and talk about something secret
	<ul style="list-style-type: none"> • It is the simplest subject and I enjoy it because I can pass it
FG4	<ul style="list-style-type: none"> • It teaches us on how to make right decision in life
	<ul style="list-style-type: none"> • In class we discuss more things we do not know
FG5	<ul style="list-style-type: none"> • Yes we enjoy it because it boosts our self esteem • It helps us to avoid unprotected sex
FG6	<ul style="list-style-type: none"> • It motivates us • It encourages us not to absent ourselves, to read our books and to be serious • And career opportunities
FG7	<ul style="list-style-type: none"> • It depends with the teacher, because sometimes honestly nah I don't enjoy it
FG8	<ul style="list-style-type: none"> • Its boring because our lecturer always read books for us
FG9	<ul style="list-style-type: none"> • Eish its boring because we can read for ourselves
FG10	The lessons are good because we are free to talk
Question 5: Which teaching methods are normally used by LO educators – do they give you time to participate in class? What about outside your class, say in your community?	
FG1	<ul style="list-style-type: none"> • Our lecturer read the book for us. We do not participate in our communities and our lecturer do not give us ant tasks to help our communities
	<ul style="list-style-type: none"> • We are free to participate in class and not in our communities
FG2	<ul style="list-style-type: none"> • Educators give us time to participate and what we learn is what we see outside

FG3	<ul style="list-style-type: none"> • They read books , talking and making examples
FG4	<ul style="list-style-type: none"> • They read the book and ask questions
	<ul style="list-style-type: none"> • I do not know because I do not attend LO lessons
FG5	<ul style="list-style-type: none"> • We answer individual, we participate even in groups and present
FG6	<ul style="list-style-type: none"> • Teaching is slow because educators sometimes they are not there
FG7	<ul style="list-style-type: none"> • Some LO educators say they do not know the content
FG8	<ul style="list-style-type: none"> • They give us work to do
FG9	<ul style="list-style-type: none"> • She tells us to read and ask questions
FG10	<ul style="list-style-type: none"> • We sit and she start telling us about things in the book
Question 6: What is the meaning of Indigenous Knowledge? How do you understand this term?	
FG1	<ul style="list-style-type: none"> • Yes..but I am not sure..., I think its knowing thing from your community
FG2	<ul style="list-style-type: none"> • No we haven't heard about it. At the end of the interview session the students asked me to explain the meaning of indigenous knowledge to them and I did.
FG3	<ul style="list-style-type: none"> • Aaah we not sure..., all we know is indigenous games and not knowledge
FG4	<ul style="list-style-type: none"> • I don't know about it
FG5	<ul style="list-style-type: none"> • Not sure
FG6	<ul style="list-style-type: none"> • Meneear, you can tell us
FG7	<ul style="list-style-type: none"> • No clue
FG8	<ul style="list-style-type: none"> • Is it the traditional dance eish am not sure
FG9	<ul style="list-style-type: none"> • We were never taught about it
FG10	<ul style="list-style-type: none"> • Maybe its knowledge from old people
Question 7: Do we have people who teach us about life in our communities (Indigenous knowledge holders)?	
FG1	<ul style="list-style-type: none"> • All students said Yes...there are there..and one students said: In our community there are counselors, those who teach us about things like HIV/AIDS

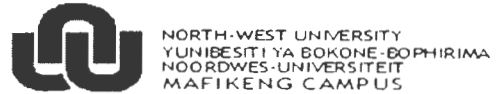
FG2	<ul style="list-style-type: none"> • Yes we do have like people like those from love life and they teach us about LO
FG3	<ul style="list-style-type: none"> • There are mentors in our communities for example health workers and community groups
FG4	<ul style="list-style-type: none"> • We have IK holders in our community from department of health, NGOs and Love-life
FG5	<ul style="list-style-type: none"> • Community centres help us • Love life they come and teach us • Elders are very secretive
FG6	<ul style="list-style-type: none"> • But some elders teach us about how to take care of ourselves, to avoid unprotected sex, or go out at night • But we don't listen to them because they have played their part rona we we want to experience it
FG7	<ul style="list-style-type: none"> • Yes there are people from health and community
	<ul style="list-style-type: none"> • They teach us about life yes people from NGOs
FG8	<ul style="list-style-type: none"> • Yes bagolo sometimes teach us
FG9	<ul style="list-style-type: none"> • Yes bat eng some people form community and health
FG10	<ul style="list-style-type: none"> • No one teach us
<p>Question 8: Do you think community or indigenous knowledge holders should assist in teaching LO subject – explain how it can be done?</p>	
FG1	<ul style="list-style-type: none"> • Yes I think they must come here at school and help in teaching life-related issues
FG2	<ul style="list-style-type: none"> • Yes because we learn something
FG4	<ul style="list-style-type: none"> • Yes the assist a lot but I think students should go to IK holders because they teach one thing
FG5	<ul style="list-style-type: none"> • Yes they help
FG6	<ul style="list-style-type: none"> • Some teach about HIV and AIDs through sports and functions and activities
FG7	<ul style="list-style-type: none"> • Yes we need them to come

FG8	<ul style="list-style-type: none"> • They must assist
FG9	<ul style="list-style-type: none"> • Yes its good for them to also helps us
FG10	<ul style="list-style-type: none"> • They mus come
Question 9: Which challenges do you encounter during your LO classes, what can be done to solve these problems?	
FG1	<ul style="list-style-type: none"> • Do you want us to talk about computers....., yaaaa, eish sir, there is a problem in computers because the teaching method there is very slow or poor. We haven't done anything since the beginning of this year. I don't think we have reached the basic level yet. <p>The researcher asked a question on which strategy can we use to solve this problem and the students said: I think we must be given someone who is positive or who is willing to help us. Also the lecturer can be encouraged to develop lesson plans which says that today we are learning this and tomorrow that</p>
FG2	<ul style="list-style-type: none"> • We are not facing any challenges
	<ul style="list-style-type: none"> • Computers are a problem in this college
	<ul style="list-style-type: none"> • Sometimes we do not attend because of of our social problems like if you do not have money to leave for the child it is difficult to come to school and worse our parents are financial stable
FG3	<ul style="list-style-type: none"> • I enjoy LO I do not have any challenges
FG4	<ul style="list-style-type: none"> • We repeat the same thing year after year but we keep on failing
	<ul style="list-style-type: none"> • Sometimes we write and we are not given marks
	<ul style="list-style-type: none"> • We suffer from lack of resources e.g. computers are not working
FG5	<ul style="list-style-type: none"> • Teenage pregnancies and lack of finances. In many times we fall pregnant and because we don't have money it becomes difficult to concentrate in school while your child is hungry at home
FG6	<ul style="list-style-type: none"> • Sometimes its difficult to submit assignment because of shortage of computers everything we go there educators chase us away because they have other classes
	<ul style="list-style-type: none"> • Sharing computers is not good for some of us because it is difficult for two people to learn on one computer

FG7	<ul style="list-style-type: none">• We suffer to print
FG8	<ul style="list-style-type: none">• Computers are few
FG9	<ul style="list-style-type: none">• We have no challenges
FG10	<ul style="list-style-type: none">• Our challenge is the teaching skill of the teacher. She must improve
	<ul style="list-style-type: none">• Yes she like to read a book and so we don't attend

APPENDIX FOUR

INVITATION AND CONSENT LETTER (IK HOLDERS)



Dear Indigenous Knowledge Holder

INVITATION

You are kindly requested to take part in an **Oral Discussion** research as described underneath. It is important that you read and understand all the information pertaining to this Oral Discussion research as well as the guiding principles underpinning this oral discussion research process. After reading I do hope that you will positively consider participating in the study and kindly sign in the consent form underneath if you are satisfied. Please note that by signing in, it is an indication that you voluntarily and willingly agree to take part in the study.

FOCUS OF THE RESEARCH

My planned research will focus on investigating the views, attitudes and perceptions of Indigenous Knowledge Holders on decolonising the teaching of Life Skills learning area. Data will be gathered through an Oral Discussion process. In this regard you are requested to freely participate and share your views and suggestions about the teaching of Life Skills learning area.

TITLE OF THE RESARCH

Decolonising Life Orientation by integrating indigenous knowledge in Technical vocational Education and Training Colleges in North West Province, South Africa

PURPOSE OF THE RESEARCH

The main purpose of this study is to fulfill the requirements for the researcher's Degree in *Doctor of Philosophy in IKS* at North-West University; to investigate the views, attitudes and perceptions of IK holders on decolonising the teaching of Life Skills learning area; to document all the suggestions from indigenous knowledge holders; pertaining to the teaching of Life skills; and to integrate these findings into LO teaching.

GENERAL PRINCIPLES AND GUIDELINES FOR PARTICIPATION

Please note that:

- This research conforms to community prescripts and you may advise the researcher on any community protocols that need to be followed;
- This researcher values all sacred knowledge and you are therefore free to share or not share any sacred knowledge;
- Your participation in this Oral Discussion research is completely voluntary and you are not coerced or forced in any way;
- It is possible that you may not get any immediate benefit personally, but the findings obtained in this study may improve the social participation of indigenous knowledge holders in teaching and learning processes. The findings may also help policy makers, curriculum planners and educators in integrating indigenous knowledge in Life Orientation or Life Skills learning area. Students in general may also benefit in realising the value and importance of indigenous knowledge and they may be motivated to learn and change their behaviour. The community at large, may also benefit socially as well as maintaining the cultural heritage.

- You are free to withdraw from participating in the discussion at any given time. You may also request that your views, suggestions or data be removed from the research data. However, you are kindly requested not to withdraw from participating without taking careful consideration, since it may have a detrimental effect on the trustworthiness of this research.
- Your views and suggestions will not be used for any other purpose other than this research;
- You are free to access your data upon request;
- Your names or identity will remain anonymous and confidential during and after the oral discussion research process; in fact pseudonyms will be used;
- You are encouraged to ask the researcher any questions with specific regard to the oral discussion research; and
- You will remain valued, appreciated and respected more than the research or study interests.

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130
Totem	Lion		
Clan	Manyika		
Dialect	Shona		

Sign _____ Date _____
Tonderai Manyau (Researcher)

CONSENT LETTER FOR IK HOLDER

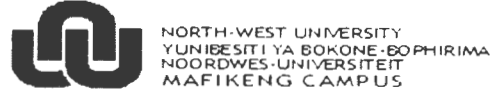
I, the undersigned _____ (**Full names & Surname**) of the following _____ (**People**) and my Totem being _____ (**Totem**) have read the preceding information and principles in connection with the research and have also hear the oral version thereof. I was given the opportunity to ask questions and have discussed all the relevant aspects of the oral discussion research. I do hereby agree to participate in the oral discussion research and again I understand that my participation is voluntary.

FULL NAMES OF INDIGENOUS KNOWLEDGE HOLDER SIGNATURE DATE

FULL NAMES OF WITNESS SIGNATURE OF WITNESS DATE

APPENDIX FIVE

INVITATION AND CONSENT LETTER (LECTURER)



Dear LO-Life Skills lecturer

INVITATION

You are kindly requested to take part in my research as described underneath. It is important that you read and understand all the information pertaining to my research as well as the general guiding principles underpinning this research process. After reading I do hope that you will positively consider participating in the study and kindly sign in the consent form underneath if you are satisfied. Please note that by signing in it is an indication that you voluntarily and willingly agree to take part in the study.

FOCUS OF THE RESEARCH

My planned research will focus on investigating the teaching strategies used in teaching LO, particularly, Life Skills learning area. Data will be gathered through in-depth individual face-to-face interviews, Lesson observations, and document analysis process. In this regard you may be required to avail your Portfolio of Assessment (POA), Portfolios of Evidence (POE) and Lesson plans.

TITLE OF THE RESEARCH

Decolonising Life Orientation by integrating indigenous knowledge in Technical vocational Education and Training Colleges in North West Province, South Africa

PURPOSE OF THE RESEARCH

The main purpose of this study is to fulfill the requirements for the researcher's Degree in Doctor of Philosophy in IKS at North-West University; to investigate the teaching strategies, principles, epistemologies and pedagogical skills used in teaching Life Skills; and to document all the findings related to this investigation. Furthermore, the study will investigate the extent to which LO educators integrate indigenous knowledge in teaching Life Skills.

GENERAL PRINCIPLES AND GUIDELINES FOR PARTICIPATION

Please note that:

- Your participation in this research is completely voluntary and you are not coerced or forced in any way;
- It is possible that you may not get any immediate benefit personally, but the findings obtained in this study may improve your professional and teaching conduct, may benefit students, other educators as well as the community at large;
- You are free to withdraw from participating at any given time during the course of the research. You may also request that your data be removed from the research data. However, you are kindly requested not to withdraw from participating without taking careful consideration, since it may have a detrimental effect on the trustworthiness of this research;
- Your data will not be used for any other purpose other than this research
- You are free to access your data upon request;

- Your names or identity will remain anonymous and confidential during and after the research process; in fact pseudonyms will be used;
- You are encouraged to ask the researcher any questions with specific regard to the research; and
- You will remain valued, appreciated and respected more than the research or study interests

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

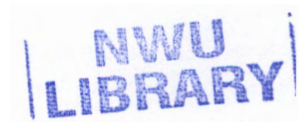
Sign _____ Date _____
Tonderai Manyau (Researcher)

CONSENT LETTER FOR LECTURER

I, the undersigned _____ (**Full names & Surname**) have read the preceding information and principles in connection with the research and have also hear the oral version thereof. I was given the opportunity to ask questions and have discussed all the relevant aspects of the research. I do hereby agree to participate in the research and again I understand that my participation is voluntary. I promise to avail all the relevant information and documents to the researcher when requested to do so.

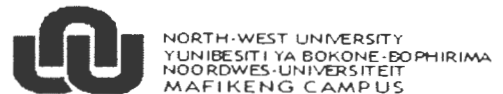
FULL NAMES OF LECTURER SIGNATURE DATE

FULL NAMES OF WITNESS SIGNATURE OF WITNESS DATE



APPENDIX SIX

INVITATION AND CONSENT LETTER (STUDENT)



Dear LO Student

INVITATION

You are kindly requested to take part in my research as described underneath. It is important that you read and understand all the information pertaining to my research as well as the general guiding principles underpinning this research process. After reading I do hope that you will positively consider participating in the study and kindly sign in the consent form underneath if you are satisfied. Please note that by signing in, it is an indication that you voluntarily and willingly agree to take part in the study.

FOCUS OF THE RESEARCH

My planned research will focus on investigating the teaching strategies used in teaching LO, particularly, Life Skills learning area. Data will be gathered through Focus Group interviews. In this regard you are requested to participate and share your views about the teaching of Life Orientation (Life skills learning area).

TITLE OF THE RESEARCH

Decolonising Life Orientation by integrating indigenous knowledge in Technical vocational Education and Training Colleges in North West Province, South Africa

PURPOSE OF THE RESEARCH

The main purpose of this study is to fulfill the requirements for the researcher's Degree in *Doctor of Philosophy in IKS* at North-West University; to investigate the teaching strategies, principles, epistemologies and pedagogical skills used in teaching Life Skills; and to document all the findings related to this investigation. Furthermore, the study will investigate the extent to which LO educators integrate indigenous knowledge in teaching Life Skills.

GENERAL PRINCIPLES AND GUIDELINES FOR PARTICIPATION

Please note that:

- Your participation in this research is completely voluntary and you are not coerced or forced in any way;
- It is possible that you may not get any immediate benefit personally, but the findings obtained in this study may improve your future personal, social and psychological well-being, together with other students; may benefit educators as well as the community at large;
- You are free to withdraw from participating at any given time during the course of the research. You may also request that your data be removed from the research data. However, you are kindly requested not to withdraw from participating without taking careful consideration, since it may have a detrimental effect on the trustworthiness of this research;
- Your data will not be used for any other purpose other than this research;
- You are free to access your data upon request;

- Your names or identity will remain anonymous and confidential during and after the research process; in fact pseudonyms will be used;
- You are encouraged to ask the researcher any questions with specific regard to the research; and
- You will remain valued, appreciated and respected more than the research or study interests

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

Sign _____ Date _____
Tonderai Manyau (Researcher)

CONSENT LETTER FOR STUDENT

I, the undersigned _____ (**Full names & Surname**) have read the preceding information and principles in connection with the research and have also hear the oral version thereof. I was given the opportunity to ask questions and have discussed all the relevant aspects of the research. I do hereby agree to participate in the research and again I understand that my participation is voluntary. I promise to participate in the research and will be true to myself.

FULL NAMES OF STUDENT	SIGNATURE	DATE
FULL NAMES OF WITNESS	SIGNATURE OF WITNESS	DATE

APPENDIX SEVEN
ORAL DISCUSSION GUIDE

ORAL DISCUSSION RESEARCH INSTRUMENT FOR INDIGENOUS KNOWLEDGE
HOLDERS

NOTE TO RESPONDENT

This oral discussion investigates the views, challenges, strategies and suggestions for teaching the LO subject in TVET Colleges in NorthWest Province, a move aimed at supporting and improving the LO teaching process. All the findings obtained in this study will be used specifically for academic purposes towards the fulfilment of the researcher's *Doctoral Degree* in *IKSat* North-West University. Be informed that this study conforms to the following ethics:

- Although the findings in this research will assist in integrating local Indigenous Knowledge in teaching Life Orientation subject, please be advised that participation in this study is voluntary.
- Confidentiality, anonymity and privacy will be considered.
- It is my honour to follow all community protocols and kindly guide me whenever necessary.

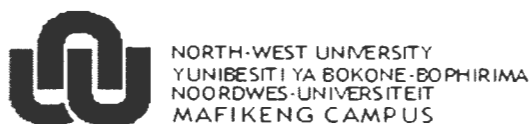
Guidelines for participating in the Oral Discussion research

- Kindly feel free to discuss and share your views in this oral research discussion.
- May you kindly participate in this oral discussion study and give your possible suggestions to the best of your knowledge and be truthful.
- Feel free to ask questions or seek explanations wherever you feel you do not understand.
- Where I do not conform to local indigenous community prescripts or protocols, please call me to order.
- You are also free not to divulge any indigenous sacred information which contradicts with the tribal community protocols.

Oral Discussion Guide

- May you kindly explain your view on the Life Skills education today? Do you think the current Life Skills education in schools is doing enough to develop students personally, socially and emotionally?
- Which important topics or information should we teach our children today?
- Does the school system recognise the local indigenous knowledge?...If **Not**...What do you think contributed to this?....If **YES**, to what extent do they recognise it; you may give examples?
- What are the similarities, differences and links between the local indigenous Life Skills teaching and the school Life Skills teaching?
- What is your view on decolonising the Life Skills teaching system, so that it includes indigenous Life Skills knowledge?
- Which methods and processes can be used to integrate the two systems; and how can we sustain these processes or partnerships?
- Which challenges can be expected in the integration process, and how can they be solved?
- How do you preserve the local indigenous sacred knowledge; what are the boundaries in sharing such knowledge? Are there any rules or policies to safeguard these?
- What are the advantages of local indigenous Life Skills knowledge and how can the society benefit from it?
- What role do you think local indigenous knowledge holders can play in assisting the Life Skills teaching process in TVET Colleges in North West province

APPENDIX EIGHT
INTERVIEW GUIDE (EDUCATORS)



**QUALITATIVE RESEARCH INSTRUMENT FOR LO EDUCATORS IN
TVET COLLEGES IN NORTH WEST PROVINCE, SOUTH AFRICA**

NOTE TO RESPONDENT

This interview investigates the views, challenges, strategies and suggestions for teaching the LO subject in TVET Colleges in NorthWest Province, a move aimed at supporting and improving the LO teaching process. All the findings obtained in this study will be used specifically for academic purposes towards the fulfilment of the researcher's *Doctoral Degree* in *IKSat* North-West University. Be informed that this study conforms to these ethics:

- Although the findings in this research will help educators and all stakeholders in TVET colleges, please be advised that participation in this study is voluntary.
- Confidentiality, anonymity and privacy will be considered.

Guidelines for responding to the Interview

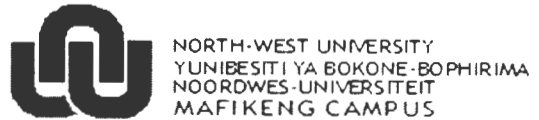
- Kindly feel free to respond to all the questions in this interview.
- May you kindly answer all the questions in this interview to the best of your knowledge and be truthful.
- Feel free to answer questions or to seek explanations wherever you feel you do not understand.

Interview Guiding Questions

- For how long have you been teaching the LO subject?
- What is your area of specialisation and how does it link to LO teaching
- Kindly explain your personal views, perceptions or feelings towards the LO subject: with specific regard to your experiences so far?
- Are you successfully achieving the goals or making an impact through LO teaching?
- How do you plan in accomplishing the teaching outcomes – which strategies or teaching methods do you normally use? Briefly explain your process of teaching?
- Which challenges do you encounter when teaching the LO subject? Kindly mention the areas where you need support?
- What about the teaching resources (e.g. books, tables or chairs); or support from colleagues and senior managers?
- Is the time allocation (2 periods per week) enough for you to accomplish the teaching outcomes
- Which philosophy, policies, principles or guidelines inform your teaching?
- What do you understand by the term indigenous knowledge – do you think it can make a difference in teaching LO subject?
- Do you integrate indigenous knowledge in teaching – If **YES**...kindly explain how you do it; the methods and processes you follow? If **No** which methods or ways do you think can be used in integrating IK in teaching?

APPENDIX NINE

FOCUS GROUP INTERVIEW GUIDE (STUDENTS)



QUALITATIVE RESEARCH INSTRUMENT FOR LO STUDENTS IN TVET COLLEGES IN NORTH WEST PROVINCE

NOTE TO RESPONDENT

This interview investigates the views, challenges, strategies and suggestions for teaching the LO subject in TVET Colleges in NorthWest Province, a move aimed at supporting and improving the LO teaching process. All the findings obtained in this study will be used specifically for academic purposes towards the fulfilment of the researcher's *Doctoral Degree* in *IKSat* North-West University. Be informed that this study conforms to these ethics:

- Although the findings in this research will help educators and all stakeholders in TVET colleges, please be advised that participation in this study is voluntary.
- Confidentiality, anonymity and privacy will be considered.

Guidelines for responding to the Focus Group Interview

- Kindly feel free to respond to all the questions in this interview.
- May you kindly answer all the questions in this interview to the best of your knowledge and be truthful.
- Feel free to answer questions or to seek explanations wherever you feel you do not understand.
- Everyone is urged to say something to the sacred talking stick which I will circulate
- We will all sit in a circle to represent that we are the same and we must equally share during the Focus Group interview process.

Interview Guiding Questions

- May you kindly explain your personal view about the LO subject?
- Do you think LO subject is doing enough to develop you personally, socially and emotionally? Explain your answer.
- Is there a difference between what you learn at home or in your communities and in LO lessons. Kindly explain and give examples.
- Describe your LO lessons in general, say, do you enjoy your lessons? If YES, give reasons. If NO, explain why you do not like them?
- Which teaching methods are normally used by LO educators – do they give you time to participate in class? What about outside your class, say in your community?
- Do you think community or indigenous knowledge holders should assist in teaching LO subject – explain how can this possible?
- Which challenges do you encounter during your LO classes, what can be done to solve these problems

APPENDIX TEN

OPEN-ENDED QUESTIONNAIRE (EDUCATORS)



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
MAFIKENG CAMPUS

QUALITATIVE RESEARCH INSTRUMENT FOR LO EDUCATORS IN TVET COLLEGES

NOTE TO RESPONDENT

This interview investigates the views, challenges, strategies and suggestions for teaching the LO subject in TVET Colleges in North West Province, a move aimed at supporting and improving the LO teaching process. All the findings obtained in this study will be used specifically for academic purposes towards the fulfilment of the researcher's *Doctoral Degree in Indigenous Knowledge Systems (IKS)* at North-West University. Be informed that this study conforms to these ethics:

- Although the findings in this research will help educators and all stakeholders in TVET colleges, please be advised that participation in this study is voluntary.
- Confidentiality, anonymity and privacy will be considered.
- Feel free to answer questions or to seek explanations wherever you feel you do not understand.

Interview Questions

- For how long have you been teaching the LO subject?-

- Which college and campus are you teaching

LO? _____

- What is your area of specialisation?-

- Kindly explain your personal views, or feelings towards the LO subject; with specific regard to your experiences sofar? _____

- Do you feel you are making an impact through LO teaching? Give a reason _____

- Which strategies or teaching methods do you normally use? Briefly explain your process of teaching? _____

- Which challenges do you encounter when teaching the LO subject? Kindly mention the areas where you need support? _____

- What about the teaching resources (e.g. books, tables or chairs); or support from colleagues and senior mangers? _____

- Is the time allocation (2 periods per week) enough for you to accomplish the teaching outcomes _____

- What do you understand by the term indigenous knowledge – do you think it can make a difference in teaching LO

subject? _____

- How can we integrate indigenous knowledge in teaching; Kindly explain the possible methods and processes or partnerships we can

use? _____

APPENDIX ELEVEN
CLASS OBSERVATION FORM



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
MAFIKENG CAMPUS

CLASS VISIT OBSERVATION

CAMPUS			
LECTURER			
DATE			
TIME			
VENUE			
SUBJECT			
LEVEL			
NO OF STUDENTS ENROLLED		NO OF STUDENTS PRESENT	
MONITORING OFFICIAL			
MONITOR DESIGNATION			
OBSERVATION ITEM	√/X	COMMENTS	
1. TEACHING DOCUMENTS			
<i>A. Course/Subject planning</i>			
<ul style="list-style-type: none"> • Subject topics, Subject Outcomes (SOs) and Learning Outcomes (LOs) were derived from the subject guidelines? 			
<ul style="list-style-type: none"> • Are teaching materials or resources indicated? Are there any indigenous resources mentioned? 			
<ul style="list-style-type: none"> • Are teaching methods given? If yes are they dominantly western or indigenous inclined or integrated? 			
<ul style="list-style-type: none"> • Do the educator state the evaluating methods, standards or benchmarks? 			
<ul style="list-style-type: none"> • What (cognitive or social) remedial 			

development plan is proposed?		
B. Daily Lesson Planning		
<ul style="list-style-type: none"> • Topic and objectives stated 		
<ul style="list-style-type: none"> • Materials and resources mentioned? Are there any indigenous resources or materials included? 		
<ul style="list-style-type: none"> • Are teaching methods or activities inclusive of indigenous teaching practices? 		
<ul style="list-style-type: none"> • Is evaluating criteria mentioned? 		
C. TEACHING PORTFOLIOS		
<ul style="list-style-type: none"> • Does the educator have a portfolio of assessment and subject preparation file? 		
<ul style="list-style-type: none"> • Are the files up to date; and do they have all the necessary teaching information such as year plan, subject guidelines, assessment guidelines, record sheets, tests and memos? 		
<ul style="list-style-type: none"> • Do the students have updated portfolios of evidence; with all necessary information such as copy of identity, student's information, guardian's information, marked assignments, assessment schedule and an updated record of results? 		
2. CLASSROOM: STUDENT-CENTRED ENVIRONMENT		
<ul style="list-style-type: none"> • Neatness or cleanliness of the classroom 		
<ul style="list-style-type: none"> • Does the wall space include teaching information? 		
<ul style="list-style-type: none"> • Does the space provide ease of 		

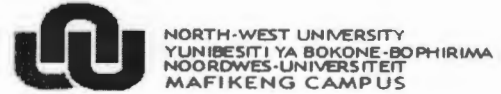
movement?		
<ul style="list-style-type: none"> • Ventilation, lighting and noise 		
<ul style="list-style-type: none"> • Sitting arrangement: does it allow for grouping or formulation of indigenous concentric circles 		
3. INSTRUCTION		
<ul style="list-style-type: none"> • Were the students and educator punctual for the lesson? 		
<ul style="list-style-type: none"> • Did the students mark the attendance register? 		
<ul style="list-style-type: none"> • Do students have textbooks, writing pads or other teaching resources? 		
<ul style="list-style-type: none"> • Is the educator confident, or shows preparation for the lesson? Does the educator show a grasp of the subject matter? 		
<ul style="list-style-type: none"> • Does the educator-student relationship allow for students' participation, free talk or to raise their hands as a learning community? 		
<ul style="list-style-type: none"> • Are students allowed to generate conjectures, alternative solution strategies, and ways of interpreting evidence? 		
<ul style="list-style-type: none"> • Does the instructional strategy and activities respect students' indigenous or prior knowledge? 		
<ul style="list-style-type: none"> • Are there any connections with other content disciplines e.g. indigenous knowledge or real world phenomena? 		
<ul style="list-style-type: none"> • Does the educator use various questioning techniques to allow for knowledge gain, comprehension, analysis or 		

application?		
<ul style="list-style-type: none"> • Is the teaching style holistic in nature-to allow for the body, mind and spiritual development? 		
<ul style="list-style-type: none"> • Does the educator act as a resource person, working to support and enhance students' investigations? 		
<ul style="list-style-type: none"> • Were students engaged in thought-provoking activities to enable critical assessment of teaching activities? 		
<ul style="list-style-type: none"> • The metaphor "teacher as listener" was very characteristic of this classroom? 		
4. FACILITATING COMMUNITY DEVELOPMENT		
<ul style="list-style-type: none"> • Is the educator trustful, caring and kind to students? 		
<ul style="list-style-type: none"> • How authoritative is the educator in giving command and instructions? 		
<ul style="list-style-type: none"> • Does the educator promote community development, grouping or sharing in class? 		
<ul style="list-style-type: none"> • Is the educator sensitive to diverse, cognitive, economic or socially handicapped students? 		
<ul style="list-style-type: none"> • Do the educator-students and students-students value and respect one another in class? 		
<ul style="list-style-type: none"> • Intellectual rigor, constructive criticism, and the challenging of ideas were valued in class 		
5. MONITORING AND EVALUATION		
<ul style="list-style-type: none"> • Are there evidences for marked 		

assignments and tests?		
<ul style="list-style-type: none"> Do students have an assessment schedule to inform them on yearly assignments, tests and dates? 		
<ul style="list-style-type: none"> Is the assessment schedule indicative of rubrics, scales or standards for assessments? 		
<ul style="list-style-type: none"> Does the educator have a development or evaluation schedule for the needy students? 		
1. TEACHING DOCUMENTS-Other comments		2. CLASSROOM: STUDENT-CENTRED ENVIRONMENT-Other comments
3.INSTRUCTION- Other comments		4. FACILITATING COMMUNITY DEVELOPMENT-Other comments
5.MONITORING AND EVALUATION-Other comments		

GENERAL COMMENTS		
<hr/>		
SIGNATURE OF LECTURER		
SIGNATURE OF MONITORING OFFICIAL		

APPENDIX TWELVE
PERMISSION LETTER TO THE CHIEF



ATT: THE HONOURABLE CHIEF
BAROLONG BORRA TSHIDI TRIBAL VILLAGE
MAFIKENG

05-11-2016

Dear Sir

RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

With specific regard to my reference, I do hereby seek permission to conduct an indigenous research study in your tribal village; mainly with the Indigenous Knowledge Holders in your area. I hereby come through you to seek for the blessing and permission to talk to your people about six indigenous knowledge holders on how we can integrate indigenous knowledge in teaching values or Life Skills to our children.

My research title is: “**Decolonising Life Orientation by integrating indigenous knowledge in Technical Vocational Education and Training (TVET) Colleges in North West province**”. It is mainly intended to fulfill the requirements for the researcher’s Degree in *Doctor of Philosophy* in IKS at North-West University.

This particular research is focused on investigating the gaps, ways and strategies for integrating indigenous knowledge in teaching Life Orientation (LO) subject. The research is divided into two parts namely (i) investigating the LO educators about their experiences and challenges in teaching LO, particularly, Life Skills learning area and (ii) discussing with indigenous

knowledge holders o their views, suggestions and other inputs concerning the integration of indigenous knowledge into LO teaching in schools and colleges. Data will be gathered through in-depth oral discussions with indigenous knowledge holders. In this regard I humbly request you to identify willing indigenous knowledge holders in your village to participate in the study.

Please note that the intended research will conform to all ethical principles when using human participants, such as, respect for safety, ensuring confidentiality and anonymity, and ensuring honesty and trust.

I do hope that you will allow me to conduct this research in your tribal village. For reference purposes kindly respond to me in writing. I look forward to your positive response about the matter.

Thank you

Yours in education

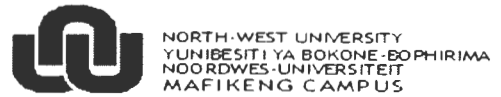
Tonderai Manyau

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

APPENDIX THIRTEEN

PERMISSION LETTER TO DIRECTOR OF RESEARCH



ATT: THE DIRECTOR OF RESEARCH

DEPARTMENT OF HIGHER EDUCATION AND TRAINING

CO/PROVINCIAL OFFICE

MMABATHO

05-11-2016

Dear Sir

RE: REQUESTING FOR PERMISSION TO CONDUCT A RESEARCH STUDY

With specific regard to my reference, I do hereby seek permission to conduct a research study in TVET Colleges in North West province, particularly, at Mafikeng Campus, Lichtenburg Campus and Lehurutshe Campus.

My research title is: “**Decolonising Life Orientation by integrating indigenous knowledge in Technical Vocational Education and Training (TVET) Colleges in North West province**”. It is mainly intended to fulfill the requirements for the researcher’s Degree in *Doctor of Philosophy* in IKS at North-West University.

This particular research is focused on investigating the teaching strategies used in teaching LO, particularly, Life Skills learning area. Furthermore, the study will investigate the extent to which LO educators integrate indigenous knowledge in teaching Life Skills. Data will be gathered through in-depth individual face to face interviews (LO Educators), Lesson Observations (LO

Educators), Focus group interviews (LO Students) and Document analysis process. In this regard participating educators may be required to avail their Portfolio of Assessment (POA), Portfolios of Evidence (POE) and Lesson plans.

Please note that the intended research will conform to all ethical principles when using human participants, such as, respect for safety, ensuring confidentiality and anonymity, and ensuring honesty and trust.

I do hope that you will allow me to conduct this research in your province. For reference purposes kindly respond to me in writing.

Thank you

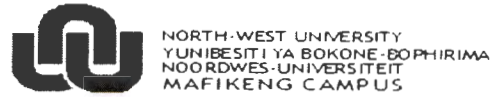
Yours in education

Tonderai Manyau

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

APPENDIX FOURTEEN
PARTICIPANT INVITATION TEMPLATE



ATT: THE PARTICIPANT
BAROLONG VILLAGE

05-11-2016

Dear Sir/Madam

INVITATION

You are kindly invited to participate in my research as described underneath. It is important that you read and understand all the information pertaining to my research as well as the general guiding principles underpinning this research process. After reading I do hope that you will positively consider participating in the study and kindly sign in the consent form underneath if you are satisfied. Please note that by signing in it is an indication that you voluntarily and willingly agree to take part in the study.

FOCUS OF THE RESEARCH

My planned research will focus on investigating the teaching strategies used in teaching LO, particularly, Life Skills learning area. It will also investigate the views, attitudes and perceptions of Indigenous Knowledge Holders on decolonising the teaching of Life Skills learning area. Data from IK holders will be gathered through Oral Discussions. For educators and students, Data will be gathered through in-depth individual face to face interviews, Lesson Observations, and Document analysis process.

TITLE OF THE RESEARCH

Decolonising Life Orientation by integrating indigenous knowledge in Technical vocational Education and Training Colleges in North West

PURPOSE OF THE RESEARCH

The main purpose of this study is to fulfill the requirements for the researcher's Degree in **Doctor of Philosophy** in IKS at North-West University. In that respect, the researcher will investigate the teaching strategies, principles, epistemologies and pedagogical skills used in teaching Life Skills; and to document all the findings related to this investigation. The study will also investigate the extent to which LO educators integrate indigenous knowledge in teaching Life Skills. Furthermore, the study will investigate the views, attitudes and perceptions of IK holders on decolonising the teaching of Life Skills learning area; will document all the suggestions from indigenous knowledge holders, pertaining to the teaching of Life skills; and to integrate these findings into LO Teaching. **This is where your participation will be required most. You are expected to share your views and suggestions on how to integrate IK into LO subject.**

GENERAL PRINCIPLES AND GUIDELINES FOR PARTICIPATION

Please note that:

- Your participation in this research is completely voluntary and you are not coerced or forced in any way;
- It is possible that you may not get any immediate benefit personally, but the findings obtained in this study may improve your professional and teaching conduct, may benefit students, other educators as well as the community at large.

- You are free to withdraw from participating at any given time during the course of the research. You may also request that your contributions be removed from the research data. However, you are kindly requested not to withdraw from participating without taking careful consideration, since it may have a detrimental effect on the trustworthiness of this research.
- Your data will not be used for any other purpose other than this research
- You are free to access your data upon request.
- Your names or identity will remain anonymous and confidential during and after the research process; in fact pseudonyms will be used
- You are encouraged to ask the researcher any questions with specific regard to the research
- You will remain valued, appreciated and respected more than the research or study interests

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

Sign _____ Date _____
Tonderai Manyau (Researcher)

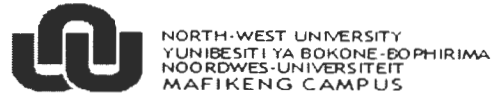
CONSENT LETTER

I, the undersigned _____ (**Full names & Surname**) have read the preceding information and principles in connection with the intended research and have also hear the oral version thereof. I was given the opportunity to ask questions and have discussed all the relevant aspects of the research. I do hereby agree to participate in the research and again I understand that my participation is voluntary. I promise to avail all the relevant information and documents to the researcher when requested to do so.

FULL NAMES OF LECTURER SIGNATURE DATE

FULL NAMES OF WITNESS SIGNATURE OF WITNESS DATE

APPENDIX FIFTEEN
PERMISSION LETTER (PRINCIPAL)



ATT: THE PRINCIPAL
TALETSO TVET COLLEGE
Private Bag X2024
Mmabatho

05-11-2016

Dear Sir/Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY

With specific regard to my reference, I do hereby seek permission to conduct a research study in the three different campuses in your institution: namely Mafikeng Campus, Lichtenburg Campus and Lehurutshe Campus.

My research title is: “**Decolonising Life Orientation by integrating indigenous knowledge in Technical Vocational Education and Training (TVET) Colleges in North West province**”. It is mainly intended to fulfill the requirements for the researcher’s Degree in *Doctor of Philosophy* in IKS at North-West University.

This particular research is focused on investigating the teaching strategies used in teaching LO, particularly, Life Skills learning area. Furthermore, the study will investigate the extent to which LO educators integrate indigenous knowledge in teaching Life Skills. Data will be gathered through in-depth individual face to face interviews (LO Educators), Lesson Observations (LO

Educators), Focus group interviews (LO Students) and Document analysis process. In this regard participating educators may be required to avail their Portfolio of Assessment (POA), Portfolios of Evidence (POE) and Lesson plans.

Please note that the intended research will conform to all ethical principles when using human participants, such as, respect for safety, ensuring confidentiality and anonymity, and ensuring honesty and trust.

I do hope that you will allow me to conduct this research in your institution. For reference purposes kindly respond to me in writing.

Thank you

Yours in education

Tonderai Manyau

MY NAME AND SUPERVISORS' CONTACT DETAILS

	RESEARCHER	SUPERVISOR	CO-SUPERVISOR
Name	Mr. T. Manyau	Dr. A. Cronje	Prof. P. Iya
e-mail address	tmanyau8@gmail.com	Annelize.cronje@nwu.ac.za	Philip.iya@nwu.ac.za
Telephone	0183846213	0183861032	0183892832
Cell phone	0782015345	0832761105	0729952130

CONSENT LETTER FROM PRINCIPAL

I, the undersigned _____ (**Full names & Surname**) have read the preceding information and principles in connection with the research and have also hear the oral version thereof. I was given the opportunity to ask questions and have discussed all the relevant aspects of the research. I do hereby agree to participate in the research and again I understand that my participation is voluntary. I promise to participate in the research and will be true to myself.

FULL NAMES OF PRINCIPAL

SIGNATURE

DATE