

Avondale University College

The impact of the formative context on the redevelopment of a teacher
education program in Fiji:
A sensemaking investigation

A Doctoral Thesis
Presented in fulfilment
of the Requirements for the Award
of the Degree of
Doctor of Philosophy

By
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[2019]

CERTIFICATION

Statement of Original Authorship

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ABSTRACT

Successfully making sense of redeveloping a teacher education program according to unfamiliar and exacting requirements is important for quality education in Fiji and the Pacific Islands where this study took place.

Critical sensemaking theory and literature have highlighted how formative contexts impact the way in which people make sense of change in business organisations. The purpose of this study was to generate a holistic explanation of how components of the formative context impacted the way in which participants made sense of a curriculum change in a higher education institution. Much previous research about sensemaking in business organisations has reported on macro level contextual factors, whilst also acknowledging the impact of individuals' cognition and identity. The possible impacts of such meso/group level contextual factors as group culture, and such micro/individual level factors as emotion, ethnic culture and spirituality, have yet to be fully investigated from a sensemaking perspective.

This study employed a qualitative and naturalistic ethnomethodological case study approach. It was conducted at a Christian faith-based higher education institution in Fiji. Data were gathered from three rounds of semi-structured interviews with the six multicultural teacher educators who redeveloped the program. Journal entries made by the researcher-participant, which recorded reflections on sensemaking interactions throughout the study, were used to triangulate interview data. Data were analysed using a constructivist grounded theory method. Conceptualised *a priori* categories (the contextual factors) and themes (macro, meso and micro organisation levels) were confirmed or otherwise by coding, while deeper codes and the existence of categories not previously conceptualised emerged from the data.

A major finding of this study was a new definition of a formative context as an open system of three levels – macro, meso and micro – each of which comprises several contextual factors. Findings also illustrated how meso level contextual factors, and particularly micro level contextual factors, had a much greater impact on sensemaking than macro level factors. The contextual factors were multi-faceted, subject to change, and highly connected in their capacity to impact sensemaking in negative and positive ways. Significantly, emotions and attitudes emerged as crucial to enabling or hindering sensemaking, while ethnic culture, group culture, spirituality and English not being most participants' first language, all emerged as important contextual factors impacting participants' sensemaking processes. Furthermore, the success of the program redevelopment was acknowledged by an authoritative source external to the institution.

The major outcome of this study was a holistic formative context framework. This framework contributes to sensemaking theory a utilitarian and adaptable means of generating a holistic explanation of a sensemaking event that may be relevant to both business organisations and educational institutions. Future applications of this framework to other contexts may add knowledge to sensemaking theory and literature, particularly in multicultural contexts.

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TABLE OF CONTENTS

CERTIFICATION	Error! Bookmark not defined.
ABSTRACT	iii
ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vi
LIST OF FIGURES	ix
LIST OF TABLES	x
LIST OF ACRONYMS AND TERMS.....	xi
CHAPTER 1: INTRODUCTION	13
1.1 This Investigation in Relation to Global and Pacific Educational Reform.....	13
1.2 Structure of this Thesis	15
1.3 Context of this Study	16
1.3.1 The institution and its personnel in its regional setting.....	16
1.3.2 Fijian and regional imperatives for the project	17
1.3.3 Christian accrediting mandates and institutional imperatives	22
1.4 Purpose of this Investigation.....	23
1.5 Research Questions.....	23
1.6 Significance	24
1.7 Conceptual Framework.....	27
1.8 Conceptual Assumptions	29
1.9 Theoretical Framework.....	30
1.10 Scope of this Investigation.....	31
1.11 Definition of Terms	32
1.12 Summary.....	33
CHAPTER 2: LITERATURE REVIEW	34
2.1 Sensemaking Theory	34
2.1.1 Definitions.....	35
2.1.2 The development of sensemaking theory	36
2.1.3 Limitations of Weick's and Dervin's sensemaking theories	38
2.2 Formative Context	40
2.3 Contextual Factors Evidenced in Early Sensemaking Theory	42
2.3.1 Cognition.....	42
2.3.2 Identity construction.....	50
2.3.3 Social constructivist processes	54
2.3.4 Communication	56
2.4 Contextual Factors Implied by the Limitations of Traditional Sensemaking Theory, by Newer Sensemaking Studies and by Other Literature	63
2.4.1 Emotions	63
2.4.2 Management.....	70
2.4.3 Leadership.....	73
2.4.4 Culture.....	81
2.4.5 Spirituality.....	92
2.5 Conclusion to the Literature Review	96

CHAPTER 3: METHODOLOGY	98
3.1 The Research Design	100
3.2 Research Ethics.....	105
3.3 Criteria for Evaluating this Investigation	106
3.3.1 Credibility	106
3.3.2 Trustworthiness	108
3.3.3 Transferability	109
3.4 Participants and Their Selection	109
3.5 Data-gathering Methods	111
3.5.1 Interviews.....	112
3.5.2 Observation and the reflective journal	120
3.5.3 Documents	122
3.5.4 Data-gathering techniques and data analysis related to redevelopment events	123
3.6 Data Analysis.....	126
3.7 Conclusion to Methodology.....	132
CHAPTER 4: FINDINGS	134
4.0 Data Presentation Methodology.....	135
4.1 The Relative Importance of the Contextual Levels.....	136
4.2 Contextual Factors Hindering Sensemaking and Cognition	138
4.2.1 Lack of knowledge and experience	139
4.2.2 The affective domain.....	143
4.2.3 Cultural issues	149
4.2.4 English as an Additional Language and communication issues	159
4.2.5 Conclusion to hindrances to sensemaking	165
4.3 Contextual Factors Motivating and Facilitating Sensemaking.....	166
4.3.1 Prior knowledge and experience.....	168
4.3.2 Spirituality.....	169
4.3.3 The affective domain.....	171
4.3.4 Culture and communication.....	175
4.3.5 Leadership.....	181
4.3.6 Summary of factors facilitating sensemaking and successes achieved	186
4.4 Contextual Factors that had Minimal Impact.....	186
4.4.1 Multicultural group	187
4.4.2 Management.....	188
4.4.3 Summary	190
4.5 The Connectivity Between Contextual Factors.....	191
4.6 Summary of the Findings.....	192
4.7 Answers to Research Questions 1-3.....	195
4.7.1 The contextual factors that impacted participants' sensemaking	195
4.7.2 Sensemaking issues and problems.....	200
4.7.3 Sensemaking successes	205
4.8 Conclusion to the Chapter.....	209
CHAPTER 5: DISCUSSION.....	211
5.1 Formative Contexts as Frameworks for Explaining a Sensemaking Event Holistically	211
5.2 Emotions and Attitudes: the Key to Effective Sensemaking.....	215
5.3 The Power of Culture in Sensemaking	220
5.4 English as an Additional Language as a Handicap to Sensemaking	226

5.5 Spirituality and Sensemaking	227
5.6 Summary of the Principal Findings and Their Significance	230
5.7 Answer to Research Question 4: How do the Findings Contribute to Sensemaking Theory and Methodology?	232
5.8 Suggestions for Future Research	237
5.9 Conclusion to the Chapter.....	242
CHAPTER 6: CONCLUSION	244
6.1 The Purpose, Context and Methodology of this Study	244
6.2 Implications of this Study for Sensemaking Literature, Theory and Methodology	245
6.3 Answers to the Research Questions.....	247
6.4 Limitations of the Study	249
6.5 Conclusion to the Study.....	250
REFERENCES.....	252
APPENDICES	272
Appendix A: Timeline of significant events related to LMC's degree redevelopment and their relationship to data gathering for this proposed investigation	273
Appendix B: Fiji Qualification Framework	274
Appendix C: FHEC Level Descriptors relevant to the BEd (Prim.) qualification	275
Appendix D: A comparison of three Fijian Teacher Education Qualification Programs prior to redevelopment of LMC BEd (Prim.)	278
Appendix E: Ethics clearance letter	279
Appendix F: A profile of the LMC Education Faculty in 2013	280
Appendix G: A comparison of data collection methods used by sensemaking researchers	281
Appendix H: Interview question development and procedures	282
Appendix I: Schedules for Interviews 1 – 3.....	283

LIST OF FIGURES

<i>Figure 1.</i> Ethno-cultural regions and island nations of the Pacific.....	16
<i>Figure 2.</i> Contextual imperatives for the BEd (Prim.) degree redevelopment.	18
<i>Figure 3.</i> Contexts impacting the redevelopment of LMC's BEd (Prim.) degree program.	28
<i>Figure 4.</i> A sensemaking framework.....	29
<i>Figure 5.</i> The theoretical framework.	31
<i>Figure 6.</i> Formal communication in an organisation.....	61
<i>Figure 7.</i> Methodological links to data analysis and research questions.....	126
<i>Figure 8.</i> The conceptualised formative context.....	130
<i>Figure 9.</i> The reconceptualised formative context.	196
<i>Figure 10.</i> The relative importance of contextual factors hindering sensemaking.	198
<i>Figure 11.</i> The relative importance of contextual factors supporting sensemaking.	199

LIST OF TABLES

Table 1 <i>Negative emotions, sensemaking and sensegiving</i>	68
Table 2 <i>Academic Heads of Department – varying attitudes and behaviour in times of change</i>	80
Table 3 <i>Critical sensemaking (Aromaa et al., 2018; Helms Mills et al., 2010; Thurlow, 2012) and holistic critical sensemaking (Potter, 2019)</i>	104
Table 4 <i>A timeline of interviews</i>	115
Table 5 <i>A summary of interview questions and their relationship to research questions</i>	117
Table 6 <i>Journal extracts with reflection and reflexive questioning</i>	122
Table 7 <i>A timeline of redevelopment events, data collection and data analysis</i>	125
Table 8 <i>Summary of data analysis processes</i>	127
Table 9 <i>The relative importance of contextual levels to participants' sensemaking</i> ..	137
Table 10 <i>Workshops intended to support sensemaking of the degree redevelopment</i>	189

LIST OF ACRONYMS AND TERMS

APA	American Psychological Association
Dip. Ed. (Prim.)	Diploma of Primary Education
BEd (Prim.)	Bachelor of Primary Education
Context	The situation and/or circumstances in which somethings exists and/or in which an event happens, and which help to explain the situation or event.
Credits	The unit used to measure a qualification in terms of the number of hours notionally spent to achieve the required learning outcomes. For LMC, one credit equals 10 hours of learning.
EAL	English as an Additional Language
ECE	Early Childhood Education
Evidence statement	A statement that clearly identifies how a student will achieve the learning outcome that the statement is linked to.
Faculty	The lecturers belonging to a specific higher institution department.
Formative context	A geo socio-cultural environment that impacts people's understanding, imagination and actions – that is, their sensemaking.
FHEC	Fiji Higher Education Commission
Learning outcomes	Statements describing the knowledge and/or skills students should acquire through successful completion of assignments and/or qualification programs.
Level	An academic level at LMC refers to the degree of difficulty in each year of a qualification prescribed by FHEC's level descriptors.
LMC	Lakomai College – the pseudonym for the higher education institution in Fiji that is the context for this investigation.
Moderation	The practice of a second person marking previously marked student assessments to confirm or dispute he appropriateness of the marks originally awarded.
Module	The alternative term for a subject or unit taught as part of an educational curriculum/program.
Module descriptor	A document written by faculty that outlines the content, learning outcomes, assessment and readings for a module (subject) that is part of a qualification. It equates to a subject outline, a term used in other institution.
NQF	The National Qualification Frameworks of Pacific Island Countries.
PD	Professional development.
Program	The prescribed modules (subjects) in an educational curriculum such as the BEd degree. This is also commonly called a course in the Pacific.
Project	The term used in this study for the redevelopment of a BEd (Primary) degree program.
PRIDE	Pacific Regional Initiatives for the Delivery of Basic Education. An EU and NZAID funded project intended to enhance the planning and delivery of basic education by

PSSC	Pacific education agencies. The project was implemented by The University of the South Pacific and completed in 2007.
Sensemaking	Pacific Senior Secondary Certificate. A process in which individuals, groups or organisations retrospectively create an understanding of a change initiative/event so that they can act in an informed and principled manner.
SPBEA	Secretariat of the Pacific Board for Educational Assessment. It provides the Pacific region outside of Fiji with the PSSC at Form 6 (Year 12) and the South Pacific Form Seven Certificate (SPFSC) Form 7 (Year 13).
Talanoa	A Fijian term for the back and forth conversations and group discussions that are the preferred way of communicating in Pacific collective societies.
The Pacific	The Melanesian, Polynesian and Micronesian Island nations of the Pacific. This excludes Papua New Guinea.
Vernacular	The term used in Fiji to denote a person's first language.

CHAPTER 1: INTRODUCTION

Teacher education has required a paradigm shift in the 21st century in order to train the “teachers of tomorrow” (UNESCO, 2000, p. 18). Such teachers need to be prepared for rising educational standards, new and stringent quality assurance mandates, newly developing sociocultural expectations and local curriculum requirements, all in the context of a fast-changing world. The coalescence of such major changes has made redeveloping teacher education programs a complex and multi-dimensional task. This thesis is an investigation of how a variety of factors constituting a unique and dynamic Pacific Islands’ context impacted the way in which a small group of teacher-educators made sense of such a task. The study that has resulted in this thesis was a qualitative ethnomethodological case study in which the researcher was a participant-observer.

1.1 This Investigation in Relation to Global and Pacific Educational Reform

Education is being impacted around the world by societal changes that are ubiquitous, relentless and accelerating (Devlin & Samarawickrama, 2011; Fullan, 1993; Hopkins, Harris, Stoll & Mackay, 2011). This is certainly true in both higher education (Garraway, 2010; Hubball, Gold, Mighty, & Britnell, 2007; Meyer, 2010; Ryan & Ryan, 2013) and in the Pacific, where continuing poor educational standards have been viewed as resulting from curricula that have been slow to modernise and contextualise (Chandra, 1999b; Luke, 2007; Puamau, 2007). To help overcome this issue, Fiji, which is the regional hub of higher education in the South Pacific, began a significant reconfiguration of higher education (Chandra, 2009a, pp. 1, 22) in the mid-2000s. This reconfiguration was in response to the global acknowledgement of quality being an extremely important determinant of the value of higher education (Chandra, 2009a, p. 22), and to the recognition that it was critically important to ensure that the activities of all Fijian higher education institutions were focused and added value (Chandra, 2009a, p. 19). These views have led to Fiji pioneering the first Pacific-based quality assurance process for higher education institutions, in order to ensure that Fijian higher education qualifications will be internationally recognised and globally competitive (Fiji Higher Education Commission, 2011b). This development resulted in the introduction into Fiji of mandated accreditation of higher education institutions’ qualifications through compliance with benchmarked levels of

teaching and assessment aligned to international standards—principally, the standards of Scotland.

The redevelopment of a Bachelor of Education (Primary) degree program at a Christian tertiary college in Fiji—the location of this investigation—represents a response to this new quality assurance process, and to a variety of other contextual demands. The institution will be referred to as Lakomai College or LMC (a pseudonym from the Fjian *lako mai*, meaning *come here*), a university college now accredited by both the Fiji Higher Education Commission (FHEC) and a Christian accrediting body.

For reforms or changes to be successful and have a positive impact, they need to be both understood and effectively managed to ensure desired results (Vuki, 2013, p. 3). Educational change has been classically viewed as both planned and controllable (Grant, 2003, p. 81). However, educational change is also highly complex (Brady & Kennedy, 2003, p. 305; Fullan, 2007; Hargreaves, Lieberman, Fullan & Hopkins, 1998) and its application is always subject to resistance, idiosyncrasy and unpredictability (Luke, 2007, p. 25). Ultimately, change requires compromise (Brady & Kennedy, 2003, p. 11) and the creation of new understandings (Dervin, 1989/2003, p. 56). Change also requires effective problem solving, and it is upon the success of this that the degree of success or failure of change initiatives largely depends (Soffe, 2002, p. 2). Thus, the controllability of educational change is a moot point unless personnel developing the details of the change and implementing it appreciate why they need to do it, and both fully comprehend and own what they are doing. To achieve a transformative educational change, participants may also need a fundamental reformation of their ways of thinking and practices—what Senge (2006) terms *metanoia*.

At the heart of this study is a change that transformed and updated an outdated teacher education program. This change—the redevelopment of the teacher education degree program—is hereafter in this thesis referred to as “the project”.

The study of this change is grounded in critical sensemaking theory. Sensemaking is a process in which individuals, groups or organisations retrospectively create an understanding of a change initiative/event so that they can act in an informed and principled manner. More specifically, this study utilises a formative context—a concept based in critical sensemaking theory (explained in detail later)—to examine how different aspects of participants’ context impacted

their ownership, problem solving and development of new ways of thinking and doing as they made sense of what their redevelopment task required them to do. Chapter 2 reviews much literature that supports the concept that the sensemaking of a change may not be fully understood without considering the impact of the formative context on the participants of a change.

1.2 Structure of this Thesis

Chapter 1 of the thesis provides essential background to the study. It begins by highlighting what was investigated and why, and continues after this section by providing a fuller description of the unusual context that constituted the setting of this study. Chapter 1 continues by providing the rationale, purpose and boundaries of the investigation, by focusing on the importance of change in education, why it should be understood, and the value of sensemaking as an appropriate process and research methodology for conducting an investigation into an educational change. The first chapter of the thesis also states the research questions that were employed to help explain what contextual factors impacted participants' sensemaking of their project, and how these contextual factors impacted the project. Also discussed in this chapter are the significance of the study, its conceptual assumptions and its conceptual and theoretical frameworks. The chapter closes by outlining the scope of the investigation and by defining key terms.

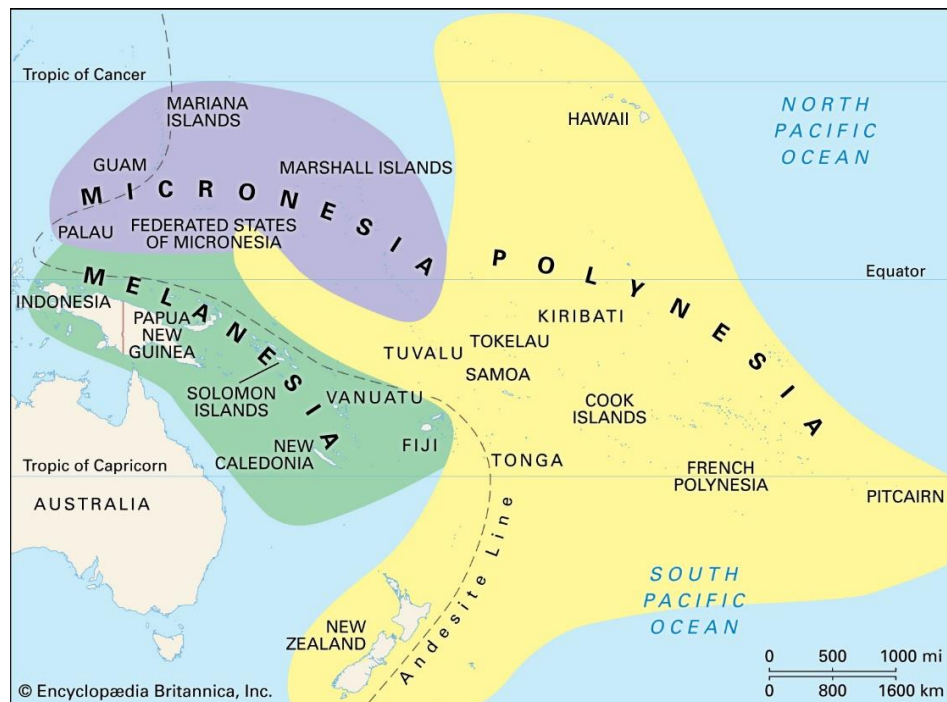
Chapter 2 uses literature to both outline what sensemaking theory and formative contexts are—the theoretical base of this study—as well as gaps in sensemaking literature that this study addresses. Chapter 2 also identifies sensemaking challenges arising from the contextual imperatives of participants' task, the contextual factors that may constitute the formative context of the participants of an organisational change, and how these factors impact sensemaking. Chapter 3 explains and justifies the methodology utilised to collect and analyse data. Chapter 4 presents a detailed analysis of the findings and answers the first three of four research questions. Chapter 5 discusses findings in relation to literature, answers the final research question, and suggests areas for future research. Chapter 6 concludes the thesis with a summary of the findings and outlines implications of the study for sensemaking literature, theory and methodology.

1.3 Context of this Study

As the formative context concept is at the heart of this sensemaking investigation, it is important to explain the context, which is the regional and local setting of this study. This section provides essential background on the nature of the institution in which this sensemaking study took place, and the origin of the imperatives that necessitated the project and the challenges they created for sensemaking.

1.3.1 The institution and its personnel in its regional setting

LMC is a multicultural higher education institution in a world-wide chain of universities and colleges owned and operated by a Christian denomination. Tracing its roots back to the early 1900s, it is located and administered in Fiji. LMC serves the culturally diverse Melanesian, Polynesian and Micronesian Pacific Island nations (see Figure 1), though it also has students and staff from outside the region. LMC provides degree programs and their embedded Diplomas in Primary Education, Early Childhood Education, Theology and Business. The six faculty members who redeveloped the degree program represented two Melanesian cultures—three members from one culture, and just one from the second—and one Micronesian culture; the sixth member was an expatriate European (the researcher).



Source: Britannica.com/place/Polynesia

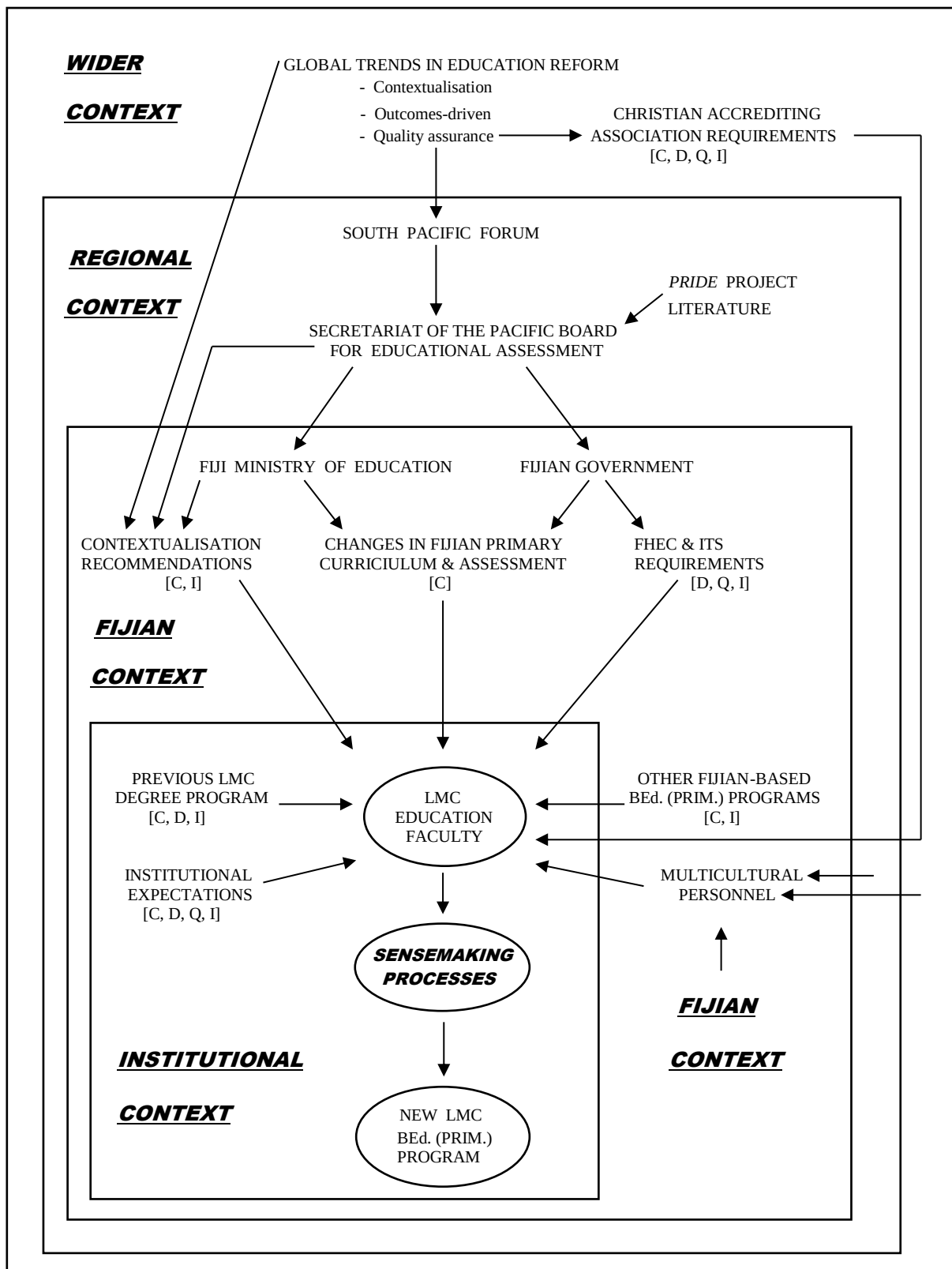
Figure 1. *Ethno-cultural regions and island nations of the Pacific.*

Teacher education at LMC prepares students for service in both government and Christian primary schools. It began as a response to Fijian Government pressure to produce better qualified teachers to cater for rapidly rising educational standards. The old Bachelor of Education (Primary) degree program—henceforth called the BEd (Prim.)—evolved from a two-year certificate (begun in 1949), to a three-year diploma (1993) and into a four-year degree program in 1999. It then operated for fourteen years with only minor ad hoc modifications. However, a range of contextual imperatives for change coalesced in 2012-2013 to necessitate a major redevelopment of the program. It is these contextual imperatives that the Education Faculty, the six participants of this study, had to make sense of in their project.

1.3.2 Fijian and regional imperatives for the project

The Fijian and regional contexts generated several imperatives that the project needed to address. These imperatives required much sensemaking.

Several of the Fijian and regional contextual imperatives for change (illustrated in Figure 2) required much sensemaking. Figure 2 also illustrates what aspects of the program the imperatives for change impacted. The Fijian imperatives were linked to the accreditation of programs, while the regional imperatives impacted program content. Appendix A provides a timeline that relates the change imperatives and the final accreditation of the new BEd (Prim.) degree program to the data-gathering period of this investigation.



KEY: C = content D = documentation
Q = quality assurance I = implementation

Figure 2. Contextual imperatives for the BEd (Prim.) degree redevelopment.

Fiji Higher Education Commission (FHEC) requirements were the source of a number of sensemaking challenges. These requirements may have been one of the innovations Thaman had in mind when she noted the “doom and gloom that is gripping many Pacific educators as they grapple with so many innovations” (2014, Foreword). FHEC and Fiji’s National Qualification (FQF) framework were promulgated in 2008. This marked the beginning of a drive to make Pacific qualifications both comparable with, and equivalent to, international qualifications (Secretariat of the Pacific Board for Educational Assessment, 2011, p. 6). To operate in Fiji, all higher education institutions require registration with FHEC. In November 2012, LMC was the twelfth of more than 70 higher education institutions, and the first academic institution to be awarded full registration by complying with 53 outcomes in the areas of legal status, management and finance, teaching and learning, students and staff, and infrastructure and environment (FHEC, 2011a, p. 1).

Participants had only minimal involvement in registration but were entirely responsible for the next step, which was gaining accreditation for their new teacher education program from FHEC. To gain accreditation, qualifications are assessed against descriptors of generic outcomes expected for a level one certificate through to a doctorate at level ten (FHEC, 2019; SPBEA 2011, p. 14-17). LMC’s new BEd (Prim.), which took more than twelve months to redevelop, is assessed against levels five (Year 1), six (Year 2) and seven (Year 3) expectations. The levels, which are outcomes-based and credit-based (SPBEA, 2011, p. 7), require full comprehension to be successfully applied to pedagogy, assessment, moderation and documentation of the program. The Fiji Qualification Framework is illustrated in Appendix B. Appendix C features the descriptors of levels five, six and seven that participants needed to comprehend.

However, participants had little or no knowledge of, or experience with, standardised levels, learning outcomes and credit allocation. FHEC workshops (facilitated by Fijian personnel) and LMC workshops (facilitated by expatriate institutional personnel) were intended to support participants’ sensemaking of these new requirements. However, the workshops were of limited success due to their restricted attendance, limited scope and brevity. Sensemaking of these new requirements was rendered even more difficult by exemplars in the workshop handouts relating better to vocational rather than academic education. Thus, the foundation for sensemaking was weak.

Regional trends and market forces provided another challenging imperative. In 2012, LMC was one of only three Pacific higher education institutions—all Fijian-based—offering a BEd (Prim.) degree. At that time, there were several differences between the three HEI's degree programs (illustrated in Appendix D). More significant than these differences, however, was the regional trend for satisfying the high demand for well-qualified teachers (Puamau, 2007, p. 5) by compressing four-year BEd degree programs into three years. LMC was compelled to follow this trend to retain its competitiveness. In essence, what had been a four-year program with 40 modules had to become a three-year program with only 24 modules. Thus, for program content to be appropriate, LMC Education Faculty needed to engage in much reflective individual and collaborative sensemaking regarding merging or omitting modules, recognising and eliminating overlapping content, and expanding modules in depth to fulfil increased time requirements (four hours of teaching a week instead of three hours).

There has been great pressure in recent years to improve what has been perceived as the unsatisfactory nature of teacher education in the Pacific (Chandra, 1999b & c; Fua & Sanga, 2007; Luke, 2007) by contextualising it. An important source of contextualisation recommendations is PRIDE (Pacific Regional Initiatives for the Delivery of Basic Education) literature.¹ Authors of PRIDE and other Pacific literature strongly argue that teacher education must move away from deeply ingrained inherited colonial and Eurocentric education systems based on western research, towards systems which are firmly grounded in the Pacific socio-cultural, local knowledge and wisdom contexts in which they occur (Bakalevu, Tekaira, Finau, & Kupferman, 2007, pp. 69 & 71; Ravuvu, 1995, p. 2). However, authors of PRIDE literature also argue that Pacific teacher education reform should integrate international practices and standards with national and regional aspirations and expertise (Koya, Tuia, Faoagali, & Hodges, 2007, p. 91) to ensure an effective and balanced mix (Nabobo-Baba, 2007, p. 23; Puamau, 2005, p. 25). While history suggests that such a task is best achieved locally (Luke, 2007, p. 18; Puamau, 2007), there were two issues that made sensemaking of contextualisation challenging.

¹ PRIDE was an EU and NZAID funded project intended to enhance the planning and delivery of basic education by Pacific education agencies. The project was implemented by The University of the South Pacific and completed in 2007.

Firstly, Pacific teachers have been observed as lacking the knowledge and ability to relate the content of their teacher education programs to the Pacific context (Thaman, 1996, p. 22; 2000, p. 10). Secondly, tried and tested models of contextualised teacher education programs for the Pacific were not available.

Assessment was singled out by both PRIDE and FHEC as an important issue. Pacific scholars recommend that teacher-educators make a paradigm shift from examination-driven curricula, tests and assessments that only demand recall of learning, to a more holistic assessment of pre-service teachers (Koya et al., 2007, p. 93; O'Donoghue, 1992) that involves greater use of co-operative group-based assessments (Teasdale & Puamau, 2006, p. 226 & 229). Such assessment is very appropriate for the Pacific context where networks of human relationships and "mutuality, not competition" (Koya et al., 2007, p. 89) are significant. However, as observed at LMC, group assignments do not ensure individual student learning and therefore require careful use. Whatever assessment tasks were chosen for the new program, complying with FHEC's requirements, which included internal pre- and post-moderation procedures and external moderation to assure careful alignment to standardised levels, learning outcomes and credit expectations provided another significant challenge.

The second specific issue raised by PRIDE literature was the practicum (Tiko, Fusitu'a, Tone-Schuster & Arukelana, pp. 8, & 112-114). As this may be considered the heart of teacher education (Australian Council of Deans of Education, 2005; Leshem & Bar-Hama, 2007; Zeichner, 1986) because it injects realism into pre-service programs by giving opportunities to put theory into practice (Petrie & Christie, 1989, p. 38; Tiko et al., 2007, p. 104), the practicum deserves careful consideration. However, Pacific teacher education students have often perceived their practicums as demanding and difficult (Tiko et al., 2007, p. 114). Thus, reforming the practicum was another challenging issue requiring sensemaking.

A final challenging imperative regarding program content was remaining relevant. The farther removed teacher-educators are from a school context, the less familiar they are likely to be with curriculum reforms and how they should align teacher education to match learners' needs (Norman, 2006, p. 69). Teacher-educators also need to keep abreast of newly emerging ideas about learning and pedagogy (Puamau, 2007, p. 10). Thus, ensuring program content was relevant and flexible in

the face of emerging ideas and changing regional and Fijian educational curricula, was another sensemaking challenge for the participants of the project.

1.3.3 Christian accrediting mandates and institutional imperatives

A holistic philosophy of education is the foundation of all LMC's educational programs and policies. Its core concept is the integration of faith and learning, which occurs when Christian values, beliefs and God-derived truth are the focus of academic endeavour in all module—subject—areas (Taylor, 2012, pp. 8, 10 & 11). Thus, for programs to retain their Christian integrity and uniqueness, all program amendments need to reflect this concept. This challenge was not new to participants. However, inconsistencies regarding integrating faith and learning in the old program—noted during a visit from the Christian accrediting association in 2012—illustrate that successfully meeting this challenge required more sensemaking.

The addition of LMC's expectations to some of FHEC's mandates added more challenge to the project. LMC required module descriptors – subject outlines – that stated synopses of content, learning outcomes, and assessments that link effectively to each other and to the stated level (5, 6, or 7), as well as indicating what texts should be used. Additional LMC requirements regarding writing module descriptors included:

- learning outcomes and accompanying evidence statements that conformed to exacting grammar specifications,
- summary tables that clearly linked assessments of appropriate types, lengths and weightings to learning outcomes and evidence statements, and
- indicative bibliographies that fully complied with the American Psychological Association (APA) end-referencing style.

Making sense of all these expectations challenged writing and proofreading skills. LMC also required the creation and use of new mark schemes with detailed rubrics that linked to the college grading criteria, and a move towards a more interactive, in-depth delivery requiring reflective student participation. Both these requirements called for paradigm shifts in practice.

To conclude this section, it is important to note two institutional imperatives that put great pressure on the time available to participants for their project: the expectation that the three faculty members without postgraduate qualifications would engage in further study to amend this deficit; and relocating the institution, homes

and families to the other side of the main island of Fiji. Thus, not only did the project require much challenging sensemaking, it took place at a time of unavoidable distractions.

1.4 Purpose of this Investigation

The purpose of this investigation was to utilise the experiences of the participants to generate a holistic explanation of how and why a challenging educational change in a higher education institution was impacted by the various components of the context in which the change took place. The change project was the redevelopment of a Bachelor of Education (Primary) degree program and its embedded Diploma of Primary Education. For the purposes of this investigation, the redevelopment of the degree program from the perspective of the major participants—the Education Faculty of LMC—is considered a case study.

The project was undertaken by members of LMC Faculty of Education, henceforth termed the participants. The involvement of other stakeholders was minimal. Thus, the research questions, which were intended to produce rich data regarding how this complex redevelopment was achieved by its participants, focused solely on the experiences of the participants, both individually and collectively, in all aspects of the project.

1.5 Research Questions

In essence, this investigation was designed to discover what contextual factors, as represented in their formative context, impacted participants as they made sense of their project, and also why and how this occurred in terms of problems and issues they caused and successes they generated. This central concern is developed in the first three questions that follow, while the fourth question relates to the study's contribution to theory and research practices.

1. What contextual factors impacted the participants' sensemaking of the program redevelopment?
2. What problems and issues emerged in the group's sensemaking during the program redevelopment, and how were they addressed?
3. What successes in sensemaking emerged during the redevelopment process, and how were they experienced?
4. How do the findings contribute to sensemaking theory and/or methodology?

These questions are elaborated on and linked to gaps in literature in Chapter 3, which documents this study's methodology.

1.6 Significance

This investigation contributes a unique case study to critical sensemaking literature. This is significant because critical sensemaking is viewed by sensemaking researchers as a theory capable of further development, whose applications are growing in importance (Aromaa, Ericksson, Helms Mills, Hiltunen, Lammassaari & Mills, 2018). The findings will benefit the institution (LMC) and other similar higher education institutions in the wider Pacific context as they respond to future demands for making sense of educational change.

In summary, the uniqueness and benefits of this study stem from the application of formative contexts as a holistic approach developed from critical sensemaking theory, to discover how their Fijian and institutional context impacted participants as they made sense under pressure of redeveloping a teacher education program in a higher education institution at a time of crisis. The significance of different aspects of this uniqueness and benefits are now explained.

Firstly, investigations grounded in sensemaking theory have often focused either on how people made or might make sense of implementing a change imposed by others (such as Coburn, 2001, and Helms Mills, 2003), or on identifying what went wrong in disaster situations (such as Vaughan, 1993). However, Brown, Colville and Pye noted in 2015 that sensemaking research has been rather conservative, and that there were still areas of interest and relatively uncharted topics to be explored, particularly in novel contexts (p. 266). This case study of how a unique Pacific context impacted how a group of people made sense of developing the details of their own change before implementing it, appears to be a new area of interest.

Secondly, this investigation sits astride two strands of sensemaking literature—crisis and change. Most sensemaking studies have studied transformative changes in business organisations (such as Helms Hills, 2003) or crisis events (such as Vaughan, 1993). Maitlis and Sonnenschein (2010) note that while crises are generally thought to occur quickly, and change to unfold over long time periods, crises may be enacted slowly, and change may occur in pressurised situations (p. 522). For the participants, their project was both a pressurised change—it involved

redeveloping an outdated qualification program to meet new, stringent and unfamiliar standards at a time when the institution was relocating—and a crisis, as LMC had to meet tight time constraints for all its educational program redevelopments or cease to operate. Thus, this study contributes to an understanding of sensemaking by providing a case study of a sensemaking event that was both a crisis and a pressurised change.

This study is significant because most sensemaking studies have predominantly related to business organisations (Scheitle & Adamczyk, 2016, p. 111), whereas sensemaking studies in education are fewer in number. There have been even fewer studies focusing on transformative change in higher education (Kezar, 2013, p. 762). Whilst not all components of the new degree program were transformed, its quality certainly was.

A unique feature of the study reported here is its holistic nature. Initial sensemaking studies focused on the impacts of cognition and identity construction (Weick, 1995) or communication (Dervin & Frenette, 2001/2003) and until recently did not consider other factors, such as emotions, impacting people's sensemaking. However, this investigation took a holistic approach by focusing on the impact of the whole institutional formative context—institutional, group and individual participant—on how the participants made sense of their project. Rostis noted in 2010 that applications of the formative context concept outside the discipline of information technology were rare, but that the concept could be applied much more widely (para. 2).

This holistic perspective is a new application of the formative context concept (Unger, 1987) as an aspect of what Helms Mills, Thurlow and Mills (2010) term “critical sensemaking” (pp. 187 & 189). Helms Mills et al. (2010) applied the broad concept of formative contexts to transformative change in business organisation. This investigation conceptualised a formative context as a defined framework that was used to produce a holistic explanation of a sensemaking process in a higher education institution. The formative context framework developed by this study represents a focus on agency-in-context that should broaden both critical sensemaking theory and the idea of agency (Aromaa et al., 2018). Agency in this sense may be defined as the capacity of individuals to actively and independently make their own choices regarding choosing and effecting change (APA, 2018; Sociology Dictionary, n.d.).

The nature of the institution is also unique in several respects. LMC is not only a multicultural Pacific-based higher education institution, it is the only provider of teacher education for one particular Christian denomination in the Pacific Islands. Scheitle and Adamczyk noted in 2016 that nearly all sensemaking research has taken place in secular organisations (p. 111). The formative context approach of this investigation reveals whether the individual/personal, group and organisational—or micro, meso and macro—sensemaking factors identified as important elsewhere in the world, are also important in the Christian LMC context. Additionally, this investigation informs whether factors noted in the literature review as missing in earlier sensemaking studies—such as emotion (Helms Mills, 2003; Soffe, 2002), culture (Helms Mills, 2003), and spirituality (Long & Helms Mills, 2010)—and factors not previously considered, impact sensemaking in the Pacific, particularly in a Christian educational institution.

Lastly, this investigation is significant because Pacific nations value education highly. They see it as foundational to development (Bugotu, Maeke, Paia, Ramoni & Arnold, 1973; Chandra, 1999a; 1999b; Vuki, 2013) and consider the role of teachers as paramount (Fua & Sanga, 2007, p. 13). To improve higher education, Fiji has pioneered a tertiary education qualification framework in the Pacific region. LMC was the first academic institution to make sense of this framework's requirements and receive accreditation for its newly developed qualification programs.

Fullan (2007) argues that mastering change processes in education is important, and that giving careful attention to key details during a change process should result in a large measure of success (p. 8). Thus, this investigation, which suggests the key details of this particular change process, may help with anticipating difficulties and problems (Klein, Moon, & Hoffman, 2006, p. 72) in future tasks of a transformative nature at LMC. Indeed, Maitlis and Sonnenschein (2010) maintain that a sensemaking exercise after a crisis may be of great benefit to organisations and their members (p. 556). However, the findings of this investigation should also benefit other similar educational institutions in other contexts. This is particularly true of other Fijian and Pacific higher education institutions as they tackle redeveloping their qualifications to comply with the new standardised qualification frameworks that continue to develop in the Pacific region.

Thus, this investigation, which employed sensemaking, enhances and extends sensemaking knowledge and theory, especially in the field of education. It also provides rich data that may assist preparation for future educational program developments and redevelopments, as well as future sensemaking studies, especially in the Pacific region.

1.7 Conceptual Framework

Figure 3 illustrates the concept that underpins this investigation, namely, that LMC's new BEd (Prim.) degree program has been redeveloped in response to a variety of contextual imperatives from a variety of contextual levels. A more detailed version of this diagram is in Chapter 2. Thus, the contextual imperatives provided the need for the sensemaking. In sensemaking terms, they provided the triggers.

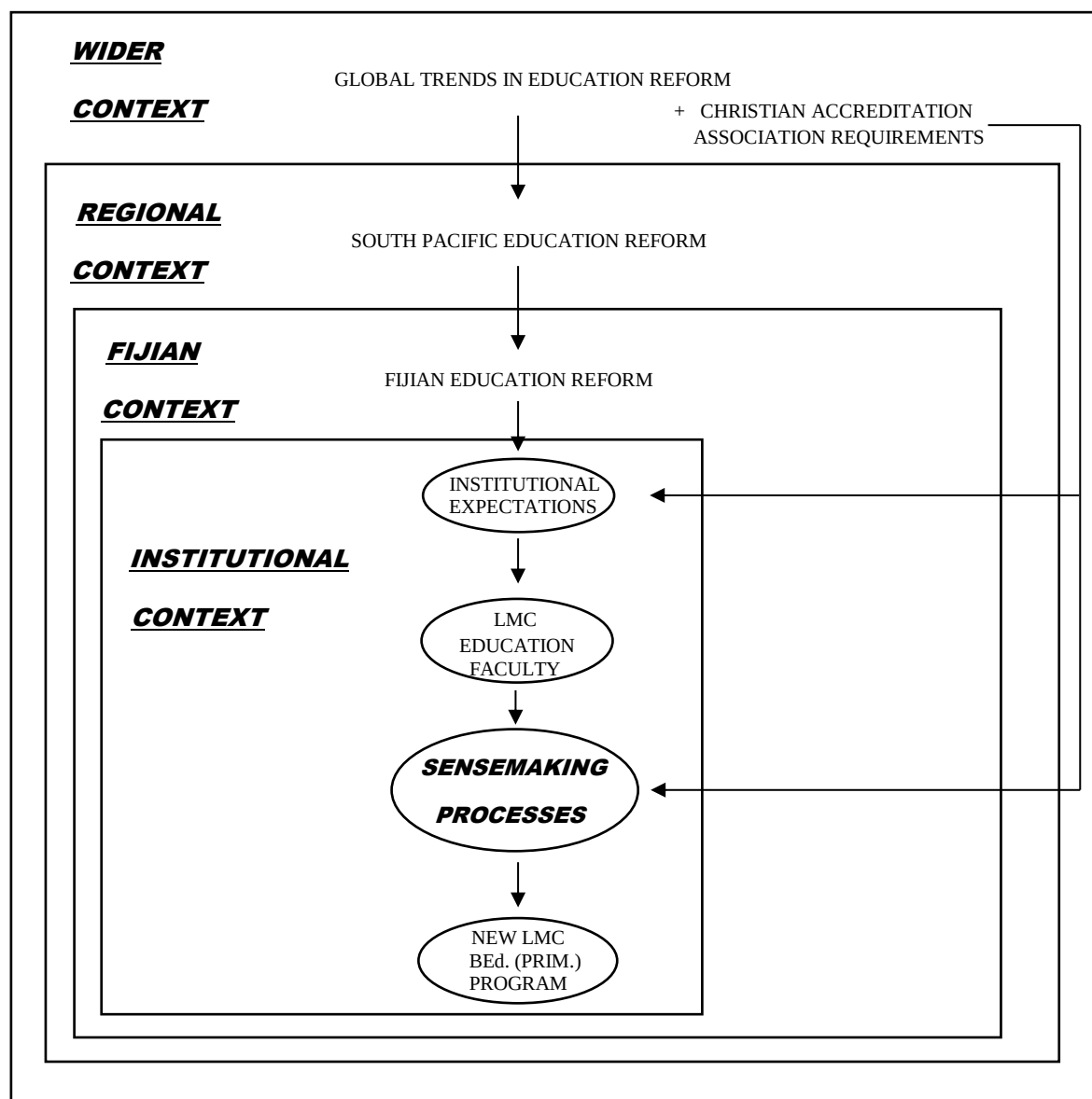


Figure 3. *Contexts impacting the redevelopment of LMC's BEd (Prim.) degree program.*

A second diagram, Figure 4, illustrates the contextual elements that impacted the participants' sensemaking of the change, both collectively and individually. Figure 4 suggests that contextual factors impacting individual participants' sensemaking may be located in three dimensions—macro, meso and micro. It is what this investigation's findings reveal about the sensemaking processes part of this diagram, that represent the concept at the heart of this investigation. This concept is that an individual's sensemaking is impacted by many different elements of their context. Thus, the diagram illustrates that participants' sensemaking was viewed

from the perspectives of them being both individuals within their context and as policy actors within their institution.

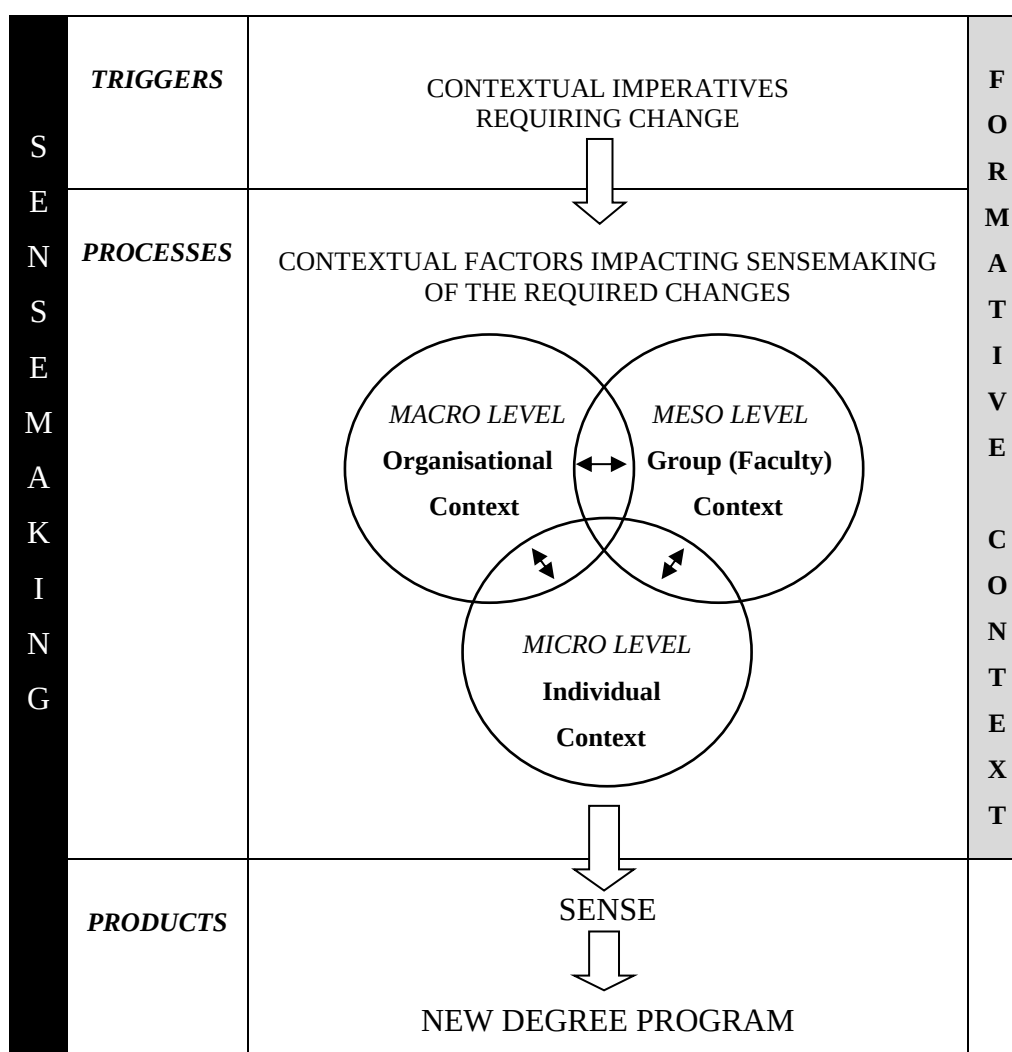


Figure 4. *A sensemaking framework.*

1.8 Conceptual Assumptions

This investigation and its research questions were based on certain assumptions. These assumptions include:

1. The complexity of the change demands, most of which participants had had no previous experience with, and the pressure of their imperative nature, would trigger the need for faculty to make sense of requirements. “I am confused” was

often heard from faculty attending initial workshops intended to clarify project requirements.

2. A variety of contextual factors would impact individuals' sensemaking of the redevelopment processes, at both individual and group levels—as suggested by the literature review. Which factors were involved, how they had an impact, and how strong they were in relation to each other should emerge from data analysis.
3. Data analysis should also reveal specific hindrances to, and successes of, sensemaking of the project.
4. The impact of various factors on participants' sensemaking would be observable and/or identifiable at individual, group and possibly institutional levels.

1.9 Theoretical Framework

This investigation is related to the concept of change, most especially, educational change. The theories and concepts associated with change and educational change are discussed in Chapter 2, the literature review.

The theoretical framework outlined in Figure 5, illustrates how this investigation is informed by concepts and theories related to making sense of a change. The theories and concepts on the left of the diagram may explain how the change—the degree redevelopment—was driven at management and leadership level. However, sensemaking theory (on the right of the diagram) may explain the various responses of participants to the change imperatives as they redeveloped the degree program. Karl Weick's 1995 framework for making sense of organisational change is underpinned by a variety of cognitive and psycho-social theories and concepts. Critical sensemaking, a variant of Weick's tradition advocated by Helms Mills et al. (2010), underpins this investigation's interest in the importance of the formative context to sensemaking. Dervin's approach to sensemaking, initiated in the 1980s, is based on her metatheory regarding people's use of communication to make sense of chaos in a world constantly changing in terms of time and space. The other theories/concepts that may inform the sensemaking process are suggestions based on the writer's personal observation and experience.

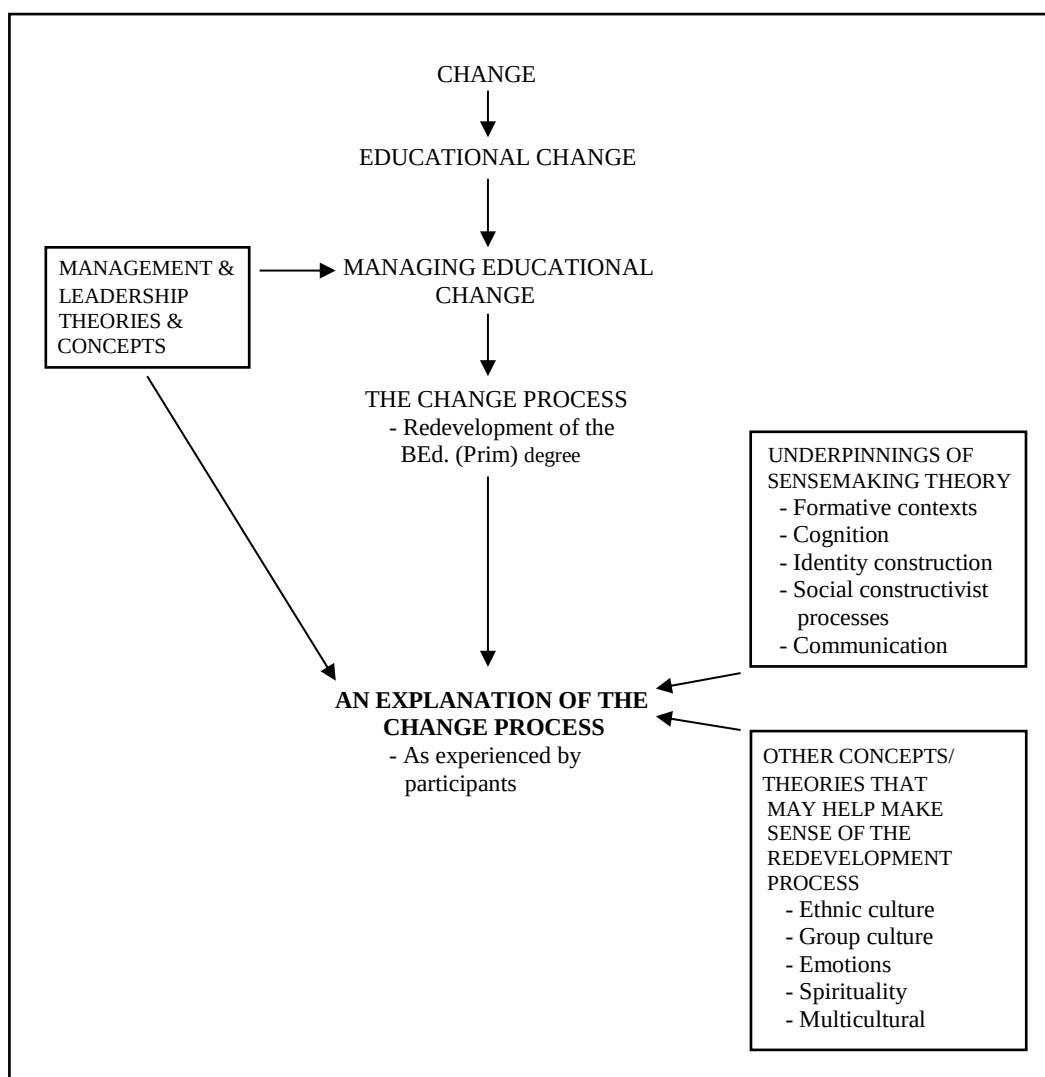


Figure 5. *The theoretical framework.*

1.10 Scope of this Investigation

At the time of this investigation, every LMC academic department redeveloped their qualification programs according to the new requirements. However, the scope of this investigation was bounded by the redevelopment of the BEd (Prim.) degree and its embedded Dip Ed (Prim.). The term redevelopment includes the processes used in the initial implementation phase to develop and adjust the content, assessment, documentation and quality assurance procedures of the new degree program in compliance with FHEC expectations. An analysis of the full implementation of the new program is beyond the scope of this investigation.

In this investigation, the term participant refers only to members of LMC's Faculty of Education. They are the only personnel involved in all aspects of

redeveloping the BEd (Prim.) degree program. As such, the participants in this study represented the entire population of the group of teacher educators who were participating in the teacher education degree development program.

This report does not include new postgraduate education qualifications or the in-service summer school program for upgrading a diploma to a degree. These both contain new BEd (Prim.) modules, however, the new BEd (Prim.) program will be informing them, rather than vice versa. This study will also not include redevelopment of the support procedures or policies required by FHEC for qualification accreditation. This is because they are generic to all LMC departments rather than specific to the BEd (Prim.) program.

The table in Appendix A outlines the timeline of significant events related to LMC's degree redevelopment, and their relationship to data gathering for this proposed investigation. In summary, the table shows that while the project had roots in external events occurring in 2011 and 2012, and that there were two internal LMC workshops in early 2013, the bulk of participants' sensemaking took place in the second half of 2013. Sensemaking continued in 2014 as final adjustments were made to the new program in preparation for the accreditation application. The program was awarded a full 5-year accreditation period by FHEC in 2015.

1.11 Definition of Terms

The term sensemaking refers to the process whereby people in an organisational setting retrospectively, subjectively, individually and communally make sense of an important event in their organisational lives (Helms Mills, 2003; Powers, Stech & Burns, 2010; Savoleinen, 1993; Weick, 1995). Sensemaking – as a process and a product, and as a theory and a methodology with both strengths and weakness – and its utility for this investigation, are discussed in much greater detail in the literature review (Chapter 2) and the methodology (Chapter 3).

Formative contexts, a concept that grounds critical sensemaking (Helms Mills et al., 2010; Thurlow, 2012) and the central concept in this investigation, may be defined as the various elements of a geo socio-cultural environment which limit what can be imagined and implemented by people living in that environment (Berger & Luckman, 1966, p. 48; Helms Mills et al., 2010, p. 198; Mills, 2009, p. 118). The term *factor* is used in this study to refer to individual elements comprising the formative context. The term *factor* is thus used as an analytical concept and not as a

positivistic quantitative term. The origin, development and utility of this concept to this investigation are further explained in the literature review and methodology.

The terms organisation and institution are repeatedly used in later chapters of this thesis. Although the former term is usually linked with business, and the latter with education or medicine, the meaning of both terms—an establishment created by people to achieve specific objectives (Collins Australian Dictionary & Thesaurus, 2004; Matsumoto & Juang, 2008, p. 398)—is essentially the same. Thus, throughout this thesis the term organisation is used somewhat generically. However, distinctions are made between business organisations and educational institutions where literature and findings suggest specific reference to one or the other.

Other terms used in this thesis are either defined briefly in the list of acronyms and terms outlined earlier in the thesis, and/or in context throughout the thesis.

1.12 Summary

This study, that investigated the impact of the context on sensemaking of an educational change, is based in sensemaking theory. The study's findings have the potential to be significant because of the unusual Fijian context of the study, and because it has conceptualised formative contexts, an aspect of sensemaking theory that is still developing. The thesis now continues with Chapter 2, the literature review.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews literature regarding sensemaking theory and what may impact sensemaking. The review focuses particularly on exploring the contextual factors that may constitute participants' formative context and how such factors may impact sensemaking. Literature relating to education/curriculum reform, though occasionally alluded to where relevant, does not form a major part of this review. It has been omitted because it would be a distraction in that the focus of this study is not a curriculum change, rather it is the impact of the formative context on the sensemaking of a change.

The review begins by briefly discussing the two traditional sensemaking theories and their limitations. This discussion provides the basis for reviewing literature on factors that are likely to be part of the formative context—as an important concept in critical sensemaking—that impacts sensemaking during an organisational change.

The first group of contextual factors reviewed are those already accepted by sensemaking theorists and researchers as impacting sensemaking. The second group of contextual factors reviewed are those factors suggested by the limitations of traditional sensemaking theory, newer sensemaking studies and other literature, as possibly impacting sensemaking. The literature on each factor is explored from the perspective of the characteristics of the factor, why and how it may impact sensemaking, and the other contextual factors to which its impact may be linked. The review concludes by categorising the factors into the three contextual levels—a micro, meso, and macro—that may comprise the formative context impacting the sensemaking of participants in an organisational or institutional change.

2.1 Sensemaking Theory

This section reviews what sensemaking is, and outlines the insights two older sensemaking theories provide regarding contextual factors that impact sensemaking. The review also notes how criticisms of these two approaches to sensemaking led to the development of critical sensemaking (Helms Mills, Thurlow & Mills, 2010), which is a more holistic approach. Critical sensemaking is particularly relevant to this investigation as it relates sensemaking to the concept of formative contexts. The link between critical sensemaking theory and methodology, and the methodology

used for this investigation, will be more overtly discussed in the methodology chapter.

2.1.1 Definitions

There is no single definition of sensemaking. However, it is generally understood to refer to the processes people use to seek plausibility, and to understand ambiguous or confusing events or issues (Brown et al., 2015, p. 266), and that it makes an important contribution to helping researchers understand organisational life and events (Mills, 2008, p. 29).

The term sensemaking is apt because it entails the making of sense (Weick, 1995, p. 4), particularly of how different meanings may be attributed to the same event (Helms Mills et al., 2010, p. 183). Sensemaking may be defined as individuals, groups and/or organisations (Weick, 1995, p. 6) subjectively making sense of or bridging knowledge gaps (Dervin, 1991/2003, pp. 63-71) and/or ambiguous inputs relating to a change event and enacting “this sense back into the world to make ... [it] more orderly” (Weick, Sutcliffe & Obstfeld, 2005, p. 410). It is a psychological phenomenon involving creativity, curiosity, comprehension, particularly of complex events, mental modelling and situational awareness (Klein et al., 2006, pp. 70-71). Thus, sensemaking is both a process and a product. The changes taking place at LMC clearly involved a process leading to a product.

Although sensemaking may be a continuous occurrence (Foreman-Wernet, 2003; Weick 1995), in the broader sense of the theory it requires a trigger (Weick, 1995, p. 23). A trigger may be an information gap that needs bridging (Dervin, 1998, p. 39). However, it is more usually a significant if ambiguous event—for example, the redevelopment of a degree program—that interrupts praxis and disorganises collective action in highly dynamic and uncertain situations to produce chaos (Grant, 2003; Lyhne, 2010; Powers et al., 2010; Weick et al., 2005). Possible ambiguities include problematic information, multiple and conflicting interpretations, and different value orientations (Weick, 1995, p. 93). The redevelopment of the teacher education program at LMC was triggered by a variety of imperatives and was a significant event that both comprised many ambiguities and disrupted collective action.

Sensemaking is usually a social activity that comprises a cycle of talk and action that does not always have a clear beginning or end (Dervin, 1992/2003; Weick

et al., 2005; Zhang, Soergel, Klavans & Oard, 2008). This cycle guides the exploration of information and its interpretation to reduce confusion and achieve commonly held plausible explanations of situations and events (Choo, 2001; Lyhne, 2010; Klein et al., 2006). Weick et al. (2005) emphasise the creative side of sensemaking through participants drafting and updating an emerging story using such means as reflexivity and mental modelling (Choo, 2001; Weick, 1995; Weick et al., 2005).

Sensemaking behaviour is thus communicating behaviour with its central processes identified as “information seeking, processing, creating and using” (Savoleinen, 1993, p. 16). This concept links strongly to the later discussion on communication.

2.1.2 The development of sensemaking theory

This investigation is located in the field of critical sensemaking. However, it is useful to briefly consider the two original sensemaking theories because of the light they shed on critical sensemaking and on the sensemaking concept as a whole.

Karl Weick.

The more widely recognised and applied sensemaking theory developed by Karl Weick—exemplified by his seminal 1995 book, *Sensemaking in organisations*—focuses on clarifying people’s understanding of such imposed organisational changes, usually a business organisation, as a culture shift (Helms Mills, 2003), and on the implementation of structural changes (Soffe, 2002). Weick’s long interest in the social psychology of organisations led him to believe that organisations might be fruitfully studied through a social-psychological process capable of uncovering and examining the social-psychological processes that contribute to organisational outcomes (Helms Mills et al., 2010, p. 183). This belief resulted in his framework of seven properties of sensemaking which have become the cornerstone of many sensemaking studies (Helms Mills, 2003, pp. 48 & 55).

The seven properties identified below all link to people making sense through their individual cognition or through their social context. Firstly, sensemaking is grounded in identity construction, as sensemaking begins with a sensemaker whose sensemaking of an event will be impacted by implications the event has for him or her (Weick, 1995, pp. 18 & 23). Sensemaking is both retrospective and ongoing. Sensemaking is also social, as it is conditioned by interactions with others whose

presence is real or imagined (Weick, 1995, p. 39) and by organisational rules, routines and language (Helms Mills et al., 2010, p. 185). However, people's need to make sense of breaks in routine forces them to extract cues from isolated moments (Helms Mills et al., 2010, p. 186; Weick, 1995, p. 42). Being focused by and on extracted cues, sensemaking illustrates how people focus on certain elements at the expense of others to support their interpretation of an event (Helms Mills et al., 2010, p. 185). Driven by plausibility rather than accuracy takes into account the human tendency to find cues that result in credible and socially acceptable meanings rather than strict interpretations of events (Helms Mills et al., 2010, p. 185; Weick, 1995, pp. 61 & 95). This helps explain how different meanings emerge from different individuals and organisational groups (Helms Mills et al., 2010, p. 185). The final property, enactive of sensible environments, acknowledges that in organisational life, people create part of their environment, are constrained by it (Helms Mills et al., 2010, p. 185; Weick, 1995, p. 30-37), or perhaps both. Thus, these seven properties suggest that cognition and social processes may be factors impacting sensemaking in a formative context.

There has been no consensus regarding whether sensemaking primarily involves cognition at the individual level, cognition at the group level, or communication processes (Brown et al., 2015, p. 267). However, this review posits that all three areas may constitute contextual factors in a formative context impacting sensemaking.

Brenda Dervin.

Brenda Dervin's sensemaking theory focuses on people using communication to supply their information needs with the intent of developing more responsive communication systems (Dervin 1998, p. 36; 1999a/2003, p. 331). Dervin's theory has been applied most notably to information and library science, but also to health care and everyday life (1999b/2003, p. 331; Savoleinen, 1993, p. 15).

Whilst Weick's framework acknowledges communication as a sensemaking medium, most notably in the social property, the whole spectrum of human communication is central to Dervin's sensemaking theory (Foreman-Vernet, 2003, p. 4). Applications of either theory in education, have tended to focus on implementing government prescribed changes in user-centred pedagogy (Coburn, 2001; Dervin, 1998, p. 37). "encompasses the entire spectrum of human communication"

2.1.3 Limitations of Weick's and Dervin's sensemaking theories

Both sensemaking traditions offer much support for this investigation, particularly in highlighting the importance to sensemaking of cognition, communication and social constructivist processes. However, Dervin's narrow focus on communication is very limited. Furthermore, Soffe's (2002) sensemaking study found that Weick's seven properties were difficult to observe in the data, that some properties were more highly evidenced than others, and that the ongoing and enactive properties were not evidenced at all (pp. 71 & 119). Thurlow (2012) also argues that Weick's seven properties do not fully explain a sensemaking experience. This commentary by other researchers suggests that other factors are involved in sensemaking.

First, sensemaking studies have assumed sensemaking to be democratic. Thus, they have taken into account neither the hierarchical power structures of organisations and institutions, nor the role of power play (Helms Mills, 2003, pp. 180 & 18; Helms Mills et al., 2010, p. 187). Consequently, sensemaking theory has largely overlooked the possible effects of management and leadership, which this review suggests may be important for driving change in organisations. This omission may be due to sensemaking studies being overly focused at the micro (Helms Mills, 2003; Savoleinen, 1993; Weber & Glynn, 2006). The importance of small collaborative groups to effective sensemaking has also been under-explored even though two sensemaking studies in education have found sensemaking happening most effectively at the meso level (Coburn, 2001; Grant, 2003).

Another weakness of Weick's sensemaking theory has been the failure to acknowledge the rules of behaviour which govern organisational activity (Helms Mills, 2003, p. 180). These rules are grounded in culture, whether organisational, group or ethnic. Thus, organisational culture, and the culture of groups within an organisation, appear to be under-theorised sensemaking components (Helms Mills, 2003, p. 184; Weber & Glynn, 2006, p. 1639) and may emerge as factors in the formative context of this study.

Studies applying Weick's properties illustrate how action following organisational sensemaking may be based on only minimal understanding, but have shown little interest in explaining why this is so (Brown, Stacey & Nandhakumar, 2008, p. 1035). Thus, neither different interpretations of shared experiences nor what happens when people with different experiences aim for shared meaning are

explained (Helms Mills, 2003, p. 184). This may reflect a lack of understanding of the broader sociological influences on group and individual sensemaking (p. 184) and insufficient attention given to the relational processes involved in sensemaking (Rouleau & Balogun, 2011, p. 956). One result of not explaining sensemakers' minimal understanding has been to not recognise the importance of discourse and discursive competence as important elements of the social interactions involved in sensemaking (Mills, 2005, p. 21; Rouleau & Balogun, 2011, p. 955).

A further limitation of Weick's sensemaking theory is the over-emphasis on cognition. This has resulted in overlooking the context-based dynamics and interactions between other contextual factors that impact the sensemaking processes of participants of organisational change (Aromaa et al., 2018, Insights for future research, para. 1). One such other contextual factor is emotion. While Weick acknowledged emotion, he did not consider, for example, its possible effects on plausibility versus accuracy (Soffe, 2002, p. 132). Weick has since acknowledged that this area needs addressing (Weick et al., 2005, pp. 418-9).

In summary, Weick's and Dervin's sensemaking theories between them offer cognition, communication and the social processes of identity construction, and making meaning to explain factors that impact people's sensemaking. These factors, however, are few in number, and do not include the many other things that occur in and around organisations (Brown et al., 2015, p. 273). This has hampered the development of sensemaking theory (Steinbauer, Rhew & Chen, 2015, p. 410) and has prevented it capturing the richness of the contexts in which sensemaking occurs (Helms Mills, 2003, p. 6). Thus, considering how factors other than those noted in these paragraphs might impact sensemaking has the potential to give a much more holistic explanation of how people make sense in organisations.

All these factors are drawn together in the concept of a formative context, which critical sensemaking theory (Helms Mills et al., 2010; Thurlow, 2012) argues may be used as a framework to analyse and explain sensemaking in organisations—the methodology for this investigation that is discussed in the next chapter. The next section of this chapter reviews the increasing amount of literature emphasising the importance of context and formative contexts for explaining sensemaking in organisations.

2.2 Formative Context

Change requiring sensemaking occurs in a context, not a vacuum. This section considers literature that supports the concept that context may have a significant impact on the sensemaking of an organisational change.

Since the 1990s, sensemaking literature has increasingly linked context to how people make sense of their worlds (Dervin, 1997/2003, p. 112; Sandberg & Tsoukas, 2014). Context has been variously described as a chaotic enemy of order and generalisation, or as fragile and amorphous (Dervin, 1997/2003, p. 114). Whatever its exact nature, context provides a framework for more deeply making sense of changes (Dervin, 1997/2003, pp. 115-130).

Much literature now supports the concept that components of an organisation's context impact the processes and outcomes of an organisational change (Balogun & Johnson, 2005, p. 1573). Scholars who have tested Weick's sensemaking framework use Berger and Luckman's (1966, p. 48) argument regarding people interrelating through significant others with their physical, cultural and social contexts to underpin the assertion that people extract cues for making sense of their world through such relationships (Helms Mills, 2003, p. 59). Organisations are composed of people, and thus exist in a continuously "fluctuating environment of physical, biological and social materials, elements and forces" (Barnard, 1938, p. 6); it is this fluctuating environment that provides context of organisations. The formative context concept is perhaps best expressed by Unger's 1987 theory of formative contexts in which everything is related to the context (pp. 21-22) and where "structures limit what can be imagined and done" (Helms Mills et al., 2010, p. 198). However, contexts are "malleable" (Unger, 1987, p. 22)—a characteristic that implies that contextual structures or components can change. This ability to change is important because contextual structures or components may need to change to facilitate sensemaking.

Sensemaking literature also supports the fact that different levels of context impact sensemaking. In organisations, individuals' micro, and organisations' macro processes, are both significant and very intertwined in their impact on sensemaking processes (Brown et al., 2015, p. 268; Maitlis & Sonenshein, 2010, p. 555). With education, both Fullan (1993, p. viii) and Coburn (2001, p. 146) note the existence of a dynamic relationship between an educational institution's internal processes and its wider context. These observations imply that formative contexts may be open

systems that include factors external to organisations. Coburn (2001) also notes the importance of group collaboration for making successful sense of educational change. Thus, sensemaking literature supports the existence of three levels of sensemaking in an organisation—macro, meso and micro levels.

Contexts are unique (Allen & Penuel, 2014, p. 147) and are composed of many constituent factors (Dervin, 1997/2003, p. 117). Gioia and Thomas (1996) divide organisational contextual factors into broad external influences which are subject to much change, and internal features, which may require adaptation to external change (pp. 371 & 398). External features are certainly in evidence in the three contexts illustrated in this investigation's conceptual framework (see Figure 3). Internal features may also exert considerable influence. In particular, they guide communication (Gioia & Thomas, 1996, p. 371; Mills, 2009, p. 117). Rouleau and Balogun's research (2011, p. 958) revealed that middle managers draw heavily on the language and socio-cultural systems of their institution as they communicate strategic sensemaking. Vaughan (1999) notes the importance of the social context for diagnosing reasons for suboptimal organisational outcomes. Internal contextual features also guide information processing (Gioia & Thomas, 1996, p. 371), and when these features are impacted by a change, change participants may need to revise their interpretive schema (p. 373). Mills (2009, p. 118) places both the social context and the physical environment—narrowly defined in his study as a building—within a “geosocial environment” (p. 118). LMC's unique geo socio-cultural environment is illustrated by Figure 2 in terms of its wider world, regional, Fijian and institutional environments.

Education and its reform are very sensitive to context. This sensitivity is evidenced in general by Nelson and Robinson's case study (2006, p. 167) regarding the need for contextualised strategies for change in higher education institutions. It is also evidenced in the Pacific by many comments in PRIDE literature (2007) and by Ware's (2007) discussion of failed attempts to improve education in various Pacific Nations. Context is seen as significant in teacher education research because it determines which issues require careful examination (Lee & Yarger, 1996, p. 16; Puamau, 2007). At the institutional level, Grant (2003) argued that change initiatives are particularly sensitive to context, and that context sensitivity is difficult to manage (p. 82). At the relational level, Coburn (2001) described how embedded contexts, such as meso level group, whole institutional and broader professional culture, shape

sensemaking processes through social interaction (p. 146). She also noted the highly influential nature of informal teacher interaction in making sense of messages from the wider context (p. 162).

Thus, the various constituents—contextual factors—of a formative context may have much impact on people’s sensemaking of an educational change. However, applications of formative contexts to sensemaking outside of the discipline of information technology have been rare (Rostis, 2010). Even though literature supports the existence of three levels of organisational sensemaking, there do not appear to have been sensemaking studies that conceptualise the formative context of an organisation holistically in terms of three levels—macro, meso and micro—that are also open to external influences. The remainder of this review explores: what the contextual factors might be that comprise the different sensemaking levels of an organisation; the characteristics of those factors; which institutional level or levels they may be linked to; and how the different factors may be connected in their impact on sensemaking. The discussion of the following literature also highlights how the various factors may help or hinder sensemaking of a change.

2.3 Contextual Factors Evidenced in Early Sensemaking Theory

The first set of factors to be discussed that may be part of the formative context impacting the sensemaking of the participants of this project are cognition, identity construction, social constructivist processes and communication. These have all been highlighted as important to sensemaking, in both sensemaking theory and sensemaking research. These four factors are sited in different organisational levels. Cognition is very much a micro level factor, whereas identity construction, social constructivist processes and communication all belong to the social realm, and so are sited in either or both of the meso and macro levels.

2.3.1 Cognition

Cognition is the only micro level contextual factor whose importance to sensemaking is emphasised in Weick’s (1995) theory. However, cognition has many facets. The characteristics of these facets have much potential to facilitate or hinder a person’s sensemaking, and some may even create significant barriers to sensemaking of the requirements of a change. The following paragraphs outline how cognition is conceptualised and defined in this study, and explore its connection to sensemaking and learning. They also identify the variety of cognitive structures involved in

sensemaking, explain how these structures may help or hinder sensemaking, and establish a link between sensemaking, reflective thinking and context.

Cognition, sensemaking and learning.

Cognition is one of the three components of the mind, the other two being the affect and volition (American Psychological Association dictionary of psychology, 2018). This very complex phenomenon encompasses all mental processes or awareness that are involved in perceiving, understanding and attending to information (Duchesne, McMaugh, Bochner, & Krause, 2013, p. 57; Fuglseth & Gronhaug, 2002, p. 385). Cognitive processes include reasoning, perceiving, judging, problem solving, imagining, remembering, communicating and utilising knowledge (Anderson, 1995; APA, 2018; Myers, 2013, p. 174; Neisser, 1976). These processes have a significant impact on an individual's sensemaking of a change (Weick, 1995). An important aspect of cognition not acknowledged by early sensemaking theories or studies, is its link to emotion (Frijda, 2008, pp. 32-34; van Veen & Lasky, 2005, p. 895). This link has since been recognised by sensemaking researchers and is discussed later.

The need to make make sense is a characteristic of human cognition and a universal human mandate (Dervin, 1989/2003, p. 54). This need also represents a desire to understand (Shiraev & Levy, 2010, p. 63) and drives people's intellectual progression (Myers, 2013, p. 174). People's ability to discover meanings in their organisational contexts is positively related to employees' functioning during organisational changes (van den Heuvel, Demerouti, Schreurs, Bakker & Schaufeli, 2009, pp. 508 & 525). However, educators have been observed to be ambivalent regarding the meaning of educational changes and their likely consequences (Fullan, 2007, p. 29). If educators are to translate abstract ideas into effective action, they need to make sense of whatever educational changes assail them (Coburn, 2001, p. 162; Fullan, 2007, p. 8). There were many new abstract ideas that the participants in this project had to translate into action.

Festinger's (1957) theory of *cognitive dissonance* explains what initiates people's efforts to make meaning. Cognitive dissonance is a tense or anxious state of mind—which inevitably links to emotions—that results when people are faced with information that does not agree with their preconceptions (Shiraev & Levy, 2010, p. 63), or when people hold two cognitions that are not psychologically consistent (Wade & Tavis, 2011, p. 324). People's methods of resolving this include rejecting

or altering one of their inconsistent beliefs, altering behaviour, discounting evidence and rationalising (p. 324) as they retrospectively make sense through enhancing the negative features of unchosen alternatives, and the positive features of what was chosen (Helms Mills, 2003, p. 51; Weick, 1995, p. 11). As commitment builds around justified choices, diverse cognitions become categorised into those that support, oppose or are irrelevant (Weick, 1995, p. 159).

An important source of preconceptions and information used for resolving cognitive dissonance is prior knowledge (Zhang & Soergel, 2016, p. 62). According to literature, prior knowledge plays a very important role in both sensemaking and meaningful learning (Spillane, Reiser & Reimer, 2002, pp. 393-4; Zhang & Soergel, 2016, p. 75). Knowledge—tacit and explicit—provides a lens that influences what people notice, and how what they notice is processed, encoded, organised, interpreted and acted on (Kazemi & Hubbard, 2008, p. 429; Spillane et al., 2002, p. 394). Consequently, prior knowledge is particularly helpful when people need to learn new things to help them make sense of change (Allen & Penuel, 2015; Spillane et al., 2002; Vahasantanen & Etelapelto, 2009). This implies that if people are lacking in relevant prior knowledge, their sensemaking will be hindered.

Another way of considering how cognition and sensemaking are linked is by including the concept of learning. Learning is defined in this study as “the acquisition of novel information, behaviours or abilities ... as evidenced by change in behaviour or brain function” (American Psychological Association dictionary of psychology, 2018). Sensemaking and meaningful learning are essentially the same as they both create cognitive structures, although those created by sensemaking are specifically needed for the task in hand, and may or may not be part of prior knowledge (Zhang & Soergel, 2016, p. 62). Zhang and Soergel also view learning theories as theories of sensemaking (p. 62). One such theory is *generative learning* in which the learner achieves comprehension by making connections between concepts found in the environment, or in prior knowledge or experience. However, it also requires questioning of deeply held views and acknowledgement of personal and organisational shortcomings, and only occurs when people strive to accomplish something that matters to them deeply (Senge, 2006, pp. 192, 193 & 195). Thus, generative learning is unlikely to occur if participants lack passion for a task, and lack opportunities to question and/or the skill to critically reflect about what they are required to do.

Thus far, cognition has been defined and linked to sensemaking. The next few paragraphs review literature that explain how schemas and other cognitive constructs support sensemaking.

Schemas and other cognitive structures that facilitate sensemaking.

Schema theory is particularly helpful for explaining how people achieve cognition, because it explains how knowledge is stored in memory and organised in meaningful ways to aid cognition. In schema theory, people's means of structuring the world in order to understand it are called schemas.

A *schema* is a cognitive construct used by people to organise and interpret their environment (Weber & Manning, 2001, p. 229). More specifically, a schema is a mental image or group of related ideas that organise an individual's knowledge, past experiences, understandings and beliefs to provide a framework for understanding future events and experiences (Duchesne et al., 2012, p. 73; Shiraev & Levy, 2010, p. 63; Spillane et al., 2002, p. 394). Adults have countless schemas stored in the memory (Myers, 2013, p. 174), that are perceived to be very important for sensemaking of a change (George & Jones, 2001, p. 422; Soffe, 2002, p. 17).

Importantly for sensemaking, schemas facilitate making sense of new information. Schemas do this by facilitating the quick, automatic and somewhat subconscious processing of "the plethora of stimuli" (Shiraev & Levy, 2010, p. 63) and ambiguities that people constantly encounter. In this way, schemas help people compare new information with previous knowledge (Gioia & Sims, 1986, p. 56; Shiraev & Levy, 2010, p.63), and perceive the implications of these comparisons (Fiske & Taylor, 1984, p. 139). This may result in revised and new schemas (Neisser, 1976, p. 54; Zhang & Soergel, 2016, p. 62). People rely on schemas to make sense of both their individual and organisational contexts (Lord & Foti, 1986, p. 21). If schemas are commonly held by members of a group, they may facilitate group learning. Thus, schemas will facilitate sensemaking at individual, group and organisational levels.

Several types of schema have been identified. These include rule, event and person schemas (Elsbach, Barr & Hargadon, 2005, p. 422), and expertise schemas (Pirolli & Card (2005). Cultural schemas (Fellows & Liu, 2016, p. 251) provide important support for the inclusion of culture as an important contextual factor. Whatever their classification, stable schemas are very useful to sensemaking because

they are easy to recall and maintain, and as already noted, help individuals to process data (Elsbach et al., 2005, p. 422).

Three types of schema are particularly relevant to making sense of a change. Self-schemas enable people to efficiently remember and judge schema-relevant information as a guide to both action and the processing of information relevant to themselves (Fiske & Taylor, 1984; Reber, Allen & Reber, 2009; Taylor & Brown, 1999). Causal schemas allow people to sequence events in terms of causes and consequences (Oxford Dictionary of Psychology, 2015), to infer causes and effects, and to explain causal information that is ambiguous or unclear (Fiske & Taylor, 1984, pp. 34-35). Scripts are “dynamic event-sequenced-orientated webs of structured knowledge held in memory” (Gioia, 1986, p. 50). They guide the recall of context-specific knowledge to facilitate both an understanding and response to change (Gioia, 1986, pp. 51, 57 & 58; Soffe, 2002, p. 21). These three types of schema, with their ability to facilitate understanding through processing information, guide judgement and inspire action, should be assets to sensemaking.

Larger cognitive structures comprising two or more schemas may also support sensemaking. Cognitive maps reduce ambiguity and impose structure on vague situations by telling “routes, environmental relationships and alternative ways to get from one position to another” (Weick & Bougon, 1986, p. 106). They develop as the mind reflects on and connects variables; this makes concepts more meaningful and helps both individuals and groups make sense of organisational situations (p. 106). Developing new cognitive maps through collaboration is considered critical to transformational change in higher education (Kezar & Eckel, 2000a, p. 319). This links to the concept of social constructivist processes that are discussed later. Cause maps are a form of cognitive map that display the various concepts connected by causal relationships (Weber & Manning, 2001, p. 229). These have proved a rich source of data for capturing the dynamics of sensemaking, and for exploring how individuals made sense during a planned organisational change (p. 227).

Mental models are a final cognitive concept that may have a big impact on an individual’s sensemaking. These are “deeply ingrained assumptions” (Senge, 2006, p. 8) that influence understanding and action. A variant is a shared or team mental model. As team members converge on a common mental model, their accuracy, coordination and efficiency as a team will increase (APA, 2018). Thus, shared mental models may facilitate sensemaking at the meso level.

Cognition-related issues that hinder sensemaking.

All the concepts and cognitive structures discussed above facilitate sensemaking of new information and organisational change. However, when a change is very challenging (Kotter, 1996, p. 87) these same concepts and structures may also hinder sensemaking. Firstly, the absence of relevant knowledge may significantly hinder sensemaking. According to Spillane et al. (2002, pp. 393-394 & 400), educators with limited expertise in the substance of a reform may misunderstand the new ideas because of superficial similarities to what they know, and thus may view them as minor variations rather than as radical innovations. Thus, educators' lack of relevant knowledge may hinder their ability to make sense of a reform and implement it in ways that are required (Spillane, 2002, p. 393). It has also been cited as a cognitive and behavioural reason for resistance to change (Gill, 2003, p. 308). New knowledge that conflicts with prior knowledge may pose an even greater challenge to an individual's sensemaking (Zhang & Soergel, 2016, p. 75). In 1989, Smyth observed that educators were increasingly confronted by situations that required making sense of tasks that bore no relation to tasks for which they were educated (p. 3). The participants in this project had little or no experiential knowledge of curriculum reform to support their sensemaking.

There are several issues with schemas that may hinder sensemaking. Firstly, as individuals' schemas grow out of a unique blend of knowledge, experience, perceptions, beliefs and values (Anderson, 1995; Duchesne et al., 2012; Osland & Bird, 2000; Shiraev & Levy, 2010, p. 63), the sense individuals make of challenging information may also be unique. Recall based on schemas rather than directly on events—a somewhat “dangerous” (Gioia, 1986, p. 59) aspect of their nature—may be very misleading. This is because schemas may not be stable and may allow pre-existing cognitions to resurface when change contains elements of surprise (Balogun & Johnson, 2005, p. 1575). As change situations generally contain more information than is perceived, individuals may overlook things through selective perception (Neisser, 1976, p. 55). Sensemaking may also be hindered by the need to augment or amend schemas to cope with new knowledge (Gioia, 1986, pp. 56-57; Shiraev & Levy, 2016, p. 64). With self-schema, when negative feedback cannot be avoided, it may be used as a guideline for avoiding sensemaking situations (Reber et al., 2009, p. 58). Individuals may even access self-schema for a task that are not helpful (Pomerance & Converse, 2014, p. 55).

Assimilation bias has been reported as something that may hinder sensemaking because it may lead to most incoming information being subject to misinterpretation, distortion and invalidation (Shiraev & Levy, 2010, p. 64). This is because “schema-coloured glasses” (Shiraev & Levey, 2010, p. 64) have the potential to bias how people perceive reality in favour of what they already believe. Commitments that stem from such bias are likely to become liabilities (Weick, 1995, p. 162). Assimilation bias may also be encouraged by mental sets, which are an individual’s tendency to use rigid schemas to approach problems in ways that have been successful in the past (Myers, 2013, p. 340). Mental sets may result in people overlooking, misunderstanding or rejecting valid information when it is at variance with their schemas (Shiraev & Levy, 2010, p. 64). Such cognitive rigidity is implicated in people’s resistance to change (Oreg, 2003, p. 681).

Three other biases have also been identified as having the potential to hinder sensemaking. Cognitive bias (Shiraev & Levy, 2010, p. 73), may lead to mistakes in comprehension that result from limitations in people’s capacity to process information. With motivational bias, satisfying a person’s needs may come at the expense of distorting, obscuring or even falsifying reality (p. 73). Confirmation bias may hinder sensemaking through individuals paying more attention to information that confirms their beliefs and to finding fault with information that does not (Pirolli & Card, 2005; Shiraev & Levy, 2010, p. 73). Time pressures and an individual’s need to be correct may exacerbate confirmation bias (Wade & Tavis, 2011, pp. 318 & 322).

Larger cognitive structures composed of groups of schemas may also cause problems for people’s sensemaking. For example, mental models are frequently flawed because they miss critical feedback and tend to focus on conspicuous rather than important variables (Senge, 2006, p. 189). These flaws may limit people to familiar patterns of thinking, and thus affect what they perceive and how they act (pp. 164, & 166-167). Flawed mental models may also impede learning and increase the likelihood of misunderstandings. Kezar and Eckel’s (2002) research highlighted the importance of facilitating people’s alteration of mental models to accommodate the new realities of a changed institution.

The issues discussed above will all influence sensemaking. There are two last issues that may hinder cognition when making sense that are not related to specific cognitive structures.

The relationships between sensemaking, critical reflection and context.

To learn and to make sense by effectively altering or creating new mental structures requires critical thinking (Senge, 2006; Zhang & Soergel, 2016, p. 75). This is because critical thinking facilitates a balanced challenge to ingrained and fixed, as opposed to flexible and interpretive mental structures (Lyhne, 2010, p. 5). In sensemaking literature, reflexivity is viewed as affecting how people notice and bracket cues to define meanings in a change situation (p. 5). However, cognitive constructs rarely change unless rigorous scrutiny provides a reason to change them (Senge, 2006, pp. 8, 177 & 189). If people lack critical thinking skills, their sensemaking will be limited (p. 189). Only individuals with substantial critical thinking expertise see deeper principles and avoid the “lethal mutations” (Spillane et al., 2002, pp. 400 & 416) that may occur when a reform is adopted without full understanding.

However, Pacific literature reveals that critical thinking as a precursor to disagreement and non-conformist behaviour is discouraged in collective and chiefly Pacific societies (Thaman, 1996, pp. 6-7). Fijians are traditionally not taught, neither are they keen, to evaluate or judge things that they do not consider belong to them (Nabobo-Baba, 2006, p. 130). Also, Pacific teachers have been observed guiding students towards correct responses rather than encouraging questioning (O’Donoghue, 1992, pp. 5, 59, 62 & 63). Thus, Pacific learners may not see the need to either question knowledge originating from outside of their collective group, or to attempt to work out truths for themselves (Nabobo-Baba, 2006, p. 131). Thus, critical thinking was, and still may be, a neglected area of Pacific education (Chandra, 1999c, p. 22), and the Pacific participants of this project may have had little opportunity to develop this skill.

This raises the issue of the impact of context on sensemaking. Meaning attribution not only depends on people’s schemas and individual frames of reference, it is also rooted in their contexts (Elsbach et al., 2005; Luttenberg, van Veen & Imants, 2013; Spillane et al., 2002). The contexts of educational reform are multi-dimensional with many factors that influence change by interacting in complex ways (Spillane et al., 2002, p. 389). This concept is fundamental to this study.

Summary of the relationship between cognition and sensemaking.

This lengthy discussion of factors relating cognition to sensemaking clearly shows that cognition plays a very important part in change participants’ ability to

make sense of what they are required to do. Sensemaking processes begin with efforts to resolve cognitive dissonance, and continue by utilising, amending or augmenting various cognition-related mechanisms to make sense of new information. However, biases and issues with cognitive structures, together with a lack of critical thinking and relevant prior knowledge, may significantly hinder sensemaking. While sensemaking in organisations may be rooted in participants' cognitions, meso level social influences and factors in the wider organisational context, have also been cited as encouraging or discouraging a change process (George & Jones, 2001, p. 437). Critical sensemaking theory attempts to capture the individual sensemaker in context by viewing cognition as being in a state of flux due to the sensemaker's encounters with a variety of socially constructed activities (Aromaa et al., 2018). This review continues by exploring what contextual factors may comprise the organisational social activities that impact sensemaking through their influence on cognition and sensemaking behaviour.

2.3.2 Identity construction

Various studies have emphasised the importance of identity construction for participants' sensemaking of an organisational change. Brown et al. (2008) argue that sensemaking scholars should take seriously the notion that "sensemaking occurs in the context of individual's idiosyncratic efforts of identity construction" (p. 1035). Other scholars argue that an individual sensemaker may be viewed as an inherent social theorist (Dervin & Frenette, 2001/2003, p. 240) whose sensemaking needs may be triggered when he or she aims to maintain, or fails to confirm, some aspect of his or her identity (Helms Mills, 2003, p. 55; Weick, 1995, p. 23). Another important point is that identity is constructed. Guney (2006, p. 35) argues that identity construction "is about creating a framework that constantly provides a sense of who (people) become, and how they fit into the joint activity environment as a result of their participation in that environment". Thus, a discussion of how identity and identity construction are involved in sensemaking is important because the identities of change participants influence how they make sense of events and how they enact the sense they have made (Thurlow & Helms Mills, 2015, p. 248).

Identity has not been suggested as a contextual factor because it takes place at all three sensemaking levels of an organisation/institution—the micro, meso and macro. However, it is clearly important to sensemaking. The following discussion of

the relationship between identity and sensemaking highlights what identity is, how identity construction takes place at all three organisational levels, and how identity may be embedded in several of the contextual factors suggested to affect the sensemaking of this study's participants.

In discussing how identity relates to sensemaking, it is first important to establish what identity is. Identity is an important aspect of being human (Halonen & Santrock, 1999; Sigelman & Rider, 2003), is both an individual and a social construct, and in essence is who a person thinks he or she is. A personal identity is a unique internalised self-structure that defines a person's sense of self in terms of physical characteristics, and psychological characteristics such as beliefs, abilities, needs and self-perceptions (APA, 2018; Duchesne et al., 2013, p. 117; Myers, 2013, p. 197). These psychological characteristics, as the discussion of cognition shows, are inevitably involved in sensemaking. A person's identity is also defined by his or her interpersonal characteristics, range of affiliations and social roles (APA, 2018). Thus, people's identity needs to be understood in the light of relationships with others, and very significant for this study, with their context (Duchesne et al., 2013, p. 124).

Sensemaking literature links identity to people's sensemaking at all three contextual levels of an organisation or institution. Firstly, sensemaking occurs at the micro individual level of identity construction (Brown et al., 2008, p. 1035). Indeed, Weick (1995, pp. 18 & 23) argues that a person's sensemaking of an event in terms of the implications of the event for that person is grounded in identity construction. As already noted, there is also a social and collaborative dimension to people's identity construction (Myers, 2013, p. 197; Watson, 2006, p. 525). This may be most active at the meso level of sensemaking, and the shared identity that may result from such collaboration is considered a key ingredient for sensemaking (Maitlis & Sonenschein, 2010, p. 563). At the macro level, individuals' quests for identity intermingle with organisational activity, while the results of organising will maintain or help construct identities to facilitate collective action (Karreman & Alvesson, 2001, pp. 60 & 80). To summarise, identity is constructed in an organisation at three contextual levels and in multiple, fragmented and processual ways (p. 63).

Once identity is crystallised, it may be maintained, but it may also be adapted or even reshaped (Halonen & Santrock, 1999; Vahasantanen & Etelapelto, 2009). Literature regarding how educational reform in schools impacts teachers' identities

may be particularly pertinent to this study. During educational reforms, teachers' personal identities are affected, and their professional identities are at stake (van Veen, Slegers, & van de Ven, 2005, pp. 918 & 930). This is because the reforms teachers have to implement may confront their professional identities and require them to modify these identities (Vahasantanen & Etelapelto, 2009, pp. 16-17). When teachers make sense of educational reforms, they do not just reject or accept them, they actively situate themselves in relation to the introduction of reforms (Ketelaar, Beijard, den Brock & Bosshuizen, 2013; Luttenberg, van Veen & Imants, 2013; Spillane, et al., 2002). This positioning involves sensemaking through making deliberate choices and through balancing values, beliefs, and desires against the characteristics and demands of the reform (Spillane et al, 2002). The positioning may also be impacted by whether teachers perceive their professional identities are being threatened or reinforced (Ketelaar et al, 2013). Flexibility and adaptability with positioning and with negotiating a changed identity will be useful assets for making sense of change requirements.

Literature also makes an important link between teachers' identities and agency. If an educational reform is to be accepted rather than resisted, it is important to note that ownership of a reform, agency and sensemaking are all closely linked to teachers' professional identities (Ketelaar et al., 2013, p. 994). Also, experiencing some agency in a reform is important for teachers because agency plays a part in the maintenance and development of teachers' professional identities, especially when reform requirements conflict with their beliefs (Sannino, 2010, p. 838).

Sensemaking through professional identities, when supported by agency, links to professional action. However, links between teachers' professional identities and professional action, are complex (Watson, 2006, p. 510 & 525). One reason for this is that teachers' professional identities and action are grounded in their context (p. 525). Thus, professional identity is negotiated as part of a complicated interdependence between people's commitments and values, their intentionality, and social factors such as contextual practices and cultural norms (Vahasantanen & Etelapelto, 2009, p. 17). This, according to Beijard, Meijer and Verloop (2004, pp. 107 & 126), warrants giving more attention to the role of context in professional identity formation. This is especially true of the cultural context, which Duchesne et al. (2013, p. 124) argue plays a very important role in how people view themselves,

how they relate to others, and what they value. This clearly links identity and sensemaking to both group and ethnic culture.

A second reason for the complexity of links between professional identities and action is that teachers' identities are believed to interact with reform requirements to impact teachers' experience of professional vulnerability (Lasky, 2005, p. 899). Lasky argues that this is most likely when reforms include such things as new accountability practices and new expectations for teaching. The LMC BEd (Prim.) degree redevelopment, with its introduction of moderation of marking and the requirement to tailor teaching to new standardised levels, are examples of these. Thus, the participants of this study may have been made to feel professionally vulnerable—a negative emotion—by some redevelopment requirements.

Finally, identities may also be linked to organisation communication behaviour. Mills' (2009) research suggests that organisation members construct a communication identity by choosing to react to a communication event by being “detached, operational, aligned, oppositional or alienated” (p. 116). By his or her choice of reaction, a change participant reveals a social identity in the social context that generated the communication. Each of these five reactions to communication may have a profound effect on how, or even if, both the self and others come to understand and own a change.

Several important points emerge from this discussion on identity and its relationship to sensemaking. Firstly, people's identities are grounded in their context. Secondly, in that personal, professional and social identities have been noted, it is likely that when handling a reform, participants' identities are actually a set of sub-identities (Luttenberg, Imants & van Veen, 2013, p. 308). Thirdly, identity and identity construction are very important in change participants' sensemaking because they influence what sense is made and what action is taken (Thurlow & Helms Mills, 2015, p. 248; Weick et al., 2005, p. 416). Fourthly, identities do not necessarily remain fixed. Thus, change participants' old identities will influence what is adhered to or altered as they negotiate the new identities required by a change (Thurlow & Helms Mills, 2015, p. 248). Making such alterations may be threatening. Together, this all illustrates that the identity of participants in organisations undergoing change is not a stable and coherent construct, rather, in order to make sense, change participants may reconstruct their identities in multiple, fragmented and processual ways (Karreman & Alvesson, 2001, p. 63).

Thus, personal and professional identities impact and are impacted by sensemaking of a change situation at every level in an organisation. Identities are also very affected by the cultural contexts of reform, and how they are impacted by reform may create communication and emotional issues. The next section reports on aspects of sensemaking research that discuss how social constructivist processes in organisations may impact participants' sensemaking of a change event.

2.3.3 Social constructivist processes

Sensemaking is viewed by sensemaking researchers as largely a collective human activity (Weick, 1995; Helms Mills, 2003). Cognition, a very important facilitator of sensemaking at the personal level, also involves interactions with the minds of others (van Overwalle & Heylighen, 2006, p. 606). Fourie (2009) adds weight to this claim by arguing that communities of practice provide social structures that empower sensemaking at the intersubjective level through rich face-to-face contact, strong relations and common interest (pp. 91 & 92). The following discussion of social constructivist processes highlights why they are essential to the sensemaking of groups' efforts to understand and implement a change. The discussion focuses on the conceptual roots of social constructivist processes, what the processes are and why they are needed. The discussion also points out how the processes need the support of other contextual factors to function effectively.

The conceptual roots of social constructivist processes lie in constructivism. For educators, constructivism has strong links to such human development theorists as Bruner, Piaget and Vygotsky (Harlow, Cummings & Aberasturi, 2006; Liu & Chen, 2010; McInerney & McInerney, 2002). In essence, constructivism is concerned with how people think, learn and construct knowledge (Carson, 2005; Hirtle, 1996; Liu & Chen, 2010). More specifically, it posits that learning is an active process in which people construct their own understanding of their world by reflecting on their experiences in order to make meaning in their lives (Brower, 1996, p. 336; Harlow et al., 2006, p. 42). People may construct knowledge and experience learning as individuals, for example, by utilising and developing their mental models. They may also do so in social settings (Carson, 2006, p. 297). Social learning is particularly important in Pacific collective societies where learning by imitating tends to be valued above critical thinking as evidenced by the research of such Pacific scholars as Nabobo-Baba (2006), Koya-Vaka'uta (2017), and Naisilisili

(2017). Thus, constructivism establishes a link between making sense at the personal and social levels.

Constructivism in a group setting is better termed social constructivism. For Berger and Luckman (1966) and many other scholars (Helms Mills, 2003; Soffe, 2002; Weick et al., 2005), reality is a social construct (pp. 13 & 15). Scholars also argue that sensemaking is a social constructivist process (Fellows & Liu, 2016, p. 247; Steigenberger, 2015, p. 438) that includes daily interactions between people (Andrews, 2012, Conclusion). Educators would also include in a definition of social constructivism Vygotsky's view that cognitive development is the "unfolding of cognitive understandings of social beings within social contexts" (McInerney & McInerney, 2002, p. 45). To summarise, social constructivism is a collaborative process that involves groups of people making sense through social processes and through group interactions with their context (Duchesne et al., 2013, p. 212).

Social constructivism therefore comprises processes that help group members make sense of whatever they are trying to collaboratively achieve. Social constructivist processes bring many benefits. Collaborators draw on each other's knowledge and skills to collectively construct knowledge that provides them all with support and direction (Duchesne et al., 2013, pp. 212 & 214). Such interactions may bring perspectives and insights to the surface that would otherwise remain hidden (Spillane et al., 2002, p. 406). Collaborators may also discover solutions to problems, deal with conflicts and provide the main content of the shared cognition of organisations (Elsbach et al., 2005, p. 431).

Social constructivist processes may be especially helpful to teachers' sensemaking as they implement change. Teachers' collaboration on educational innovations is viewed as essential to lasting reform (Fullan, 1993; 2007; Olsen 2002; Roy, Borin & Kustra, 2007). Also, the ease with which reforms are implemented is greater in collaborative institutions (Corbett & Rossman, 1989, p. 187). In Coburn's 2001 study of groups of teachers implementing a reform, she observed how understanding was socially constructed through interpersonal action, how what was considered important was collectively selected for further attention, and how practical and technical details were negotiated (pp. 152-153). Thus, the teachers used social constructivist processes to make sense of the reform they were tasked with implementing (p. 162). With the participants of this study essentially a group of teachers, they may indeed use collaborative processes to complete their project.

Despite the many benefits of social constructivist processes, they are not guaranteed. The ability of a group to successfully achieve consensus through social constructivist processes is something that develops over time (Roy et al., 2007, p. 25). Therefore, when groups are faced with making sense of a change, they may not possess well-functioning social constructivist processes and may not even share similar understandings (Brown et al., 2015, p. 268). Such groups may be unaligned teams in which certain individuals' hard work does not translate into team effort (Senge, 2006, p. 217). One reason for weak collaboration may be that the peer relationships among group members that Peroune (2007, pp. 245 & 256-7) argues can be so supportive of sensemaking, may not be strong enough. Another reason may be the fact that social constructivism also involves the affect, especially emotions (Brower, 1996, pp. 337-8). Negative emotions may provide an explanation for why shared meanings may not develop within groups (Maitlis & Sonnenschein, 2010, p. 569). It is only when a commonality of direction emerges that a synergy develops to empower the team to collaboratively create a shared vision and understanding of tasks (pp. 217 & 218). Ineffective use of social constructivist processes to make sense of the requirements of a change may be an issue in some organisations.

The efficiency of social constructivist processes is also impacted by other contextual factors. One factor noted in the discussion on cognition is the presence or absence of individual members' prior knowledge. Language and communication are also important for group sensemaking. Social constructivism acknowledges the validity of perspectives deriving from different cultural traditions (Cottone, 2004, p. 12; Paris, 2011, p. 104). Thus, ethnic culture may also impact social constructivist processes. People from collective cultures—such as Pacific cultures—who traditionally collaborate to convert tacit knowledge into shared knowledge (Fullan, 2007, p. 38) should relate well to social constructivist processes.

To summarise, social constructivist processes, which some scholars equate with group sensemaking, can be seen as important to group sensemaking. However, such processes may not occur in all organisational groups, and their effectiveness is impacted by several other contextual factors, principally emotions and culture.

2.3.4 Communication

Communication is a socio-cultural process. It takes place between individuals but is of the utmost relevance to the functioning of groups, organisations and

societies (Dervin, 1989/2003, p. 55; Katz & Kahn, 1978, p. 428). Communication may be viewed as being at the heart of social constructivist processes, and of interrelating other processes that support sensible collaborative action (Mills, 2009, p. 111; van Overwalle & Heylighen, 2006, p. 606). Communication is also reasoned to bring organisations “alive” through “a continual, never-ending process of interacting” (Whittle, Housley, Gilchrist, Lenney & Mueller, 2014, p. 89). More especially, communication is considered to be the “ ‘life blood’ of the organisation and the ‘oxygen’ of change within it (Gill, 2003, p. 312).

It is not surprising then, that communication has been viewed as a factor facilitating sensemaking in organisations (Brown et al., 2015, p. 266). Communication is central to Dervin’s theorisation (Dervin & Frenette, 2001/2003), Weick recognises its importance (Weick et al., 2005, p. 413), and Helms Mills et al. (2010, p. 90) cite it as an important variable in critical sensemaking. Language—in the narrow sense of what people say or write—is also argued to be the dominating mode of sensemaking (Cooren, Taylor, & Van Evey, 2006, p. 14). In addition, the combination of communication, sensemaking and change may be viewed as a cord that binds an organisation together (van Vuuren & Elving, 2008, p. 351). Thus, there is an important link between communication and sensemaking of change. The nature of the link, and how communication impacts sensemaking in both positive and negative ways are explored in the following paragraphs.

Communication may be an event, a process and a product. It is a rich and complex interpersonal behavioural process that involves people sharing meaning through exchanging multiple messages via multiple linguistic and non-verbal signals in which there is some predictable relationship between information transmitted and information received (Bretag, Pardoe & Sanyal, 2009; Froemling, Grice & Skinner, 2011; Katz & Kahn, 1978; Matsumoto & Juang, 2008; Robbins, Judge, Millett & Waters-Marsh, 2008, p. 364). As communication may be said to constitute given organisational situations (Cooren & Sandler, 2014, p. 225), it may also be said that communication constitutes collaborative sensemaking. Thus, communication constitutes sensemaking situations as well as providing the means for collaborative sensemaking (Mills, 2005, p. 21). In these capacities, communication plays a critical role in the problem-solving and decision-making involved in sensemaking, in that it provides information, helps people share their expertise, guides identification and evaluation of alternative choices, and assists in decision implementation through

coordinated action (Donellon, 1986; Robbins, Judge, Millett & Boyle, 2017; Schermerhorn, Hunt & Osborn, 2008; van Overwalle & Heylighen, 2006). Problem-solving and decision-making are both essential for making sense of redeveloping an educational qualification program.

Communication has particular significance for sensemaking in organisations. In organisations it is an all-pervasive process by which information is conveyed or exchanged by two or more people, usually with the intention of achieving a common understanding or of influencing behaviour (Hitt, Miller & Colella, 2009; McShane, Olekalns & Tavaglione, 2010; Samson & Daft, 2003). Communication may be viewed as a fundamental property of organisations (Alberts, Nakayama & Martin, 2017, p. 288) and the “glue” (Schermerhorn et al., 2008, p. 320) holding them together, particularly when sensemaking is required of a change. Open and consistent communication proved critical for explanations of issues and change needs in Grant’s 2003 study of sensemaking in a higher education institution.

Some researchers consider who will communicate as well as considering the ramifications of how communication occurs. Top-down change needs to begin with managers and leaders communicating their change vision. “Without credible communication, and a lot of it, the hearts and minds of the troops are never captured” (Kotter, 1996, p. 6). The amount and quality of sensemaking information managers transmit to organisational members may have a big impact on how organisational members react to change (Oreg, 2006). Credible communication needs to be simple, somewhat repetitious and without jargon (p. 6). Because of the sub-cultures that may exist in organisations (discussed later), leaders may also need to communicate their change vision in slightly different ways to different groups (Hamilton, 2016, p. 626). Leaders also need to communicate enough and send consistent messages otherwise the sensemaking process may stall (Kotter, 1996, pp. 87 & 132; Whelan-Berry, Gordon & Hinings, 2003, p. 205). Thus, it is extremely important to successful sensemaking of a change for leaders and managers to be skilled communicators.

Communication within organisational groups is particularly important for collaborative sensemaking. Communication in an institutional group may be downward or upward, though it is most likely to be with peers, because it is psychologically easier, and because peers may experience the same or similar sensemaking needs (Hitt et al., 2009, p. 295; Robbins et al., 2017, pp. 259-260). Communication may also be the “primary weapon” (Smith & Mackie, 2007, p. 466)

of group leaders in their pursuit of collaborative sensemaking. Robbins et al. (2017, pp. 260-261) identify three small-group communication networks. The linear chain and wheel networks—where the leader is the information receiver and transmitter—are considered quite fast and efficient. However, it may be the slower all channel network—where everyone communicates with everyone else and that group members find the most satisfying—that best facilitates sensemaking and ownership of a change, albeit rather slowly. Whichever network dominates may be a product of group culture and group members enacting their identities, and their expectations of their roles (Alberts et al., 2017, p. 65).

The choice of the specific method of communication is important because this influences the interpretation of meaning (Bretag et al., 2009, p. 244). Oral communication may be particularly important in group sensemaking. Oral communication—the traditional mode of communication in the Pacific—which has the advantages of fast feedback and early correction, is the chief means of formal organisational communication (Robbins et al., 2017, p. 262). It may also be particularly helpful to sensemaking in two specific forms: formal dialogue and discussion, and the informal grapevine.

The collective sensemaking of a group is best achieved through dialogue and discussion (Hirtle, 1996; Senge, 2006, p. 220; Steigenberger, 2015). The slow and personal nature of dialogue can be rich in content (Grant, 2003, p. 76; Schermerhorn et al., 2008, p. 323) and provide the most effective means of achieving greater understanding (Moss, 2001, p. 230; Smith & Mackie, 2007, p. 468). This is because dialogues are divergent and thus facilitate acquiring a rich grasp of complex issues through pooling common understandings to gain greater insights; they may also be considered collective thinking (Senge, 2006, pp. 223-225 & 230). While open and honest dialogue is particularly helpful to achieving collective understanding of change in educational institutions (Grant, 2003, p. 76), it is discussion that leads to agreement, conclusions and courses of action (Senge, 2006, p. 230). Thus, dialogue and discussion are both necessary for group sensemaking. However, the extent and quality of a group's dialogue and discussion may depend on the group culture, particularly in relation to trust between colleagues. It may also depend on the amount of practical wisdom of group members (Moss, 2001, p. 231) and the body language, gestures and facial expressions—all used in the Pacific—that accompany them (Robbins et al., 2017, p. 265).

Informal oral communication is termed the grapevine (Schermerhorn et al., 2008, p. 323) or the coconut wireless in the Pacific. It is an important means of communication in organisations in that as much as 75% of personnel first become aware of new information through the grapevine (Robbins et al., 2017, p. 261). It can be very informative and assist sensemaking by its spontaneity and speed (p. 323). However, it can also be a barrier to sensemaking by transmitting untimely and incorrect information, and unhelpful rumours (Schermerhorn et al., 2008, p. 323). Thus, the grapevine may help or hinder sensemaking.

While oral communication has its strengths and weaknesses for sensemaking, so does written communication. It is considered the most reliable mode for transmitting lengthy and complex information, and is tangible, verifiable and storable for future reference (Robbins et al., 2017, p. 268). However, written communication is time-consuming to construct, and is frequently lacking in feedback (Robbins et al., 2008, p. 368). The use of emails is now particularly widespread in organisations. They are useful in that they may encourage group commitment and cohesiveness (Smith & Mackie, 2007, p. 468), are quick to write, and facilitate rapid responses. However, emails may cause issues for group sensemaking because they may be very impersonal and are prone to privacy and clarity issues for the sender, and misinterpretation issues for the receiver (Robbins et al., 2017, p. 269). Thus, written communication, in whatever form, may also help or hinder sensemaking.

This review of how communication may impact sensemaking has so far mentioned a variety of formal and informal communication methods. Formal and informal communication can operate in a sensemaking situation in a complementary way (Mills, 2009, p. 124), and both types are typically used by institutional groups to ensure communication is effective (Smith & Mackie, 2007, p. 466). However, it may be no coincidence that Mills (2009) documented spikes in the amount of informal communication as organisational colleagues clarified formal communication change-related information for each other, and as opinion leaders influenced the sensemaking of their colleagues (p. 121). Thus, the importance of informal communication—whether helpful or hindering—should not be underestimated.

Literature identifies several possible barriers to communication. Clear communication is essential for sensemaking in organisations, yet communication is subject to issues that impede its flow and clarity (Eunson, 2008; Froemling et al.,

2011; Hitt et al., 2009). Some hindrances and barriers have been mentioned already, but there are also others. These are displayed in Figure 6.

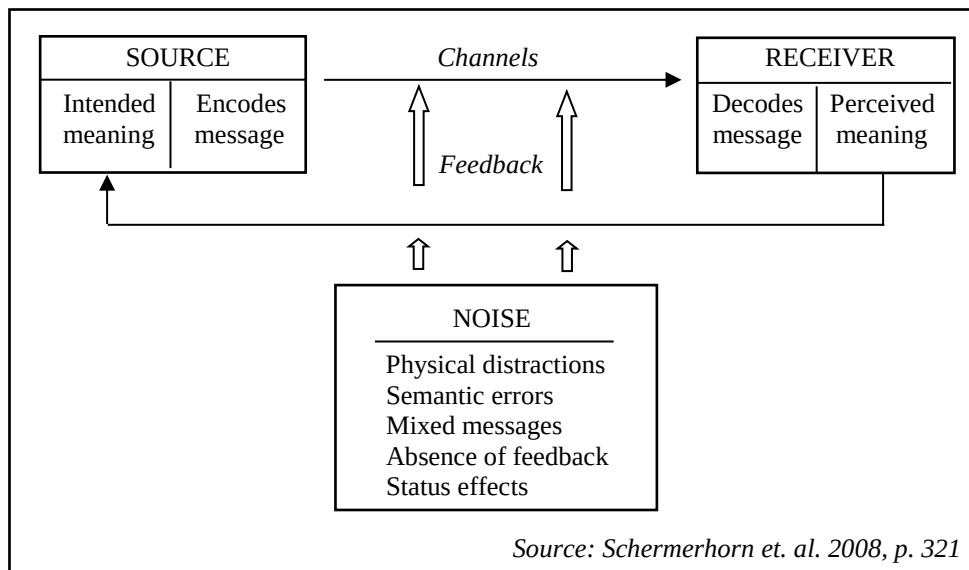


Figure 6. *Formal communication in an organisation.*

Feedback is essential for effective sensemaking of communication because it can clarify the accuracy of perceived meaning. Good feedback that helps sensemaking will be focused, limited to what is relevant and done respectfully (Schermerhorn et al., 2008, p. 322). As decoding may select, omit, distort, elaborate and even transform incoming communication, good feedback is needed to check the accuracy of perceived meaning and prevent misinterpretation (Katz & Kahn, 1978, p. 433; Schermerhorn et al., 2008, p. 322). Thus, lack of feedback may mask sensemaking issues such as cognition problems, lack of agreement with the contents, and whether communications were read.

The noise illustrated in Figure 6 may be a great problem for sensemaking communication as it can distort both the clarity of messages and feedback (Robbins et al., 2017, p. 259). Noise is any stimulus that may degrade or interfere with the quality of a communication (Alberts et al., 2017, p. 10). Sources of noise include the physical, social and psychological aspects of communication (Mills, 2005; 2009). A big physical distraction for the participants of this study was preparing for the relocation of the institution on the other side of the island. Other sources of noise identified by literature as hindering communication (Alberts et al., 2017; Hitt et al.,

2009; Le Rossignol, 2002; Robbins et al., 2017; Schermerhorn, 2008) include time pressures and network breakdowns which may cause physical and emotional issues, excessive use of jargon, conflicting messages, semantic difficulties, information overload—a very real danger in times of far-reaching and rapid change—and information underload which many create cognition and emotional issues. There are certainly limits to the amount of communication that an individual can receive, code and handle effectively (Anderson, 1995, p. 4). The communication styles and behaviour of communicators may also impact how well information is delivered and received—a social issue noted by Mills (2009, p. 121).

The same sources of literature also illustrate noise in terms of the personal psychological issues of one or both of the sender and receiver. This type of noise includes differing assumptions and perceptions, selective perception of information, information distortion, poor listening skills, and communication apprehension. There are also status effects where biased and inaccurate information may be supplied because of reluctance to admit mistakes, a desire to please and unwillingness to transmit bad news (Schermerhorn, 2008, p. 332). Silence in sensemaking discussions may simply be a failure to communicate, however, it may also mean that someone is carefully formatting a response, or signalling anger or fear of speaking (Robbins, 2008, p. 381).

All these barriers to effective sensemaking of communication have something else in common—they all relate to the organisational context, which according to Bretag et al. (2009, p. 244), influences how people interpret communication. Indeed, Cooren, Vaara, Langlely and Tsoukas (2014, p. 7) argue that communication never takes place in a vacuum and that the nature of workplace discourse actually depends on the context. Two aspects of the context that may create significant barriers to sensemaking communication are organisational culture (Froemling et al., 2011, p. 9; Strandberg & Vigso, 2016, p. 90) and ethnic culture (Alberts et al., 2017; Berry, Poortinga, Breugelmans, Chastiosis & Sam, 2011; Matsumoto & Juang, 2008). Culture, whether organisational, group or ethnic, strongly influences both individual perception and how people expect communication to occur (Alberts et al., 2017, p. 96). In multicultural organisations such as LMC, the cultural diversity of employees may significantly impact communication during a crisis (Oliveira, 2013, p. 273). Also, cross-cultural communication, ethnocentrism and parochialism have all been cited as possible sources of noise in multicultural organisations (Schermerhorn et al.,

2008, p. 329). Whatever the barriers to effective communication are, they will negatively impact organisational, group and individual sensemaking.

In conclusion, communication is not only essential for sensemaking at individual, group and corporate levels (Mills, 2009, p. 117; Weick et al., 2005, p. 413), it needs to be contextually appropriate, and can impact sensemaking positively as well as negatively. In addition, efficient communication may not always be effective, nor is effective communication necessarily efficient (Schermerhorn et al., 2008, p. 326). Communication may also be described as a process that is interactive and dynamic, but also indeterminate and precarious (Schoeneborn, Blaschke, Cooren, McPhee, Seidle & Taylor, 2014, p. 307). Thus, communication is a very important contextual factor in sensemaking. Organisations would do well to recognise this because ultimately all organisations face a transformation or a crisis (Strandberg & Vigso, 2016, p. 89) that will generate much communication for participants to make sense of.

2.4 Contextual Factors Implied by the Limitations of Traditional Sensemaking Theory, by Newer Sensemaking Studies and by Other Literature

The four contextual factors just reviewed were all identified by Weick or Dervin as important influences on sensemaking. However, earlier in this review, it was noted that some of the factors that may impact sensemaking were reported by sensemaking scholars as being missing from Weick's and Dervin's sensemaking traditions. Two factors reported as missing—management and leadership—may impact sensemaking at macro and meso organisational levels, while a third, culture, may be important at all three levels. A fourth psycho-sociological micro level contextual factor noted as missing from Weick's sensemaking theory (Soffe, 2002, p. 132) is emotions. According to recent literature concerning the impact of spirituality in organisations (for example Izak, 2012, Long and Helms Mills, 2010, and Taylor and Bell, 2012), spirituality is a fifth factor that may impact the sensemaking in organisations. All these factors are now discussed in this section as factors that may impact the sensemaking of participants of an organisational change.

2.4.1 Emotions

Emotions, the main constituent of the affective domain, are a universal aspect of human functioning (Matsumoto & Juang, 2008, p. 198), and are reported as being inextricably linked to cognition (Frijda, 2008, pp. 32-34; van Veen & Lasky, 2005, p.

895). They are also central to human reactions to a variety of stimuli (Lord & Kanfer, 2002, p. 7) and tend to be manifested when people evaluate events related to their concerns or goals (Krause et al., 2003, p. 403). As change situations create a variety of stimuli that may cause many concerns requiring sensemaking, emotions merit inclusion in a discussion regarding what may impact sensemaking of a change event. Indeed, emotions should not be ignored because they are thought to depend on pre-existing schemas (Neisser, 1976, p. 14), and to guide the use and development of schemas. Some would also argue that emotions have a key role in determining when sense in a sensemaking event has been finally reached (Maitlis, Vogus & Lawrence, 2013, pp. 234-236).

This section reviews a range of sensemaking and other literature that link emotions to sensemaking of a change situation in both organisational and educational contexts. It also explores how positive and negative emotions have been reported as impacting sensemaking.

The strong connections between cognition, emotions, and sensemaking have not always been recognised. Historically, research gave primacy to cognitive processes and rationality over affective processes, perhaps because of the misconception that reasoning is somehow separate from emotions (Dougherty & Drumheller, 2006, p. 215; Hargreaves, 1998b, pp. 559-560). Traditional management thought and sensemaking models have undervalued emotions in organisations, ignored them, or downplayed them as an impediment (George & Jones, 2001; Helms Mills, 2003; Maitlis et al., 2013). Thus, emotions have been under explored as impacting sensemaking (Maitlis et al., 2013, p. 223), despite the fact that emotion underlies much literature on change and crisis in organisations, and that crisis situations are typically characterised by strong negative emotions (Maitlis & Sonnenschein, 2010, p. 566). This has resulted in little theory explicitly identifying the role of emotions in sensemaking and their impact on sensemaking processes (Maitlis et al., 2013, p. 223).

This situation appears to be changing. In 2006, Bartunek, Rousseau, Rudolph and De Palma (pp. 183 & 203) noted a growth in interest in emotions in the workplace and acknowledged that change participants have feelings about the organisational changes they are involved in. In 2008, Kotter and Schlesinger argued that everyone impacted by a change event experienced some emotional turmoil (Diagnosing Resistance, para. 2). There is now a growing body of literature

acknowledging that emotion is a complex and multi-faceted influence on initiating, shaping and finishing sensemaking processes (Maitlis et al., 2013, p. 240), and that sensemaking is less consciously driven than was previously thought (Steinbauer, et al., 2015, p. 407). For example, Powers et al. (2010) have developed a model capable of measuring the enabling or inhibiting sensemaking behaviour of individuals in a group setting. Also, emotions have now been cited as important for motivating acceptance of a change, for the strength and content of change-relevant beliefs and for continuing to support a change (Hechanova, Caringal-Go & Magsaysay, 2018, p. 915; Lines, 2005, p. 17).

Thus, scholars are now increasingly acknowledging that sensemaking is inevitably impacted by emotion, that emotion is very important to explaining variations in key cognitive and social processes that influence how events are interpreted (Maitlis et al., 2013, p. 223), and that cognitive and emotional processes work together in the sensemaking process (George & Jones, 2001, p. 438). Weick has also acknowledged that emotions impact sensemaking (Weick et al., 2005, pp. 418-9).

The following paragraphs highlight what literature relating to organisational and educational change and recent sensemaking literature have reported regarding the importance of emotions to sensemaking and how it may impact sensemaking. In essence, people are emotional beings, and because emotions have an impact on perception, thinking and behaviour (Steigenberger, 2015), they inevitably impact sensemaking.

Recent sensemaking literature reporting on emotions in organisations establishes significant links between emotions, cognition—already noted as an important factor impacting participants' sensemaking of a change—and sensemaking. Change involves exchanging the known for a new vision of the future, and facing beliefs and perceptions about one's competencies and capacities, and is consequently a challenging intellectual and emotional task (Burke, 2014; Kotter, 1996; Lovat & Smith, 2003). Thus, change, whether it is embraced or resisted, is a challenging intellectual and emotional task that heightens uncertainty and arouses emotions (Burke, 2014; Kotter, 1996; Lovat & Smith, 2003). When an event triggers change, emotions, aided by their link to resolving cognitive dissonance, are inputs that initiate sensemaking processes (Dougherty & Drumheller, 2006; Maitlis et al., 2013; Steigenberger, 2015). These emotional inputs then appear to play an important

role in shaping the sensemaking that follows (George & Jones, 2001; Maitlis et al., 2013, p. 223). Both Kotter and Cohen (2002, pp. 10-11) and Fullan (2004, p. 119) argue that people are most likely to adapt to change through a see-feel-change sequence, which involves emotions, rather than an analyse-think-change sequence characterised by cognitive processes, although this latter sequence may occur later in the change. Thus, emotions are inputs to cognition and sensemaking, factors affecting sensemaking processes and outcomes of sensemaking (Burke, 2014; Dougherty & Drumheller, 2006, p. 217; Steigenberger, 2015, p. 445; Steinbauer et al., 2015).

Sensemaking literature not only now supports the importance of emotions to sensemaking, it also notes that the types of emotions—positive or negative—inducing sensemaking change processes, will have important impacts on the nature of the processes (Maitlis et al, 2013, p. 239). Positive emotions may be both triggered by sensemaking and facilitate it. It has been observed that when change requirements requiring sensemaking are congruent with teachers' professional orientation, the teachers experience positive emotions (van Veen & Slegers, 2006, p. 106). Once triggered, positive emotions generate sensemaking by encouraging willingness to cooperate and alignment with ideas (Lines, 2005, p. 11; Maitlis et al., 2013, p. 238; Mills, 2009, p. 116). Such positive emotions as compassion and empathy, when grounded in awareness of organisational pressures, facilitate making sense of a change in a group setting (Senge, 2006, pp. 160-161). Positive emotions may also increase resilience as people cope with change stressors (Maitlis & Sonnenschein, 2010, p. 568). Resilient individuals are likely to be more motivated and decisive sensemakers, open to both receiving sense and engaging in giving sense to colleagues in the academic field (Reeve, 2005, p. 256; Steigenberger, 2015, p. 434). However, positive emotions may hinder sensemaking if over-optimism causes people to overlook change issues (Maitlis & Sonnenschein, 2010, p. 568).

Negative emotions may also be triggered by sensemaking. The emotional mind is powerful, sometimes impulsive and illogical, may cause erratic behaviour, and can disable cognition at crucial moments (Ancona, 2012, p. 3). Negative emotions are prevalent in crisis and change situations, which may have many crucial moments, where they may greatly hinder sensemaking processes (Maitlis et al., 2013, p. 239; Maitlis & Sonnenschein, 2010, pp. 567 & 570). For example, it has been observed that when teachers experience educational changes that are incongruent

with their professional orientation and that apparently attack their professional identity, they feel vulnerable and experience negative emotions (Fullan, 2007, p. 39; Lasky, 2005; Lutzenberg et al., 2013, pp. 308-309). Such negative emotions as defensiveness, caused by people feeling threatened or embarrassed by displaying flawed thinking, may discourage further sensemaking attempts (Senge, 2006, p. 332-3). Thus, negative emotions may also “poison” (Hargreaves, 1998b, p. 560) collective sensemaking. Other negative emotions that may hinder sensemaking include stress, pessimism, cynicism, insecurity, and anxiety, which triggers passivity and avoidance (Kotter & Cohen, 2002, p. 180; Pihlak & Alas, 2012, p. 235; Steigenberger, 2015, p. 441). Anxiety, which is usually present at a time of change (Burke, 2014; Fullan, 2004; Maitlis & Sonnenschein, 2010), and other such emotions may stem from a change happening too fast for people to cope with (Hargreaves, 1998a, p. 281). Given the range of negative emotions that change may generate, it is not surprising that emotions have been cited as perhaps the most powerful of all forces causing resistance to change (Gill, 2003, p. 308).

Sensemaking literature has also identified frustration, fear and anger (Burke, 2014, p. 110; Lines, 2005, p. 11; Pihlak & Alas, 2012, p. 235) as negative emotions that have much potential to negatively impacting sensemaking. These three negative emotions may create resistance to sensemaking of a change by triggering detachment, opposition, and alienation (Mills, 2009, p. 116). Burke (2014, p. 110) notes a link between fear and intolerance of change. Kotter and Schlesinger (2008) explain this link in terms of people fearing an inability to develop the new skills that sensemaking of a change requires of them. Such fear is most likely to happen when a change is big and happens quickly. Steigenberger (2015) argues that both anger and fear “act as blinkers” (p. 437) by focusing the mind on the cause of the anger or fear. When angry, people are likely to avoid compromise and cooperation (Allred, Mallozi, Matsui & Raia, 1997, p. 184), both of which are essential for successfully making sense of a change. When people make sense of an emotion that initiated their sensemaking, they attribute the emotion to a certain cause (Steigenberger, 2015, p. 436; Westen, Burton & Kowalski, 2006, p. 417) such as a particular change requirement. If that emotion is anger, they will not consciously re-evaluate their anger when faced with more change requirements perceived as similar (Steigenberger, 2015, p. 437). Thus, the impact of anger on sensemaking may linger.

Table 1 summarises the negative impact of anger, fear and anxiety on an individuals' sensemaking processes, as well as on sense given to them by change agents.

Table 1

Negative emotions, sensemaking and sensegiving

	Anger	Fear	Anxiety
Type of sensemaking	Decisive	Avoiding	Avoiding
Motivation for sensemaking	Strong	Strong	Weak
Propensity to engage in sensegiving	High	High/low, depending on object of fear	Low
Openness to the sensegiving of others	Not open	Not open	Open

Extracted from Steigenberger, 2015, p. 443.

Weber and Glynn (2006) have reported that emotions generated by judgements of plausibility when making sense of a change requirement, impact the pursuance of sensemaking goals. Specifically, when action to be taken to enhance sensemaking is judged plausible, emotional energy for future action is built, whereas actions judged implausible create negative emotional dynamics, deplete emotional energy and negatively affect subsequent actions (Weber & Glynn, 2006, p. 1652). It has also been argued that the motivation needed for pursuing goals through sensemaking is impacted both positively and negatively by emotions (Lord & Kanfer, 2002; Smith & Mackie, 2007; Wilks, 1998, p. 21). Given the above discussion, it would seem plausible that emotions link cognition, motivation and adaptation (Lazarus, 1991, p. 40), three attributes that may have much impact on sensemaking at a time of organisational change.

Much of what has been reported in this section regarding the impact of emotions on sensemaking may be linked to the micro level of sensemaking. However, emotional contagion has been reported to impact sensemaking in a group setting when emotions spread from one group member to another and develop into a shared emotional stance (Barsade, 2002; Maitlis & Sonnenshein, 2010; Steigenberger, 2015). Emotional contagion may also impact sensemaking and sensegiving of change requirements in entire organisations (Huy, 1999; Steigenberger, 2015, p. 439). This is comparable to the development of team mental models, and also links to group culture which is discussed later.

Also, at the meso level, emotions have been linked to the effectiveness of organisational communication (Goleman, 1998, p. 203)—noted in a previous section as very important to sensemaking—in that they play a significant role in how people understand, appraise and react to messages (Alberts et al., 2017, p. 131). When emotionally engaged with a communication event, people are less likely to distance themselves from the event, but are more likely to invest much effort helping themselves and others understand it (Mills, 2009, pp. 117 & 120). Also, individuals who understand their own emotions and are adept at reading others' emotions, can facilitate collaborative sensemaking and accurate transmission of information (Robbins et al., 2008, pp. 265 & 270). However, emotion may also be a barrier to communication, as the receiver's mood may affect interpretation (Alberts et al., 2017, p. 131; Robbins et al. 2008). Thus, emotions are inextricably involved in both the transmission and receipt of information, both of which are integral to collaborative sensemaking.

Finally, sensemaking studies have linked the context of a sensemaking event to the generation, manifestation and impact of emotions on sensemaking (Maitlis et al., 2013, p. 238). Van Veen, Sleegers and van de Ven (2005, p. 93) report that many different aspects of a change context can shape teachers' emotions. One aspect of a context that may have a particularly powerful impact is ethnic culture (Lazarus, 1991, p. 362). While emotions have many common aspects across cultures, they may also be culture-specific (Berry et al., 2011, p. 177; Matsumoto & Juang, 2008, p. 199). This is because culture provides meanings and rules which influence the expression and experience of emotion through impacting how people perceive, understand and appraise what is happening (Lazarus, 1991, pp. 355, 362, & 382; Matsumoto & Juang, 2008, p. 222; Wade & Tavis, 2011, p. 405). Altogether, people tailor their reactions to fit cultural rules (Lazarus, 1991, p. 370) and culture determines much of what people feel emotional about (Wade & Tavis, 2011, p. 405). This suggests that studying the impact of emotions on sensemaking of a change in a multicultural organisation may be a complex undertaking.

In conclusion, emotions are reported to have great potential to both positively and negatively impact sensemaking of change processes and may impact participants' sensemaking of an organisational change at individual, group and organisational levels. Sensemaking of an organisational change may be an intense emotional experience for participants (Weick et al., 2005, p. 418). Thus, the

emotional capabilities of change participants are a desirable antecedent for achieving radical change in an organisation (Huy, 1999, p. 342). Precisely what emotions of participants will impact sensemaking of a change, and how the emotions are expressed, depends to a large extent on such things as the radical nature of the change, and the situational demands of the change context, especially their culture. Despite the potential of emotions to influence people's sensemaking of a change highlighted in this section, emotions are still under-researched as a factor impacting sensemaking. Smith et al. (2012) also argue that resilience and positive emotions are linked in several ways to spirituality. This link is discussed in a later section of this literature review. However, case studies that have examined interconnections between various contextual factors regarding their impact on people's sensemaking is another gap in literature.

2.4.2 Management

As noted previously, early sensemaking theory did not take into account the possible impact of organisational hierarchical power structures on employees' sensemaking. The following sections on management and leadership review literature that suggests that these centres of organisational power may have a large impact on employees' sensemaking.

Institutions and organisations are complex entities and may be characterised as “systems of action, consciously coordinated by communication” (Weick, 1995, p. 66). Management gives an organisation order, vitality and consistency through formally organising personnel into units and subunits which should function through conscious and purposeful cooperation (Barnard, 1938, pp. 4 & 285-286). However, change is disruptive and creates “messiness” (Fullan, 2004, p. 39). Thus, it is logical to assume that organisational change may be more successful if it is managed. However, sensemaking and organisational management literature reveal that while management activities have a key role in change, managing change successfully is difficult.

The activities of top-level managers may be key to the effectiveness of the overall change process (Gioia & Chittipedi, 1991, p. 447). Top managers need to be involved in both sensemaking and sensegiving as they communicate a change plan through providing participants with feasible interpretations of new requirements in ways to maximise the likelihood of success (Degn, 2015b; Gioia & Chittipedi, 1991).

Managers' sensemaking and sensegiving activities include making sense of the external environment, providing key details, planning and timetabling goals, monitoring the overall change process, and influencing how other people construct meaning in the course of sensemaking (Bromage, 2006; Kotter, 1996; Gioia & Chittipedi, 1991; Maitlis & Sonnenschein, 2010). Essentially, the top management team comprise the chief architects, assimilators and facilitators of organisational change (Gioia & Chittipedi, 1991, p. 446).

However, the management of a change and its participants—whether in business organisations or educational institutions—is inherently complex. It is messy and unpredictable (Fullan, 2007, p. 108; Jick & Peiperl, 2003, p. xv), and fraught with problems (Strandberg & Vigso, 2016, p. 90) and unanticipated consequences (Balogun & Johnson, 2005, p. 1594). One problem regarding successfully achieving educational change is the clarity with which the need to change is conceptualised and demonstrated (Hargreaves, 1998a, p. 281) because poor clarity may result in ambivalent meanings and ideas that are lost (Fullan, 2007, p. 63). Fullan (1993) argues that the “the more complex a change is, the less you can force it” (p. 21) and that too much emphasis on planning change may even result in failure (2007, p. 113). Also, while interpersonal skills may be considered key to change management, they will not make up for the use of poor management strategies (Kotter & Schlesinger, 2008). Ultimately, effective management of change may be less about controlling, directing and managing the details, and more about helping change participants' sensemaking to achieve alignment of interpretation (Balogun & Johnson, 2005, p. 1597).

The impact of emotions on sensemaking has just been discussed. To further extend this discussion, it is argued that change may become out of control because management is insufficiently concerned about the role of emotions in fostering people's understanding and acceptance of change (Lovat & Smith, 2003; Mossholder, Settoon, Armenakis & Harris et al., 2000, p. 240). Thus, managers should not underestimate either the variety of possible reactions, or their power to influence these reactions, if they wish to facilitate sensemaking of a change (Kotter & Schlesinger, 2008). The presence of anger when management is engaging in sensemaking is particularly destructive of the openness that is needed for participants to adopt management's vision of sense (Steigenberger, 2015, p. 444). While active management of participants' emotions may assist a change, it has great potential to

backfire (Huy, 1999, p. 342; Steigenberger, 2015, pp. 443 & 445). Kotter (1996, p. 4) also warns that change participants' difficulties and levels of complacency may be underestimated. Thus, without competent management that comes "to grips with the multiple realities of participants" (Fullan, 2007, p. 109), a change situation may become out of control (Kotter, 1996, p. 30).

Change management in higher education institutions requires different handling from change in business organisations because academics respond differently to change (Grant, 2003, p. 81). Not surprisingly, literature regarding management's ability to control change in educational institutions reveals even more difficulties than have just been mentioned. The management of higher education has traditionally rested on the notion that it can be both planned and controlled (Bromage, 2006, p. 2; Grant, 2003, p. 81). This notion has triggered debates regarding incremental as opposed to big bang, or bounded as opposed to unbounded change (Grant, 2003, p. 81). However, centralised top-down planning of change provides little encouragement for sensemaking (Eckel & Kezar, 2003, p. 52) and so invariably fails (Fullan, 2007, p. 11). This appears to be particularly true if there is little administrative support, ineffective professional development of participants, and information systems that are difficult to activate (p. 108). Insufficient attention to the local context may also lead to faulty assumptions and presuppositions by change planners (pp. 108, 109 & 111). A decentralised bottom-up approach to managing change does not work either (Fullan, 1993, p. 21). Thus, sensemaking of a change in education needs careful consideration (1993) and may in the end prove impossible to manage effectively (Fullan, 1993; 1998, p. 227). Whether or not it is impossible, the top managers of today's higher education institutions are increasingly required to be strategic managers in a climate of change (Degn, 2015b, p. 902).

One tool for managing change that managers may employ is a theory of change. A theory of change is a tool that helps to clearly articulate assumptions that a management team agrees are underlying their proposed change (Reinholz & Andrews, 2020, p. 2). A theory of change produced in this way is often expressed as a diagram. If a management team constantly reconsiders and revises their theory of change in the light of new data, then they will learn whether and how their strategies are working (p. 3).

Interchangeable use of the terms management and leadership, implying that they are synonymous, has caused issues in some educational institutions (Grant, 2003

pp. 87-88). However, in both educational institutions (Bromage 2006, p. 3) and business organisations (Kotter, 1996), senior managers who behave as leaders rather than as managers by championing change are important for successful change. Kotter (1996) also argues that “all highly successful transformation efforts combine good leadership with good management” (p. 129). Thus, good management and good leadership—the subject of the next section—appear to both be required for successful change.

2.4.3 Leadership

As highlighted above, good leadership supports successful change in organisations. Whilst the characteristics of good leaders of change situations may apply to leaders of any level of organisation, some literature distinguishes between institutional and meso level organisational leaders regarding their impact on change participants. This section of the review also distinguishes between the two in order to highlight the impact they may have at the two different organisational levels.

Organisational leadership.

Management and leadership are somewhat similar, but they are also different. In general, determining the what and how of organisational change requires leadership of organisational members in the activities that will bring about a change (Burke, 2014, p. 23). Indeed, Maphinda (2017, p. 104) argues that to achieve a transformational organisational change, leaders must embrace sensemaking as a perspective. This section explores why macro level organisational leaders are important for sensemaking of change initiatives, and what challenges are involved in leading sensemaking effectively. Some of what follows, particularly how good leaders will facilitate sensemaking through what they do and who they are, may also apply to meso level organisational leaders.

Change is enhanced by long-term vision (Roy et al., 2001, p. 25). Thus, it is particularly important that institutional leaders have a clear vision of the change and, as noted earlier, transmit it effectively, particularly in terms of plausible outcomes (Eddy, 2003, p. 325; Gill, 2003, p. 307). This is particularly significant because Kotter (1996) argues that “employees will not make sacrifices, even if they are unhappy with the status quo, unless they believe that useful change is possible” (p. 6). This is particularly true if leaders also fail to establish a sense of urgency (Kotter, 1996, p. 132). Employees will also not feel motivated to change unless they are

convicted that it is needed (Gill, 2003, p. 308). Furthermore, Hamilton (2016, p. 625) argues that the success of transformative institutional change actually depends on leaders' effective communication of the change vision and goals.

The leadership required at a time of change is not straightforward (Fullan, 2001, p. 2). Changes are difficult to introduce, and participants implementing the change need to both adopt it and commit to it (Hechanova, 2018, p. 915). Not surprisingly, studies have stressed the important role of leaders in shaping employees' attitudes to change in both business organisations and academic institutions (Hechanova & Cementina-Olpec, 2013, p. 17). While a good leader will empower, motivate and inspire those who are affected by, and involved in, the change (Gill, 2003, p. 308), they may do these things in different ways (Alberts et al., 2017, p. 390). However, the provision of opportunities for sensemaking is, by itself, insufficient to ensure progress (Kezar, 2013, p. 765). To ensure change, leaders need to lead rather than manage (Fullan, 2001, p. 2). They should focus on a few core aspects of leadership such as focusing participants' attention appropriately (Eddy, 2003, p. 18) and mobilising change participants to confront problems that need addressing (Fullan, 2001, p. 3). To mobilise change, leaders need to facilitate participants' acceptance of a change by acknowledging, then helping them to reduce their commitment to the status quo (Maitlis & Sonnenschein, 2010, p. 563).

A second way of mobilising change is getting participants to experience cognitive dissonance so that they become able to recognise issues with current practice and experience the dissatisfaction with the status quo that is essential to reinterpreting beliefs (Spillane et al., 2002, pp. 418-419). However, this process must not be too negative lest it trigger the natural tendency to self-affirmation and so lead change participants to explain away or find fault in change requirements (p. 419). To help participants develop enthusiasm and commitment to a change, leaders must build relationships and be actively involved in understanding a change, in creating and sharing knowledge, and in making coherence (Fullan, 2004, p. 3).

Change literature also recommends several other things leaders of sensemaking in an organisation should do. It is leaders and managers who create conditions for daily learning in organisations (Fullan, 2001, p. 13; Knight and Trowler, 2000, p. 79). Modeling and mentoring are particularly crucial (Fullan, 2001, p. 132). Leaders should also build the capacity of participants (p. 262) through such means as helping them overcome roadblocks in their understanding (Kotter, 1996, p.

10), perhaps by creating and rewarding short-term wins so that sacrifices may be perceived as worthwhile (p. 123).

All these things that leaders may do, will, according to sensemaking literature, help change participants' sensemaking. However, certain personal attributes have also been noted by literature as helping leaders to lead effectively in times of change. These attributes may be categorised as belonging to the cognitive, social, affective, behavioural, cultural and spiritual dimensions (Gill, 2003, p. 308). In the cognitive dimension, leaders may use their knowledgeable commitment to change processes, and their strategic, technical and executive expertise (Hechanova et al., 2018, p. 915) to influence change participants to adopt the new perspective (Maitlis & Lawrence, 2007, p. 80; Rouleau & Balogun, 2011). In the cognitive and social dimensions, it is important that leaders are reflective practitioners who are prepared to compromise (Knight & Trowler, 2000, pp. 79 & 81), evidencing moral purpose (Fullan, 2001, p. 132), and being attentive and responsive listeners to dialogue (Fullan, 2001; Knight & Trowler, 2000; Strandberg & Vigso, 2016).

In the affective dimension, effective leaders of change require resilience (Hechanova et al., 2018, p. 915) and emotional intelligence (Gill, 2003, p. 311; Jimenez, 2018, p. 237). This is especially true for successful modelling and mentoring (Fullan, 2001, p. 132). Leaders also need to have the ability to understand how the change initiatives are manifested in employees' affective behaviour (Jimenez, 2018, p. 2247). One thing leaders need to listen to carefully is the emotional tone of change participants in order to manage their emotions in ways that will enable rather than inhibit sensemaking (Maitlis et al., 2013, p. 240). Leaders' ability to express positive emotions effectively may help positivity ripple through the organisation and encourage participants to understand the value of the change (Maitlis & Sonnenschein, 2010, p. 568). This is another example of emotional contagion which was discussed earlier. Recognising "games" (Grant, 2003, p. 80-82) that change participants might play and respecting participants' resistance to the change (Fullan, 2004, p. 52) are two final attributes that should help leaders be effective in times of change.

If leaders have these attributes in the various dimensions and do what has been discussed above, they can be an important strategic factor for inspiring cooperation for organisational change (Barnard, 1938; Vaughan, 1999). However, they also need the support of two things—organisational culture and communication.

The possible impacts of communication on sensemaking have already been discussed. Exactly what organisational culture is, and how it may impact sensemaking, are explored in the next section. The emphasis here is the relationship between leaders and organisational culture as they attempt to drive sensemaking of a change.

Leaders also need to be culturally intelligent (Coleman-Oliver, 2018) through understanding the prevailing culture of their organisations if they are to facilitate change (Kezar & Eckel, 2002b, p. 457; Strandberg & Vigso, 2016, p. 90). While it may be possible to facilitate change within an existing culture, it may also be necessary to create a culture of change that empowers participants to pursue, critically evaluate and integrate new ideas into practice (Fullan, 2004, p. 52; Gill, 2003, p. 307). Grant's (2003) research in a Scottish higher education institution suggests that leaders at any level who are managing an educational change should move away from rationale and logic, and focus instead on creating and cementing a new culture (p. 80). A new culture, however, may only operate if the leader engages in and facilitates frequent credible communication (Grant, 2003; Kotter, 1996; Jick & Peiperl, 2003). Indeed, it is essential for the success of a change for leaders to consider the deep-rooted values of cultures that may be powerful sources of resistance to change (del Val & Fuentes, 2003, p. 153).

It has been previously noted that Gill (2003, p. 308) argues that spirituality is an important dimension of good leadership of change. The importance of spirituality to sensemaking of a change for all change participants—whether leaders or employees—is discussed in the final section of this review.

If an institutional change is significant, then a good leader at the top may be essential (Burke, 2014, p. 25). This implies that just one person may have a significant impact on an institution or organisation (Lovat & Smith, 2003, p. 196). However, given the preceding discussion of the many attributes of the various dimensions that constitute good leadership, leaders may need training in one or more of these areas if they are to effectively lead change (Coleman-Oliver, 2018; Hechanova & Clementina-Olpec, 2013, p. 17).

In educational institutions, principals have the most potent role as leaders of effective change (Deal & Peterson, 1999; Cowan, 1993; Eddy, 2003; Fullan, 2007). To be potent, they need an intentional though pragmatic strategy for helping staff leave behind old assumptions, ideas and mental models (Hamilton, 2016, p. 635;

Kezar & Eckel, 2003a; Useem, 2012, pp. 125-126). They also need to effectively lead change agents (Spillane, 2002, p. 418)—such as departmental heads—and remove barriers to collaboration by fostering knowledge sharing and caring relationships (Fullan, 2001, p. 132). According to Kotter (1996, p. 6), more than 70% of transformational organisational changes fail because of ineffective leadership. Transformational change in a higher education institution could also fail for the same reason.

However, strong leadership is not always an asset. Vaughan (1999, p. 276) warns that whilst strong centralisation provides coordination, it reduces flexibility. As already noted, top-down change in education does not work well because it often fails to generate commitment and ownership of reforms (Fullan, 2007, p. 11). Too much sensegiving by a principal of a school may also be detrimental to change participants' sensemaking (Cowan, 1993; Maitlis, 2005). Reform achieved by charismatic leaders is often episodic followed by participants' despondence or frustrated dependence, while “super leaders” (Fullan, 2004, pp. 1-2) do not provide role models that can be emulated. Over-dependence on leadership is now recognised as a barrier to groups making sense of change (Ancona, 2012, p. 3). Fullan (2004) argues that deep, sustained reform in educational institutions depends on many, “not just an extraordinary few” (p. 2). This suggests that while leaders have an important role in driving and steering change through sensemaking and sensegiving, collaborative processes at the meso level may be the key to cementing change requirements into practice (Cowan, 1993; Fullan, 2004).

In summary, the action and attributes of organisational leaders may both facilitate and hinder sensemaking of change situations. The next section explores the possible impact of meso level leaders on their colleagues' sensemaking.

Meso level departmental leadership.

It has just been highlighted that participants in an organisational or institutional change need to be guided, inspired and motivated by leaders through new experiences to develop new beliefs, if change is to take root (Fullan, 2007, p. 58; Hopkins et al., 2011, p. 19). However, leaders may be anywhere in organisations (Burke, 2014, p. 25). A growing body of literature now views the presence of skilful meso level managers, such as heads of faculty/departments in higher education institutions and middle managers in organisations, as crucial for facilitating and

shaping change (Balogun & Johnson, 2004), p. 523). Why this is so, and how meso leaders may best fulfil this role are now explored.

Middle managers or Heads of Faculty who help formulate change at the top of an organisation and facilitate sensemaking and implementation of the change at lower levels, may be a key strategic asset in successful change (Balogun & Johnson, 2005; Filstad, 2014; Rouleau & Balogun, 2011). Their intermediary position casts them in the role of change agents in that they may act as catalysts of change activities (Robbins et al., 2017, p. 473). They have sometimes been depicted as being obstructive and resistant to change (Balogun, 2003, p. 69). This may be due to the faulty assumption that all participants will view a change in the same way (Bartunek et al., 2006, p. 183). This portrayal may also be linked to the interpretive aspect of a middle managers' role being overlooked, leading to role conflict and workload issues (Balogun, 2003, p. 69). There may indeed be inconsistencies between the ideas of top managers regarding a change and the ideas and actions of key implementers (Bacharach, Bamberger & Sonnenstuhl, 1996, p. 480), such as middle managers. However, Balogun's (2003) research suggested that middle managers who boost their interpretation of a change through a range of activities become better placed to fulfil their complex change intermediary roles.

Change literature suggests several courses of action that successful meso leaders as change agents should follow as they lead their colleagues' sensemaking. To begin with, they should communicate the vision and provide education regarding the change that is repeated at key moments, as without these two things, change requirements may meet with a lukewarm reception or even inertia (Bartunek et al., 2006; Kotter, 1996; Marshall, Orrell, Cameron & Thomas, 2011). Second, meso level leaders should use their knowledge of their colleagues' understandings to influence their colleagues to adopt appropriate points of view regarding the change (Bartunek et al., 2006, p. 202; Rouleau & Balogun, 2011, p. 953), and to re-examine their practices (Grant, 2003, p. 80). Intimate knowledge of the context and their colleagues' understandings and feelings regarding the change is crucial for such a role (Barsade, 2002, p. 670; Rouleau & Balogun, 2011, p. 954).

A third course of action recommended for meso leaders by sensemaking literature is minimising ambivalence with a view to increasing their colleagues' acceptance of the change (Moon, 2009, p. 520). They may do this by using reflexivity to become more aware of the change issues (Moon, 2009, p. 520), such as

power struggles over group goals that may result in suboptimal outcomes (Vaughan, 1999, p. 278). Reflexivity should help meso leaders practise common sense as they lead their colleagues in collaborative sensemaking—a crucial attribute of good change agents (Moon, 2009, p. 519). In addition, reflexivity should help meso leaders effectively interpret the intent and meaning of the change details they must convey to colleagues (Maitlis & Sonnenschein, 2010, p. 559). By doing all this, meso leaders enact organisational change by affecting cognitions and actions as they mediate sensemaking between top management and employees (p. 559). In so doing, they also help their own sensemaking (Balogun, 2003; Fellows & Liu, 2016). Thus, for meso leaders there is a close link between sensemaking and sensegiving (Filstad, 2014, p. 17). Whatever they do, the commitment of meso leaders to a change is essential (Marshall et al., 2011, p. 88).

Fullan (1993, p. 4) advocates educators becoming skilled change agents in order to become expert in the dynamics of change. Reflexivity can help them with this. However, he also warns that it is unwise to assume that change agents always know exactly what they are doing (p. viii), and cautions that faulty presuppositions may cause problems (2007, p. 109).

As the influence of academic departmental heads may be deeply felt in times of change (Knight & Trowler, 2000, p. 76), their leadership style is of importance. Knight and Trowler discuss the likely impact in times of change of three different leadership styles. *Transformational leadership* has been recommended by some literature, however, ways of achieving it have often paid little attention to the culture of departments (p. 78). This has been reported as a problem because mere exhortation to change has little impact if departmental cultures are not conducive to change (p. 69). *Transactional leadership* may stunt the creativity and initiative of group members because what is unrewarded does not get done (p. 78). Even worse, coercion may engender negative feelings about the work involved, and produce a compliant culture in which nothing has really changed.

Whilst such leadership styles will reduce, or even prevent sensemaking of group members, *interactional leadership* may facilitate change. Interactional leaders let their sensitivity to their group's practices and ways of constructing meaning guide them into establishing a culture of negotiation based on trust that should help the group both shape and understand departmental goals (Knight & Trowler, 2000, p. 79). While interactional leadership is not a panacea for unwelcome change, its

emphasis on collegiality and consultation encourages mutual support and reinforcement of understanding (p. 80), both of which should greatly support both group and individual sensemaking.

Faculty leaders in academic institutions may also influence their groups' sensemaking through their attitudes towards a change. Table 2, which summarises different ways Danish higher education department heads reacted to change, is very instructive in this respect. The table shows how departmental heads' attitudes and behaviour in relation to change may encourage or discourage their colleagues' sensemaking and acceptance of a change. Also, negotiating a balance between their academic and managerial roles has an emotional component for leaders (Degn, 2015a, p. 1185). Emotion has already been noted as having a big impact on sensemaking.

Table 2

Academic Heads of Department – varying attitudes and behaviour in times of change

	Shielders	Coordinators	Agenda Setters
Attitude towards change	<i>Absorbers of change</i> View change impulses as disruptive and attempt to protect colleagues from them.	<i>Translators of change</i> View their job as translating and reshaping change impulses in a preserving way to ease implementation.	<i>Initiators of change</i> Actively formulate change initiatives and see them through. See their own main role as entrepreneur.
Sensemaking strategy	<i>Preserving</i> – value the past positively and aim to retain as much of it as possible.	<i>Preserving and evolving</i> – depending on the situation.	<i>Evolving</i> – value the past negatively, thus legitimising change.
Manager versus Academic	<i>Academic</i> – maintain and fortify their academic identity construction. Managing is a temporary role.	<i>Manager-academic</i> – attempt to balance the role; shift back and forth in their identity construction.	<i>(Academic) manager</i> – completely assume the role of a manager, and actively integrate this into their identity construction.
Behaviour	Decoupling or defiant compliance.	Subtle agreement while projecting a defiant attitude.	<i>Leader</i> – active role model.

Adapted from Degn, 2015a, p. 1190

To conclude, meso level leaders in both organisations and educational institutions—particularly higher education institutions—have a very important part to play in facilitating their colleagues' sensemaking. Maphinda (2017) believes that effective leadership is “sensemaking put into action” (p. 104). However, this belief is too simplistic as the above discussion illustrates that meso leaders' effectiveness may

depend on their style of leadership and on whether they possess and utilise appropriate attributes.

Summary of the impact of leadership on sensemaking.

At whatever level they lead, leaders of organisations or institutions may help or hinder sensemaking of change through the leadership strategies they employ, the culture they model or create, the personal attributes they display, and the quantity and quality of communication they use. Leaders also have great potential for creating barriers to change and for facilitating their removal. Despite the potential of leaders either individually, or as members of a management team, to impact people's sensemaking of an organisational change, management and leadership are two more contextual factors that are under-represented in reports of sensemaking case studies.

2.4.4 Culture

It was noted earlier that sensemaking theory did not traditionally acknowledge the potential impact of the rules of behaviour which govern organisational activity (Helms Mills, 2003, p. 180). These rules are grounded in one or more of organisational, group and ethnic cultures. The following sections discuss how each manifestation of culture, and how a multicultural mix of ethnic cultures, may help or hinder people's sensemaking of an organisational change.

Organisational culture.

Earlier discussion noted that leaders should understand and be sensitive to their organisational culture if they are to facilitate change (Bromage, 2006; Kezar & Eckel, 2002b; Strandberg & Vigso, 2016). Empirical studies have illustrated a strong relationship between the cultures of higher education institutions and change (Kezar & Eckel, 2002b, p. 455). Thus, campus cultures should not be overlooked when trying to make sense of how change processes proceed and what strategies institutional leaders and managers should emphasise (p. 456). The following paragraphs reveal organisational culture to be a powerful, pervasive and persistent construct that may have a profound influence on organisations, and their response to change (Fullan, 2007; Kotter, 1996; Schein, 1996).

Organisational culture is widely discussed in literature. For Berry et al. (2011) it is a somewhat "fuzzy concept" (p. 387). However, it is generally held to be the norms of behaviour, values, beliefs and assumptions that are shared by organisational members, that persist over time, and that determine how such

members think and act within their organisation and towards people from outside their organisation (Burke, 2014; Coolican et al., 1996; Kotter, 1996). Culture cannot be borrowed, develops in situ and takes time to form (Fullan, 1993, p. 134; Robbins et al., 2017, p. 418). Organisational cultures are shaped by key people, such as leaders and managers, who nurture, reinforce or transform underlying beliefs, values and assumptions to establish norms of behaviour (Robbins et al., 2017, p. 418). They become complex webs that include highly enduring, time-honoured rituals and traditions which have a profound effect on individuals' thinking, feelings and actions (Deal & Peterson, 1999; Grant, 2003; Robbins et al., 2017). They are usually transmitted to organisation members through stories, rituals, symbols and language (Robbins et al., 2017, pp. 418 & 422). It is clear then, that when change comes to an organisation, there are already well-established behaviours embedded in beliefs and values. It is these behaviours that impact how sensemaking of a change proceeds in an organisation (Strandberg & Vigso, 2016, p. 97).

At the heart of organisational culture is a vision (Kotter, 1996). A vision results in a system of shared meanings which gives organisation members identity, and which distinguishes an organisation from other organisations (Robbins et al., 2017, p. 410; Schein, 1996, p. 229). For a culture to be positive, its vision needs to be clear, focused, imaginable, persuasive and desirable. It also needs to have goals that are realistic and attainable, give clear guidance for decision-making, allow flexibility and be easy for leaders to communicate (Kotter, 1996, pp. 69 & 72; Useem, 2012, p. 125). Such a vision facilitates sensemaking because it establishes direction, and mobilises and inspires all change participants to creatively and effectively fulfil their individual roles in organisational change (Kotter, 1996, p. 26; Samson & Daft, 2003, pp. 492-493). Without a vision, learning may be difficult, and activities may continue to result from habit rather than consideration of options (Barnard, 1938; Vaughan, 1999, p. 281).

Organisational cultures may be an asset (Robbins et al., 2017, p. 414) to employees' sensemaking of a change. To have a positive influence on sensemaking, cultures must encourage both change and unity, and employ change strategies to facilitate commitment (Kezar & Eckel, 2002b, pp. 438 & 457; Robbins et al., 2017, p. 412). These strategies include shaping and guiding appropriate behavioural standards and the attitudes of participants (Robbins et al., 2017, p. 412), and providing roots for the new processes that will replace deeply embedded old norms

with new norms (Kotter & Cohen, 2002, pp. 161 & 162). Cultures may also encourage such assets to sensemaking as flexibility, innovation and attention to detail (Robbins et al., 2017, p. 414). Most significantly for making sense of change, cultures can foster open and honest dialogue and so improve collaborative social constructivist processes (Coburn, 2001; Deal & Peterson, 1999; Grant, 2003; Robbins et al., 2017). In educational institutions, positive cultures can also amplify teachers' motivation, energy, vitality and focus (Deal & Peterson, 1999, p. 8), and enable them to actively construct and reconstruct elements of their institutional cultures to accommodate change (Coburn, 2001, p. 147).

On the other hand, cultures may also be a liability (Robbins et al., 2017, p. 415) and have a negative impact on sensemaking of a change. Strong cultures may engender conservatism and rigidity and thus foster desire to retain the status quo (Robbins et al., 2008, p. 583). New organisational processes are prone to regression until new behaviours and norms become embedded in the culture, which can take years (Kotter, 1996, p. 13; Kotter & Cohen, 2002, p. 176). Culture that emphasises outcomes may do so at the expense of the processes required for successful sensemaking of change (Robbins et al., 2017, p. 410). Culture is most especially a liability when its values do not support an organisation's effectiveness. This is most likely to occur during rapid change when persistent "old behaviours" (Robbins et al., 2017, p. 415) make it difficult for the organisation to respond to change. Research into organisational disasters, such as Helms Mills and Weatherbee (2007), and Vaughan (1999), warns that culture can reduce complexity so much by shaping and narrowing understandings, that unexpected adverse outcomes result. Kotter (1996, p. 154) warns that anchoring new change-inspired practices into a culture is always challenging, especially when the new practices are inconsistent with old practices. This may be because shared values, which are often overlooked as an important aspect of the social sensemaking process, persist (Kotter, 1996, p. 155; Spillane et al., 2002, p. 411).

Achieving a change may necessitate challenging and changing an existing culture (Fullan, 2004, p. 120; Kezar & Eckel, 2000b, p. 458). A culture alters when underlying assumptions and organisational behaviours, processes and products change (2002a, p. 296). However, as shared values persist, the culture usually changes at the end of sensemaking of a change rather than at the beginning (Kotter, 1996, p. 155). As culture usually needs to change for a reform to take root and

succeed, Fullan (2007, p. 125) recommends that leaders and managers assume that amending the culture of educational institutions is the real agenda, not just implementing a change.

A tradition of thinking and learning will be a great asset to challenging and changing an organisational culture. Fullan (2007) argues that there are “unthinking organisations” (p. 114) in which members continue to do what they have always done without questioning why, and thus are poor at reacting to requirements to change. It is even possible that a culture of “wrong learning” may lead to wrong responses which can amplify sensemaking problems (Vaughan, 1999, p. 278). Alternatively, members of a thinking organisation with a culture that supports learning and questioning of practices, will react positively to change. However, it is only generative learning that, as noted earlier, may truly support successful sensemaking. When new methods of learning and solving problems are required for sensemaking, organisations sometimes display “learning disabilities” (Schein, 1996, p. 235) such as “defensive routines” (p. 235). Sensemaking of a change may even fail if an organisation has no tradition of learning (Fullan, 2007, pp. 114 & 117).

Thus, the existence of a culture of generative learning in organisations and institutions should greatly assist participants of a change to understand and own the change, and respond appropriately to what is expected of them. Conversely, other types of learning may hinder sensemaking of a change.

To conclude, organisation culture is the control and sensemaking mechanism that shapes employees’ behaviour and attitudes (Robbins, et al., 2017, p. 412). It is also the filter through which an institutional change is received, perceived and applied (Knight & Trowler, 2000, p. 78). Thus, organisational cultures may be a key element in promoting, supporting and encouraging reform (Deal & Peterson, 1999, p. 5; Fullan, 1993). However, they may also hinder reform through harbouring resistant indifference (Dervin, 1993/2003, p. 105). Lastly, literature clearly reveals that change situations frequently require a change in culture (Fullan, 1993, p. 7), which is not easy to achieve. One factor impeding changing culture may be the existence of sub-cultures in organisations. These may also impact sensemaking and are discussed next.

Group culture.

Organisations have both an organisational culture and group sub-cultures (Robbins et al, 2017; Schein, 1996; Vaughan, 1999). Like organisational culture,

group culture develops from group members' deeply held beliefs, values and attitudes (Burke, 2014, p. 22; Deal & Peterson, 1999), particularly when group members share common problems and experiences (Robbins et al., 2017, p. 411) such as in a time of change. Small groups can facilitate sensemaking as they tend to be more creative and productive than individuals working alone (Alberts et al., 2017, p.252). Teacher communities—such as academic departments in higher education institutions—are thought to be the best places for the effective professional development (Lieberman & Mace, 2008, p. 233) that sensemaking may require. However, as reported earlier, while effective change is most likely achieved through collaborative and collective social constructivist processes (Knight & Trowler, 2000, p. 69), such processes do not always occur in groups. An important reason for this lies in group culture. This section reports on why group culture may have a bigger impact on sensemaking than organisational culture, and how its impact may help or hinder sensemaking.

Small groups working together are now recognised as just as important in constructing and enacting cultures as individuals and whole organisations (Grant, 2003, p. 18). Group cultures may include the core values of the organisational culture, however, they may also have additional values that are unique to the group (Robbins et al., 2017). Macro level leaders introduce the substance and interpretation of a change, but it is change participants in groups “lower down in organisations” (Balogun & Johnson, 2005, p. 1596) who actively shape the way change develops through their interpretations and responses to their leaders' plans. The shaping is achieved through collaborative group cultures that encourage group members learning from, and influencing, each other's behaviour (Weick, 1995, p. 23) and developing new behavioural routines (Balogun & Johnson, 2005, p. 1596). In higher education institutions, the functional “activity sub-systems” (Knight & Trowler, 2000, p. 69) for most academic staff are the academic departments, also referred to as faculties. It appears to be in such groups that collaborative sensemaking occurs.

There are several reasons why meso level group culture may have a bigger influence on group members' sensemaking than organisational culture. Firstly, group cultures can facilitate acceptance of change by working through group cultural norms that facilitate agency (Knight & Trowler, 2000, p. 77). Given that peer relationships may support sensemaking (Peroune, 2007), strong and pro-reform departmental colleagues may greatly aid quality sensemaking, particularly when groups are

encouraged to exercise their collective voices (Grant, 2003, p. 80). Such collaboration not only has potential to achieve good results, it multiplies opportunities for group and personal learning (Knight & Trowler, 2000, p. 87).

Secondly, while sub-cultures may derive some of their practices from organisational culture, other practices may be derived from the group's unique combination of members' deeply held beliefs, values and attitudes. This is particularly likely in higher education institutions which tend to have pluralistic cultures because of their more horizontal authority structures and emphasis on individual autonomy (Bromage, 2006, p. 10). Such autonomy may lead to issues with what Froemling et al. (2011, pp. 189 & 190) term *group cohesiveness*, that is, the extent to which group goals are accepted by group members. This is akin to Senge's (2006) aligned and unaligned groups but is more far-reaching. Highly cohesive groups share goals, mental models and professional identities, enjoy informality and evidence much willingness to help group members. Such groups are likely to engage in active sensemaking. Less cohesive groups are characterised by apathy and politeness, and a tendency to agree with anything rather than engaging in active sensemaking.

Organisational groups have been called "emotional incubators" (Druskat, Wolff, Messer, Koman & Batista-Fouget, 2017, p. 433) because of the many emotions generated as group members work together. Thus, it is in groups that *emotional expression* and *emotional contagion* are most likely to occur. Emotions impact group sensemaking because they affect group dynamics and collective learning as well as individual cognitions, attitudes and behaviours (Barsade, 2002; Huy, 1999; Maitlis & Sonnenschein, 2010). Emotions that "ripple" (Barsade, 2002, p. 644) out from group members may impact in positive or negative ways the emotions of other group members, sometimes without the group realising it (Barsade, 2002, pp. 644 & 669). Negative emotions that relate to group relational issues can make a sensemaking experience less than satisfying (Alberts, 2017, p. 252). Group leaders need to be attuned to the group's emotional issues if they are to understand and empower group sensemaking (Barsade, 2002, p. 670). Group members also need to be alert to emotional contagion and understand its ramifications for both their group culture and for sensemaking (p. 669).

Groupthink, like negative emotional contagion, may exacerbate resistance to a change. Groupthink is the tendency among peer groups to adhere to their shared

views so strongly that they pay no heed to change requirements inconsistent with their views (Shiraev & Levy, 2010, p. 297). This tendency may have been amplified by modern changes in education that have resulted in increased demands on academics, and an increased perception of institutions' lack of attention to employees' human needs (Knight & Trowler, 2000, pp. 71-22). Demands on academics continue to increase.

In summary, the norms of group cultures have the potential to impact group sensemaking of change in positive and negative ways. While organisational culture contributes to group culture, so may ethnic culture.

Ethnic culture.

Although sensemaking in organisations and institutions inevitably takes place in a socio-cultural context (Fellows & Liu, 2016, p. 254), early sensemaking theory did not take into account how this influences individual and group sensemaking (Helms Mills, 2003, p. 402). This was perhaps because older sensemaking studies were carried out in single culture contexts or because researchers had not learned the power of culture by crossing ethnic cultural boundaries (Schein, 1996, p. 239). As individuals tend to express their ethno-cultural identities through practices prescribed by their cultural paradigm (Lehman, Chiu & Schaller, 2004, p. 701; Nabobo-Baba, 2001, p. 129), scholars now recognise that human behaviour is only meaningful when viewed through the lens of its sociological context (Shiraev & Levy, 2010, p. 3), and that ethnic cultural practices impact organisational cultures (Fellows & Liu, 2016, p. 252; Fuioaga & Rusu, 2018) and so need to be understood (Tukiainen, 2015). Literature yields many clues regarding what aspects of ethnic culture may impact sensemaking and whether the impact will be positive or negative.

Ethnic culture is viewed as a multifaceted and intricate entity that permeates all aspects of life (De Capua & Wintergerst, 2004, p. 11). It is a "coalescence of discrete behavioural norms and cognitions shared by individuals within some definable population that are distinct from those shared within other populations" (Lehman et al., 2004, p. 690). Culture is absorbed as a child and learned through socialisation and teaching (Berry et al., 2011, p. 43; Matsumoto & Juang, 2008, p. 60), and provides countless guidelines and rules that govern actions and interactions and that shape beliefs (De Capua & Wintergerst, 2004; Wade & Tavis, 2011, p. 53). In the Pacific, culture is perceived to define ways of knowing, being and believing, and also what knowledge and wisdom consist of, and how they are communicated to

others (Thaman, 2010, p. 357). All these definitions inform cultural identity, cultural practices (Koya-Vaka'uta, 2017), and cultural values such as respect (Thaman, 2010, p. 355). Such definitions, guidelines and rules have profound effects on people's values, attitudes, perceptions and behaviour (Alberts et al., 2017; Burton, Westen, & Kowalski, 2009; Wade & Tavis, 2011). This is certainly true of Pacific cultures (Nabobo-Baba, 2006; Naisilisili, 2017; Thaman, 2010). These effects are now explored.

Ethnic cultures create cultural schemas (Shiraev & Levy, 2010, p. 63). These are thought to impact sensemaking (Fellows & Liu, 2016, p. 251) because they greatly influence psychological processes and help define what self is (Lehman et al., 2004, p. 695; Matsumoto & Juang, 2008, p. 332). Cultural schemas thus guide the construction of meaning, affect categorisation, attention, some memory tasks, problem solving, creativity and motivation (Lazarus, 1991, p. 355; Matsumoto & Juang, 2008, pp. 129 & 419). They also create cultural differences in self-esteem, self-effacement and self enhancement (p. 333). All these fruits of cultural schemas have potential to impact sensemaking to a greater or lesser extent. A tendency of cultural schemas towards ethnocentrism, parochialism, and cultural differences in understanding such concepts as excellence, may also impact sensemaking.

One aspect of group behaviour regulated by ethnic culture that greatly impacts sensemaking is how group consensus is achieved. In Pacific collective cultures, relationships are extremely important because they are central to group as well as personal identity, and provide frameworks for behaviour (Thaman, 2010, p. 355). Collective cultures that emphasise harmonious relationships, and where the needs and goals of the group are considered paramount (Thaman, 2010), foster "groupthink" (Robbins et al., 2017, p. 220; Wade & Tavis, 2011, p. 537). However, groupthink may not be conducive to quality sensemaking because group members may resist challenges to their assumptions or may be pressurised to agree and so keep doubts to themselves (Robbins et al., 2017, p. 220). Conversely, more individualistic cultures may facilitate sensemaking by fostering what could be termed team think, in which doubts may be freely aired. However, team think may make group consensus difficult to achieve.

Communication is rarely culture-free (De Capua & Wintergerst, 2001, p. 261). This may be particularly true of the way language is used in learning and in the dialogue and discussion involved in group social constructivist processes. In Pacific

culture, learning traditionally involves oral telling, which is repetitive and consistent (Nabobo-Baba, 2006, p. 117). Members of collective cultures often prefer to express themselves indirectly (De Capua, 2004, p. 258), perhaps especially so when there are distinct social classes and systems of hierarchical chieftainships such as in Fiji (Crocombe, 2008, p. 124). Indirect expression of divergent views requires close attention to non-verbal communication to decode what people really mean (Burton et al., 2009, p. 773; Matsumoto & Juang, 2008, p. 427). In Fiji, silence is an important non-verbal form of communication with as many as eighteen different meanings according to Nabobo-Baba's taxonomy of silence (2006, p. 95). In relation to someone sensemaking or sense giving, silence may be a way of showing respect (p. 94), a reaction to what is perceived as a disrespectful way of communicating (p. 102), or a means of showing opposition or passive resistance to what is being communicated (p. 103). In this context, there is much scope for misinterpreting what a sensemaker's silence means (p. 125). These cultural aspects to communication all have the potential to impact group sensemaking discussion and decision making, particularly when the group is multicultural.

Ethnic culture also impacts the language of sensemaking communication (Alberts et al., 2017, p. 118; Matsumoto & Juang, 2008, pp. 238, 239 & 253). When people come from different ethnic and language backgrounds, they may have different schemas for negotiating meaning through communication (De Capua & Wintergerst, 2004, p. 243). Encoding, signals, channels used, and decoding are all affected by ethnic culture and the language used (Matsumoto & Juang, 2008, p. 239). When this is added to an imperfect command of the language used for sensemaking, misunderstandings may arise (Berry et al., 2011, p. 360). This may be a likely scenario in the Pacific where the common language, English, may be the second, third or fourth language of Pacific Islanders.

Another Pacific cultural more already mentioned as something that may affect sensemaking is the reluctance to think critically, particularly regarding knowledge that is not owned because it originates from outside of the group (Nabobo-Baba, 2006). Fijians may also prefer to leave truth verification to others people and God rather than attempting it themselves (p. 131). The external dependence resulting from such reluctance (p. 131) may make it difficult for sensemakers to fully own a change that does not originates from the institution, or

organisational group. Mention of God also links Pacific culture to spirituality. This link is elaborated on in the final section of this literature review.

The impact on behaviour of cultural perceptions of time is particularly strong (Alberts, 2017, p. 95). In collective cultures, such as Pacific Island cultures, planning uses of time has little importance, thus many events may occur simultaneously and the needs of family and friends supersede “mere appointments” (De Capua & Wintergerst, 2004, p. 57). However, individualistic cultures regard tardiness as a sign of disrespect or indifference (Wade & Tavis, 2011, pp. 536-537). Such different perceptions of time may be a source of irritation and confusion to sensemaking in a multicultural organisation (Matsumoto & Juang, 2008, p. 131).

This section has illustrated that ethnic culture is inevitably a part of the sociological context in which sensemaking takes place, and that it has great potential for impacting the cognition, behaviour and communication essential for sensemaking. “Nothing transpires in a cultural vacuum” (Lehman et al., 2004, p. 704), including sensemaking. Given this, an organisation in which people from different ethnic cultural backgrounds work together to make sense of a change may experience issues not experienced in a monocultural environment.

Multicultural organisations.

Multicultural contexts necessitate interactions with people who are culturally different (Alberts et al., 2017, p. 170). As discussed, cultural paradigms guide behaviour and the construction of meaning in interdependent versus independent self-concepts, and collectivism as opposed to individualism (Lehman et al., 2004, p. 695). In a multicultural organisation, these dichotomies have much potential to result in pluralistic understandings of certain actions in intercultural relationships (Fellows & Liu, 2016, p. 250). It is also argued that “all dimensions of diversity” (van Knippenberg, De Dreu & Homan, 2004, p. 1008) may have positive and negative effects on the performance of organisational groups. The following paragraphs discuss how such diversity may bring advantages, tensions and challenges (Ravazzani, 2016, pp. 73 & 82) for sensemaking in organisations.

Different cultural paradigms together with linguistic differences may create barriers to communication and understanding in multicultural organisations (Hambrick, Davison, Snell & Snow, 1998; Luring & Selmer, 2009, p. 324). This is because intercultural communication, in which messages are encoded and decoded through a second language and through different cultural codes, is likely to suffer

from ambiguity, misunderstandings and uncertainty (Matsumoto & Juang, 2008, pp. 241 & 242). Thus, effectively communicating while sensemaking in a multicultural organisation will require sensitivity and an acceptance that ethnic culture impacts communication (Eunson, 2008, p. 512). It will also require communicators to have an understanding of others' cultural values (Alberts, 2017, p. 177), good listening skills and the ability to relinquish their own culturally related communication expectations (Mounter, 2003, p. 268). For expatriates, the greater their linguistic and cultural knowledge of their own and others' cultures, the less likely there are to be misunderstandings linked to sensemaking (Alberts et al., 2017, p. 56; Bretag et al., 2009, p. 246). Thus, communicating effectively in a multicultural environment can be a challenge.

Ethnic culture also appears to influence interpretations of crises and how employees react to and make sense of critical situations (Ravazzani, 2016, pp. 73 & 82). People leading multicultural groups in organisations need to be aware of this and be particularly sensitive to what leadership style(s) will be effective in their particular context (Berry et al., 2011, p. 395; Matsumoto & Juang, 2008, p. 421). However, *acculturation*, a process through which expatriates acquire the skills and knowledge they need to competently operate within another culture (Berry et al., 2011, p. 366), may help them.

In summary, the different perspectives of different ethnic groups may be an asset to organisational sensemaking. However, the challenges that collective as opposed to individualistic cultures pose to understandings, communication and leadership may hinder sensemaking.

Summary of the impact of culture on sensemaking.

To reiterate, “nothing transpires in a cultural vacuum” (Lehman et al., 2004, p. 704), including sensemaking. The above discussion reveals that organisational, group, and both single and multiple mixes of ethnic culture all have great potential to impact sensemaking of an organisational change in both positive and negative ways. Also, as mentioned earlier, organisational, group, and particularly ethnic cultures, all impact people's identity. However, the impact of culture on people's sensemaking of an organisational change is another gap in literature. This is particularly true regarding the impact of ethnic culture on sensemaking in multicultural contexts.

2.4.5 Spirituality

Spirituality has long been a feature of Christian studies. Also, reflections on more than thirty years of teaching in institutions belonging to LMC's Christian denomination in three different countries suggested to me that spirituality impacts sensemaking. This is not surprising, given that humans are spiritual as well as rational and emotional beings (Rego & Cunha, 2008, p. 70), and that spirituality is a very important dimension of human personality (Halonen & Santrock, 1999, p. 305; Krishnakumar & Neck, 2002, p. 159) that affects people's ways of seeing and thinking (Biberman & Tischler, 2008, p. 3). This final section of the literature review outlines the recent surge of interest in spirituality in organisations, how spirituality in organisations may be understood, and most importantly, how spirituality as a personal, group and organisational attribute may impact sensemaking of a change. This section also notes the importance of spirituality to the Pacific context.

Organisational studies traditionally took little interest in the spiritual facets of organisational life (Rego & Cunha, 2008, pp. 68-69). This may have been because of a predominantly secular approach to organisational studies and the nature of academic inquiry which tended to focus on more readily observable and measurable behaviour (Duchon & Plowman, 2005, p. 809). However, beginning in the 1990s (Neal & Biberman, 2003, p. 363), there is now a growing interest amongst scholars and practitioners in workplace spirituality (Duchon & Plowman, 2005; Karakas, 2010; Taylor & Bell, 2012). This has brought recognition that spirituality has an important role to play in organisations (Izak, 2012, p. 24), is a common characteristic of workplace occurrences (p. 40), and is significantly related to attitudes to jobs (Milliman, Czalewski & Ferguson, 2003, p. 441). Spirituality may also be instrumental in achieving organisational transformation (Neal & Biberman, 2003; 2004; Rego & Cunha, 2008). Helms Mills, a well-known sensemaking theorist, has suggested that viewing spirituality through the lens of organisational culture may help explain how people make sense of their organisation (Long & Helms Mills, 2010), but has not apparently linked spirituality to explaining sensemaking of an organisational change.

Workplace spirituality is an abstract and philosophical concept (Milliman, et al., 2003, pp. 426 & 427). It has been conceptualised in many ways (Long & Helms Mills, 2010, p. 326), however, there is no consensus of its exact meaning (Kinjerski & Skrypnik, 2004; McKee, Helms Mills & Driscoll, 2008, p. 3) as it may or may not

be grounded in religion (Roof, 2015, p. 588). Secular scholars argue that spirituality is not about God or theology (Robbins et al., 2017, p. 426). They see it more as a nourishing holistic experience in which organisational employees share a sense of connectedness to each another, to their organisational community and to a common purpose that results in positive feelings about contributing to the common good (Ashmos & Duchon, 2000; Robbins et al., 2017; Roof, 2015). Thus, spirituality encompasses a sense of wellbeing and wholeness and is framed in the context of personal, cultural and organisational values (Naidoo, 2014, pp. 2 & 3).

While the role of religion in workplace spirituality is much debated (Fernando & Jackson, 2006, p. 24), for a Christian institution, spirituality is grounded in religion and faith. Most scholars would agree that spirituality involves relationships. For Christians, this relationship is about gaining a deeper, personal experience of a transcendent Godhead in every aspect of life (Biberman & Tischler, 2008; Naidoo, 2014; Smith et al., 2012). Such a relationship informs people's existence and shapes the meaning and purpose of their daily private and organisational lives (Roof, 2015, p. 588). Scheitle and Adamczyk (2016, p. 94) profess surprise at the lack of consideration of religion in organisational sensemaking literature. Their surprise is because sociologists of religion argue that religion, which encompasses though does not ensure spirituality, may be the strongest sensemaking resource that humans have access to (p. 97). Religious values are also argued to help organisational employees make sense of events (Fernando & Jackson, 2006, p. 24).

There are several ways in which spirituality lays a strong foundation for individuals' sensemaking of an organisational change. It encourages them to experience what may be termed a calling to live in greater congruence with their deeply held principles and values (Neal & Bennett, 2000, p. 1; Neck & Milliman, 1994), which frequently include a desire to "make a difference" (Neck & Milliman, 1994, Spirituality in the workplace, para. 11) through being of service. Thus, spirituality encourages individuals to perceive work as a mission, and as means of growing as a person (Neal & Bennett, 2000, p. 1; Rego & Cunha, 2008, p. 70). This implies that spiritual development facilitates mental development and cognition (Rego & Cunha, 2008, p. 70). Spirituality that results in finding positive meaning also leads to individuals experiencing positive emotions and developing resilience which helps them learn from stressful experiences (Rego & Cunha, 2008, p. 70; Smith et al., 2012, pp. 437-450) such as organisational change. One end result of

such a foundation is individuals being ready for and receptive of organisational change (Milliman et al., 2003, p. 428; Rego & Cunha, 2008, p. 69). As long it is not negatively impacted, individuals' spirituality actively increases employees' commitment to making sense of an organisational change (Krishnakumar & Neck, 2002, p.p. 162-3; Rego & Cunha, 2008, p. 69).

Individuals bring their spirituality to their jobs (Biberman & Tischler, 2008, p. 3). The thoughts, feelings and behaviours that comprise individuals' spirituality (Smith, et al., 2012, p. 437) may facilitate their ability to make sense in several ways. Firstly, individuals who believe that they are working for a higher being rather than just working for an organisation, may be more engaged with tasks (Roof, 2015, p. 585). Secondly, both their sense of calling and their emotional resilience are likely to help organisational change participants make sense of the long work hours that may be required for a significant change through blurring the boundary between work and non-work (McKee et al., 2008, pp. 4 & 18). Lastly, experiencing consciousness at a deeper level through spirituality can enhance intuitive and innovative abilities (Neck & Millman, 1994, Abstract), creativity and performance (Karakas, 2010, p. 92; Pollard, 1996, p. 22). Bringing their spirituality to their jobs is almost inevitable for Fijians in that they have spiritually-related explanations for most events in their personal and professional lives (Nabobo-Baba, 2006, p. 45).

Spirituality may primarily be an individual construct; however, it may also facilitate sensemaking by its presence at group and organisational levels. In common with individuals, groups are perceived as having a mind, body, emotions and spirituality (Neal & Bennett, 2000, p. 2). An integral element of individual spirituality is experiencing a nourishing connectedness to others, who in an organisation, are members of the workplace community (Ashmos & Duchon, 2000, pp. 135 & 137; Milliman et al., 2003, p. 428). Group spirituality facilitates sensemaking by encouraging committed teamwork and active engagement in the collaboration needed to achieve sensemaking (Milliman et al., 2003, p. 428; Neck & Milliman, 1994; Rego & Cunha, 2008, p. 69). It also facilitates a positive group culture that includes respectful listening, valuing and supporting colleagues, and inclusion (Ashmos & Duchon, 2000, p. 137; Neal & Bennett, 2000, p. 2). These benefits of group spirituality clearly support the social constructive processes that are vital to successful group sensemaking.

Spirituality may also exist at whole organisational level—whether business organisations or academic institutions—particularly in organisations that align themselves to a faith. Benefits to sensemaking of spirituality at macro level include much of what has just been described, with the addition of employees’ connectedness to organisation goals, mission and values (Milliman et al., 2003, p. 428). However, with academic departments viewed as the activity systems of higher education institutions (Knight & Trowler, 2000), group spirituality may have more impact on sensemaking than organisational spirituality.

For Christian institutions in the Pacific, spirituality is likely to be present at macro, meso and micro levels. Much Pacific literature explains how spirituality is an inseparable component of both indigenous knowledge systems (Nabobo-Baba, 2006; Naisilisili, 2017; Thaman, 2010) and Pacific Islanders’ personal and professional lives (Nabobo-Baba, 2006). This is because spirituality is intertwined with Pacific Islanders’ knowing, being and seeing, as well as their identities and sense of belonging (Efi, 2017, p. xi). When learning needs to take place to facilitate sensemaking at whatever level of an institution, Pacific Islanders’ spirit should be both involved and convinced because “excellence in learning is a business of the soul” (Nabobo-Baba, 2006, p. 120). In summary, spirituality is explicitly embraced into Pacific Islanders’ lives, and “lives and breathes in ...Pacific personhood” (Efi, 2017, p. xi). Therefore, spirituality may have a big impact on sensemaking of a change in a Pacific Christian institution such as LMC.

In conclusion, there appear to be no case studies as yet regarding the impact of spirituality on people’s sensemaking of an organisational change. This is despite the fact that spirituality may be an important aspect of people’s identity, particularly if they espouse a faith. However, literature implies that spirituality has much potential to impact individuals’ ways of seeing, thinking and behaving—all of which are involved in sensemaking—through their own spirituality, their group’s spirituality and through the organisation’s spirituality in the form of its values, vision and purpose (Biberman & Tischler, 2008, p. 3). It is important to add that the effects of spirituality on individuals’ sensemaking should not be considered in isolation, as the exact nature of the effects may vary in different cultural contexts (Smith et al., 2012). This may be especially true for cultures with high “religiosity” (Fernando & Jackson, 2006, p. 35) such as those in the Pacific. In such cultures, the impact of spirituality may be very real, particularly when grounded in a strong Christian faith.

2.5 Conclusion to the Literature Review

This chapter began by outlining the early sensemaking theories of Weick and Dervin. These theories stressed the importance of the impact of cognition, identity, social constructivist processes (Weick) and communication (Dervin) on the sensemaking processes of participants of an organisational change. However, Helms Mills et al. (2010) argue that these factors do not explain sensemaking comprehensively, that more factors need to be considered as impacting sensemaking, and that together, a larger range of factors comprise a formative context that is capable of explaining an organisational sensemaking event more holistically.

Sensemaking literature does not appear to identify exactly what this larger range of factors might include. Thus, the remainder of this review explored sensemaking and other literature regarding the potential of factors other than those identified by Weick and Dervin to impact sensemaking. These factors (see Figure 5) were suggested by literature and by personal experience. Management, leadership and organisational culture—all implied by the hierarchical power structures and rules of organisational behaviour that Helms Mills et al. (2010) now argue are important to sensemaking—all showed much potential to impact sensemaking. Emotions, another factor proposed by recent sensemaking scholars as likely to impact sensemaking, also showed potential to be significant in sensemaking. Psychological and sociological influences have always been claimed as important to sensemaking. The literature reviewed in this chapter supports this claim, but also supports the merit of including both ethnic culture and spirituality in this group of factors influencing sensemaking.

The review highlighted several gaps in literature. Despite the potential of all the contextual factors named in the previous paragraph to have a significant impact on people's sensemaking of an organisational change, empirical case studies examining their individual impact on sensemaking are rare. Also rare in literature are studies of how the interconnections between contextual factors influence people's sensemaking of a change. A third gap identified in literature is the lack of empirical studies of a holistic nature which take into account not only the range of interconnected contextual factors, but also how these factors are represented at the macro, meso and micro levels of an organisation. Finally, the relative importance to sensemaking of each of the different contextual factors and the different contextual levels is also something that appears to have not yet been studied.

These gaps in literature prompted this study's research questions. The questions took a holistic approach to identifying what contextual factors impacted the sensemaking project at LMC, and how the characteristics, connectedness and relative importance of the factors hindered or helped the participants as they made sense of their project. The questions may be representatives of a new generation of research questions that Aromaa et al. (2018) believe will inform critical sensemaking theory and its grounding in formative contexts.

The next chapter of this thesis, the methodology, explains this study's research design and how it was conducted. Chapter 3 also makes clear how the formative context concept, explained and augmented by concepts discussed in the literature review, has been extended to create an analytical tool for explaining a sensemaking event holistically.

CHAPTER 3: METHODOLOGY

Research involves the careful selection and systematic application of recognised methods in order to obtain trustworthy information about a problem (Gay & Airasian, 2000, p. 3). This methodology chapter provides a rationale for this investigation's qualitative design, which is an ethnomethodological case study that was conducted in its natural setting. It also discusses how this investigation's selected methodology aligns with much sensemaking methodology, and how the various aspects of the methodology were utilised to produce trustworthy findings of the central problem—how the context impacted the sensemaking of the redevelopment of a teacher education degree program. As context is very important to many qualitative research designs (Patton, 2015), to critical sensemaking (Helms Mills, et al., 2010), to teacher education in the Pacific (Puamau, 2007; Ware, 2007), and to this study, the way in which various design elements link to the context of this investigation will be highlighted throughout the chapter, where appropriate.

Before beginning the discussion of the research design and its various elements, it is important to restate the purpose of this research. The purpose of this study was to utilise the experiences of the teacher-participants to generate a holistic explanation of how and why a challenging educational change in a higher education institution was impacted by the various components of the context in which the change took place.

The central concern of this unique problem is thus to gain, through a critical sensemaking lens, an understanding of which contextual factors, as represented in the formative context, impacted the redevelopment of LMC's BEd (Prim.) degree, and how they impacted the participants, particularly in terms of hindrances and successes. This forms the substance of the first three research questions, while the fourth question is concerned with how this study informs sensemaking theory and methodology. An understanding of the central concern of this research was sought by the researcher, as a participant-observer, through collecting qualitative data from interviews and a reflective journal. The consensus of participants' views and the insights from the reflective journal that emerged from data analysis were used to answer the following questions and sub questions:

1. *What contextual factors impacted the participants' sensemaking of the program redevelopment?*
 - a) What were the characteristics of factors?

- b) Were factors connected, and if so, how?
 - c) What contextual factors supported sensemaking of the program redevelopment; why and how?
 - d) What was the relative importance of supporting factors and why?
 - e) What contextual factors inhibited sensemaking of the program redevelopment; why and how?
 - f) What was the relative importance of inhibiting factors and why?
2. *What problems and issues emerged in the group's sensemaking during the program redevelopment and how were they experienced and addressed?*
- a) Were attempts to address problems made individually or collectively and why?
 - b) How successful were attempts to address problems and issues?
 - c) If attempts to overcome the problems and issues met with variable success, why?
 - d) Were there any problems and issues perceived as not yet overcome, and if so, why have they not yet been overcome?
3. *What successes in sensemaking emerged during the redevelopment process and how were they experienced?*
- a) Why were successes deemed successes?
 - b) Were the successes experienced by all participants; why/why not?
4. *How do the findings contribute to sensemaking theory and methodology?*
- a) What aspects of current sensemaking theory and methodology do findings support?
 - b) What new insights do findings suggest could be added to sensemaking theory and methodology?

As research is inevitably connected to the nature of knowledge, this methodology chapter begins by establishing this investigation's philosophical, epistemological and ontological underpinnings through a brief discussion of the overall design. The chapter continues by discussing the selection of participants, criteria to establish the quality and value of the study in conjunction with the study's credibility, how data from the various sources were gathered and recorded, and how data were rigorously analysed using constructivist grounded theory principles. Throughout, this chapter establishes how the various design elements and procedures relate to each other, to concepts and theories outlined in the literature review and to

previous sensemaking studies. Terms and concepts that are significant to this study's methodology are italicised throughout the chapter.

3.1 The Research Design

This investigation adopted a *qualitative* design. This is a suitable choice for several reasons. In line with critical sensemaking, the context is paramount in this investigation, and qualitative research is effective in producing compelling arguments regarding how things function in their contexts (Mason, 2002, p. 1). Following the qualitative tradition, this investigation asked broad questions of participants, then collected and converted understandings, views and experiences into textual data that were analysed through a sensemaking formative context lens to answer the research questions.

The *interpretive-constructivist approach* used in this investigation incorporates several aspects of qualitative research practice. Firstly, understanding was sought from participants regarding how they perceived their challenging task through an iterative process of interaction, interpretation and negotiation (Patton, 2002, pp. 477-478). Secondly, human perceptions and understandings embody the primary data source (Cohen, Manion & Morrison, 2002, p. 181; Creswell, 2014, p. 8; Mason, 2002, p. 56). The interpretive-constructivist also acknowledges the usefulness of other data sources, in this case, the text of the researcher's reflective journal (Mason, 2002, p. 56). Thus, my constructivist stance supports this investigation's use of multiple sources and thus also the credibility of the findings.

While this investigation reflects several aspects of interpretive-constructivist qualitative research, its detailed design is somewhat atypical. For example, constructivist research typically generates a theory (Creswell, 2014, p. 6). However, this research has explored a theory—a framework to explain an organisational sensemaking event holistically—that was developed *a priori*. This investigation is also not easily categorised. This is because it is a *bricolage*, that is, a complex and creative framework that used diverse techniques and data sources that were available to direct attention towards processes, relationships and interconnections among phenomena in order to create new understandings (Kincheloe, 2005, Abstract; Patton, 2015, pp. 153-154).

It may be argued that this study is a *naturalistic inquiry*, as this paradigm underpins several aspects of this investigation. Naturalistic inquiry involves the

researcher getting close to the participants (Athens, 2010, p. 88). As a researcher-participant who shared daily campus life and work with other primary participants before, during and after the sensemaking experience, I became very close to participants. Naturalistic inquiry also involves interviewing and observing people in their natural setting (Patton, 2015, p. 48-50)—my two sources of data—and relies on the context to give it meaning (Erlandson, Harris, Skipper & Allen, 1993, p. 16), as I did. In addition, naturalistic inquiry allows room for flexibility in data collection methods, for collecting and analysing data concurrently, and for creating findings “through the hermeneutic-dialectic interaction” (Guba, 1993, p. xiv) between the researcher and the participants through whatever themes emerge (Patton, 2015, pp. 50-51).

Naturalistic inquiry may also be equated with *constructivism* (Creswell, 2008, p. 51) in several respects. As outlined in the literature review, primary assumptions of constructivism include that truth is arrived at consensually among informed participants rather than objectively. Primary assumptions include the concept that facts regarding a phenomenon under investigation only have meaning within the value framework of its context, and that causes and effects can only be imputed (Flick, 2019; Guba & Lincoln, 1989, pp. 44-45; Schwandt, 1994, p. 118). The naturalistic inquiry framework also supports the researcher accepting that values affect all his or her actions (Athens, 2010, p. 119), and the literature review’s argument that a sensemaking investigation should include both organisational and domain factors that develop values, such as organisational, group and ethnic culture, and spirituality.

The naturalistic paradigm also relates to sensemaking philosophy in several respects. It links well with Dervin’s (1994/2003, p. 85-86) articulation of a sensemaking philosophy that she terms “communitarian”². Her communitarian philosophy underpins her sensemaking epistemological assumption that reality is subjective because it is socially constructed and deconstructed by structure and human actors in mediation and struggle, and is judged by the consequences of the mediation and struggle. Furthermore, this philosophy underpins Dervin’s ontological

²Communitarianism is an ideology emphasising the connection between the individual and the community in the context of achieving a civil society; it approximates to a combination of cultural relativist, constructivist and postmodernist positions (Dervin, 1994/2003, p. 85-86).

assumption that the nature of being is both orderly and chaotic. This sensemaking philosophy also underpins critical sensemaking (Helm's Mills et al., 2010) with its stance that plausibility is dependent on context, which is a highly dynamic variable. Thus, the design of this investigation, which focuses on the impact of the context on people's sensemaking of the processes of a change situation, can claim strong foundations (Mason, 2002, pp. 14 & 15; Northcote, 2012) in both naturalistic inquiry and in constructivism.

Whilst this investigation may be broadly viewed as a naturalistic qualitative study, it is essentially a case study of the experiences of a group of people. It is not a case study in the fullest sense as this study does not investigate every aspect of the degree program in depth (Creswell, 2008, p. 476; Gay, Mills & Airasian, 2009, pp. 12-14). For example, it does not discuss the detailed content of modules taught as the investigation focuses on the processes, not the product. However, the investigation is a case study in that it illuminates a particular issue which is special and unique, and bounded by time, space and change processes within a context (Creswell, 2008, p. 476; Patton, 2015, p. 259).

The procedures and analysis of this investigation were guided by *ethnomethodology*. Rooted in phenomenology, ethnomethodology seeks to discover how people make sense of their activities, particularly when they are thrust into new, naturally occurring situations that they have to make sense of (Patton, 2015, pp. 132-133). Thus, an investigative ethnomethodological case study may seek to discover how members of a group made sense of a major transitional point or a critical incident in their personal or organisational lives, through interpreting and classifying their own and others' actions (Cohen et al., 2000; Gobo, 2011; Patton 2015). Cohen et al. (2000, pp. 25 & 27) might also classify this investigation as a situational ethnomethodology because of its particular interest in the formative context.

Discovering through participants' eyes how their context impacted the program redevelopment—the focus of this investigation—is thus an appropriate scenario for ethnomethodology. Ethnomethodology is an appropriate choice of methodology for several other reasons. Firstly, it has supported other sensemaking research. Weick's (1995) sensemaking tradition draws upon ethnomethodology (Helms Mills, 2010, p. 187), and may even be viewed as an “ethnomethodology of organising” (Mills, 2008, p. 29) because it focuses attention on the social and psychological processes involved in organising. Ethnomethodology also corresponds

with Dervin's (1989/2003, p. 223) stance that sensemaking participants are both anchored in, and construct their own reality. Secondly, whereas naturalistic inquiry is premised on people's actions resulting from their interpretation of situations (Athens, 2010, p. 92), ethnomethodology underpins discovering how the interpretations are arrived at. In a study using an ethnomethodological design, this is typically done through interviews and participant observation (Patton, 2015, p. 132)—the two data-gathering methods used in this investigation. Ethnomethodology also emphasises locally managed practices of reality construction, focuses on talk and interaction between participants, and can uncover participants' taken-for-granted norms, understandings and assumptions (Miller & Holstein, 2007, p. 14; Patton, 2015, p. 132). This supports my arguments in the literature review regarding the ability of the cognitive, social and cultural domains to help explain this investigation's findings. Thus, this investigation is an ethnomethodological case study that was conducted in its natural setting. With their roots in the experiences of participants in bounded events, this is also essentially what a great many other sensemaking investigations have been (such as Grant, 2003; Helms Mills, 2003; Soffe, 2002; Vaughan, 1999).

Critical sensemaking (Helms Mills et al., 2010; Mills, 2008; Thurlow, 2012) provides theoretical and methodological grounding for this ethnomethodological case study. *Critical*, as in critical sensemaking, should be understood in the same sense as it is used in the term critical enquiry, in which an investigation will gather and evaluate data to produce a well-reasoned explanation and understanding of something. Critical sensemaking attempts to capture the impact of a formative context on individual sensemakers by recognising that their cognition is always in a state of flux as they encounter the socially constructed activities of the organisation (Aromaa et al., 2018, Insights for future research, para. 3). There are many similarities between this study's holistic adaptation of critical sensemaking and the original theory, but also some differences, particularly regarding what constitutes a formative context. These similarities and differences are summarised in Table 3, with the significant differences highlighted in bold.

Table 3

Critical sensemaking (Aromaa et al., 2018; Helms Mills et al., 2010; Thurlow, 2012) and holistic critical sensemaking (Potter, 2019)

SHARED CONCEPTS	
• Sensemaking investigations start from a significant organisational event. • Sensemaking is a complex process that occurs within, and is influenced by, a broader environment. • Formative contexts restrict organisational sensemaking and behaviour.	• Cognition is important to sensemaking, but not necessarily central. • Organisation members make sense of change through several inter-connected contextual factors. • An analytical framework for investigating and explaining sensemaking in an organisation.
SIMILAR CONCEPTS	
CRITICAL SENSEMAKING	HOLISTIC CRITICAL SENSEMAKING
• Sensemaking is explored through, and in relationship to, the contextual factors of structure and discourse in which sensemaking occurs. • Organisational rules constrain the way individuals may act. • Formative contexts restrict organisational rules and the individual enactment of meaning. • Formative contexts create space for a discussion of the macro context of organisations. • The framework takes a complex combination of variables and offers an analysis of how these forces combine to allow individuals to make sense of their environments and take action. • Useful for analysing the relationships between broader social issues of power and privilege and individual actions. • A lens through which to view connections between the formative context, organisation rules and properties of sensemaking that influence how individuals make sense of the world around them. • A complex process that may evolve in different ways in different contexts.	• Sensemaking is explored through all contextual factors that comprise the formative context in which individual sensemaking occurs. • All contextual factors comprising the organisation's formative context mediate how individuals may act. • Formative contexts restrict sensemaking and the enactment of meaning. • Formative contexts create space for a discussion of the influence of the macro, meso and micro contexts of organisations. • The framework takes a complex combination of variables and offers an analysis of how these variables impact how individuals make sense of an organisational event and take action. • Useful for analysing the relationships between all contextual factors that impact sensemaking and individual actions. • A lens through which to view connections between the factors comprising the formative context regarding their impact on how individuals make sense of the world around them. • A complex process in which the important contextual factors and their impact on sensemaking will vary with context.
DIFFERENT CONCEPTS	
CRITICAL SENSEMAKING	HOLISTIC CRITICAL SENSEMAKING
• Will explain how individuals make sense of their complex environments. • Includes only issues of power and privilege in the process of understanding how some language, social practices and experiences become meaningful for individuals and others do not. • Has been developed by combining the ideas of sensemaking and organisational power to give a more complete picture of how individuals process their experience. • Positions the formative context as a link between dominant social values and individual actions. • Identity construction is central to sensemaking processes. • Provides a framework for understanding how individuals make sense of their environments at a local level while acknowledging power relations in the broader social context.	• Will explain how the context impacts how individuals make sense. • Includes all aspects of an organisational context to explain what impacted how participants made sense. • Has been developed by combining all aspects of a formative context to give a more complete picture of what impacts how individuals process their experience. • Conceptualises the formative context as a framework whose components impact sensemaking. • Whether identity construction is central to sensemaking processes depends on the context. • Provides a framework for understanding what and how organisational macro, meso and micro contextual factors impact individuals' sensemaking.

Both critical sensemaking approaches illustrated in Table 3 offer an analytical framework for investigating and explaining sensemaking in an organisation from the perspectives of the participants. The two approaches also agree that a formative context is an open and complex system of mutually dependent variables (Helms Mills et al., 2010; Mills, 2009) that restrict organisational sensemaking and behaviour. However, critical sensemaking limits the formative context to being a link between behaviour and the dominant macro organisational values and broad societal issues such as power relationships (Helms Mills, 2010; Thurlow, 2012). This study, on the other hand, conceptualises the formative context in holistic terms as a multi-level and highly inter-connected framework whose components may all impact sensemaking to a greater or lesser degree. This holistic view, that considers the impact on individuals' sensemaking of what constitutes the macro, meso and micro organisational context, is why the conceptualised framework is identified as holistic critical sensemaking. Thus, this study's methodology is a holistic adaptation of critical sensemaking.

The above discussion shows that this investigation's qualitative design is grounded in philosophical, ontological, epistemological and qualitative traditions that are consistent with an application of critical sensemaking theory. Also consistent with sensemaking research is the design's use of some grounded theory methods to analyse data. Furthermore, practicalities, new insights and unforeseen events which caused delays resulted in a somewhat emergent design. This, and other details of the design, are discussed next.

3.2 Research Ethics

Researchers need to pay significant attention to undertaking their research ethically. To ensure this study would be conducted ethically, an ethics application was completed and submitted to the Research Ethics Committee of Avondale College of Higher Education in October 2013. Approval was granted in December 2013 (18.12.2013, project number 2013.31 – see Appendix E). The issues addressed in the application included techniques to ensure respect was shown to participants. These techniques included the opportunity of saying no to being interviewed; letters of information explaining the study and informing what participants could do if they had concerns; and informed consent agreements that assured participants of their anonymity and the use of pseudonyms. The ethics application also included

information about how I planned to maintain integrity during collection, analysis and subsequent use of data, including storage. A full explanation of how research ethics were practised in this study is evidenced in the next three sections of the methodology.

3.3 Criteria for Evaluating this Investigation

Researchers need to establish that the methodology employed in a research investigation has been designed in a way that will yield reliable and valid findings. The positivist standards of validity, reliability and generalisability applied to positivistic quantitative research are not appropriate for qualitative research (Erlandson et al., 1993; Lincoln & Guba, 1985); instead, criteria to evaluate qualitative research were used. An interpretive and naturalistic qualitative research such as this investigation cannot be value-free (Athens, 2010, p. 119). It is by its very nature subjective (Cohen et al., 2000, p. 181), however it can be non-partisan (Athens, 2010, p. 119). Some critics are reluctant to accept that qualitative research can be trustworthy (Shenton, 2004, p. 63). However, this section establishes how the methods this investigation used to gather, interpret and report findings may be judged sufficiently rigorous, systematic and transparent (Northcote, 2012, p. 106) by the somewhat overlapping criteria now used to evaluate qualitative research—credibility, trustworthiness and transferability.

3.3.1 Credibility

Credibility may be equated with the quantitative evaluation criterion, internal validity (Lincoln & Guba, 1985; Patton, 2002; Shenton, 2004). It implies authenticity and dependability. When qualitative researchers address credibility, they are attempting to demonstrate that a true picture of the phenomenon being investigated is being presented (Shenton, 2004, p. 63). The effectiveness of the measures qualitative researchers take to establish credibility depends on their ability to research effectively and the effort they themselves make (Golafshani, 2003, p. 600). In general, I aimed to enhance credibility through plausible and well-founded arguments that are related to the significance of evidence generated (Northcote, 2012, p. 107), and that are explicitly linked to conclusions (Miles & Huberman, 1994, p. 278). Credibility should be founded on at least two specific methods (Creswell, 2013, p. 23). This investigation has used more than two.

The credibility of data collected is supported by several methods. Firstly, the investigation used the same well-established collection methods used by much previous sensemaking research (Shenton, 2004, p. 64)—interviews and a reflective journal based on participant observation (see Appendix F). Thus, as recommended by much literature (Creswell, 2013; Erlandson et al., 1993; Shenton, 2004), I used triangulation in that I captured and reported different types of data from multiple perspectives (Creswell, 2008, p. 266; Patton, 2015, p. 661). Accordingly, my entire target population was interviewed three times over a period of time. During the interviews, I used iterative questioning to check that answers to questions were truthful (Shenton, 2004, p. 67). I also used my active participation as a participant observer in redevelopment processes to generate a reflective journal. These independent sources of data rendered findings dependable (Shenton, 2004, p. 65). The credibility of the investigation's findings was further enhanced by external checks of recorded data by my thesis supervisors (Creswell, 2008; Lincoln & Guba, 1985).

Measures were also taken to establish the credibility of data analysis. Qualitative research is by nature subjective (Erlandson et al., 1993, p. 34), however this subjectivity and sources of bias need to be acknowledged. To achieve this, any effects of me, the researcher, on the investigation (and vice versa) due to my assumptions, personal history and values, are combated by being acknowledged, by my immersion in the context as a participant-observer, by ethical use of both Pacific and Western literature to discuss the findings, and by *reflexivity* (Creswell 2007; Creswell, 2008; Patton, 2015; Shenton, 2004). I assisted reflexivity by asking myself questions regarding how the different backgrounds of myself, the participants and my potential readers might affect our various perceived meanings of observations (Patton, 2015, p. 72 & 604). Other useful questions I asked myself related to what I knew, and how I knew it (pp. 72 & 604). In my reflection journal, I asked such questions of myself in both the data collection phase (when my thoughts were recorded in a reflective journal) and the analysis phase (when my thoughts were recorded as notes to aid analysis and discussion). The credibility of data analysis is further enhanced by my research supervisors who conducted *coding checks* (Miles & Huberman, 1994, p. 278; Shenton, 2004, p. 10).

Arguably the most important means of supporting the credibility of data and its analysis is *member checking* (Bradbury-Jones, Irvine & Sambrook, 2010;

Creswell, 2008; Lincoln & Guba, 1985; Patton, 2015). Thus, participants were asked to check if the summaries of their interviews and their interview transcripts matched what they had said during the interviews (Shenton, 2004, p. 68). Although member checking could have introduced another layer of sensemaking, in the event, it did not. Also, member checking was part of the audit trail that was intended to enhance the credibility of the analysis. When I presented a paper in July 2015 (Potter, 2015) summarising the findings of the first interview regarding the impact on participants' sensemaking of the various factors comprising the formative context, four of my interviewees were present. Their comments afterwards included, "You brought it all alive again", and "That's exactly how I remember it"—the "it" being the degree redevelopment process. Such comments suggest a credible analysis of the first interview. Member checking thus provided an opportunity to confirm the adequacy and appropriateness of data and its analysis (Bradbury-Jones et al., 2010, p. 28).

3.3.2 Trustworthiness

Trustworthiness is very closely related to credibility. In qualitative research, trustworthiness may be defined as taking account of multiple perspectives revealed in data in a fair, balanced and conscientious manner (Patton, 2002, p. 575). Thus, the means of establishing credibility also support the investigation's trustworthiness, particularly triangulation and member checking. However, this investigation's trustworthiness is supported by additional strategies. As a participant-observer of the degree redevelopment and resident in the context, prolonged engagement with the phenomenon—more than three years—was ensured. The special cultural understanding and participant trust that this should have brought (Creswell, 2013, pp. 250-201; Erlandson et al., 1993, p. 30) was further enhanced by five years already spent in the context, and seventeen years in other Pacific contexts. I also took care to consistently record events related to the investigation focus, as a means of collecting data and pursuing interpretation (Creswell, 2013; Erlandson et al., 1994).

Patton (2002, p. 577) suggests that another means establishing trustworthiness is the researcher's commitment to honesty. This is much harder to verify. However, my honesty in this investigation is supported by my supervisors' involvement in interviewing me, in transcribing the interviews and in auditing the data collection and analysis. It is also supported by member checking and by

colleagues (the participants) telling me “you told it like it was” after listening to me present the findings of Interview 1 at a conference in 2015.

3.3.3 Transferability

Transferability is related to a study’s ability to contribute to or advance knowledge in a particular area and “have some demonstrable wider resonance” (Mason, 2002, p. 8). It is equivalent to generalisability, the evaluator of quantitative research in the area of external validity (Miles & Huberman, 1994, p. 279). Full generalisability is not possible in naturalistic inquiry as no two settings are identical (Erlandson et al., 1993, p. 16). Thus, it is replaced by transferability, which Lincoln and Guba (1985) view as “a direct function of the similarity” (p. 62) between contexts. Whilst the onus of demonstrating the appropriateness of transferability falls on future researchers (Erlandson et al., 1993, p. 33; Lincoln & Guba, 1985, p. 315;), the potential transferability of knowledge generated by this investigation has been enhanced by the collection and reporting of data sufficient to produce a rich, thick description (Creswell, 2013; Erlandson et al., 1994; Miles & Huberman, 1994). The investigation produced this by maximising data collection from multiple sources, through its purposeful sampling of the entire target population (Erlandson et al., 1993, p. 33), and by its production of a broad theory based on constructivist grounded theory analysis.

Thus, knowledge generated by this investigation may be considered a data base (Lincoln & Guba, 1985, p. 316) that may have relevance in other contexts that share some characteristics (Erlandson et al., 1993, p. 32), such as other Pacific tertiary institutions. It is therefore possible that other educators and researchers who read this thesis may extend its transferability by recognising its relevance to their own specific contexts.

3.4 Participants and Their Selection

This investigation worked with a population nested in its context as does most qualitative research (Miles & Huberman, 1994, p. 27) and sensemaking case studies (such as Helms Mills, 2003 and Soffe, 2002). This investigation’s purposeful convenience sample consisted of participants who were able to provide rich data capable of creating a detailed understanding of the degree redevelopment processes and of answering the research questions (Creswell, 2008, p. 213; Patton, 2015, p.

264). The sample was defined by membership of a group—key informants—whose perceptions were studied in depth (Creswell, 2008, p. 216; Patton, 2015, p. 268).

The sample of six participants was small, but represented the entire population directly involved in redeveloping LMC's new BEd (Prim.) program. This is ideal for qualitative research (Creswell, 2008, p. 152). The people involved in both actively redeveloping and documenting the new program were the members of LMC's Education faculty—five Pacific Islanders and myself, the participant observer from the United Kingdom as the sixth member. They were interviewed three times as explained in detail later.

When the investigation began in 2013, the Education faculty consisted of six people. All six taught full-time, but only three taught exclusively in the Education department; the other three taught modules in Early Childhood Education (ECE) or Foundation Studies (which are both linked to the Education Department). The multicultural faculty consisted of four Fijians, one of which had a Kiribati background, one lecturer from Vanuatu and one expatriate—myself, British, though by 2013 I had 22 years of experience teaching in the Pacific Islands. Faculty members' teaching backgrounds included primary, secondary and early childhood training and teaching experience. At the beginning of the investigation, faculty members had 0-10 years of teaching at the tertiary level, though only one had taught at a different tertiary institution. Their educational qualifications included one Bachelor degree, two postgraduate Diplomas and three Masters degrees. Their administrative experience ranged from deputy head of a primary school, sole-charge primary teacher, and secondary school head of department, who in 2013 was LMC's Foundation Studies Coordinator. There were five females and one male. This information is summarised in Appendix F.

The diverse backgrounds of the Education Faculty may have aided the construction of a quality program in terms of knowledge and skills. That is, participants' diverse backgrounds could have provided a deep pool of knowledge and a diverse range of experiential skills to enrich group discussion and facilitate problem solving. However, the varied training and teaching backgrounds of participants had the potential to expose knowledge and skills gaps. The range of cultural backgrounds also had potential to cause cultural and communication difficulties in the construction of the program. This supports the inclusion of

cognition, culture and communication as aspects of the degree redevelopment's formative context.

This population sample was impacted by faculty turnover. All six faculty members took part in interviews one and two. However, the less-involved ECE lecturer was replaced in 2015, and so missed the final interview. Thus, the five most involved redevelopment participants were present throughout the entire investigation period. It should also be noted that I, as the researcher-participant, was also interviewed on three separate occasions by a supervisor as soon as practically possible after I had conducted the other interviews.

Several sample-related facts helped me inquire in depth. Firstly, in 2013 when the investigation began, we, the Education Faculty, all worked and lived on LMC's rural campus on the main island of Fiji. Thus, observation was convenient and interview schedules were not limited by time-wasting travel. Outside of work, we worshipped and sometimes enjoyed socialising together. This helped make interviews feel informal and facilitated the sharing of confidences. The relocation of the campus in 2014 resulted in Fijian faculty living off campus, though relationships remained strong. Participants' range of backgrounds also facilitated gaining a wider range of perspectives than if the group had been homogenous.

3.5 Data-gathering Methods

This investigation aimed to gather information capable of answering the research questions in a credible and trustworthy way. My choice of methods was guided by what ethnomethodologists typically use—notably interviews and participant observation (Patton, 2002, p. 111)—and by what sensemaking studies have used (multiple interviews in a variety of styles, observation or participant observation, reflective journals and document analysis—see Appendix G).

The original investigation design included all the methods listed above. However, following is an explanation of how the final design that emerged was a little different. Multiple interviews were conducted, though only one interview style was used, and a reflective journal was kept. Participant observation provided the thought-provoking fuel for the reflective journal rather than being a major data source. Also, whilst documents were collected, data from them was not used because the documentary archives were “spotty and incomplete” (Rubin & Rubin, 2012, p. 27). This final design, although it collected and used data from fewer sources, still

provided a means of triangulation. Reasons for these changes are explained in the sections that follow.

Data were gathered over a period of about three years. The original design planned for about eighteen months of data collection, with the three interviews six months apart, on the assumption that this would be approximately how long the redevelopment—the discussions, documentation and initial implementation—would take. In the event, it took longer to complete the initial redevelopment phase, and even longer to fully develop the documentation and embed new processes into comprehended practice. Thus, the eighteen months became nearly three years. Appendix A illustrates when and how the data were gathered in relation to redevelopment events, and how events and data gathering occurred concurrently. Table 7 reiterates some of this information and shows more clearly how the various gathering techniques relate to each other, to data analysis and to answering the research questions.

3.5.1 Interviews

Achieving sense is about generating an emerging picture, and one means of doing this is through interviews (Ancona, 2012, p. 6). Thus, sensemaking research typically uses interviews to investigate participants' sensemaking of a critical incident or phenomenon. This practice is informed by the view that it is the interviewee who defines and describes the phenomenon in question. Also, the interviewee is presumed capable of self-reflection and can thus repeatedly engage with the given incident or phenomenon (Foreman-Vernet, 2003, p. 8).

Thus, interviews are appropriate to include as data collection methods for sensemaking research. However, interviews also needed to be suitable for this investigation's cultural context. This is because when researchers investigate in a cultural context that is not their own, it is important for trustworthiness, open and free communication, and the value of the research that the methods employed are culturally appropriate (Otsuka, 2005, p. 2). With Pacific cultures strongly oral (Teasdale & Puamau, 2006, p. 229), my use of interviews was deemed appropriate. Pacific *Talanoa* research interviews, as defined by Vaioleti (2003; 2013) and utilised by such researchers as Nabobo-Baba (2006) and Naisilisili (2017), has been very effective in the Fijian context (Otsuka, 2005), particularly in local community settings (Nabobo-Baba, 2006; Naisilisili, 2017). *Talanoa* may be defined as a formal

or informal process without a rigid framework (Otsuka, 2005, p. 3), “in which two or more people talk together, or in which one person tells a story to an audience of people who are largely listeners” (Nabobo-Baba, 2006, p. 27). It is facilitated by good relationships (Nabobo-Baba, 2006; Otsuka, 2005, p. 2). At LMC, talanoa denotes having a good chat and is observably popular. This investigation, which was not based in a local community, did not use talanoa interviews. However, the good professionals and social relationships I had with my Pacific colleagues, who were also my interviewees in this investigation, facilitated gathering data through interviews.

Sensemaking research uses a range of interview types, so what types I did and did not use in this investigation were important considerations. The original research design planned for three different types of interview. This was because the use of different types can overcome individual types’ limitations and exploit their respective strengths (Shenton, 2004, p. 65). However, the emergent design limited the types used to one.

Much sensemaking research utilises narrative interviews (Landau & Drori, 2008; Soffe, 2002; Weick 1995). This is because they work well when seeking to understand events that take place in an individual phenomenon. Specifically, they assist an understanding of a change (Cohen et al., 2000, p. 303; Rubin & Rubin, 2012, p. 29) by providing a means of converting the series of events into a more meaningful whole (Bryant & Cox, 2012, p. 376). A narrative interview was planned for the second of three interviews. However, the first interview, which was semi-structured, strongly illustrated that the degree redevelopment was more a range of processes that often occurred concurrently, rather than a phenomenon consisting of a series of discrete events. Thus, narrative interviews that focus on a chronology of experiences (Creswell, 2014, p. 535) were unsuitable.

The original design also planned to use a focus group interview as the third of three interviews. This has also been used in sensemaking research (Soffe, 2002). Focus groups link well with Pacific collective culture and the talanoa concept, thus the Education Faculty would have been likely to cooperate well and react to each other’s responses (Creswell, 2008, p. 226; Patton, 2003, p. 7). Focus group interviews may also have yielded different insights (Cohen, et al., 2000, p. 288) and emphasised shared understandings (Creswell, 2008, p. 226). However, Education Faculty meetings clearly illustrated one drawback of focus group interviews—that

some participants may not say anything (Patton, 2015, p. 478). Also, the public nature of focus groups does not invite the kind of individual confidences that may emerge in a more private setting, and which did emerge in the first, second and third privately conducted interviews. Thus, in the event, focus group interviews were not used either because they would not have allowed me to focus on the sensemaking experiences of the individual participants.

The type of interview that was used was the semi-structured open-ended style which resulted in much useful and sometimes quite frank information. The interviews were conducted three times, at yearly intervals, beginning in December 2013 which was after the draft program document had been completed and just before relocation of LMC and the beginning of the new program. The final interviews were conducted in December 2015 and January 2016. This was a time when remaining process issues came clearly into focus and generated plans to solve them. It was also a time when faculty began to focus on possible amendments in a later review of the degree program.

Interviews with Education Faculty were thus spread over two years. This is illustrated in Table 4. This two-year time gap could be perceived as time in which to forget things. However, Rubin and Rubin (2012, p. 29) suggest that a time gap allows greater depth of perceptions and relevant data to emerge. This seems to have been the case. Also, with process issues occurring throughout the time period and into 2016, many things remained fresh in interviewees' minds. It is also possible that interviewees' memories and perceptions were stimulated by listening to the paper presenting a summary of Interview 1 findings as was commented on earlier.

Table 4

A timeline of interviews

Participants	Interview 1 December 2013	Interview 2 December 2014	Interview 3 December 2015
1	✓	✓	✓
2	✓	✓	✓
3	✓	✓	✓
4	✓	✓	✓
5	✓	✓	Left LMC end of December 2014
The researcher	January 2014	January 2015	January 2016

Note:

- The researcher conducted all the interviews except her own.
- The researcher was interviewed by a supervisor in Australia (at a quiet location at Avondale University College about two weeks after the interviews in Fiji).

Three interview schedules of 11-13 questions were prepared and were checked in accordance with ethics expectations. The interview schedules are provided in Appendix I. The schedules were also supported by lists of possible prompts and linked directly to the first three research questions. No questions were linked to Research Question 4, “*How do the findings contribute to sensemaking theory and/or methodology?*” as this is answered by the findings. Interview 1 questions were deliberately broad with the intention of allowing categories—the contextual factors impacting interviewees’ sensemaking and related successes and issues or problems—to emerge naturally. No contextual factors—the categories—were named at this stage. Interview 2 questions were developed from the findings of Interview 1. They focused on exploring what emerged from Interview 1 as important, especially the successes, problems and issues. The questions also provided opportunities for interviewees to confirm or otherwise what they had said before and to say something new.

Interview 3 questions, whilst emerging out of Interviews’ 1 and 2 findings, were more overtly linked to the contextual categories that had emerged through analysis as important and their relative importance. Each interview began with a broad question then moved on to narrower concepts. Table 5 provides an overview of the questions asked and the relationships between interview questions and research

questions. The relationships between Interviews 1, 2 and 3 in terms of their development are shown in Appendix H. The details of the three schedules, their prompts and their relationship to research questions are shown in Appendix I.

Table 5

A summary of interview questions and their relationship to research questions

Research questions	Interview 1 Questions	Interview 2 Questions	Interview 3 Questions
	<i>Focus: To let the categories (contextual factors) and their codes emerge.</i>	<i>Focus: To explore what emerged.</i>	<i>Focus: To explore the relative importance of the contextual categories.</i>
1. <i>What contextual factors impacted the degree redevelopment?</i>	1. The new program differed from the old program. What helped you decide: a) What changes should be made? b) Why and how changes should be made?	6. Several of us mentioned that communication was a problem. a) What types of communication worked well? Why? b) What types of communication did not work well? Why?	5. Interviews 1 & 2 suggested that emotion both helped and hindered the redevelopment process. a)/b) Did any positive/negative emotions help/hinder you with the redevelopment, what triggered them, and how did they help/hinder? 11. On a scale of 1-10, how much did the following factors affect you in a positive way during the redevelopment?
2. <i>What problems and issues emerged during the redevelopment and how were they addressed?</i>	4. What aspects of the degree redevelopment caused problems and were difficult to achieve? 6. In your opinion, why were these aspects difficult to achieve?	1. The redevelopment was a very big task. Why? 10. b) Was our collaboration impacted by absences from meetings? How?	6. b) Did you notice any negative attitudes that hindered redevelopment? If yes, what were those attitudes and how did they hinder redevelopment? 8. What were the biggest difficulties we faced and why were they the biggest difficulties?
3. <i>What successes emerged during the redevelopment process and how were they experienced?</i>	3. What do you regard as “successes” of the redevelopment, can why do you regard them as successes?	10. Most of us said how helpful it was working as a group. a) Did you feel that way? Why?	10. Success. a) What successes did we experience? b) How did we experience these successes? c) How valuable/important are these successes?
4. <i>How do the findings contributed to sensemaking theory and/or methodology?</i>	-	-	-

Note: - The numbers used for the interview questions correspond to the numbers in the schedules illustrated in Appendix H
 - Some questions addressed more than one research question, for example Interview 2 Q.6 links to research questions 1, 2 and 3.

All of the interviews were carried out in the same way; that is, each interview was conducted in a one-to-one manner. This was time consuming (Creswell, 2008, p. 226), but it allowed participants to discuss privately and confidentially aspects of the degree development especially important to them. The interviews I conducted by all took place in a faculty member's private office on LMC campus. This was a quiet, private and pleasant location that was familiar to the interviewees, where they felt comfortable. I was interviewed on a college campus in Australia, as noted in Table 1.

The interviews were also conducted in the form of an extended conversation (Rubin & Rubin, 2012, p. 31). Thus, interviewees were treated more as conversation partners, with the questions asked in a non-confrontational and non-judgemental way, and with their answers viewed as different perspectives rather than as right or wrong responses (pp. 38-39). I also reacted to and shared with interviewees to create a sense of conversation (Patton, 2003, p. 7). This approach links well with both the observably popular Pacific cultural pastime of talanoa as well as with ethnomethodology.

Interviewees answered the same basic open-ended questions, usually in the same order (see Appendix I). Elaboration, clarification and probing questions and prompts were used to widen and deepen responses and increase richness of data; interviewees were also guided to ensure the data relevance (Mason, 2002, p. 67; Patton, 2015, pp. 465-466). Thus, the questions served to explore issues in more depth, and ensure coverage of relevant topics. They also elicited interviewees' perceptions, opinions and feelings, reduced interviewer effects, and facilitated analysis (Creswell, 2008, p. 229; Rubin & Rubin, 2012, p. 31; Patton, 2002, p. 439; 2003, p. 2). Between one and three follow-up questions were asked after most interviews (Rubin & Rubin, 2012, p. 31). I was interviewed in the same way as other interviewees by a supervisor.

Before commenting on the ethics of the interviews, it is instructive to note how participants reactions to interviews changed over time. Interviewees were far more open in Interview 3 when describing and explaining the issues and problems they had experienced during the degree redevelopment. This may reflect an increased ease with the interview process and their greater reflection regarding what had occurred. These suggestions are supported by my observations and by records of informal conversations that occurred just before and after Interview 1. At that time, two participants delayed the start of the recording, requesting extra clarification of

the questions they had been given to read. Also, three of the participants admitted to being scared of the interview process. Unsurprisingly, their answers to the first few interview questions were somewhat hesitant and unconfident. However, they all relaxed and talked freely and even laughed in the second half of Interview 1. In contrast, another participant in Interview 1 was very relaxed and talked freely about certain cultural issues that were potentially sensitive.

All interviewees talked freely and at length in Interviews 2 and 3. One of the interviewees who had been so scared before Interview 1 that she had tried to avoid it, talked the most in Interview 2 and said that she had actually enjoyed the opportunity to express her thoughts. Participants' increased ease with the interview process may also have been a result of the rapport I had with my colleagues (King & Horrocks, 2010, p. 220), and not just a greater familiarity with the process. Whatever the reason, participants' increased comfort in answering interview questions probably contributed to the trustworthiness of what they shared.

In accordance with research ethics expectations, informed consent was obtained beforehand, and interviewees were shown the basic questions in advance. The interviews were conducted in a courteous and professional manner (Creswell, 2008, p. 229). The rapport I had with my colleagues facilitated the interviews. Interviewees were also advised that interviews were being recorded for later transcription, but that what they said would be confidential and securely stored, and that their identity would be assured by the use of pseudonyms. Accordingly, the six interviewees were assigned pseudonyms—Jay, Jesse, Kai, Lyn, Tam and Vae. These pseudonyms are used with all interview comments and in journal extracts when they are complimentary to participants. However, where journal entries are not so complimentary, participants' anonymity has been further protected by the use of the letters U, W, X, Y and Z. I did not assign myself a letter. Also, to protect the identity of the one male participant, all interviewees are referred to as female. The one instance where the male participant is identified—when he made a reference to a lack of gender issues in the project—is with his permission.

Finally, as outlined in the discussion regarding member checking, all interviewees were given summaries of what they said in each interview and were invited to view the full transcription. They were also invited to check the final analysis.

3.5.2 Observation and the reflective journal

Some researchers are passive observers. However, I was a *participant observer* and thus interacted with participants in their daily lives. This is a distinguishing feature of ethnomethodology (Gobo, 2011, p. 17).

My status at LMC and within the Education Faculty at the time of the investigation needs clarification. My role in the Education Faculty was as a lecturer of four modules. This gave me no status as a leader with authority in the Education Department itself. I was, however, responsible for co-ordinating a one-class, one-year Foundation program that prepared students to begin LMC diploma and degree programs. I began the redevelopment process by attending the FHEC workshops with the aim of learning how to redevelop the Foundation program for which I was responsible. Subsequently, I was asked to share what I had learned with all departments, which led to becoming heavily involved in helping Education Faculty colleagues with their redevelopment project. Thus, in the redevelopment process I was a practitioner, who through helping colleagues, gradually came to be viewed as their informal leader for their project.

Participant observation in my informal role benefitted my investigation in several ways. It helped capture a deeper understanding of the reality of the context—which was essential to a holistic perspective—provided first-hand experience of the setting and its people, allowed me to see things that outsiders might not notice, and facilitated my learning things that may not have emerged in interviews (Patton, 2015, pp. 336-339). I was also aware that my very active membership of the group may have made it harder to ascertain what would have happened if I had not been there (Rubin & Rubin, 2012, p. 26). However, some colleagues told me in their interviews without being prompted what they thought would have happened if I had not been part of the redevelopment process. Their reasons for saying this are recorded in the Findings chapter.

Observations made in the field provide a check on interview data (Patton, 2015, p. 331). Thus, my original intention was to use observation as a data-gathering method. Accordingly, observation schedules were prepared, but ultimately were not used. My very active participation in the redevelopment meant that I was so immersed in working with, and sometimes leading, other participants through the sensemaking processes that filling in observation schedules *in situ* proved impractical. This confirms Creswell's (2008, p. 236) assertion that some participant

observers may find it too difficult to take notes while participating and need to make their notes retrospectively.

Thus, detailed observation data have not contributed to this investigation. However, observation did contribute to my reflective journal. The range of what was observed and reflected on included formal and informal group activities, individual and group behaviours, interpersonal actions including non-verbal communication, LMC and Education department processes and decision making, and even the absence of expected activities (Patton, 2002, pp. 4, 290 & 295).

A reflective journal was kept throughout the data-gathering period as redevelopment events dictated. The most intensive redevelopment of documentation occurred in the second half of 2013, thus, this is the time when most observations and reflections were recorded in the journal. The journal entries—which may be loosely termed *field notes*—were retrospectively recorded in a journal as soon after they were made as possible (Creswell, 2008, p. 224). Observations were descriptive, such as who, when, where and what. They were also reflective and reflexive—such as my feelings and reactions, the significance of what was observed, and thoughts regarding possible explanations (Creswell, 2008, pp. 225 & 447-448; Patton, 2015, p. 387-389). Soffe (2002) found reflexive journaling very useful in his sensemaking study. Table 6 illustrates extracts from my journal from the beginning (mid 2013), middle and end (late 2015) of the data collection period.

Table 6

Journal extracts with reflection and reflexive questioning

<i>Date</i>	<i>Observation</i>	<i>Reflection/reflexive questions</i>
July 2013	• ... couldn't work out how to fill in the assessment table • A lot of weight was given to easy assignments in two or three modules (subjects).	• A listening issue? • Thus (they) are not thinking of levels; or not understanding levels? Or following previous practices/status quo?
August 2014	• (After an Ed. Dept. discussion regarding what we had achieved vs. what we still needed to polish) the body language of ... suggested that she had really learnt something & enjoyed/appreciated doing so.	• This all seemed much more positive than semester 1. But will the actions match the words and body language?
August 2015	• Still a reluctance by some to moderate, • Some 1st markers made no comments. • 1st & 2nd markers often didn't discuss differences	• Moderation too time-consuming? • Do some still feel that they lack appropriate marking skills? • Why? Lack of confidence? Fear of a poor reception & of giving offence?

Journal data, which included observations, were later subjected to a more formal analysis regarding patterns of action and behaviour (Rubin & Rubin, 2012, p. 26), particularly as they related to the codes and categories that emerged from interview data. Thus, my reflective journal entries, the fruit of being a very active participant observer, provided useful data. The entries also helped triangulate data from interviews and assisted with data analysis.

3.5.3 Documents

Documents may be considered an ancillary source of data in an ethnomethodological investigation (Gobo, 2011, p. 17), however, they can still be very useful (Creswell, 2014, p. 245). This is because they can aid understanding of, and provide information about, the central phenomenon (p. 231), through providing information about things that cannot be observed and may not be asked about (Hodder, 1994, p. 393; Patton, 2015, pp. 376-378). Permission was sought and granted to both access and use information contained in documents.

It was anticipated that minutes from Education Faculty and Academic Committee meetings would be informative—I am a member of both committees. However, Academic Committee minutes recorded progress with college-wide

redevelopment processes and unrelated issues rather than issues specific to redeveloping the BEd (Prim.) degree program. Education Faculty minutes largely recorded departmental business unrelated to redevelopment processes. Thus, neither sets of minutes provided useful data.

It had also been anticipated that redevelopment documentation such as module descriptors, would be illuminating as a third source of data. Text is best understood in contexts where it is produced and read (Hodder, 1994, p. 394). Thus, being a writer, the main auditor and proof-reader of redevelopment documents, as well as being a participant observer immersed in the context, helped me understand the documents I viewed. Redevelopment documents were collected, and proof reading and auditing them was indeed illuminating as it confirmed misunderstandings and issues with the English language commented on in the interviews and recorded in my journal.

Despite this, extracts from documents have not been included in this thesis to help triangulate data from the other two sources. This could be considered a limitation. However, extracts from documents such as module descriptors only illustrate participants' mistakes, many of which relate to English being an additional language, and would tend to portray participants in an unbalanced and unflattering way. This would be unethical. Also, interview data and comments and observations recorded in the journal illustrate the same issues in participants' and the researcher participant's own words. This, in a sense, is a delimitation. Thus, the omission of examples of mistakes in documents should not be considered a limitation in this thesis but rather an omission based on the documents not being required to further the description of the research context. Instead, such program documents as module descriptors were used as conversation pieces during the interviews rather than as sources of data.

3.5.4 Data-gathering techniques and data analysis related to redevelopment events

In essence, the data-gathering techniques discussed above constitute what Patton (2002) termed "an omnibus field strategy" (p. 256). This is because they combined interviewing participants and document auditing with direct participation observation and reflection. This is a very useful combination. Combining document audit with in-depth interviewing allowed me to discuss with their creators the

documents' contents and preparation (Rubin & Rubin, 2012, p. 27). Also, by being both a participant-observer and document auditor, I was viewed as an informed person who was worth talking to in interviews (p. 28). This combination improved the quality of interviews with by informing the questions. It also helped yield much rich data.

Two figures illustrate the links between time, redevelopment events and processes, and the research design. Firstly, Table 7 illustrates how data collection related to time and redevelopment events and processes. Redevelopment processes gathered momentum in the first half of 2013, but data collection only began in earnest in August, after the proposal for this research was accepted in July. This time also coincided with the beginning of the intensive phase of the redevelopment in terms of writing the new documentation and embedding the new requirements into practice. The timeline shows that data was collected intensively, then irregularly, as dictated by events. It also shows that the timing of the coding of Interviews 1 and 2 allowed what was discovered to contribute to the development of subsequent interview questions. In addition, Table 7 illustrates how interviews were the primary data source and at what stage of the analysis insights from the reflective journal and documentary evidence were blended with interview findings. Finally, Table 7 shows how time, redevelopment events, processes and data collection were related to data analysis.

Table 7

A timeline of redevelopment events, data collection and data analysis

YEAR	REDEVELOPMENT EVENTS & PROCESSES	DATA COLLECTION			DATA ANALYSIS
		INTERVIEWS	OBSERVATION & REFLECTIVE JOURNAL	DOCUMENTS COLLECTED	
2011 & 2012	- The necessity of redevelopment becomes apparent & FHEC workshops commence - Preliminary discussion of new program content	–	–	–	–
2013 (Jan-July)	- Content of new program finalised - LMC workshops to support writing of documents to FHEC specifications (Research proposal accepted)	–	–	–	–
2013 (Aug-Dec)	Intensive period of writing of new module descriptors	Interview 1 (December)	Done intensively (many events/meetings)	✓	
2014	- Module descriptors finalised - Module descriptors augmented for student use - New program begins (teaching & new assessment & moderation processes) - Documentation submitted to FHEC	Interview 2 (December)	Done irregularly (few & infrequent events)	✓	Interview 1 coded
2015	- Refining of documentation - Further development of assessment & moderation processes	Interview 3 (December)		✓	- Interview 1 findings presented in a paper - Interview 2 coded
2016 (Feb-March)		–		✓	Interview 3 coded
2016 (April-Dec)		–	–	–	Interview findings blended with other analysed & audited data.

The second illustration, Figure 8, closes this section by conceptualising the links between data-gathering methods, data analysis, the research questions and their answers. It also shows that whilst the three data-gathering methods took place concurrently, observation and the document audit informed the interview questions, and that the interview data, after content analysis, supported the truth or otherwise of what was discovered through observation and the document audit.

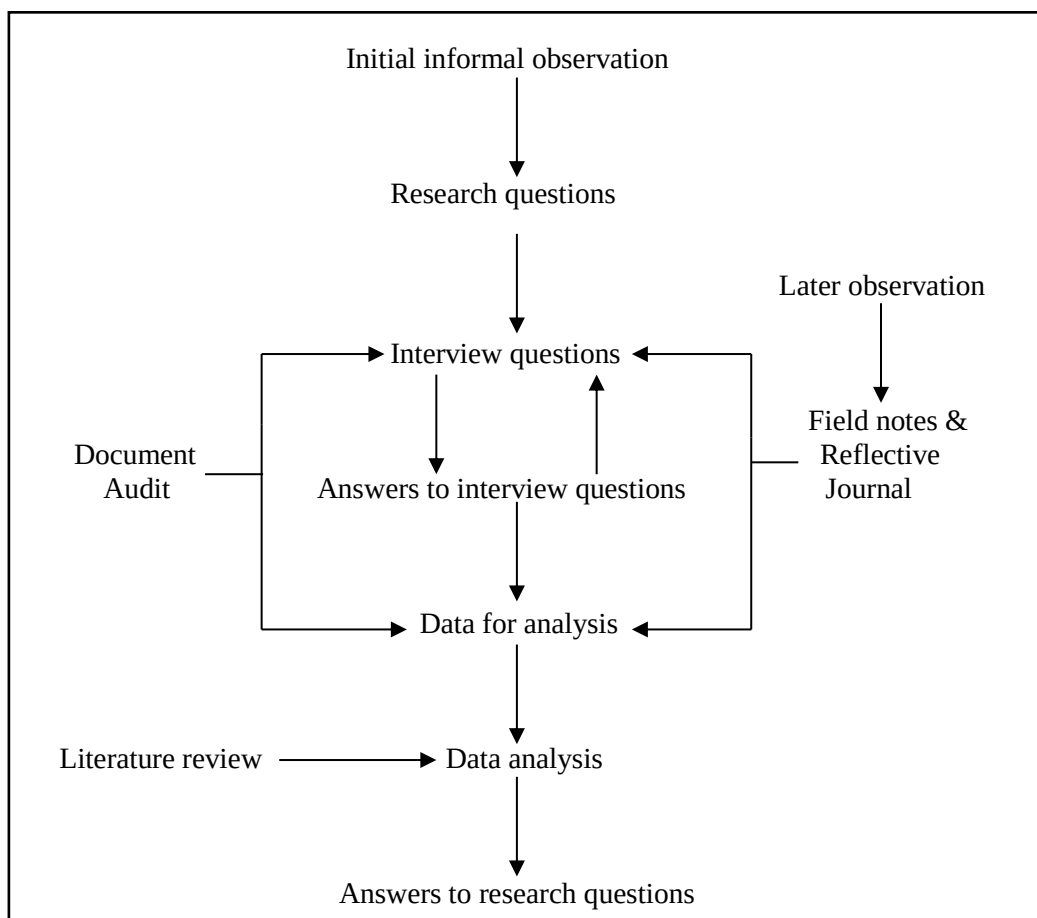


Figure 7. *Methodological links to data analysis and research questions.*

3.6 Data Analysis

The data gathered were subjected to content analysis. This identified core consistencies and meanings (Patton, 2015, p. 541). The methods used to analyse the data are explained in the following paragraphs and summarised in Table 8.

Table 8

Summary of data analysis processes

DATA	ANALYSIS PROCESSES
ORGANISATION OF DATA	- Interviews and sound recordings - Reflexive journal hand-written and typed - Documentary evidence collected, sifted & sorted } stored in labelled folders and files
↓	<i>Listening</i> - To interviews to check transcriptions for accuracy <i>Reading</i> - Interview transcriptions
FAMILIARISATION WITH INTERVIEW DATA	<i>Memoing</i> - Hard copies of interviews <i>Summarising</i> - Listing the main points of interviews <i>Member checking</i> - To confirm accuracy of summaries and transcripts <i>Identifying</i> - Key quotes in interviews <i>Identifying</i> - Follow-up questions for clarification to be asked in subsequent interviews <i>Cleaning</i> - of data to eliminate irrelevancies
↓	
ALLOCATION OF CODES TO RAW INTERVIEW DATA	<i>Themes</i> - Developed a priori: - Concept driven (literature review) <i>Categories</i> - Developed a priori: - Pre-determined (sensemaking theory) - Concept driven (literature review) - Evidenced based (reflective journal) - Emergent (from interview transcriptions) <i>Sub-categories & codes</i> - Emerged through: - In-vivo notation - Iteration - Constant comparison <i>Codes & Sub-codes</i> - Refined through: - Creating, collapsing, renaming, discarding
↓	
TRIANGULATION	- Between each Interview 1 - Between Interviews 1 and 2 - Between Interview 1, 2 and 3 - Relating interview data to entries in reflective journal
↓	
IDENTIFYING RELATIONSHIPS	- Between categories <i>within</i> themes: e.g. Micro - attitudes & emotions - Meso - leadership & social constructivism - Between categories in <i>different</i> themes: e.g. Micro ethnic culture & Meso communication - Ranking the importance of the three themes
↓	
FINDINGS	- Described, then discussed in relation to literature and research questions.

Data were analysed by using some of the tools of *grounded theory*. This is a systematic and rigorous method of constructing rather than describing a theoretical framework that explains at a broad conceptual level, an action, interaction, or in this case, the processes of a substantive topic (Creswell, 2008, p. 432). Grounded theory has also been the analytical approach used by other sensemaking studies (Gioia & Thomas, 1996; Landau & Drori, 2008; Mills, 2009).

Constructivist grounded theory is particularly suitable for this investigation because it supports discovering how the specific social conditions of the context influence a phenomenon, in this case the degree redevelopment, and my immersion in the inquiry to discover how the contextually embedded actions and meanings of participants were connected to larger social structures (Charmaz & Bryant, 2011, pp. 292-293; Patton, 2002, p. 454). This approach also emphasises reflexivity and rejects objectivist assumptions that researchers can and should ignore prior knowledge when developing new theories (Charmaz & Bryant, 2011, p. 293). This emphasis supports using my knowledge gained from my years of experience in the Pacific for ideas regarding the possible impacts of the context, as well as supporting the tactic of linking to literature for suggestions regarding what the coding categories might be.

The discussion below focuses on how the interview data—the core data—were analysed. Essentially, the interviews were subjected to content analysis. This fitted the purpose of the open-ended interviews, which was to discover what is most important from interviewees' own words (Patton, 2015, p. 557). Thus, content analysis was more appropriate than discourse analysis, which focuses on the language of communication, and conversational analysis with its emphasis on social interaction. Each interview transcript was read and the content summarised, then key quotes were identified. The interviews were then analysed through coding as discussed below, and follow-up questions were written to be used as the basis for the subsequent interviews.

Constructivist grounded theory supports the selection of core categories to which all other categories can be linked (Creswell, 2008, p. 444). This case study's use of pre-set themes and categories grounded in a theoretical framework and issues identified by the researcher is supported by Simons (2012, pp. 6-7). Pre-set themes and hypothesised categories were used at two levels on interview data analysis. The first level—the macro, meso and micro themes suggested by my sensemaking model (Figure 2 in Chapter 1, and Figure 8)—provided three broad pre-set themes. Their

relative importance, however, emerged from data analysis. As explained earlier, the categories within the themes were the contextual factors suggested by literature and supported by observation. However, confirmation of their existence and their relative importance were allowed to emerge from the analysis. During analysis of the findings, new contextual factors emerged, notably attitude and English being an additional language, or EAL. Initially, attitudes and values were separate categories. However, it proved difficult to clearly distinguish between them, so they were merged. Additionally, knowledge and skills emerged as a more apt title for the proposed cognition contextual factor. Other proposed contextual factors—organisational learning and organisational culture—did not emerge from data analysis as having any importance, so were omitted from the final analysis. As the codes within the contextual factors emerged, it soon became apparent that dividing most of them into two sub-codes—positive and negative impacts—would prove very useful.

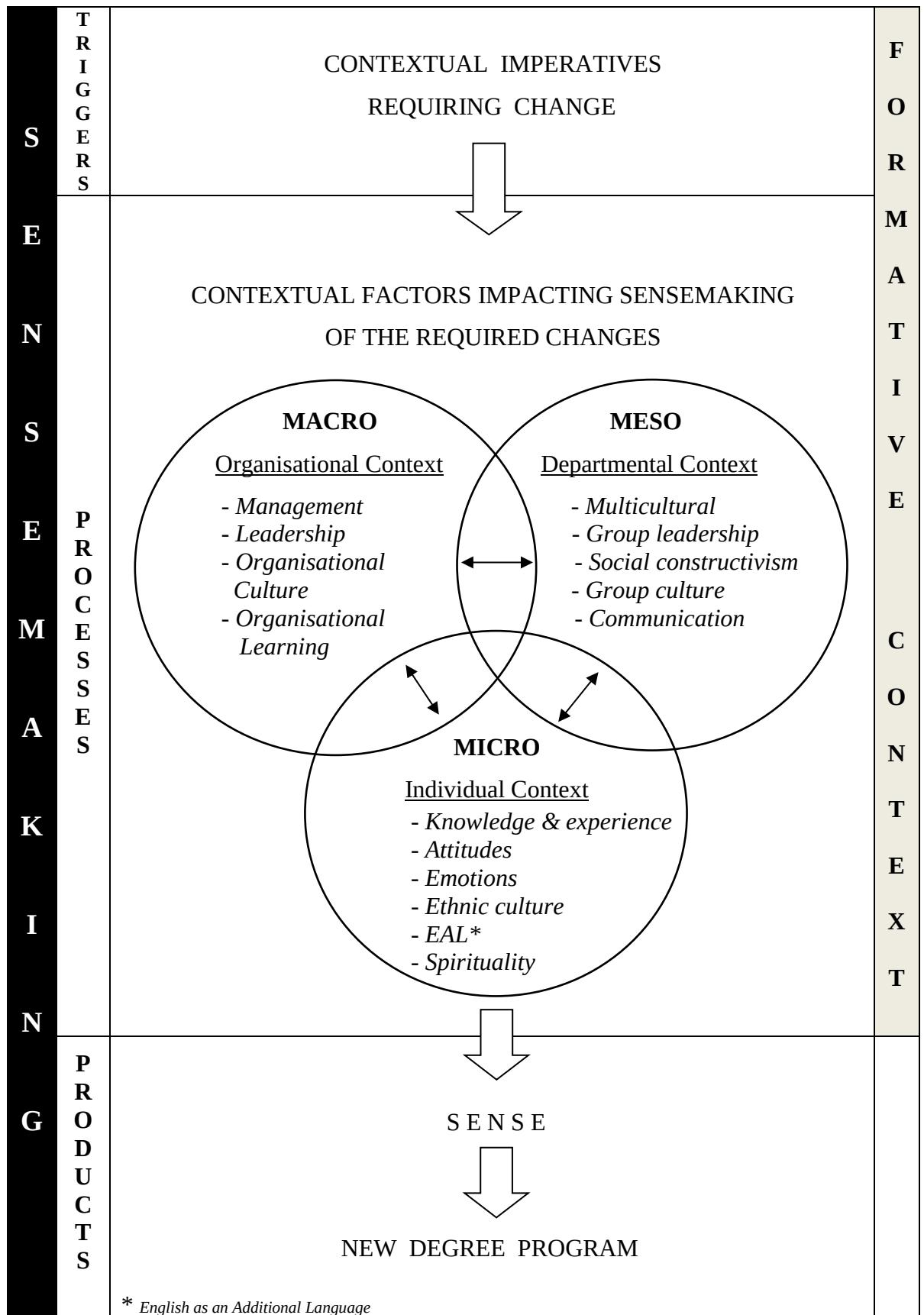


Figure 8. *The conceptualised formative context.*

The smallest level of analysis—the codes and sub-codes within the contextual factors—emerged from the interview data through the use of inductive analysis. This is a form of *open coding*. The coding of interview data was initially done line-by-line *in vivo* on hard copies by writing memos and by highlighting illuminating data. Memo writing is another essential feature of grounded theory (Lempert, 2007, p. 245). This rooted me, the researcher, in the analysis of data whilst simultaneously increasing the abstract nature of my analytical ideas (Charmaz, 2006; Lempert, 2007, p. 245). The process of writing memos also helped to highlight connections between the various levels of codes as the analysis moved toward an integrated whole (Lempert, 2007, p. 262). An issue noted at this stage of the analysis was the fact that a few data segments belonged to more than one sub-code. For example, issues with reading was both an EAL problem and a reason for the unpopularity of emails as a means of group communication. These issues were resolved by allocating such segments with more than one code.

The emergence of codes was aided by constant comparison analysis (Patton, 2002, p. 56), which tested the robustness and usefulness of codes. Constant comparison analysis also assisted creating new codes, collapsing overlapping codes, setting aside hard-to-classify codes, renaming codes and discarding redundant codes. For example, when the first two Interview 1 transcripts were analysed, a large number of codes were created in the meso leadership category. However, analysis of the other interviews left many codes with just single data fragments. Thus, as analysis proceeded, the meso leadership codes were collapsed into fewer, broader codes such as helpful and nurturing.

These coding processes continued throughout the analysis of interview data until a saturation point was reached (Charmaz & Bryant, 2011, p. 304; Creswell, 2008, pp. 257, 259 & 443) where new codes were no longer emerging. Thus, the analysis of interview data went through several phases before it was finalised (Patton, 2015, p. 565). Adjectives such as “most”, “many”, “some” and “few” rather than numbers have been used to support the discussion of how the codes revealed the relative importance of the categories and themes. This is more appropriate for qualitative research than citing numbers (Patton, 2015, p. 557).

Observational reflections in the journal were analysed after the themes, categories, codes and sub-codes were established. They were analysed from the

perspective of helping to illustrate, support or refute what interviewees stated. They also aided explanation of interview data.

The final phase of data analysis was the construction of a theory that highlighted the major findings in order to explain the phenomenon and answer the first three research questions regarding what contextual factors impacted the sensemaking project and how they impacted it especially in terms of issues and successes. The construction was based on the hierarchical and interconnected coding framework that emerged (Creswell, 2008, p. 259) and its supporting data. This theory forms the basis of the Findings chapter.

3.7 Conclusion to Methodology

This chapter discussed and provided a rationale for this investigation's qualitative design. It also established the investigation's theoretical underpinnings in epistemology, and sensemaking theory and methodology. In essence, this investigation is a bricolage that is best defined as an ethnomethodological case study conducted in its natural setting. The participants formed a natural, if somewhat diverse, purposeful convenience sample. I was also part of the group as a researcher-participant, interviewer and interviewee.

The fine details of the methodology were somewhat emergent. Practicalities necessitated extending the data-gathering period from eighteen months to nearly three years. Three interviews were the primary source of data but were limited to a conversational semi-structured and open-ended type. Observation, though not done extensively, provided the fuel for the reflective journal that was kept throughout the data-gathering period. Relevant documents were also collected throughout the period.

The data were analysed using a constructivist grounded theory approach. Thus, the interview data—the primary data source—were analysed using three broad a priori themes, the macro, meso and micro contexts, and categories suggested by literature. The codes emerged naturally from the categories. Insights from interview data were then triangulated by data from the reflective journal and a document audit. What emerged was used to answer the research questions and refine a theory regarding the impact of the context on the degree redevelopment program.

This chapter also discussed why the methodology and findings of this investigation may be considered credible and trustworthy. It also argued that the

investigation's rich, thick data might help illuminate a similar investigation in a similar context. The next chapter presents the findings of this investigation.

CHAPTER 4: FINDINGS

This chapter presents the findings that emerged from an in-depth analysis of the data collected during the study. These findings fulfil the main purpose of this investigation which was to generate an explanation of the change project by utilising the sensemaking experiences of the participants to discover how and why a challenging educational change in a higher education institution was impacted by the various components of the formative context in which the change took place. After the findings are presented, the first three research questions and their sub-questions, regarding the components of the formative context and impact of the various contextual factors, are answered, especially in relation to sensemaking issues and successes.

The chapter begins by explaining the techniques used to present the findings (Section 4.0). Before explaining the structure of the remainder of this chapter in more detail, it is important to note the following points. To discover the findings, the data collected throughout the study were initially analysed through the lens of the conceptualised formative context illustrated in the previous chapter (see Figure 9). This framework conceptualised three levels of formative context, namely the macro, meso and the micro contexts. These levels constituted the pre-set coding themes, while the various contextual factors within the themes constituted the coding categories. Two coding categories—attitudes and EAL issues—emerged from data analysis as components of the micro/individual level of sensemaking. The micro, meso and macro themes provided a useful analytical tool for categorising and coding data. However, a structure more capable of foregrounding the major findings in relation to answering the research questions has been used to report the findings as a whole.

The first major finding (Section 4.1) is that, as conceptualised, the formative context in which the participants' sensemaking took place was multi-dimensional in that it included a variety of contextual factors that could all be categorised as components of micro, meso or macro organisational levels. Even more importantly, the contextual factors constituting the meso, and especially the micro organisational levels, emerged as having a greater impact on participants' sensemaking of their task than the factors constituting the macro contextual level.

The bulk of the chapter, however, illustrates the second major finding. This is that the impact of all contextual factors centred around either hindering participants'

sensemaking and cognition through a variety of issues (Section 4.2) or helping sensemaking and cognition, which led to successes (Section 4.3). The findings detailing this dichotomy also illustrate how and why some factors changed from having a negative impact to having a positive impact towards the end of the sensemaking period. While the contextual levels of the various factors are always referred to, the order in which findings regarding contextual factors are presented in these two sections reflects the relative importance of the factors regarding hindering or helping sensemaking. Thus, the factors presented first in each section—most notably, knowledge and experience and the affect—emerged as having a more powerful impact on participant’s sensemaking than factors that are presented last, such as certain communication issues and leadership.

While not a major finding, Section 4.4 notes the contextual factors that had little or no impact on participants’ sensemaking of their project. The final major finding foregrounded is that most of the contextual factors that emerged from data analysis as important were very connected both within and between contextual levels (Section 4.5).

Following the foregrounding of the major findings, their details are used to answer the first three research questions. Specifically, the details that emerged regarding the nature, importance and connectivity of the three contextual themes and their various constituents are used to answer Research Question 1 (Section 4.7.1). Secondly, the details regarding successes and problems linked to the various contextual factors, how the success and problems were experienced, and whether issues were addressed successfully are used to answer Research Questions 2 and 3 (Sections 4.7.2 and 4.7.3).

The conclusion to this chapter provides a summary of the major findings. It also provides a link to Chapter 6, The Discussion, that comes next.

4.0 Data Presentation Methodology

The following account of findings is presented in a narrative style to assist me in expressing my own role in the investigation as a participant researcher (Patton, 2002, p. 65). There are also other important issues to note. Firstly, throughout the account, interview findings are interwoven with extracts from the researcher’s reflective journal to illustrate and to confirm or question participants’ interview comments. Secondly, some contextual factors, both within and between contextual

levels, proved to be closely related, so some participants' interview comments are related to more than one contextual factor. Thirdly, for five of the six participants, English is an additional language. Lastly, and in compliance with research ethics as explained in the Methodology chapter, all participants are referred to as females with the additional use of pseudonyms and alphabet letters in reflective journal extracts to preserve their anonymity. Journal extracts are dated and woven into the text in boxes.

Finally, several techniques have been used to aid clarity and highlight the findings. Key concepts relating to the various contextual factors are highlighted with the use of italics.

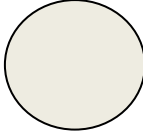
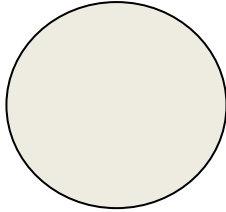
4.1 The Relative Importance of the Contextual Levels

The first major finding presented, which in a sense overarches most findings, is that all three contextual levels—the macro, meso and micro levels as conceptualised in Figure 8—formed part of the formative context impacting participants' sensemaking of the degree redevelopment. However, analysis of the data collected throughout the study also showed that the three levels and their constituent contextual factors were not of equal importance in impacting participants' sensemaking.

Using a scale of “no importance,” “minimal importance” and “great importance,” Table 9 illustrates the relative importance in this investigation of the contextual levels of sensemaking and their constituent factors. The contents of the table are based on the number of data segments supporting the various contextual factors that emerged from data analysis and also on the content of the data segments as reported in this chapter.

Table 9

The relative importance of contextual levels to participants' sensemaking

Impact on participants' sensemaking	Levels of sensemaking		
	Macro/institutional level contextual factors	Meso/group level contextual factors	Micro/individual level contextual factors
Of great importance	-	• Group culture • Social constructivist processes • Group leadership • Communications	• Knowledge & experience • Spirituality • Attitudes* • Emotions • Ethnic culture • EAL issues*
Of some or minimal importance	• Institutional leadership • Management	• Multicultural group	-
Of no importance	• Organisational culture • Organisational learning	-	-
Volume of data segments relating to contextual categories			

* = Contextual factors not reported in the literature that emerged from data analysis

The micro level of sensemaking clearly emerged as the most important level of sensemaking. It may be supposed that this was because the micro level had more contextual factors. However, it should also be noted that the importance of two contextual factors—attitudes and EAL issues—was evidenced by many data segments, while the importance of knowledge and experience was evidenced by more data segments during the analysis process than any other contextual factor at any level. Regarding the meso contextual level, while four factors emerged as important, the importance of the multicultural nature of the group was evidenced by very few data segments. The macro organisational level of sensemaking was obviously the least important for participants.

Findings also showed the importance of the levels and contextual factors in terms of the longevity of their impact. All the contextual factors at the micro and meso levels were important throughout the redevelopment period in one way or another. However, the two macro level contextual factors—management and leadership—were only important at the very beginning of the redevelopment period, during which time they helped to lay the foundation for group and individual sensemaking. Thereafter, the development of LMC BEd (Prim.) degree program proceeded at group and individual levels largely independently of the institutional leadership or management.

To summarise, participants' sensemaking of the redevelopment task was impacted by contextual factors at all three levels of their formative context. The micro level of sensemaking was by far the most important, meso level factors were of some importance, and macro level factors had minimal impact on participants' sensemaking. Participants also confirmed the importance of the micro and meso contexts and their constituent factors in their answers to the final question in Interview 3. These answers, which rated the positive impact of the micro and meso contextual factors, were nearly all in the eight to ten range. In addition, no participants suggested any new contextual factors in either the micro or meso contexts.

This chapter now continues by presenting findings that explain the nature and relative importance of the various contextual factors. The findings also clearly illustrate how the different contextual factors either hindered or helped participants' sensemaking, cognition, and ownership and eventual success of the project.

4.2 Contextual Factors Hindering Sensemaking and Cognition

Findings emerged from the analysis of all three interviews with each of the participants and my reflective journal regarding issues and problems related to contextual factors that negatively impacted participants' sensemaking and cognition of their challenging redevelopment task. The final interview with each participant, however, yielded the frankest comments relating to issues and problems, the majority of which related to the micro level and, therefore, more personal contextual factors. This could have been due to increased familiarity with either the interview process or with sharing private thoughts with the interviewer.

This section begins by highlighting findings that describe what relevant knowledge and experience participants lacked for the task, why they lacked them, and what problems this caused for their cognition when sensemaking. The section then outlines how most contextual factors in the micro and meso sensemaking levels comprised aspects that hindered participants from acquiring the knowledge and developing the cognition they needed to successfully cope with their degree redevelopment task. The contextual factors have been combined into the following groups:

- the affective domain (attitudes and emotions),
- cultural issues (relating to ethnic and group culture), and
- EAL and communication issues.

The contextual factors with the strongest impact are reported before factors that had a less strong impact.

It may also help to metaphorically visualise the contextual factors hindering sensemaking and cognition during the redevelopment of LMC's BEd (Prim.) degree program as building a house.

1. Firstly, the foundations of the house were weak because of participants' lack of relevant knowledge and experience.
2. Secondly, it was difficult to build the walls of the house with bricks—the newly developing knowledge and skills—because of issues relating to culture, particularly resistance from group culture.
3. Thirdly, the mortar binding the walls together was initially weak because of negative attitudes, negative emotions and communication issues.
4. Lastly, it was difficult to construct and complete a sturdy roof in the form of quality documentation because of EAL issues.

The following sections detail the findings that illustrate how the various contextual factors hindered the redevelopment task

4.2.1 Lack of knowledge and experience

Knowledge and experience were suggested as a micro level contextual factor (see Figure 8). The large negative impact that lack of relevant knowledge and experience had on participants' redevelopment task is an important finding. This impact was evidenced by more data segments from interview analysis than any other

contextual factor at any level. Entries relating to participants' issues with knowledge and experience also dominated the researcher's reflective journal.

The findings that follow, illustrate the knowledge and experience participants lacked about redeveloping degree programs, and how this lack negatively impacted their sensemaking of the range of challenging requirements that constituted the contextual imperatives for change. More specifically, extracts from data collected throughout the study illustrate how participants' lack of knowledge of curriculum development, lack of experience in tertiary teaching and critical thinking, and what they perceived as inadequate preparation for their task, created issues for their sensemaking. These issues included a lack of awareness of the magnitude and complexity of their task and difficulties in applying new concepts to new ways of writing program documents.

Participants shared several reasons why they lacked knowledge and appropriate experience and skills that would have been very useful to them for their project. The foremost reason cited was their lack of previous active involvement in curriculum development. Kai had had a little experience in curriculum development in secondary education in another country. However, the other participants were "used to having our curriculum done for us [so] refining the curriculum was something new" (Lyn). Not only was it new, to redevelop a higher education curriculum was felt to be a "huge leap" because "we [most participants] came from a primary teaching background" (Tam). Tam also asked, "Who [of the group] has the expertise?" With the other participants coming from an early childhood education and a secondary education background, the answer to Tam's question at the beginning of the redevelopment period was, "nobody". This suggests that the participants would have required, initially at least, much support to help them make sense of their project. This assertion is also supported by the next paragraph.

A second reason shared by participants regarding their lack of relevant knowledge and experience was inadequate consultation and preparation for the task. Jesse felt that "it was imposed ... without that clarification as to why we needed to change". Lyn believed that "more consultation, more discussion" and more concrete guidelines "would have helped." Tam's comment about participants "not [being] questioned well [regarding what] we are able to do" certainly suggests that insufficient thought may have been given by leadership and management regarding participants' capabilities and preparation for their project.

Despite this perception of insufficient discussion and consultation regarding the project, LMC management, a suggested macro contextual factor, did try to prepare participants for their redevelopment task. They facilitated LMC presence at the two workshops conducted by FHEC that were intended to help all HEIs and vocational institutions learn new requirements for developing qualification programs. The management also encouraged active participation in two degree redevelopment workshops conducted at LMC. However, with attendance at FHEC's workshops limited by FHEC, with the first LMC workshop short and very limited in scope, and with the last LMC workshop also short and coming after resistance to the task had begun, the workshops achieved little. The ineffectiveness of these workshops in helping participants make sense of what lay ahead of them is explained in more detail in section 5.4.2.

Limited learning from workshops resulted in the initial lack of understanding regarding the magnitude and complexity of the redevelopment task. Consequently, most participants "underestimated the size and difficulty of the task" (Kai). The impact of this is highlighted by the following entries in the researcher's journal.

31.07.13 – [U] said, 'It's not too hard; it shouldn't take long'. Then she pulled a face and said, "What do you think?"

14.07.13 – Both Lyn and Vae [at last] realised that they had a lot of adapting and some writing to do after my "revelations" [regarding what we had to do].

A important reason for underestimating the size and difficulty of the task may have been their lack of experience with critical thinking. This lack was reported as great hindrance to participants' sensemaking and cognition of challenging requirements. The task required "a lot of thinking; analytical thinking; critical thinking; ... and this was quite a challenge for most of us" (Lyn). One reason why it was a challenge was that "I don't believe we all understand it. We have never gotten around to really thinking of what is critical thinking" (Jesse). This inexperience with critical thinking was a major reason for the assumption "that we were doing the right thing all along" (Jesse), and for the slow realisation that "the quality wasn't there" (Lyn) in the old program. My journal noted a related problem.

15.08.13 – [There are] a lot of "inheriting without critical thinking" issues.

14.04.14 – [There seemed] no reflection regarding whether things matched after cutting and pasting.

There were two concepts new to all the participants that they found particularly difficult. The first concept—aligning the different sections of module descriptors—was the most commented on knowledge and skills-related problem. Participants had no prior understanding of the need to align learning outcomes and assessment (Jesse and Vae). Learning how to do this was Lyn’s “greatest challenge”, while Vae visited the redevelopment leader “five, six, seven times” to learn “the importance and the need for alignment.” Consequently, writing new module descriptors was a very lengthy process (Lyn). The persistence of alignment difficulties was also noted in the journal.

28.07.13 – [The first module descriptors written by X showed] no understanding of how outcomes and assessments link.

22.09.13 – Critical thinking – [they are] not used to doing this. ... [They] change one thing, but [have] no thought of [how this is] affecting other things.

The second concept that was both difficult to understand and apply was reflecting FHEC’s new standardised levels in module descriptors (See Appendices B and C). Initially, “there was no comprehension ... [regarding] aligning ... teaching and assessing to particular levels” (Kai). Also, participants found it difficult to understand and remember what was meant by Levels Five, Six and Seven (Jesse, Kai and Tam). Writing learning outcomes that reflected the levels was particularly challenging (Lyn). Using Bloom’s taxonomy (Armstrong, 2018) to choose appropriate learning outcome verbs was another new concept. Doing this helped, “but it was a very painful process [laughter] and some of us just couldn’t see it at all” (Lyn). Translating learning outcomes into appropriate assessments that were weighted according their degree of difficulty were two more difficult levels-related concepts (Kai and Lyn). The following journal entry noted these difficulties.

26.08.13 – [We] changed some outcome verbs → higher Bloom’s [taxonomy verbs] e.g. evaluate and critique [to match level 7 standards]. [There were] two easy and nebulous assessments ... worth 40%. [This is] insufficient challenge for level 6.

Whilst challenges with writing new module descriptors according to expectations were related to knowledge and experience, they were also related to EAL issues. These issues are described in the EAL section.

To summarise, this section has reported findings that highlighted the difficulties participants experienced with making sense of their task because of their lack of relevant knowledge and experience—a micro contextual factor. Particular hindrances were reported as no backgrounds in curriculum development or tertiary teaching; little critical thinking expertise; and inadequate preparation for the task. These hindrances resulted in participants not understanding the magnitude and difficulty of their task, and issues with applying new and weakly understood concepts to writing documentation. This section also noted that management, a macro level factor, had little impact on participants' sensemaking, despite management's efforts to facilitate workshops intended to help participants. These issues slowed redevelopment progress and provided a weak foundation to build on. The next three sections explain how other contextual factors at both the meso and micro sensemaking levels hindered participants' acquisition of the knowledge and skills they needed to support and own their task.

4.2.2 The affective domain

The affective domain, with its two micro level contextual factors, had a great impact on participants' sensemaking of their task throughout the redevelopment period. In the first part of the redevelopment period the impact was largely negative. This section first defines what is meant by the affect.

The affect relates to the mind. According to the American Psychological Association (2009), the affect is “any feeling or emotion” (p. 9) which may be experienced with or without conscious thought. The following account of how and why the affect impacted participants' sensemaking is divided into attitudes and emotions, both of which are associated with feelings. They both hindered participants' sensemaking during the first part of the redevelopment period and provide an example of how two different contextual factors at the same level of sensemaking—the micro—were linked in their impact on participants' sensemaking.

Negative attitudes.

Attitudes emerged from the data as an important micro level contextual factor impacting participants' sensemaking. As attitudes were not originally conceptualised

as a micro level contextual factor, they were not discussed in the literature review. Since there are many definitions for the term attitudes, this section begins with a definition that will be adopted in the context of this thesis.

An attitude is a general evaluation of a person, group, object or issue that may be positive or negative and that is relatively enduring (APA, 2009, p. 32). Attitudes may be evidenced subtly or through a direct expression of opposition or support in word or deed (Smith & Mackie, 2007, p. 230). They are often influenced by people's emotions and beliefs and so predispose people's reactions to people, objects and events (APA, 2018; Myers, 2013, p. 556). This definition is linked to the findings presented below and to the discussion of the impact of attitudes on sensemaking in Chapter 5.

Data showed that many different negative attitudes were displayed at one time or another by most participants in the first and most intense part of the degree redevelopment period. Individual participants' attitudes were somewhat difficult to distinguish from the negative attitudes displayed by the group as a whole. Individual and group attitudes were also similar in their impact in that they both hindered participants' sensemaking of how to write documentation effectively, and reduced opportunities to acquire and practise new knowledge and skills. However, what was reported in the group culture section represented the behaviour of the majority, whereas the attitudes reported below were significant issues with only certain participants.

According to Lyn, certain participants not only lacked enthusiasm for the redevelopment, they were indifferent to it. Lyn reported that, this attitude was principally manifested by two behaviours—a lack of sincere effort, and a lack of appreciation of the importance of correcting documents—both of which stemmed from the belief that the redevelopment was an unnecessary burden.

After the successful modification of program structure and content in the very early part of the redevelopment period—commented on later—participants were faced with very unfamiliar ways of documenting the new program. According to several participants, this was when certain colleagues manifested a great lack of spirit and enthusiasm for change. Certain participants “wanted to ignore the whole thing,” said Lyn, and resisted (Lyn and Tam) by trying to “carry on in the same way” (Kai). Thus, some participants were “not very committed at all” (Lyn) and viewed working on redevelopment tasks as “a waste of time” (Lyn) or a burden (Tam)—another

reason for low attendance at meetings (Lyn). For Tam, this behaviour was also an attempt “to run away from the work”. This may have been due to cognitive dissonance.

The lack of enthusiasm led to what Vae called a lack of sincerity. This was evidenced by certain participants putting little “effort into making the changes that were needed” (Vae). Jay confessed that “I did some [work on module descriptors] without thinking ... because we were rushing ... [and] were running behind time.” Some participants also seemed to want to leave things for the HOD and redevelopment leader to complete (Lyn and Vae). Rushing with module descriptors and leaning on others was illustrated by the following journal entry.

01.09.13 – Lots of issues [with ...’s modules descriptors]. [She] admits that she only “just hurried to finish this”, and [said], “To be honest, I didn’t check”. [She] sort of tries but leans very heavily on her “sisters” to help/fix things up.

Negative attitudes to correcting mistakes and being corrected slowed the development of quality documentation. Lyn, one of the group leaders, was particularly vocal about this issue. She felt that certain participants did not see “the value of redoing [faulty documentation]” and viewed it as just “another piece of additional work” that was unimportant. She added that a “couldn’t care less attitude” resulted in participants “just want[ing] to do it [corrections] once, and when it comes to twice and then three times they start jumping up and down saying, ‘She’s making things hard for us!’” Reluctance to correct mistakes was also noted in the journal.

05.09.13 – [She] avoids making corrections and improvements.

Thus, documents with mistakes “would come back not fixed up” (Kai). The redevelopment leader was in fact trying to “empower them ... to fully realise what they’re doing and why they’re doing it”. Despite her efforts, some participants “would sit with their pencils poised” waiting for the leader to suggest what they could write.

A negative attitude to being corrected was especially evident when moderating colleagues’ marking of students’ assignments began. This attitude hindered the effective use of new marking rubrics and quality assurance of marking. Vae’s explanation that follows suggested the cause of this attitude and illustrated a result.

Discuss[ing] things together ... does not always go down well. ... Some of us see it as criticism. They're not looking at it positively. ... Even when adjustments [to marking] are supposed to be done, we don't do it because [a certain participant says] "I'm right. ... this is my paper and I know what's supposed to be given". ... [Thus, this individual found it] very difficult to accept to be corrected by someone else.

Developing a positive attitude to moderation was a long and difficult sensemaking process for some participants.

In summary, the negative attitudes held by some participants were reported as being a great hindrance because they reduced those participants' opportunities to learn-by-doing and also their ability to constructively contribute to the redevelopment task. The negative attitudes regarding correction also created extra work for other group members, principally the group leaders. This was another issue that slowed the redevelopment task.

Negative emotions.

Emotions are the other aspect of the affect that had a strong negative impact on participants' sensemaking of their task. Whilst, like attitudes, they include feelings, emotions are the body's adaptive response to a matter or event of personal significance (APA, 2009, p. 126; Myers, 2013, p. 459). The adaptive or evaluative response may be positive or negative, and typically includes a combination of subjective experience, physiological arousal, and behavioural or emotional expression of the feeling being experienced (Westen, Burton & Kowalski, 2006, p. 395). The degree redevelopment was certainly an event of significance that triggered negative emotional responses in participants as they grappled with the difficult and unfamiliar requirements of a task that some did not see as necessary.

The large effect of negative emotions on participants' sensemaking is an important finding. Interview data revealed that participants feeling scared and frustrated were common experiences. These negative emotions, like attitudes, reduced efforts, interfered with learning, and increased the time taken to complete the task. The emotions experienced and their impact on participants' sensemaking are now explained.

Participants used many terms to describe the negative emotions they experienced during the redevelopment period. They used words like *fear*, *discomfort*, *worry* and even *dread* regarding redevelopment tasks. Lyn believed that most

participants' resistance to redevelopment processes was caused by "fear of the unknown." Lyn certainly dreaded receiving feedback regarding documents she had written, that despite her best efforts, still needed amending. Most participants seemed to fear this. Another definition of resistance in the context of psychotherapy is a "psychological defence mechanism" (Merriam-Webster, n.d.). Thus, participants' fear of their challenging processes was probably another cause of resistance.

Being scared, particularly from the perspective of lacking confidence and feeling inadequate for the task, was very common. Lyn, Tam and Vae all felt scared of the "totally new" processes in this "huge leap" (Tam). Tam also felt unqualified because "I'm not an expert; I don't have a PhD." She added that, "If I don't have people that can specify things that I need to do, ... I will not be able to do the things that is (*sic*) required of me." Vae felt so "inadequate" and "threatened" that she seriously doubted her ability to make a useful contribution. Both Vae and Tam were also scared regarding how others might perceive their sensemaking efforts and saw their mistakes in redevelopment tasks as "personal weakness."

The participants were particularly scared of was asking questions about redevelopment requirements. Being scared to ask for help (Jesse), even though they did not understand (Jesse and Vae), was particularly common. Lyn explained that "It's our culture that although we don't know, we won't ask" and are ashamed to admit that "we don't know." The following journal extract illustrates the disabling effect of some participants' fear.

29.08.13 – [Z said] "I know I should have said something earlier" [about writing difficulties]. [This verbal] apology was supported by an apologetic email to [the HOD] and me the next day—to her 'sisters'. She said, "I know it was my fault". [Her] being an 'ostrich' is part of an on-going problem. A cultural reluctance to admit a need for help? Embarrassment? Timid nature?

Participants would also not answer questions, even when they knew the answers, for fear of sounding "silly" (Lyn and Tam). Consequently, "we sometimes just sat quiet and we were expecting you [the redevelopment leader] to tell us the words" (Tam). Thus, discussions in redevelopment meetings led by the redevelopment leader were often "a one-way communication ... It was not very healthy and helpful at all" (Vae). The fear of both asking and answering questions significantly reduced opportunities for learning and social constructivist processes.

Moderation also frightened participants (Tam). With moderation, most participants felt “they were being measured personally” (Kai). Participants were particularly frightened of being moderated by the redevelopment leader (Vae) because of her status as “the expert” (Lyn). Being a moderator also brought negative emotions. This was especially true of moderating a colleague who “raised her tone [of voice]” when questioned on her use of marking criteria (Lyn). The strong negative emotions associated with moderation greatly hindered most participants’ acceptance of its necessity.

Frustration was another negative emotion experienced by most participants that interfered with their sensemaking of redevelopment processes. The shortage of time for redevelopment tasks was a frustration noted by most participants. It was also noted in the researcher’s journal:

15.09.13 – So much had to be done in such a short space of time [that it was] stressful! The quality [of what was done] probably suffered.

Another frustration for many participants was the need to make many corrections to module descriptors (Tam). Frustration with this became so strong that it was expressed in body language (Vae) and affected behaviour in two more ways. Firstly, certain participants vented their frustrations in their vernacular³ (Lyn) in redevelopment meetings. Secondly, “People just didn’t get on with things [and] ... kept me waiting and waiting” (redevelopment leader). Even more frustrating for the leader were the simple errors and typing mistakes that came “back not fixed up”. The researcher’s journal recorded the HOD’s frustration with the same issue.

15.08.13 – [The HOD] confessed frustration with [X] for not getting anything done.

This issue also presented both leaders with the dilemma of deciding where to “draw the line between me fixing things up and helping them to see the importance of writing [documents accurately]” (Kai).

Thus, redevelopment processes engendered several strong negative emotions in participants. These emotions did not just result in the behaviours mentioned above, they also resulted in even more negative emotions, particularly in relation to not coping with the task (Lyn and Vae). These negative emotions made Vae feel “very

³ The vernacular, a commonly used term in Fiji, is a person’s first language.

low” at the start of the redevelopment process and several participants shed a few tears (Kai, Tam and Vae). Even the redevelopment leader sometimes felt “stretched to the limit, ... [and] hit a brick wall a couple of times ... [thinking] ‘I can’t handle this right now’”. Tam would have liked to have “run away from the work” (Tam). Whilst no participants literally ran away, many “felt like giving up sometimes because it was such a difficult process” (Lyn). Metaphorically, several participants did run away in the sense that they chose to miss redevelopment meetings intended to help them.

Summary.

In summary, the difficulties of the task, particularly in relation to writing quality documentation and engaging in moderation, created many debilitating negative emotions that impacted participants’ sensemaking of their redevelopment task in several ways. In essence, the frustrations, fear and the feelings of inadequacy that compromised coping skills, interfered with participants’ efforts and ability to gain the new knowledge and skills that they needed to make sense of the difficult requirements of their task. This inevitably negatively impacted the speed (Tam and Vae) and quality (Kai) of redevelopment processes.

To conclude this section, the affect, in terms of negative attitudes and negative emotions at the micro level of sensemaking, hindered participants’ sensemaking efforts. Their lack of confidence in their ability to redevelop the degree program effectively compromised their efforts to progress with redevelopment processes in a timely manner through learning and practising what they needed to do. In short, negative attitudes reduced desire, negative emotions reduced confidence and coping skills, and the result was stressful and slow sensemaking of redevelopment requirements. Whilst this situation dominated the first part of the redevelopment period, it is also a major finding that later in the redevelopment period negative attitudes and emotions faded away and were replaced by positive attitudes and emotions. Why and how this happened is explained later.

4.2.3 Cultural issues

Two types of culture are grouped together in this section—group culture, a meso level contextual factor, and ethnic culture, a micro level factor. Group culture and social constructivist processes—a very important aspect of group culture—emerged from the data as having had an impact on participants’ sensemaking of their

redevelopment task at the meso level. Along with ethnic culture, group culture and social constructivist processes had a strong impact on participants' interest and ability to acquire the new knowledge and skills they needed to cope with their task. Initially, the impact was largely negative. Findings showed that both types of culture engendered behaviour that significantly slowed participants' sensemaking of their project by reducing their ability to own their task and seek clarification of the knowledge and skills they needed to acquire.

Group culture and lack of social constructivist processes.

In this thesis, group culture is taken to be the way people as a group do things, that is, the norms of group behaviour. The great importance of group culture as a contextual factor negatively impacting participants' sensemaking was indicated by the large amount of data that emerged relating to this factor—the most of any meso level contextual factor—and the extent to which participants noted similar things. The impact of group culture on participants' sensemaking may be encapsulated in one word—resistance. The following paragraphs highlight what emerged from analysis of the data collection regarding the causes of the group's resistance and how the results of this resistance hindered participants' sensemaking and progress on their redevelopment task.

Before proceeding, it is important to define resistance in the setting of a sensemaking context. Resistance includes the connotations of taking action against some kind of opposing force, and of making conscious or unconscious decisions to be unco-operative in some way (Corsini, 2002, p. 834). Resistance is therefore an appropriate term for characterising the early sensemaking stages of most degree redevelopment processes when some participants tried to avoid conforming to new expectations. Findings revealed that reluctance was also an issue. Reluctance is more about a lack of enthusiasm or unwillingness to do something than an outright refusal. As both resistance and reluctance to make sense of redevelopment expectations were evidenced in group culture, and their impacts were intertwined, the distinction between them in the following paragraphs is somewhat blurred. The causes and results of the resistance that characterised group culture in the early part of the redevelopment period are now illustrated with the use of interview data and extracts from the researcher's journal.

The data gathered during this study revealed information about the causes or results of the resistance that characterised the earlier part of the redevelopment

period. Causes, according to participants, included both a lack of vision for change and acknowledgement that it was their role, conflicts between previous practice and new requirements, the time-consuming nature of the task, and participants' attitude to their jobs. These causes culminated in a lack of desire to redevelop the degree program. This lack of desire resulted in much resistant behaviour, such as a lack of social constructivist processes, grumbling, low attendance at sensemaking meetings, missed deadlines for task completion, and avoidance of such tasks as proofreading documents. Data analysis also yielded reasons why the leaders found it difficult to convert the group to more positive behaviours. The resistance and negative behaviours significantly slowed progress with the task because they reduced sensemaking opportunities, prevented the group from owning their task and slowed the acquisition of new knowledge and skills.

With five different causes, resistance to many requirements of the task was reported by some participants as being quite strong. The first major cause was participants' lack of vision for change. Initially, few saw the need to change (Tam) because "we were looking at ourselves and not looking at the bigger picture [of our] work ... as educators in training students to be effective wherever they go" (Vae). Thus, the group "just gaug[ed] our work from what we think is OK" (Tam) rather than gauging it through thoughtful benchmarking against developing practices in the wider field of teacher education.

Closely linked to lack of vision was participants' belief that a radical curriculum change should not come from their group. Participants traditionally just used whatever was "passed to us [because] we never thought we would contribute to something better" (Vae). This perception was encouraged by a previous affiliation with another higher education institution in which the overseeing higher education institution "would do all the thinking and all the organising for us, so we would just follow" (Jesse). The belief that "just following ... is my role" (Tam) was also noted in the journal.

15.08.13 – U confessed that [she] had assumed the inherited module descriptor was good and that [it] therefore needed little change.
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A third cause of resistance was the conflict with previous practices. According to Tam, considering the quality of documents had not been a previous group practice. For example, the old subject outlines had been previously written just

“for the sake of having it done” with “no serious thought” (Vae), or consideration (Lyn) given to how components should link. Writing new module descriptors in which all components had to be carefully and thoughtfully linked, not only conflicted with previous practice, it also precluded just “following what is already there” (Tam). Another conflict was how assessment should be marked. Previously, “haywire kind of marking” had been the norm (Lyn) with mark schemes that were often “very general and sometimes confusing” (Vae) or lacking criteria (Kai and Lyn). Developing and using mark schemes with detailed rubrics linked to specified levels of difficulty required a paradigm shift.

A fourth cause of resistance was identified as participants’ perceptions regarding the relationship between time and doing their jobs. These perceptions caused resistance because making sense of all the new requirements required much time. The realisation that everyone needed to be actively involved in the redevelopment process (Vae) had “almost everyone saying, ‘Oh, we don’t have time’ [and] ‘We are overloaded’ ” (Tam). Tam interpreted this as a “resisting attitude [that was] really saying that I am not really accepting these things” (Tam). Also, Kai was told, “Well, you know us. When it’s holiday ...[we] don’t do any preparation”. This was Tam’s explanation:

In the past, even when it’s time for us to have classes ... we just quickly refer back ... with the mentality that you’ll just teach this from what I have had last year. We have this reluctant attitude. We are not really accepting the fact that we are here to ... fully engage with tasks.

While Tam recognised that that this group custom was a problem that “should not be the practice”, it resulted in most sensemaking meetings having to take place in busy teaching weeks. This prolonged the time taken to complete the project

Together, these four causes of resistance led to a fifth cause—a lack of desire to change. Kai suspected beforehand that participants “would not be too keen on making too many changes.” This suspicion was confirmed by the lack of enthusiasm (Vae) and even indifference (Lyn) when the redevelopment began. Vae explained that participants had “been too long with the old program” (Vae) and were uncomfortable in moving beyond the familiar. Thus, there was “always a tendency of falling back to what we were used to” (Tam) and a preference for maintaining the status quo. Vae heard colleagues’ question, “What’s the point of doing all this kind

of things [sic]?... We are used to this [old] program, then why don't we just stick to it?" This preference was also illustrated in a journal entry.

27.08.13 – Some [are] still happy with minimal adaptation and [are] hoping that [this is] OK.

Some participants even expressed a desire to maintain practices developed in the 1990s when "things were much better" (Tam). However, Tam realised that "[By] referring back to that era, we are not growing."

The causes of resistance outlined above resulted in group behavioural issues that significantly hindered progress on the redevelopment task. The findings described next illustrate the hindrances that emerged from data analysis, most notably the lack of social constructivist processes, ineffective sensemaking meetings, overt grumbling, and reluctance to meet task deadlines and proofread redevelopment documents.

Social constructivist processes, through which people work together to achieve something positive for the group, are a valued aspect of collective Pacific cultures. Thus, one would assume that social constructivist processes should have supported the group's sensemaking. However, according to the data, a major consequence of group resistance to the task in the first part of redevelopment process was that social constructivist processes did not flourish. For Lyn:

...working together as a group, for me at the beginning didn't work out because no one wanted to work as a group. They were very negative about those changes. ... So, I don't believe that I learned much as a group or worked much with the group.

Thus, "it [social constructivism] didn't really come out clear[ly] when we started off" (Vae). For a while, this slowed down the redevelopment process (Lyn).

The group leaders hoped social constructivist processes would flourish in Education Faculty redevelopment meetings. The redevelopment leader explained that "I wanted them to be there as I noted the problems [in documentation] and [use such occasions] to give them professional development on how to write." Thus, many meetings were scheduled to help the group learn, understand, and do what they needed to do before the deadline for submitting the accreditation application to FHEC (Kai). Yet for two reasons, these meetings were often ineffective. The first was the "questioning attitudes [such as], ... Meeting again! What is this meeting

for?” (Vae). This, and expressions of frustration vented in participants’ vernacular during sensemaking meetings (Kai, Lyn and Vae) “sort of deadened the spirit” (Vae). The second reason was low attendance at meetings. According to Kai, Lyn and Vai, often only two or three of the six participants attended, some missed many meetings, and others were late and or left early. According to Tam, this behaviour was because “some of us were trying to avoid you [the group redevelopment leader]”. The result of meetings that were not able to support the group’s sensemaking as much as was hoped, was slow learning and slow acquisition of new knowledge and skills. The impact of low attendance at meetings and the longevity of attendance problems are evidenced in the following journal entries.

22.09.13 – X was confused by what she had to do. Why? – non-attendance at meetings.

08.01.14 – As the meetings continued, attendance got worse and worse.

Another consequence of resistance that emerged from interview data was the group’s *mumbling and complaining* about redevelopment tasks. “When we started off there were many complaints” and “mumblings” particularly regarding amending module descriptors (Vae). Mumblings included, “Back and forth, nothing is ever right, even ... little [things like] commas” (Lyn). Perhaps the redevelopment leader was too much of a perfectionist with documentation. However, she also suspected that some participants may not consider “doing things the best they can” as important. Although both group leaders were aware of the grumbling (Kai), they largely ignored it because of looming deadlines.

Resistance to redevelopment tasks was very evident in two issues relating to documentation. The first issue was that participants’ perception that “nothing is ever right” was due, at least in part, to their reluctance to carefully proofread module descriptors. Many mistakes were due to participants cutting and pasting from old subject outlines (Lyn and Vae). This cutting and pasting may have been due to participants looking for ways to merge old and familiar ways of doing things with new requirements. However, Vae explained another reason for the mistakes: “We were not really looking at it seriously, to look at the little detail[s] ... [so] we mixed everything up” (Vae). This was particularly true of the indicative bibliography which was meant to be carefully written using American Psychological Association (APA) referencing rules. Journal entries recorded some results of these issues.

31.07.13 – U didn't have the exam in the assessment table. Therefore [she] missed some of the outcomes → assessment links.

05.09.13 – Issues [in the bibliography] with capitals, USA, publisher. Why? Doesn't W (and some others) check everything? They [participants] say, 'Oh!', when I tell them ... 'It is in the Manual'. I also commented that I keep saying this → laughter!

Vae wryly concluded that “it was important that we had things proofread by someone else, otherwise we would be in a big mess”.

Participants not meeting departmental deadlines was the second issue related to documentation. Vae explained this issue very well:

When we were trying to move forward ... some of us were dragging everything because we were not meeting deadlines. ... When ... [we were told], “Please, we need you to come with this”, ... often we'd come not even half done or even started. ... We never 'til now meet those deadlines.

Journal entries also illustrated this issue.

22.08.13 – Nobody had any copies of anything ready for viewing! ... The problems of getting this done [are] difficult [to solve] and getting worse.

A relaxed attitude to time management, a cultural norm of collective cultures (Alberts, 2017; Wade & Tavris, 2011) such as those in the Pacific, may also have exacerbated resistance to meeting deadlines for completion of redevelopment tasks. Whatever the causes, not meeting deadlines slowed the pace of the redevelopment.

One more finding related to negative group culture is that both group leaders initially had real or perceived difficulty in helping the group to learn. Firstly, I became the redevelopment leader⁴ because of my understanding of what was required. However, the role lacked formal status, so I often felt like “a voice in the background”, unable to “make sure that the things I thought needed to be done, were done”. Secondly, the HOD's leadership was hampered by her lack of experience in tertiary teaching and her newness at LMC. For example, her moderation of assessment was not “well received by a couple of others in the department” (Kai) who had been teaching at LMC longer than the HOD.

⁴ The redevelopment leader was the participant-researcher, but she was not the Head of Department (HOD).

Taken all together, the causes and results of resistance slowed the pace of redevelopment and reduced opportunities to make sense of their task. In particular, by not engaging in social constructivist collaboration at meetings, and by avoiding proofreading, participants “were not in a comfortable position [to write good module] descriptors on their own” (Lyn). This led to another group behavioural norm that was unhelpful for learning—a marked preference for waiting “for others to come up with the corrections” (usually the leaders), and the need for the leaders to “go through things over and over again” (Lyn). Thus, negative aspects of group culture appeared to significantly hinder participants’ sensemaking during the first part of their complex task. In particular, these aspects hindered the acquisition of the knowledge, understanding and skills needed for the redevelopment, which in turn hindered ownership and the timely completion of the task.

Ethnic culture.

All participants were asked whether their ethnic cultural backgrounds had impacted their sensemaking of their task. Their replies revealed that “in some ways, and in other ways it didn’t” (Lyn). The helping or hindering nature of different aspects of ethnic culture is an important finding. This section focuses on the negative impact of ethnic culture on participants’ sensemaking.

There were many fewer interview comments related to the negative impact of ethnic culture, a micro contextual factor, compared to the negative impact of group culture. However, the Pacific Islands participants all recognised the same two aspects of their cultures as hindrances to their sensemaking of the redevelopment. One aspect—the constraints of Pacific *respect*—was an obstacle to them owning the task, and to gaining a clear understanding of what they needed to do. A second aspect, the relaxed Pacific attitude to time, slowed the redevelopment process. These issues are now illustrated through interview data.

Participants’ reluctance to ask and answer questions was a particularly significant hindrance to understanding new redevelopment requirements. One reason for the reluctance to ask and answer questions is linked to shame, which is noted in the next section dealing with the impact of emotions. However, the Fijian culture of respect—which the literature review noted may be shown by silence—also prevented Fijian participants asking the college principal questions because of respect for his high status (Lyn, Jesse and Vae). Thus, the principal’s knowledge and expertise in redevelopment requirements were never directly tapped by Pacific participants.

Instead, they relied on the British redevelopment leader to “explain what he was saying” (Kai). There is also a cultural reluctance to answer questions even when the answers are known (Lyn), particularly if they are asked by people with a higher status.

According to the Fijian participants, there were two more aspects of their cultural respect that reduced their ability to receive or act upon clarification of project issues. Firstly, receiving information, for someone not considered senior to tell others what to do (which occasionally happened during the redevelopment) is “kind of offensive. ... You just have to wait until they come up themselves with the fact that they need help” (Lyn), and until that happens, they will remain confused. Secondly, a lower-ranked participant was obliged to follow her higher ranking relative without comment or question, even though she did not agree with her relative’s reactions to redevelopment processes (Lyn).

Participants’ cultural difficulties with gaining and acting upon clarification of redevelopment requirements and of respecting their seniors had consequences. One was “the slowness of what we were trying to do” (Vae). Another was passive compliance with instructions without engagement or critical thinking. Thus, “you will just agree with everything” (Lyn), especially when instructions come from people with high status (Tam). These consequences reduced two things for participants: their opportunities to learn and understand what they needed to do, and their ability to own the redevelopment process.

Time management was another culture-related issue according to Tam and Vae. Regarding working on things in advance, “We don’t usually do that. When things come, then we work at it” (Tam). Thus, work on redevelopment tasks tended to be “last minute” (Tam). This also contributed to missing deadlines because participants took “things slowly, ... not realising the importance of time” (Vae). Even when reminded of deadlines, “still we prolong[ed] the process” (Vae). Thus, time management slowed down the redevelopment task. “It’s still an issue” (Vae) and is likely to remain so.

Pacific culture also hindered the writing of documents. Whilst issues relating to EAL and communication are described in detail later, it is important to note here that Pacific cultures have very strong oral traditions, and that story telling (talanoa) is a traditional way of learning (Nabobo-Baba, 2006, p. 121). Reading is not so popular, particularly reading for pleasure and relaxation, and written material is not a

primary information-gathering technique (Teasdale & Puamau, 2006, p. 229). Also, people from Pacific cultures tend to look at things in a general way (Vae). Thus “the little details [in documents] which are so very important, we often miss that out, and it showed clearly in the way our faculty ... [wrote] our modules” (Vae). The “little things [that] were never considered” (Vae) were the source of many documentation problems and the time-consuming need to correct mistakes. The mistakes needed correction because gaining accreditation for the new program required quality documentation.

A final finding related to culture is that gender issues had the potential to hinder the redevelopment task but did not. The sole male participant has given his permission to use his words to explain this. He said, “We (Pacific) men usually are the ones who lead. ... Thus, for me as a male, when some ladies try to correct me, that’s not cultural [he laughed here] and sometimes it’s a bit hard”. However, he also said that “I’ve accepted that that happens”, perhaps because he has subordinated some cognitive schemas. This was a good thing because he confessed that he needed pushing to get things done, and during the redevelopment, the participants who needed to push him were women. Thus, gender issues did not appear to hinder the one male participant in the redevelopment process and were not commented on at all by female participants.

Summary.

In summary, interview data confirmed that certain aspects of ethnic culture, at the micro level hindered participants’ sensemaking of their redevelopment task. It reduced opportunities for clarification of tasks and for acquiring new knowledge and skills, it also encouraged following instructions without question. This resulted in compliance with requirements that may not have been comprehended, as well as a lack of ownership of their task. Also, the relaxed Pacific attitude to time prolonged the time needed for the completion of the redevelopment task.

To conclude this section, aspects of both group culture and ethnic culture significantly hindered participants’ sensemaking of their task in the first part of the redevelopment period. Also, the causes and consequences of meso level group resistance, and issues related to micro level Pacific culture, were somewhat inter-related, and thus show a link between different contextual factors at different levels of sensemaking.

4.2.4 English as an Additional Language and communication issues

Language and communication were earlier likened to mortar and roofing material used to consolidate a building. In this analogy, if there are issues with either of them, then the structure of the building may be compromised. In this study, five of the six participants were required to engage with the redevelopment experience by communicating in a language—English—that they spoke as an additional language. This had much potential to hinder the redevelopment process, and the findings that emerged from data analysis show that it did. The following two sections illustrate how both micro level EAL issues and meso level communication issues—particularly electronic communication—negatively impacted participants’ sensemaking and cognition of the project.

EAL issues.

EAL issues had a significant negative impact on redevelopment processes in general and on participants’ comprehension of requirements in particular. This finding emerged from both interview data and the researcher’s journal, as illustrated by the following entry.

15.08.13 – We [the HOD and redevelopment leader] agreed that [the degree redevelopment] was much harder when English [was] not the first language.
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With English the common language at LMC and at other Fijian HEIs, redevelopment meetings and communication were always conducted in English. Although communicating verbally in English was not a great hindrance, listening to and fully comprehending what was heard, was. More significant issues were related to the need to fully comprehend what was read, and utilising English vocabulary and grammar to write required documentation effectively. These issues are now illustrated by extracts from the data collected during the study.

Difficulties with writing in English was the most commonly commented on EAL issue. Thus, translating their vernacular thinking into appropriate written English was a significant challenge for the Pacific participants. The two most difficult aspects of this challenge were choosing and organising words to convey correct meaning, and grammar issues, particularly the correct use of verbs and nouns.

Firstly, there was the challenge of conveying the correct meaning. Tam said that “I might have the idea, but “[am] poor at putting words together to... bring out the right meaning”. Consequently, she was very “unconfident” (Tam) when writing

documents requiring the “finer details of the [English] language” (Tam) and recognised that “sometimes I write something that I really don’t mean” (Tam). Vae’s struggles with minimising words while still retaining important points made her “always the last” (Vae) because she took so much time. Lyn said that writing learning outcomes “is the most challenging aspect of our job” and noted how often they needed correction. Journal entries also noted this problem.

18.08.13 – Her [learning] outcomes [were] often long and complicated. [We] were able to shorten them considerably.

11.09.13 – [There was] lots of overlapping [of learning outcomes]. Therefore 6 outcomes → 3.

Knowing and selecting appropriate words was a significant issue with conveying correct meaning (Lyn). To find the right words for module descriptors, participants looked for synonyms (Lyn). As Vae looked, there were “heaps of papers around me” including “two or three kinds of dictionaries, ... Bloom’s taxonomy, ... and samples [of module descriptors]”. Jay sometimes even “ran out of words ... because English, it’s my fifth language”. Spending hours and hours “trying to find the right words ... for quite a while kept our spirits low” (Lyn). Thus, not only was word selection a challenging and lengthy process, it also negatively impacted emotions.

The appropriate use of verbs, nouns and prepositions in sentences when writing learning outcomes and evidence statements linked to assessments was singled out as the most challenging aspect of writing new module descriptors. According to Kai, verbs and nouns were frequently “muddled up”. Lyn and Vae found Bloom’s taxonomy helpful when choosing verbs, but other participants “didn’t readily take to which verbs they should or shouldn’t use” (Kai). The nature of participants’ difficulties with English vocabulary, grammar and syntax was also recorded in the journal.

26.08.13 – Some phrases [in Y’s synopsis were] joined together in an odd unmeaningful way.

28.08.13 – [In W’s module descriptors there were] only two concise sentences, the usual preposition problems, ... extra words [and] missing articles.

01.09.13 – [In X’s module descriptors, some] sentences were not sentences.

Some participants struggled to do the best they could by writing things “down ... [until] it looks alright” (Kai) before giving them to the redevelopment leader, whose first language was English, to “fix it up” (Kai). The leader recognised this need and was happy to help by amending the English. However, she “was not willing to write it all for them” (redevelopment leader) because she perceived that some participants were too reliant on her help to correct mistakes. Tam found comfort in knowing that “the final wording will come from” the redevelopment leader. However, Tam also acknowledged that “if this lady goes, I need not to be doing that [relying on her so much]”. This over-reliance may have resulted from cognitive dissonance and/or other priorities. Whatever its cause, it contributed to repeated mistakes and the slowness of the redevelopment process.

Difficulties with comprehending the full meaning when reading redevelopment instructions (Lyn), especially when participants worked on their own, was another EAL issue that several participants commented on. Tam felt that when reading, she could “miss the whole point”, and that reading issues were the cause of some participants interpreting instructions in different ways. Lyn linked participants’ reading comprehension difficulties to emotions. She said, “Sometimes we read and reread, but it [the meaning] doesn’t come all at once, it doesn’t come automatically. ... That’s when some of us start to feel discouraged because it is not understood”. Such issues inevitably negatively “affected the way we did things” (Vae).

The reading comprehension issue was also exacerbated by participants’ skim reading habit. This may be linked to the Pacific cultural preference for oral communication of reading and writing (Teasdale & Puamau, 2006, p. 229). Vae described how some participants tended to “rush through things, assuming that they are understanding” but missed essential points. Rushing with reading also resulted in documentation issues that were noted in the journal.

15.08.13 – [U] did not notice several issues with an assessment task, [thus] again, she had only looked at it superficially.

28.08.13 – [In W’s] module descriptor ... two outcomes were substantially the same.

When asked about the skim reading issue, Lyn replied, “That’s another one, and especially the exam questions. You see, we read the first bit and we don’t read it to the last and that is how we actually change the meaning of the whole sentence”.

Thus, both difficulties with the language and an unhelpful reading habit mitigated against reading being an effective way to communicate and clarify redevelopment instructions.

Orally expressing oneself clearly and effectively in a language that is not one's first language can be a significant challenge—Lyn certainly felt this to be the case. Interview comments showed that converting vernacular thoughts into clear spoken English was indeed an issue. Jay and Jesse both said that they found it more difficult to express themselves clearly and effectively in English than in their vernacular. As Vae explained, “behind our minds we are thinking in Fijian. Then [when] I’m trying to say it out in the second language, sometimes it’s totally different and it’s misunderstood by those who are listening”. Lyn described how “I will try and rephrase the question in my mind so that I can actually answer ... [with] the right words”. This was another disincentive to ask questions. Thus, participants’ issues with expressing themselves in English clearly was another hindrance to their sensemaking of their task.

A final EAL issue was participants’ issues with fully comprehending English explanations of redevelopment tasks and processes that they listened to. Lyn, who also acknowledged that she was not a good listener, explained that when a certain person explained things, “he mentions so many hard words [that] I just sit there, but after, I’ll go and find out what he meant from somebody else” (Lyn). Observation suggested that Lyn was not the only person with this problem. Vae illustrated a different aspect of the listening comprehension issue:

A lot of us were hearing the same thing, but when we come [*sic*] to working, we were doing things differently. So it was ... probably the way we interpreted what we were hearing and how we listened to what was spoken.

Hearing and listening issues were also noted in the journal.

31.07.13 – [U] had heard ... all the module descriptor reminders but had not clicked that [it] was ALL the module descriptors. Mishearing or misunderstanding? Poor listening skills? Stuck on a wrong assumption?
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Thus, differing comprehension of verbal explanations in English resulted in different interpretations of various elements of redevelopment tasks.

To summarise, the use of a language other than their vernacular impacted participants’ sensemaking of their task in a negative way. This is because it caused

participants' issues with expressing themselves in redevelopment discussions, and more especially with understanding what was heard and read regarding redevelopment requirements. However, it was writing redevelopment documentation in a second language that was the biggest issue. These language issues also linked to negative emotions. This is an example of how one contextual factor was linked to a different contextual factor at the same level of sensemaking, in this instance, the micro level. As EAL issues increased the time needed for sensemaking and acquisition of knowledge and skills, they also inevitably prolonged the redevelopment process.

Emails and oral communication issues.

Communication issues—a meso contextual factor—were reported by participants as another thing that slowed down the pace of the redevelopment. This was largely because the use and abuse of communication reduced attendance at faculty meetings that were intended to help participants acquire the knowledge and skills that they needed for their task. In the initial period of the redevelopment, even though participants preferred oral communication (noted above), its occasional inefficient use or misuse caused negative emotions. However, the biggest communication issue was that emails—particularly those informing participants of meetings—were ineffective because of access issues and the ease with which they could be ignored.

There were several reasons why communication by email was often ineffective. First, there were the physical difficulties of accessing emails, particularly on the old campus where redeveloping the degree program began at a time when emails could only be accessed through computers linked to LMC's internal system. Jesse pointed out that the inability to read late-arriving emails about sensemaking meetings if participants were off campus resulted in them not knowing about meetings. When nobody arrived at meetings (Lyn), participants were contacted verbally on their mobile phones; this was more effective “in a lot of cases” (Lyn).

Another problem was participants' issues with emails as a means of communication. At the beginning of the redevelopment, several participants had recently come from work situations where emails were not used. Thus, checking and using emails was neither a habit (Lyn) nor something they were used to (Vae). Some participants never consistently checked for emails (Vae), while others, even when they did check, did not always open or read them (Lyn, Jay, Jesse and Tam), or

acknowledge or answer them (Kai). This may reflect the fact that coming from oral cultures, they valued face-to-face oral communication above more impersonal emails that required writing.

Not opening or reading emails was also an act of avoidance for some participants. As Tam said:

Some of us ... were intending to use the email to be an excuse. ... If I talk to you face-to-face, then we know that we have already communicated, but if you use the email, it will depend on whether you have read it or not. [Thus] I can say, “Oh, I’m sorry, I did not open [it], I did not read your email”.

This practice not only reduced attendance at meetings, it also resulted in times when participants were expected “to do some things to hand in, and we never did anything because we never bothered to look at emails” (Vae). Consequently, “emails never worked well with us” (Vae).

The manner in which oral communication was delivered was another hindrance to sensemaking of the redevelopment task. Tam explained: “When [a named participant] popped in [the office shared by most participants] and say [*sic*] this and that ... some of us, while we’re under pressure, say ‘Oh! She should know that we are doing this and that and that.’ ” This comment reflected how overly busy participants perceived themselves to be. Tam continued her explanation in a somewhat raised voice by stating that “sometimes that is like a master and a servant relationship,” implying that this way of communication made her feel like a servant rather than a colleague. Thus, the manner in which some oral messages regarding sensemaking tasks were delivered negatively impacted emotions and may also have strengthened resistance to the task.

Whether oral or by email, communication that was vague or that that did not happen is a final communication issue that interfered with sensemaking meetings. This was illustrated by several entries in the researcher’s journal regarding meetings scheduled by Education Faculty to look at redevelopment documentation.

Vague communication

08.01.14 – Did the style of setting [some] meeting times – a bit haphazard and last minute without a chance of many reminders—affect meeting attendance?

Uncommunicated clashes with meetings and/or other priorities

02.09.13 – A meeting had been arranged [verbally] but ... U was in an Admin meeting.

03.09.13 – Y wanted us to look at her [module descriptors]—but we couldn't find her at 3 pm. She was in a PR committee meeting.

As these issues resulted in sensemaking meetings being postponed or cancelled, they inevitably slowed the pace of redevelopment.

Summary.

To summarise, the ineffectiveness of emails hindered sensemaking by reducing participants' attendance at meetings and therefore also their progress with acquiring the knowledge and skills they needed for their redevelopment task. Ignoring emails was also viewed as task avoidance. In addition, what was perceived as inappropriate verbal communication stirred up negative emotions which may have strengthened resistance. The links between communication, a meso contextual factor, and both avoidant or resistant attitudes and negative emotions, is an example of how meso and micro contextual factors were linked. Finally, EAL and communication issues both hindered the sensemaking of participants.

4.2.5 Conclusion to hindrances to sensemaking

The findings that emerged from analysing both the interviews and the researcher's journal clearly showed that many aspects of the various contextual factors that comprised the different sensemaking levels of participants' formative context negatively impacted participants' sensemaking of their task.

It may help to metaphorically visualise the contextual factors hindering sensemaking and cognition during the redevelopment of LMC's BEd (Prim.) degree program as building a house.

1. Firstly, the foundations of the house were weak because of participants' lack of relevant knowledge and experience (micro level factors).
2. Secondly, it was difficult to build the walls of the house with strong bricks—the newly developing knowledge and skills—because of issues relating to insufficient macro level workshops, cognition and ethnic culture issues (both micro level factors), but more particularly because of resistance from group culture (a meso level factor).

3. Thirdly, the mortar binding the walls together was initially weak because of negative attitudes and negative emotions (micro level factors), and communication issues (a meso level factor).
4. Lastly, it was difficult to construct and complete a sturdy roof in the form of quality documentation because of EAL issues (a micro level factor).

The findings reported in this section also showed how most of the contextual factors conceptualised as comprising the meso and micro sensemaking levels impacted participants' sensemaking as individual factors and through their impacts on other contextual factors. This showed that a formative context has:

- more than one level (factors in the macro, meso and micro level were all important here),
- levels that consist of many contextual factors (four meso level, and five micro level contextual factors were reported as negatively impacting participants' sensemaking),
- contextual factors that have many aspects,
- contextual factors that have strong connections to other contextual factors at the same level (for example, emotions and EAL issues at the micro level; group culture and communication at the meso level), and
- contextual factors that have connections with other contextual factors at a different level (for example, social constructivist processes and ethnic culture).

Finally, it is important to remember that although these negative issues dominated the first part of the redevelopment period and may have appeared insurmountable, most of them waned or completely disappeared and were replaced by influences that helped sensemaking after the group received some very positive external feedback regarding what they had so far achieved. This feedback, and the effect it had on the various issues that had hindered sensemaking, are now explained as part of a wider explanation of how one new contextual factor, and how many changed or different aspects of the same contextual factors, helped participants' sensemaking of their task.

4.3 Contextual Factors Motivating and Facilitating Sensemaking

This research found that many of the contextual factors forming participants' formative context impacted their sensemaking in both positive and negative ways.

The negative impacts have just been described. This section explains how different aspects of the same contextual factors, as well as how aspects of one factor (spirituality), had a positive impact, and assisted participants' sensemaking of their redevelopment task. Why and how aspects of contextual factors changed from having a negative to having a positive impact are now explained.

This section begins by identifying aspects of participants' professional backgrounds that briefly provided great support for participants' sensemaking at the very beginning of the redevelopment process. The section continues by presenting findings that emerged from data analysis regarding how most contextual factors in the micro and meso sensemaking levels, and one macro level contextual factor—leadership—had aspects that helped participants take ownership of their task through trying to acquire the knowledge, understanding and skills they needed to successfully complete their project. The successes achieved and the links between contextual factors are also noted as they emerge.

The order of the following sub-sections is significant. The first sub-section outlines how the primary teaching background of the Fijian participants greatly helped the whole team quickly and successfully resolve the content and structure of the new BEd (Prim.) degree program at the very beginning of the redevelopment period.

Whilst this prior knowledge and experience was important, it was other contextual factors, and the way they linked together that led to a successful conclusion to participants' sensemaking of their redevelopment task. Spirituality is reported on first because, when it was strong, it provided great motivation to persist with difficult tasks and helped participants develop positive attitudes and experience positive emotions as they persisted. When negative attitudes and emotions were replaced by positive ones, principally because of positive external feedback regarding the quality of the newly developed program, group culture changed from resistant to accepting. This activated the mores of Pacific collective cultures in a way that enabled the leaders to help all participants make sense of their remaining task through active and amicable social constructivist processes. In this way, the group finally took ownership of their task. To use the analogy of a building again, after the positive external feedback, the building—the redeveloped degree program—finally gained improved foundations and the good quality building blocks, roofing material and mortar to enable successful completion.

4.3.1 Prior knowledge and experience

Although the participants' lacked much knowledge and experience that could have helped their sensemaking, there were several aspects of their combined professional background that were very helpful. These included their knowledge of the old program, their knowledge of the primary curriculum, and their knowledge gained from being primary teachers in the field. This knowledge assisted in determining the content and structure of the new program. The personal EAL experiences of the Pacific Islands participants also enabled them to write documents in a way that Pacific students would relate to.

The old BEd (Prim.) program had not been reviewed for many years (Kai), thus the same ideas and same textbooks had been used for a long time (Jesse). When participants examined the old program at the very beginning of the degree redevelopment period, they observed issues with content that made it somewhat ineffective for modern teacher education in the Pacific. This observation was grounded in familiarity with the old program, memories of valued aspects of their own primary education training, and recent service in primary schools in the field (four participants). For example, Lyn's recent experience with primary education reforms while "being a leader out there" (Lyn) had taught her how education students should be equipped for effective service in the field. Participants also collectively noticed that some old subjects had insufficient content (Jesse), others were basic, repetitive or irrelevant, and some "useful material" (Lyn) had disappeared. Thus, all participants realised that redeveloping the content and structure of the program was vital "in order to be [relevant and] marketable" (Vae). Redeveloping the program content and structure was the only aspect of the early stages of the redevelopment process achieved through amicable social constructivist processes. Stakeholders' affirmation of the new content and structure expressed at a meeting organised by LMC to provide feedback on the new program (see Appendix A) before detailed documentation began, encouraged participants (Kai) and marked this as an early success of the program redevelopment. The positive external affirmation of the almost complete redeveloped program came much later.

Writing program documentation in English which was an additional language was noted earlier as a challenge for Pacific participants. However, their long experience with this issue enabled them to write English in a way that Pacific students would understand. Jesse explained that "The way we [Fijians] write will be

the way we know our typical Fiji students will understand,” as some of the exact terms in English do not “really work for our ... Fijian context.” Reaching a consensus regarding how to accurately express concepts in English that would also be meaningful to Fijian and Pacific students took effort. However, this was essential for ensuring that information in module descriptors intended to help students would be understood. The efforts made, and that continue to be made, to resolve this issue is another success of the redevelopment process related to participants’ prior knowledge and experience.

4.3.2 Spirituality

LMC is a Christian institution. Because of this, and because all participants were Christian, spirituality is referred to here only in the religious sense and mostly in relation to faith. Analysis of interview data confirmed that personal spirituality motivated participants to persevere with difficulties, and that it was a source of strength that was actively sought and thankfully received.

Spirituality is an integral part of LMC’s holistic education. Thus, spirituality “should be the foundation of whatever we do [at LMC]” (Vae), including why people work there. Spirituality was meant to be the foundation of all Education Faculty redevelopment meetings, which always began and ended with prayer. However, a group expression of spirituality is not evidence of personal faith. While most participants talked freely about their faith in relation to the redevelopment task, particularly in Interviews 2 and 3, one participant made only one prompted comment. The findings regarding how participants’ personal spirituality motivated and supported their sensemaking are described next.

Spirituality in the form of faith in God motivated participants and gave them strength as they tackled their difficult task. Kai, Tam and Jay all said that being “faithful in God’s work” (Tam) had motivated them to persist throughout “this hard year” (Jay). Kai also believed that this conviction was an important source of positive attitudes towards the sensemaking task. Several participants commented on their need for strength and God’s grace to cope with their “hard year,” which for half of the participants included studying as well as full-time teaching and participating in the redevelopment (Kai, Jay and Tam). The year was also made more difficult for everyone because of the many issues involved in relocating LMC to a new site.

Tam's year was so difficult that "when I think of the family, sometimes I cried in my prayers." These comments showed how spirituality provided emotional support.

Participants not only felt the need for God-given help, they actively sought help through prayer. This was second nature to Vae as "whatever I do, I make sure it's ... always linked to spirituality." For Jay, "When I got stuck, I always prayed." Lyn recounted how "during those times, we were really prayerful because we really needed a lot of strength and the only way we could get it was from above." However, Lyn also mixed her prayerful request for help with a question:

I said, "Lord, You ... brought me here. I don't even know anything and now ... I'm stuck, and you promised that You will help us. If You have brought me here, then I know You can help me. Why is it that I'm not learning?"

However, she diagnosed the problem as "I'm impatient and not waiting for the Lord to respond." With more time, she did learn and that is when "those negatives were changed into positives" (Lyn).

Participants were also thankful to God for the support they had received from their leaders and fellow participants during the redevelopment and for their personal and group successes. Tam believed that "God was leading in all of this" and agreed with Jesse that spirituality "was one of the things that kept us [the group] together." Jay, Vae and Tam all thanked God for good, supportive colleagues, which Lyn believed had been brought together as a group "at the right time to learn from the right people." Tam also perceived that "God's leading ... was in the timing of the principal leaders being here" because without those leaders she and others would have struggled. Lyn, Tam and Jay all identified the redevelopment leader as one of the "right people." Lyn also told the redevelopment leader:

Your joining our department is no mistake. ... [We were] ... so tired trying to think, that we just want to give up. But ... you came. Those were the times that I really felt that God was using you.

Thus, for Lyn, "it was the Lord's help plus your guidance that helped take away negative impacts." In essence, participants believed that "if the Lord hadn't been with us, we wouldn't have made it" (Lyn).

Most participants experienced spiritual blessings, positive emotions and personal successes in the program redevelopment because of their spirituality. Answers to private prayers requesting help brought Jay "closer to God." Tam was thankful that "God gives this opportunity for me to learn." Vae felt "honoured,

blessed and privileged” to have been part of the redevelopment process. Lyn not only felt blessed, she gave “honour and glory to God” for allowing her to be part of a process that “enriched [me] in so many ways,” such as becoming “a better person, better lecturer, better teacher, ... [and learning] what quality is all about.”

To summarise, spirituality had an impact on participants’ sensemaking of their difficult task. It provided motivation to persist, and gave them the means to benefit, both practically and emotionally, from the Divine help that they perceived they needed and received. Their faith also led them to acknowledge the Divine hand in the group’s composition and leadership, and to perceive that being a part of this difficult but ultimately very successful process was a privilege. Thus, most of the participants perceived their own and the team’s ultimate success with their difficult task as rooted in their faith.

4.3.3 The affective domain

It was noted previously that the affect is comprised of attitudes and emotions. This section reports the positive attitudes and emotions that emerged from data analysis, how they significantly helped participants’ sensemaking, how they improved and how they led to some very personal successes.

Positive attitudes, improved attitudes and successes.

The negative attitudes that hindered participants’ sensemaking have been described. However, findings showed that some participants had positive attitudes to making sense of their task throughout the redevelopment period and that their positive attitudes to learning and to being corrected as an aid to learning helped them persevere and succeed. Observation of these successes was one of several reasons why resistance to sensemaking of the redevelopment waned and negative attitudes disappeared.

The desire to learn was particularly helpful to Vae and Lyn. Vae’s desire was encouraged by her viewing her part of the redevelopment process as an “honour” and a “privilege”, and that learning was essential to “developing in the way that is expected of me.” This view was supported by her conviction that learning through the redevelopment experience was “for the betterment of the department as a whole [and that] this was more important ... than all the complaints.” Thus, she felt encouraged “to do the best that I can.” Lyn’s similar willingness to learn by facing

the challenges were evidenced in journal entries. The entries also showed how sensemaking processes facilitated participants improving their English.

15.08.13 – [English] pronunciation, meaning and grammar differences between critic and critique; this kind of discussion usually originates with Lyn as [she is] always keen to learn something new.

08.01.14 – Lyn is happy to have a go at doing things and to try her best with whatever she has to do.

Willingness to learn and face challenges resulted in another attitude that helped Vae's and Lyn's sensemaking—appreciation of correction as an aid to learning. Vae knew she would need correction. Receiving it did not upset her. Instead, she viewed receiving it as “a stepping-stone towards” (Vae) improving her strengths and attending to her weaknesses. It also enabled her to “feel more confident in what [... she was] doing.” Lyn and Vae's positive attitudes to correction were also recorded in the journal.

14.08.13 – [Lyn] is always keen for me to check for mistakes and see what she has got right. ... Vae is always quiet, but listens.

One aspect of learning through correction that some participants were very negative about was moderation. However, other participants appreciated how moderation could help. “I really like the idea ... that someone will moderate our work just to make sure that the students were marked fairly,” said Lyn. Jay commented that “I don't find it [moderation] threatening. ... I like it. I'm happy when you criticise ... what I'm doing because that's where I can improve.” This helpful attitude was a legacy from her father who taught her to view constructive criticism as “a stepping-stone in her life” (Vae). This may be an example of cognitive schema attunement.

These participants were greatly helped by their positive attitudes throughout the redevelopment period as they tried to make sense of what they were doing. Other participants changed their attitudes from negative to positive as the redevelopment proceeded. Three triggers for the change in attitudes emerged from the data. The first was a gradual realisation that “the quality [in the old program] wasn't there” (Lyn). The second trigger was twofold: acknowledging the wisdom of changing unhelpful attitudes, and the wisdom of receiving help. Tam eventually acknowledged that:

I have to change. ... I cannot continue to have this mentality that I need not to be told ... what I need to improve on. ... I have to accept, to open myself up for correction [and] to be helped by someone else. ... I have to start learning, ... I have to listen and get counsel [and] ... accept it.

Observation of how the positive attitudes of other participants resulted in happier and more productive classrooms, and good student feedback (Lyn) advertised good reasons to change. It also helped resistant participants accept that “those painful (sensemaking) processes” (Lyn) were necessary for the redevelopment to succeed; this opened the way for them to benefit from the redevelopment leader’s expertise, which previously “they didn’t want to take” (Lyn).

The third trigger was the very positive feedback of the quality of the partially redeveloped program received from credible external sources—representatives of Fiji’s Ministry of Education and professors from other institutions. When this happened, which was quite late in the redevelopment period, participants exhibited excitement and gratification. Lyn confirmed that the feedback gave participants “something to smile about” but also noted that “by then, the attitude had changed a lot” (Lyn). It had changed; however, the journal also showed that good new intentions did not always take root immediately.

22.08.13 – [W] will ask questions ... and smile and [her] subsequent words suggest that [she] is happy to get what seem to be good answers. ... [But she is] still prone to looking for short cuts.

11.04.14 – W’s reception of final ... revisions suggest she has turned the corner regarding trying to do her best.

Positive attitudes led to significant successes. Participants’ greatly improved attitude towards the redevelopment was one of them. Tam and Vae also described very personal successes regarding learning. Tam’s new positive attitude to learning from correction meant that she no longer wanted “to put on a mask” (Tam). Thus, learning for her became “a real thing” (Tam) as she began to “address the weakness” (Tam) in her performance. For Vae, her positive attitudes resulted in an increasing desire to learn. This was particularly evidenced by her looking forward to receiving more moderation comments—“I’m keeping the comments even” (Vae)—and by developing the habit of always opening and checking emails.

In summary, positive attitudes to learning, whether acted upon early or late in the redevelopment period, supported participants' sensemaking of their task. The positive attitudes also lead to group and personal successes. However, it should also be noted that the positive attitude to learning through sensemaking that was needed to strengthen the metaphorical house alluded to earlier, took variable amounts of time for different participants to develop.

Positive emotions.

Several participants agreed that "at the beginning there were a lot of negative emotions and not much positive" (Kai). According to data analysis however, as the redevelopment progressed, positive personality traits, affirming feedback and a realisation of the high quality of what was being achieved combined to make negative emotions disappear.

Thus, as the redevelopment progressed, negative emotions disappeared, and positive emotions increased. There were several reasons for this. One was a personality in which negative feelings are short-lived. Jay was one such person. Lyn also described how her dread of not getting things right quickly turned to "the biggest joy" when she was told that she had finally mastered linking elements in module descriptors. This feedback "was really exciting" (Lyn) and greatly boosted her morale and confidence. Another reason for participants' improved emotions was their observation of the positive things being achieved by the redevelopment. This convinced them that their struggles had been worthwhile, so they started "feeling good about it" (Lyn). As they finally saw the big picture (Tam) regarding how the new program should produce better graduates than the previous program, and at last knew their "way around all these things" (Jesse), the negative emotions disappeared. Even the fear of moderation diminished when participants accepted that it was a good, helpful practice (Vae).

While all these things encouraged positive emotions, it was the positive external feedback that provided the greatest encouragement. Lyn, who was present when the new LMC BEd (Prim.) program was explained and affirmed in public by government officials and academic peers from other teacher education institutions, said, "I felt so proud I could have cried that day. ... I was feeling like I'm top of the world." This experience also helped her "really love these new things ... that you [the redevelopment leader] have taught about." When the feedback was relayed to all participants, there were "big smiles on faces and claps" (Kai). The realisation of how

successful the redevelopment was perceived to be by the credible external sources mentioned above meant that “all those frustrations ... never mattered any more” (Jesse).

Once this realisation became embedded in participants’ thinking, then all participants experienced positive emotions as they completed their redevelopment tasks. They experienced satisfaction (Jesse), pride (Tam), and even happiness and excitement (Jay and Lyn) regarding what they had achieved. Vae’s joy in knowing that “I am part of a positive change” boosted her self-esteem. Lastly, while the redevelopment leader enjoyed the learning throughout the redevelopment period, she experienced even greater joy at seeing “the others drop their resistance, ... enjoy learning, and ... their enjoyment of being part of this process”. Thus, the good feedback both created good emotions and ended the hindering effects of the negative emotions.

Summary.

To summarise, positive attitudes and emotions helped some participants’ sensemaking throughout the redevelopment period. For others, their attitudes and emotions became positive when they became convinced that what they were collectively achieving was good. This realisation appeared to end the effects of negative attitudes and emotions—resistance, stress and slowness to get on with the task—and paved the way for all participants to increase their efforts to own and understand their task. These efforts largely took place in group settings and were facilitated by ethnic culture, group culture and communication.

4.3.4 Culture and communication

It was previously noted that aspects of group and ethnic culture hindered the sensemaking of both the group and individual participants in some significant ways. However, improved micro level attitudes and emotions enabled the micro level collective mores of Pacific culture, which included the cultural preference for oral communication, to transform meso level group culture. This transformation completed the group’s sensemaking of their challenging redevelopment task by the activation of productive and amicable social constructivist processes—another meso level contextual factor. The relationships between these contextual factors both within and between sensemaking levels is another important finding. The ways in

which aspects of these contextual factor and the relationships between them facilitated participants' sensemaking are now explained.

Ethnic culture and communication.

Several aspects of ethnic culture emerged from the data as helpful to participants' sensemaking. For the Pacific Islanders, once their traditions of collaborating and the positive aspects of respect had been mobilised by improvements in attitudes and emotions, the traditions helped participants' sensemaking greatly. For the European, it was her British traditions of critical thinking and of asking questions that helped both herself and others.

The Pacific practice of collaboration in collective societies was a great asset to social constructivist processes. How these processes operated and what else facilitated these is described later. As Lyn said, "We learn collectively; that's part of our culture." "Doing things together cooperatively" also gave Vae the assurance that "if I don't know anything, there's somebody else who's going to be there to help." Thus, once resistance to the task had disappeared, the Pacific Islanders in the group comfortably engaged in Pacific-style oral face-to-face collaborative sensemaking. This really helped develop their understanding of new requirements, which earlier had been slow to develop. The lone European was a team worker by nature, so fully joined in the team collaboration on their redevelopment tasks.

Although the Pacific culture of respect had discouraged Pacific participants asking questions, a different aspect of respect helped their sensemaking. As Tam explained, "In Pacific culture, ... when the chiefs or whoever is higher say something, I show respect by following what they do. ... It's my role, ... I have to listen." Tam included Europeans in the "whoever." Thus, respect encouraged compliance with redevelopment processes through listening and doing. However, other influences which are described later were required to extend the listening and doing into learning and understanding.

Two aspects of the British participant's personality which are encouraged in her culture proved useful to the team's sensemaking. Firstly, she is a critical thinker. This was helpful to other participants because her critical eye more readily identified issues requiring addressing. Secondly, in contrast to her Pacific colleagues, the British redevelopment leader was always happy to ask questions, both on her own behalf and on behalf of her colleagues. Answers to her questions helped clarify

sensemaking issues for herself and for her colleagues who were then able to hear further explanations. She also asked the college principal questions.

It has already been noted that communication in the form of emails hindered participants' sensemaking of their task. However, as Pacific cultures have strong oral traditions (Jay and Lyn), oral communication was very helpful to participants' sensemaking after resistance waned. Pacific people are very "used to talanoa session[s], which is just to meet and talk, and then we give and take" (Vae). Talanoa sessions really helped sensemaking because "When we talk, that's what drives us to action" (Vae). Oral communication also assisted understanding of redevelopment requirements. Tam explained that "when I read, ... I could miss the whole point, but if we discuss it, then [I can be given] clarification" (Tam). Vae noted that sometimes she "needed some things to be clarified in detail, ... said in a different way, [and] probably twice." However, she preferred this to happen in a "one-to-one direct conversation." Missing the point and requiring clarification could be linked to either cognition or EAL issues in the micro level—or both. However, the point here is that it was always oral clarification that was preferred.

Three factors emerged as assisting the effectiveness of oral communication. First was the close proximity of most participants to each other. On the old campus, most participants shared a small office, so messages linked to sensemaking were easily shared (Kai). Kai also explained how verbal communication was even easier on the new campus.

[Most] of them have been lined up on the ... side [of the large faculty office], so they readily communicate with each other across a pile of books and ... tell each other, 'Oh, did you hear so and so?' and 'We've got to do that.'.

This is an example of how the physical location can impact sensemaking.

Two other factors assisted oral communication. One was the good relationships, described in the next section, which helped participants express themselves when collaborating with others. The other factor, according to Tam, was the fact that because all participants were trained teachers, "we were able to understand each other well." Tam saw this evidenced by the redevelopment leader "automatically sense[ing] that we are not really understanding what you are saying." Thus, participants' teacher training helped us "read each other's body language and facial expressions" (Kai) and realise that "they're not really understanding, so I'll say it again in different words" (Kai).

Thus, several aspects of ethnic culture, most notably talanoa and the preference for oral communication, greatly helped participants make sense of their task. The impact these had in improving group culture and facilitating social constructivist processes are now described.

Group culture and social constructivist processes.

The strongest positive aspect of group culture that emerged from the data as supporting participants' sensemaking, was the strength of their good relationships. These not only mitigated the negative behaviours described earlier, they provided a strong foundation for social constructivist processes to flourish in the second part of the redevelopment period. The following findings illustrate the nature of these good relationships and how they were evidence by willingness to be helpful and understanding.

Despite the negative issues reported earlier, the positive nature of group relationships was a feature of group culture throughout the redevelopment period. "It's just a nice group to work with," said Kai. Vae balanced previous comments about negative group behaviour with the following insights.

There's something about the group that we have here. We just sort of connect. We appreciate each other and what each other has contributed towards the growth of the group. ... It's the spirit that's there within the members ... that has kept us together in a nice way. We respect each other—what each other has to say. We laugh together. We cry sometimes and that has helped strengthen the bond. And with that bond, there's a good relationship. ... When the relationship is not there, whatever we want to accomplish will never be accomplished.

Kai also commented on the shared humour. According to Tam, spirituality was "one of the things that kept us together." It may also have inspired participants to be "there for each other" (Vae) as the following journal entry shows.

22.08.13 – [We set aside] Sunday for X who is struggling [with her module descriptors] and [Tam] said we must help.

The good relationships were also characterised by approachability and understanding. "This very wonderful understanding ... between colleagues ... makes it easy to approach [them]" (Jesse). Tam's experience of the group's understanding was described thus:

Personally, I make mistakes and I was late in most of the things, but it was reassuring that the HOD [and] those who are around us understand our situation, and they accept what we were going through. They were not fully frustrated with some of the delay. ... That is a very powerful thing. ... When they see that I'm really in a very tight situation, they understand.

For Tam, “the understanding that we have as a team” was “the thing that kept me going.

Data also showed that group good relationships became even better during the latter part of the redevelopment period. These improvements—evidenced by deepening relationships, the negative use of the vernacular ending and a greater interest in learning—may all be regarded as successes of the redevelopment and all facilitated quality sensemaking of the new program requirements.

Improvements in group culture occurred in the latter part of the redevelopment period. During this time, the deepening relationships resulted in participants' greater trust in being accepted as learners and a greater ability to share honest opinions (Tam). Also during this time, using the vernacular in a negative way ceased and was forgotten about. Tam said that the negative use of the vernacular “does not stick in my mind that there was a problem. ... At the end, people understand and forget there were some misunderstandings in the discussion[s].” Speaking in the vernacular still happens in group meetings, but it is now done unconsciously when sharing stories and telling jokes that are quickly explained as the conversation continues in English (Kai and Lyn).

The improvement in the group's attitude to learning was another significant success. Lyn noted in the final interview that all participants were now actively trying to learn and that “You can see it from the ... quality ... [and] content of their work.”

The deepening of good relationships and the now common interest in learning allowed social constructivist processes to flourish. This, at last, encouraged the group to own their task and overcome their ethnic cultural reluctance to seek clarification through asking questions. Tam found the now very collaborative “discussion that we have in our course board ... a very useful practice ... [because] asking lots of questions ... we were enlightening our thinking.” Vae also appreciated that she “was never alone. It was that cooperative work of all the checking ... rechecking, editing

and suggesting things to be changed ... that helped.” The researcher’s journal also noted the active collaboration.

04.09.13 – “[It is] good to see some effective teamwork/collaboration.”

Analysis of the data revealed that the clarification of redevelopment requirements facilitated by the newly flourishing social constructivist processes was a major contributor to several sensemaking successes. Firstly, participants became able to “polish” their own module descriptors (Jay). Secondly, some participants highlighted that much learning was achieved. “I’ve learned so much—new things that I would never have learnt if we had not worked together as a team” (Jesse). She found learning how everything linked particularly “fascinating.” Tam firmly stated that “I learned more from this process [when] we just worked within our group than if someone else had come in.”

Another important collaborative success was the development and use of new marking rubrics. To develop these, the group, with the help of marking rubrics gleaned from other institutions “sat down ... for how many sessions just to get the [marking] rubrics right” (Lyn). The journal also noted that:

19.09.12 – [We] combined the best of both [borrowed marking rubrics] with our own ideas. ... All seemed happy with what we [were] attempting to do.

The new rubrics were a success from three perspectives. Firstly, they ensured fair marking (Lyn). Secondly, they helped students learn “where they are getting these marks from ... and with our little comments ... they know where they’ve gone wrong” (Jay). Lastly, the use of the rubrics banished the “haywire marking” (Lyn) noted previously, and thus greatly improved practice.

The importance of social constructivist processes to participants’ sensemaking of their task was summarised well by Tam.

I will not be able to get the confidence of doing something until I have the assurance from our group. ... We were only able to successfully do what we have done because of the group. ... To those of us who were limited in our knowledge of some of these things, we’ve benefitted so much from being part of the group.

The finalised degree program that resulted from improvements in group culture and active social constructivist processes was a program to be proud of, and

as such, brought increased status to the group that constructed it—the Education Department. The external affirmation of its content and structure, its greater relevance and depth (Jesse), practicums that integrated theory into practice (Lyn), improved documentation and quality mark schemes, all encouraged participants to realise that the Education Department (themselves) had “helped put the institution’s name on the map” (Kai). Also, “from being nobody and looked down on by other institutions, all of a sudden we were somebody” (Kai).

Summary.

These findings show strong connections between ethnic culture, group culture, social constructivist processes and communication regarding their positive impact on participants’ sensemaking. In essence, the Pacific traditions of working together for a common cause, combined with the cultural preference for oral communication, provided the building materials for social constructivist processes. However, it was the strengthening of good, trusting and helpful group relationships, together with improved attitudes and emotions, that allowed the walls and roof of the redevelopment building to finally be strongly built. The final element needed to complete the building was good leadership.

4.3.5 Leadership

During the earlier part of the redevelopment period, the leaders’ ability to support participants’ sensemaking, particularly regarding acquiring new knowledge, comprehension and skills, was limited by participants’ resistance to the task and their negative attitudes and emotions. Once these hindrances were removed, the leaders were able to help both individuals and the group more effectively. An issue in the first part of the redevelopment may have been the style of leadership. The initial exhortation to change practices with what was perceived as little support (transformational leadership), followed by the requirement to create documents under time constraints (transactional leadership), may have encouraged resistance. However, with the help of both group and individual spirituality, the leadership style became more interactional and servant-based as both trust and understanding of individuals’ needs grew.

The main leader at the meso level of sensemaking—the redevelopment leader—emerged from the data as a very important source of help for solving sensemaking issues and for steering participants through their demanding task. The

macro institutional leader provided needed vision and knowledge at the beginning of the task, but thereafter was not directly involved.

Group leadership.

Much data emerged from interview transcripts and the reflective journal to show how the group leadership, particularly the redevelopment leader, significantly helped participants' sensemaking of the redevelopment requirements. The following findings illustrate how the redevelopment leader used her knowledge and professional and personal skills to steer participants "in the right direction" (Jesse). They also illustrate how the HOD aided this by personally encouraging struggling and complaining participants.

Participants said a great deal about how the redevelopment leader helped their sensemaking. "If [the redevelopment leader] hadn't shown us [how to do things], I don't know who else would. ... Without ... [her] help we wouldn't have produced this quality stuff [documentation]" (Lyn). Tam also believed that "if [the redevelopment leader] were not part of this team, we would have been in a big mess." However, it is acknowledged that participants may have been less complimentary if they had been interviewed by someone other than the redevelopment leader.

Several attributes of the redevelopment leader emerged from interview analysis as helpful to participants' sensemaking of their task. First is how she used her skills and understanding of processes to teach other participants. For example, she ran practical Education Faculty workshops (such as how to reference effectively). She also engaged in frequent informal personal development sessions regarding writing effective module descriptors: "I'd walk across the staffroom and say, 'OK, this is great, but please, you've still got this issue.'" Such "back and forth" (Vae) modification of documents "gave me insight into what is really expected ... [and] made things much clearer to me" said Vae. One skill the leader tried hard to pass on was turning "concepts into words" (Lyn), something that she was apparently "really good at" (Lyn). Her skill as a careful proof reader was also highly valued, as according to Vae, "It was important that we had things proof-read by someone else, otherwise we would [have been] in a big mess."

Another helpful leadership attribute that was reported by the participants was the redevelopment leader's patient and persistent nurturing and scaffolding of her colleagues throughout the redevelopment process. The leader set the tone for

working relationships by always trying to be non-judgemental “and non-threatening on a one-to-one basis” (Kai). She kept explaining things when sensing that her colleagues “were not really understanding” (Tam), and continually emphasised how everything had to be linked to learning outcomes (Lyn and Vae). This “nurturing and ... scaffolding ... inspired me to work” said Lyn. For Vae, “One thing that has helped me through the long process—having you there all the time. When something is not right, you are there to correct, advise, counsel and ... encouraging us to move on.” The leader’s patience was particularly evident to Vae who admitted that she was “the cause of frustrations because I was always late ... yet you never showed it to me.” She went on to explain that this was:

... not like some of us, the way we talk to each other—the facial expression, the words, the tone. All those will tell ... ‘she is upset with me.’ I’ve never seen that ... You talk gently to us all. ... You never have pinpointed somebody and said, ‘You were the cause of this,’ and to me, that has encouraged.

In the end, the redevelopment leader was acknowledged by Lyn as “our chief motivating factor” and the source of “know[ing] what quality is all about.” When Vae was asked if more could have been done to help participants’ sensemaking of their task, she immediately answered, “You did all that was to be done.” This was also somewhat humorously summed up by Jay.

You’re like the driver in the Education Department, that you drive us through these two long years to finalise something. ... You’ve been a good driver. Even though we went on rough roads, ... you managed to drive us safely to our destination. ... With your help it makes me a successful lady [said with a big smile].

However, the redevelopment leader did not achieve everything by herself. She was strongly supported by her complementary relationship with the HOD which was strengthened by their shared determination to help other participants.

22.08.13 – [We] set meetings for Monday, Tuesday, Wednesday, Thursday – one person and [their] modules on each day. Only ... [the HOD] and I will be always be present. ... [This is] a difficult and punishing schedule to keep.

It was also strengthened by the two “always talking” (Vae) about redevelopment tasks and, as noted in the journal, by affirmation of each other’s efforts.

15.08.13 – I boosted her up with [the words], “We all have talents and you are the expert on the Fiji primary [education] system”.

In response, the HOD affirmed the redevelopment leader as a “good mentor for me, and I’ve been trying to follow in your footsteps and ... be as professional as you are.” The HOD was certainly professional when re-explaining things to Jay after she said, “I just don’t feel like continuing on with this.” At times, the HOD also mitigated some resistance from participants by saying, “You’ve always been negative towards these changes and [the redevelopment leader’s] consistent guidance. ... You were not very accepting ... but without her, and without these processes, we wouldn’t be recognised [by FHEC].” The supportive relationship between the two leaders and what their leadership achieved regarding all participants’ sensemaking may be regarded, as is evident in the data gathered during the study, as two successes of the redevelopment process.

Institutional leadership.

At the beginning of the redevelopment period, the vision and skills displayed by the macro level institutional leader—the LMC principal—regarding what needed to be done, was admired by all participants. At the beginning of the redevelopment period before the detailed redevelopment processes began at departmental level, the principal directly facilitated participants’ sensemaking. As he was the main source of redevelopment knowledge for the redevelopment leader, he also indirectly helped during the rest of the redevelopment period as she passed on to participants what she had learnt and relayed his affirmation of what the group was producing.

The principal was seen as a strong and much-needed source of sensemaking knowledge and expertise. As recorded in the journal:

08.01.14 – Leadership [for the redevelopment was] strong from S [the college principal].

According to Lyn, the principal was “one of the most influential people in this [redevelopment process]” and was someone that she looked “high upon.” To inspire participants’ first efforts, he joined us in some departmental redevelopment discussions (Vae), “point[ed] us in the right direction” (Jesse) and alerted Kai (if no one else) to the magnitude of the task. Tam believed that the principal “came ... [at] the right time” ... [with the] experience and knowledge ... that we have been wishing for” and questioned whether we would have done so well under other

principals. Tam also expressed her need for “someone who’s a visionary, ... who can clearly map for me what needs to be done.” One new concept that the principal mapped out was reflected on in the researcher’s journal.

20.09.13 – [The principal] reminded us about trying to link theory with practice. ... [He] encouraged us to set assignments ... in the practicum. ... This idea [was] revolutionary to us!

The principal also provided affirming feedback to both the whole Education Faculty and to individuals regarding the quality of the redevelopment work they were doing. He told Kai, “We know Education is doing a good job. I’m not worried about ... your documentation because it’s coming through very well.” Jay was particularly encouraged when the principal kept on telling her, ““You can do it!”” and believed him to be a “very good leader in helping us, supporting us ... even though we are slow” (Jay). However, one participant, Vae, confessed that she was a little scared “to talk to him.” This may be due to her ethnic culture of respect for leaders, which was described earlier, and her personality—she is always quiet in departmental meetings. However, she also preferred one-to-one assistance from friends and “felt more at ease and comfortable having you [the redevelopment leader] ... explain things” (Vae).

To summarise, while the college principal did not support the detailed sensemaking efforts of participants, he empowered the redevelopment leader to perform that function, and his affirmation of group sensemaking efforts were appreciated. He was also viewed by participants as a visionary figurehead for the whole redevelopment process.

Summary.

Thus, data showed that leadership played an important role in participants’ sensemaking. The college principal provided the initial inspiration and expertise, and subsequent encouraging affirmation. However, it was the meso level redevelopment leader supported by the HOD who had the larger influence, and participants’ comments illustrate how much she ultimately contributed to the successful redevelopment of the degree program. Nevertheless, it must be remembered that even her efforts yielded limited results until resistance to the redevelopment requirements diminished and ended.

4.3.6 Summary of factors facilitating sensemaking and successes achieved

In the second part of the redevelopment period, aspects of many contextual factors from all three sensemaking levels had a positive impact on participants' sensemaking and interacted to help participants bring the task to a successful conclusion. In summary, participants' knowledge helped them successfully amend the content and structure of the new program. However, whilst personal spirituality motivated and gave strength to some participants, progress was slow until a realisation of the quality of what they were achieving ended the resistance and negative attitude and emotions. After this happened, oral communication and aspects of ethnic culture and group culture that could support sensemaking flourished, which in turn facilitated strong social constructivist processes. These collaborative processes, and a revitalised interest in learning, encouraged participants to actively own and understand what they were required to do. This change for the better allowed the capable leaders, especially the redevelopment leader, to help all participants' sensemaking and guide the task to a very successful conclusion. The significance of this success to participants is summed up by Tam: "The success of what we did was the greatest thing that covered everything."

To conclude, aspects of a number of contextual factors at all three levels of sensemaking worked together to bring the task to a successful conclusion. This illustrates again the complex nature of a formative context and the importance of considering all contextual factors for fully understanding a sensemaking event or facilitate such an event in the future.

4.4 Contextual Factors that had Minimal Impact

Participants' formative contexts were conceptualised to consist of three sensemaking levels—macro, meso and micro—each of which was made up of different contextual factors. The findings above describe how eleven of the thirteen different contextual factors had a negative and a positive impact on participants' sensemaking of their task. The other two contextual factors, the meso level multicultural nature of the group, and macro level management, did not emerge from data analysis as having great importance. However, the small impact that they did have, in common with most other contextual factors, was both negative and positive.

4.4.1 Multicultural group

Entries in the researcher's journal reflected on the impact of group and individual ethnic culture rather than on the broader multicultural context. However, a small amount of data did emerge from interview analysis regarding the benefits to the group of having colleagues from overseas and the negative impact of language use on group communication. As stated previously, the six participants represented three different Pacific cultural perspectives as well as a British perspective.

Lyn believed that the group benefitted from the knowledge and experience of colleagues from overseas. This was because two colleagues, the LMC principal and the redevelopment leader, were perceived as advanced in curriculum development, which "has helped our program be recognised" (Lyn). However, it was also noted above that it was the redevelopment leader who had the much bigger impact on participants' sensemaking. While her comfort in asking questions and ability to think critically may be related to her British culture, most other aspects of her helpfulness that was reported by the participants related to her talents, for example, as a good proof reader, or her character and personality—such as patience—rather than cultural attributes.

The multicultural nature of the group impacted communication. This is because the way problems were communicated needed consideration. Telling people in an acceptable way that they are wrong can be a cultural issue. Jay's explained that in her culture, "you can't tell people that this is wrong. You have to speak in such a way, say like you're speaking in parables or something, so people will understand where you're coming from." Observation showed that group members from a different culture would talk to each other very directly and frankly. With such cultural differences, "we are more careful in the way we communicate as cultures" (Lyn) because "we don't know how they [participants from other cultures] will react to situations" (Lyn). However, needing to be careful was not a major hindrance.

The language of communication needed consideration too. The issue of certain participants speaking in their vernacular in a negative way has been noted elsewhere. However, it is important to note here that speaking in the vernacular was automatic for half the group. Vae, with her very recent experience as a member of an all-Fijian primary school staff, explained that "when we started off, I was always talking in Fijian. I'm forgetting that we were together with other cultural groups." Tam explained the issue in more detail:

Sometimes for a Fijian, we totally overlook that [speaking in the vernacular] is happening. Unfortunately, it's done when we are in meetings. ... We think it's nothing at all until ... someone raised the issue. ... Unfortunately, ... very little [*sic*] of us have ... work[ed] in other countries out of Fiji to fully understand the impact of what we are doing.

The impact was that the non-Fijian participants could not understand and sometimes felt excluded. However, as noted above, this issue was overcome and was far less of a hindrance than issues relating to other contextual factors.

In summary, the multicultural nature of the group had some small impact on participants' sensemaking of their redevelopment task. It helped participants' sensemaking of redevelopment requirements by giving them access to needed knowledge and skills possessed by overseas colleagues and hindered it through communication issues. However, the vernacular communication issue was reported as something of a minor irritant to participants, and the knowledge and skills of overseas colleagues were not fully accessed or utilised by many participants until their resistance to the task disappeared.

4.4.2 Management

Facilitating change is an important managerial role. One way of facilitating change is to assist participants' sensemaking of the change through encouraging attendance at, and active participation in, relevant workshops. The findings that emerged from an analysis of interview transcripts suggest that LMC management's success in this area—whether the workshops were run externally by FHEC or internally by LMC—was limited. Table 10 has been included to clarify what emerged regarding the impact of workshops.

Table 10

Workshops intended to support sensemaking of the degree redevelopment

	DATE	FACILITATOR(S)	CONTENT / INTENT
1	November 2011	FHEC	To introduce Fiji-based HEIs to constructing qualification programs with learning outcomes that aligned with new requirements regarding number of credits and internationally benchmarked standardised levels.
2	November 2012	FHEC	To expose representatives from more HEIs to the new qualification expectations.
3	February 2013	LMC Management	A meeting at a staff retreat where LMC attendees at FHEC workshops began to share their knowledge and understanding of FHEC's new requirements with colleagues.
4	March 2013	LMC Management	Curriculum Advisory Panels (consisting of external advisors, selected LMC faculty and student representatives) helped finalise and affirm the content and structure of new qualifications.
5	April 2013	LMC Management & Education Dept. redevelopment leader	To use specially created templates to help all faculty understand how to write learning outcomes and evidence statements that linked to assessment tasks and aligned with FHEC level descriptors.

Two FHEC workshops, that were one year apart, aimed to familiarise representatives from LMC and other Fiji-based higher education and vocational institutions with FHEC's new requirements for constructing quality qualification programs. They were run in English—the official language of education in Fiji—by Fijian personnel who had been trained in the new requirements. However, of the six participants, only one attended both workshops, and two others attended just one, due to FHEC restricting places. Thus, obtaining directly from FHEC workshops some idea of “where we were going [and] what we needed to look at” (Jesse) was an experience denied half the group. Another issue was that handouts and exemplars were aligned to vocational training and did not effectively illustrate academic qualification documentation (Kai). Only the redevelopment leader attended both workshops. They did alert Kai to “what needed to be done”. They also helped her understand “the levels and the bigger picture of credits” (Kai), and how to write effective learning outcomes. This gave her useful knowledge to later pass on to her colleagues.

The workshops organised by LMC management also had a minimal impact on participants' sensemaking of their task. The March 2013 Curriculum Advisory Panel meeting, attended by only the HOD and redevelopment leader, affirmed the

sense made by the Education Faculty of the content and structure of the new program. This encouraged positive emotions but achieved little else.

The two other workshops organised by LMC management to facilitate sensemaking were attended by all LMC faculties. These workshops attracted more interview comments, but these were still very few. The February 2013 workshop “broadened us” (Tam) but was short (one morning) and very limited in scope. The final workshop, which was just one afternoon, aimed to teach all LMC lecturers how to write learning outcomes and align them with FHEC’s standardised levels as “a lot of people were struggling ... with” this (Kai). According the Kai, “A lot of people [members of all LMC faculty] were very happy” with the exemplars provided and said, “Oh, now I see.” Lyn said, “Best of all were the examples. I still hold them today, and as I look into them, ... it helps me connect [learning outcomes with other module descriptor elements].” However, this workshop was conducted after resistance to the task had begun, so some members of the Education Faculty apparently “took no notice of these [exemplars] and they were the ones who had to do a lot of rewriting” (Kai). In a sense, this final workshop could be perceived as organisational learning. However, thereafter, LMC faculties largely worked in isolation to produce their own redeveloped qualification programs’ documentation.

Overall, these findings reveal that workshops can aid people’s sensemaking of a challenging task. This is evidenced by the redevelopment leader learning from FHEC and helping to run both the LMC workshops. However, these workshops were of minimal help to most participants because of limited attendance, shortness of duration and resistant attitudes. Thus, the workshops did not and could not teach all participants what they needed to learn. The minimal impact of management on participants’ sensemaking is also evidenced by the very few comments participants made relating to it, and by the finding that most other contextual factors impacted several other contextual factors whereas the workshops impacted only one—knowledge and experience. Lastly, it has been noted that much greater learning took place at the meso and micro levels of sensemaking where participants had many more opportunities to learn-by-doing in collaborative settings.

4.4.3 Summary

In summary, the multicultural nature of the group and the somewhat limited attempts management made to facilitate participants’ sensemaking both hindered and

helped the group's sensemaking. Thus, these issues deserve mention even though their impact was of a limited nature compared to most other contextual factors.

4.5 The Connectivity Between Contextual Factors

This study provides evidence that the three levels of sensemaking and their constituent contextual factors that were conceptualised as participants' formative context were very interconnected in their impact on participants' sensemaking of their redevelopment task. This was the case whether the impact was negative or positive.

The connectedness was evident from three perspectives. The first perspective is the connectedness *of the different levels of sensemaking*. Findings showed that all three sensemaking levels were connected, and that the connections between the meso and micro levels of sensemaking and their contextual factors were particularly strong.

The second perspective is the connectedness *between contextual factors within their levels*. With the college principal both the institutional leader and the head of a very small management team, leadership and management at the macro level were inevitably connected. With meso level contextual factors, group culture, social constructivist processes and communication were very tightly connected regarding their negative and positive impacts on the group's sensemaking. Micro level contextual factors were also extremely connected. Essentially, when attitudes and emotions were negative, and the negative mores of ethnic culture held sway, little learning took place and sensemaking progress was slow. However, when spirituality was strong and assisted by positive attitudes and emotions, the negative influences of ethnic culture and EAL issues were coped with or overcome, and quality sensemaking took place.

The last perspective is the connection *between contextual factors in the different levels*. The findings reported above revealed many connections. For example:

- whilst LMC's macro level principal was looked up to as source of sensemaking knowledge and expertise, this source could not be easily tapped because of micro level ethnic cultural inhibitions;
- some behavioural norms of meso level group culture were rooted in micro level ethnic culture;

- the group's meso level preference for oral communication was rooted in ethnic oral cultural traditions; and
- meso level group attitudes and participants' micro level individual attitudes were so strongly connected that it was sometimes difficult to distinguish between them.

Thus, the findings show that three sensemaking levels and their various contextual factors were intricately linked. This shows that participants' formative context was highly complex.

4.6 Summary of the Findings

Many findings emerged from analysing interview data and entries in the researcher's journal. What was reported in the rest of this chapter is now distilled into the following major points.

The first major finding is that contextual factors in each of the three proposed levels of sensemaking had some impact on participants' sensemaking of their redevelopment task. The macro contextual factors had the least impact. This was partly because there were only two macro level factors, but mostly because leadership and management were only directly involved in supporting the beginning of the redevelopment task. Thereafter, all the redevelopment processes took place at the meso and micro sensemaking levels. The contextual factors in the meso and micro levels had a much greater impact on participants' sensemaking, with micro level factors having the greatest impact of all.

A second major finding is that all the contextual factors that impacted participants' sensemaking were multi-faceted. Also, every contextual factor had one or more facets that hindered participants' sensemaking, and one or more facets that helped their sensemaking and led to both personal and group successes.

A third major finding is that attitudes and emotions held the key to successful sensemaking. In essence, they were the key in two respects. Firstly, they enabled or disabled the ability of other contextual factors to support sensemaking. Essentially, when attitudes and emotions were negative, facets of other contextual factors that had the potential to support sensemaking were disabled, and progress with the task was slow. In contrast, when attitudes and emotions were positive, facets helpful to sensemaking in other contextual factors came into play, and the task was completed in a timely and amicable manner. This was when most successes were achieved.

How and why emotions and attitudes disabled and enabled the ability of other contextual factors to support sensemaking is discussed in more detail in the answers to Research Questions 2 and 3 and in the Discussion chapter.

The second way in which attitudes and emotions were the key is that they changed over time from disabling to enabling sensemaking. The findings showed that negative attitudes and emotions dominated the first part of the redevelopment period. This was a time when frustrating hindrances seemed insurmountable. However, the negative attitudes and emotions waned later in the period as participants became more familiar with the new requirements and began to perceive the quality of the new program they were developing. The findings also showed that the change from negative to positive attitudes and emotions was triggered by an important event—the very positive affirmation of the partially redeveloped degree program from credible external sources. This largely banished the negative attitudes and emotions, and sensemaking of the redeveloped program concluded in a very positive fashion. Thus, full sensemaking, learning and task ownership only took place in earnest after this important event. This was the time in which most successes occurred—such as new learning and active group social constructivist processes. The findings also illustrated that these successes were experienced by all and were enjoyed from three perspectives: participants’ individual personal and professional growth; the achievements of the group; and the increased status the group’s success brought to the institution.

In summary, attitudes and emotions, both negative and positive, were the key to sensemaking in this investigation. However, the causes and consequence also revealed by the findings are suggestive of what may be done to avoid the negatives in organisational change and encourage the positives.

The importance of contextual factors not previously acknowledged by sensemaking research is another important finding. The impact of attitudes has just been reported. Culture in two forms also proved very important. Findings showed that different mores of ethnic culture could hinder or help sensemaking. Some mores hindered learning through participants feeling unable to ask for clarification without transgressing cognitive and cultural schemas. The cognitive and emotional energy participants needed to develop a new group cultural more of communicating via email, and to construct documents in a new format with new terminology in English which was not most participants’ first language, were also hindrances. Conversely,

the mores of collective culture helped sensemaking by providing the foundation for successful social constructivist processes conducted through oral communication. Group culture, which is partially grounded in ethnic culture, was also a powerful force in the seriousness of attempts to make sense.

The findings also showed that both spirituality and the possession of relevant knowledge and skills had a very important impact on the foundations of sensemaking. Essentially, when personal spirituality was strong, it provided motivation and much needed and appreciated strength to begin and persist with the challenging task. It also facilitated positive emotions. The knowledge and skills that some participants possessed from their experience in primary teaching provided a good foundation for determining the structure and content of the new program. However, participants' lack of knowledge of, and experience with, curriculum development and critical thinking meant that they had a weak foundation for learning and applying unfamiliar concepts to constructing other aspects of the new program.

Another major finding is the importance of the connectivity between contextual factors. The interactions between contextual factors that emerged from analysing all the data, and that have just been evidenced by findings in the last few paragraphs, clearly illustrate that factors both within and between sensemaking levels were extremely connected in their disabling or enabling impact on each other.

Lastly, the findings support the existence of a formative context impacting people undertaking sensemaking of a difficult task such as the redevelopment of an out-dated teacher education degree program in a higher education institution. The findings also suggest that the formative context of such a change is multi-dimensional, and that the contextual factors that constitute the dimensions are both multi-faceted and extremely interconnected. In addition, different aspects of the constituents of formative contexts may help or hinder sensemaking at the same time or at different times, and the characteristics of contextual factors may change during a sensemaking event. Finally, formative contexts are not closed systems and may be significantly impacted by external events and influences.

This summary of the major findings closes with a final reference to the degree redevelopment experience being likened to constructing a building. The different contextual factors represented the foundations, walls, roof and mortar of the building. When the foundations—the knowledge and skills—were weak, there were many issues with trying to make sense of the rest of the structure. When, after good

feedback, participants strengthened the foundations through acquiring new knowledge and skills, issues with the rest of the building were resolved and the final result was a new construction—the new degree program—to be proud of. This building analogy, which is based on the findings of this study, illustrates the importance of viewing a sensemaking experience holistically if one is to both understand and support the experience effectively.

4.7 Answers to Research Questions 1-3

This section uses the findings to answer the first three research questions posed earlier in this thesis. However, the order of the questions and their sub-questions have been somewhat rearranged to better correspond to the findings that emerged. Accordingly, the contextual factors are discussed first (to answer Research Question 1), followed by sensemaking issues and problems (to answer Research Question 2), then the sensemaking successes, so many of which represent the disappearance of, and solutions to, the sensemaking issues (to answer Research Question 3). Research Question 4, regarding the contribution of this research to sensemaking theory and methodology, is answered at the end of the Discussion chapter. Certain words and phrases in the answers are italicised to emphasise the links with the individual research questions sub-questions.

4.7.1 The contextual factors that impacted participants' sensemaking

Research Question 1 asked *What contextual factors impacted the participants' sensemaking of the program redevelopment?* Figure 9, which is an adaptation of Figure 8, illustrates that many contextual factors impacted participants' sensemaking of the program development and that the factors were at all three levels of sensemaking.

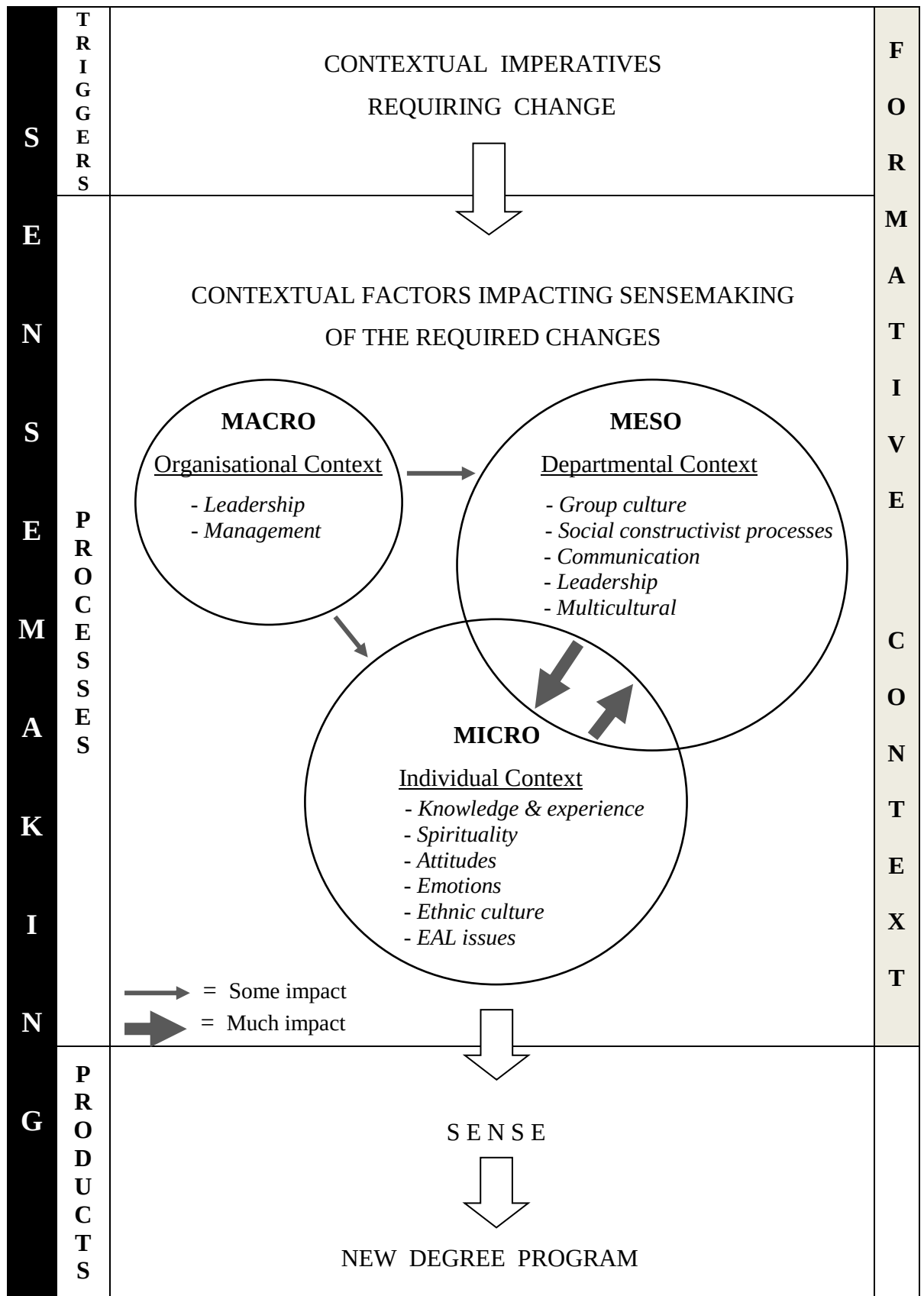


Figure 9. *The reconceptualised formative context.*

Figure 9 also illustrates several answers to sub-research questions linked to Research Question 1. Firstly, the *relative importance of the contextual factors* is suggested by the order in which they are listed because this order approximates a ranking based on the findings. Thus, at the micro level, the presence or absence of professional knowledge and experience largely determined whether or not participants readily made sense of new degree redevelopment requirements, which in turn determined the strength of the foundation for sensemaking. Thereafter, it was the impact of spirituality, attitudes and emotions that largely determined whether negative or positive aspects of other micro contextual factors were dominant. This ultimately controlled the amount and effectiveness of efforts participants made to acquire the new knowledge and skills that were needed to make full sense of their challenging task. Similarly, whether or not the group culture was resistant or positive largely determined the effectiveness of social constructivist processes, communication and efforts made by the redevelopment leader to support participants' sensemaking. The evidence used to inform the findings indicated that the macro leader also had a little more impact than management-facilitated sensemaking workshops.

Another sub question of Research Question 1 asked about the *connections between contextual factors*. It is clear from what was pointed out in the previous paragraph that they had *much impact on each other within the individual levels*. It is also worth repeating important examples from each level—the very strong connections between attitudes and emotions at the micro level, between group culture and social constructivist processes at the meso level, and the fact that the helpful institutional leader was also the manager of LMC redevelopment workshops.

There were also *many and somewhat complex connections between contextual factors between levels*. The findings reported illustrated that many contextual factors in the meso and micro levels had an impact on factors in the other sensemaking level. For example, micro level EAL issues impacted meso level group communication, and the micro level acquisition of new knowledge and skills was strongly impacted by meso level social constructivist processes. Figure 9 also shows that while the two macro factors had a small impact on participants' sensemaking at the meso and micro levels, they operated at a distance and were not impacted by contextual factors from either of the other two levels. In contrast, the meso and micro sensemaking levels greatly overlapped in their impact on participants' sensemaking.

As noted earlier, it was difficult to distinguish between group attitudes and individual attitudes, and at times they were the same. Also, group culture took some of its norms from ethnic culture, and spirituality was expressed at both the individual and group levels. Thus, contextual factors were highly connected both within and between sensemaking levels.

Two diagrams are now used to illustrate two more answers to Research Question 1 sub-questions. They also emphasise the importance of attitudes and emotions. Firstly, Figure 10 illustrates *which contextual factors inhibited/hindered sensemaking and their relative importance*.

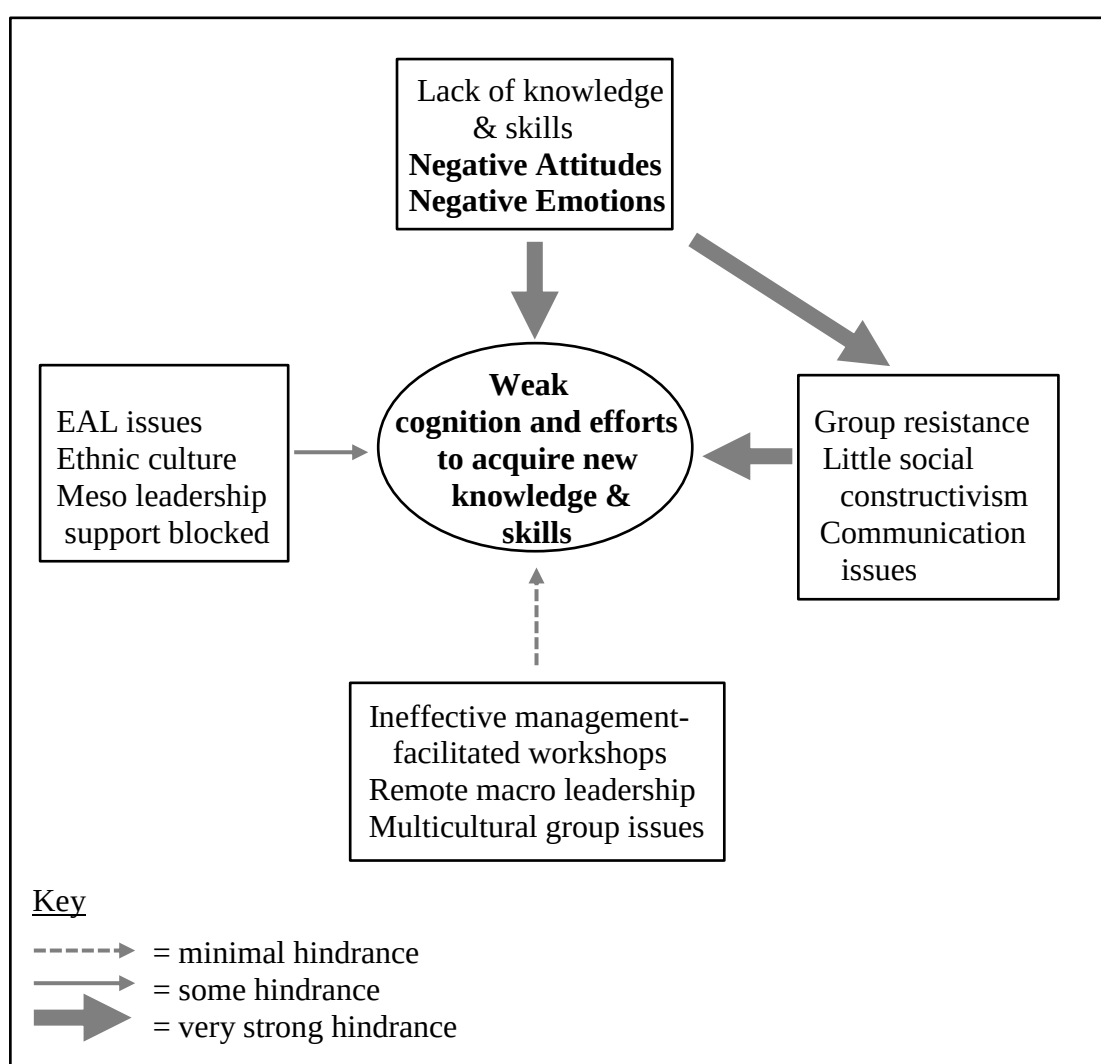


Figure 10. *The relative importance of contextual factors hindering sensemaking.*

Lack of knowledge and skills was a big hindrance to participants' sensemaking. However, negative attitudes and emotions, were by far the most inhibiting contextual factors. This is because they hindered individual participants' desire to learn. They also caused group resistance, prevented social constructive processes and made it difficult for the meso leaders to help the group learn. The end result of all these hindrances was difficulties with cognition and weak efforts to acquire new knowledge and skills. Consequently, when these hindrances were the norm, progress with making sense of the redevelopment requirements was slow and stressful.

The second diagram, Figure 11, illustrates *which contextual factors supported participants' sensemaking and their relative importance*.

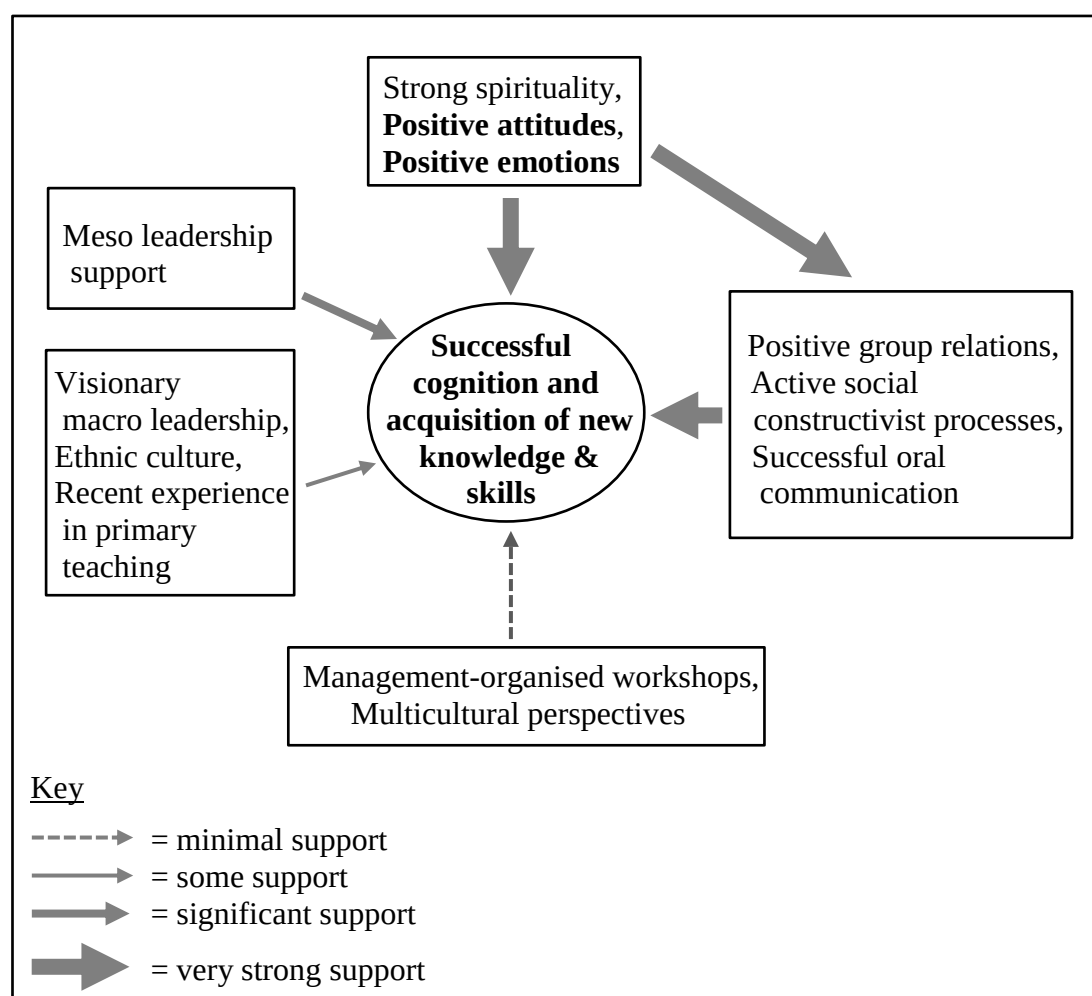


Figure 11. *The relative importance of contextual factors supporting sensemaking.*

Once again, attitudes and emotions were extremely important impact on sensemaking in relation to other contextual factors, but this time they were positive and were aided by participants' strong spirituality. Together, these three micro level contextual factors, aided by positive group relations and oral communication, reformed group culture and activated social constructivist processes. This then allowed other factors to help, most notably, the skills of the meso redevelopment leader. When all these supporting contextual factors replaced the hindrances in the second part of the redevelopment period, much productive sensemaking took place.

The last sub-question related to Research Question 1 is *the nature of contextual factors*. The Findings Chapter clearly showed that all contextual factors were multi-faceted. Thus, each factor consisted of a few or many aspects. Also, the aspects of each factor could be categorised into two groups, one hindering sensemaking and the other supporting.

To summarise, thirteen contextual factors at three different sensemaking levels—macro, meso and micro—impacted participants' sensemaking of their complex task and the factors comprising the micro and meso sensemaking levels were highly inter-connected. The contextual factors varied in their relative importance. Attitudes and emotions were the most important contextual factors in both positive supportive and negative hindering senses, while the impact of factors like management-led workshops was very small, again in both positive supportive and negative hindering senses. Lastly, the nature of the thirteen factors is best summed up by the term multi-faceted.

4.7.2 Sensemaking issues and problems

Research Question 2 asked about the sensemaking issues and problems experienced by participants as they redeveloped LMC's BEd (Prim.) degree program. The findings reported above revealed that there were many, and that they occurred in relation to all contextual factors in all three sensemaking levels. The findings also revealed that three micro level contextual factors—lack of knowledge and experience, and negative attitudes and emotions—were the focal points of most issues. These two focal points now provide the structure for highlighting what the specific issues were, how they were experienced, why they were a hindrance, how they were or were not addressed, and whether they persisted or were solved.

Issues and problems linked to lack of knowledge and experience.

Most participants had knowledge of, and experience with, the primary school context. This was very useful for redeveloping the content and structure of the new BEd (Prim.) program. However, they nearly all lacked both knowledge of curriculum development, and experience with teaching in a higher education institution. These issues significantly hindered their making sense of their task. This is because they had little or no understanding of the many requirements of their challenging task, and therefore had much to learn. The impact of these issues was exacerbated by a general incomprehension of the size and complexity of the task, and by most participants' hazy understanding of critical thinking and why it should be practised when attempting such a complex task. With so much to learn, so many decisions to make, and so many module descriptors to write before the deadline for submitting the application to accredit the new program to FHEC, participants needed to learn fast.

Three issues—other than negative attitudes and emotions—hindered participants' learning through making sense of new requirements. Macro level workshops is the first issue. They were intended to help participants learn but were largely ineffective for several reasons. FHEC limited attendance at their two workshops, and their exemplars were more focused on vocational training. LMC workshops, also only two, were limited in scope and brief. A second issue was Pacific cultural shyness and inhibitions related to asking and answering questions. This significantly impeded participants' learning. The third issue, EAL difficulties, when combined with participants' cultural preference for oral communication and dislike of reading emails, made electronic communication of redevelopment material very inefficient. These latter two were issues at the micro level.

Together, all these issues hindered participants' sensemaking and learning of redevelopment requirements. They also led to significant problems in writing quality module descriptors with sections that were tightly linked and carefully aligned to specified standards.

Issues and problems linked to negative attitudes and emotions.

The issues just described hindered participants learning. However, for the first part of the redevelopment process, negative attitudes, together with negative emotions, did not just hinder learning, they reduced participant's desire to learn. They also significantly hindered their leaders' attempts to help them learn.

Negative attitudes hindered learning in several ways. Initially, most participants' negative attitudes towards the redevelopment stemmed from their lack of belief that a complete redevelopment along the lines required was necessary. Thus, to begin with, they perceived the task to be a burdensome one that made unreasonable demands on their time and preferred to remain with the status quo. Consequently, they exhibited such negative attitudes as lack of enthusiasm, mumbling and complaining, and even indifference to what they were required to do. This was why even the final and very practical macro level redevelopment workshop run at LMC, taught some participants very little.

A particularly strong negative attitude evidenced in group culture was resistance to the redevelopment processes. Because of this resistance, some participants avoided reading emails informing of tasks and deadlines. Resistance also led to low attendance at redevelopment departmental meetings, extremely limited opportunities for social constructivist processes and missed opportunities to learn. Participants' resistance to learning the new processes was also evidenced by their avoidance of correcting documentation, a preference for being told what to write, a conviction that moderation was unnecessary and much missing of deadlines for document completion.

These negative attitudes had a considerable detrimental impact on emotions. Two examples are the great frustration with the time the task took, and unhappiness with the many corrections that written documentation required. Worse, negative emotions allowed participants' difficulties with understanding and complying with requirements to develop into doubting their ability to cope. This doubt resulted in feelings of discomfort, fear—especially with moderation—and even dread regarding their task. These negative emotions were very debilitating and made the first part of the redevelopment very stressful for all concerned. Weak spirituality was also perceived as allowing negative attitudes to develop and negative emotions to fester. While negative attitudes and emotions fogged participants' thinking, the issues they caused were not solved.

Issues hindering leadership.

There are several reasons why leaders' attempts to help participants acquire new knowledge and skills were ineffective in the first part of the redevelopment period. Negative attitudes and negative emotions are two, but there were others.

The macro leader, the college principal, helped a little at the beginning, but he was too remote to help directly for most of the redevelopment period.

The redevelopment leader was a great deal closer to the participants—socially and in terms of rank—but her efforts to help were also initially hampered somewhat in the first part of the redevelopment period. There were several reasons for this. To begin with, as noted earlier, she felt constrained regarding tackling resistance issues because of her lack of formal status in her role. Also, she acknowledged that she was insufficiently in tune with the depth and causes of participants' resistance to their task. This may have been linked to her British culture, her inability to understand the vernacular and the Pacific culture of respect that requires thoughts of non-compliance to be hidden.

Issues that were solved and issues that remain.

During the first part of the redevelopment period, when resistance and negative attitudes and emotions dominated and appeared to fog participants' thinking, the dual problems of participants not owning their task and not learning were very difficult to tackle and solve. Repeated explanations from the redevelopment leader and learning-by-doing over a period of time helped, however, it was not until the value of learning these new skills was embraced that these writing problems began to be solved. This came about when very good external feedback received from credible sources regarding the quality of the partially complete program brought dramatic changes to attitudes and emotions. These changes led to task ownership and a desire to learn in the second part of the redevelopment period.

In essence, this feedback counteracted the negative attitudes and emotions that dogged progress and replaced them with positive attitudes and emotions that allowed the leaders to facilitate more serious and ultimately successful attempts to learn and understand new requirements. However, as helpful as newly acquired positive attitudes and emotions were, to persist and be stable they needed the solid foundation of a strong personal spirituality. Strong spirituality, especially in the latter half of the redevelopment period, was evidenced in most participants' words and deeds, but not all. LMC, as a Christian institution, encourages its employees to develop and practise a strong faith, but in the end, it is a personal choice.

Whilst most issues disappeared or were solved by the change in attitudes and emotions, there were still some issues that while reduced, are unlikely ever to be completely resolved. These issues are rooted in two contextual factors. The first is

ethnic culture. The embedded Pacific ethnic cultural practices of not asking or answering questions, of “just following what is already there” (Tam), of a relaxed attitude to deadlines and the use of time, and of always preferring the oral compared to the written, were all issues that reduced opportunities to learn and that significantly slowed progress on the redevelopment task. The increased closeness and trust amongst group members has rendered asking questions for clarification a safer and more common occurrence, but there is still some reluctance. Using time wisely, meeting deadlines, and remembering to think critically are still something of an issue. Other problems that remain are the listening, speaking, reading and writing problems that are embedded in the EAL contextual factor. These EAL issues underlay several other issues and caused an over-reliance on the English language capabilities of the redevelopment leader. Encouragement to more carefully proofread, and pay particular attention to details, grammar and syntax when documents are written, has helped, but not solved this issue.

Thus, the positive feedback that transformed attitudes and emotions solved most issues. This feedback made resistance disappear either directly through micro level newly positive attitudes and emotions, or indirectly through accepting the help of the meso level leadership, solved most issues. However, some issues, particularly those rooted in ethnic cultural norms and EAL issues—both micro level factors—while less of an issue, have not been solved.

Summary.

The complex nature of the connectivity between macro, meso and micro level contextual factors is well illustrated by the answer to this research question. This is because all contextual factors at all three contextual levels were either the source of issues that directly or indirectly impacted issues that hindered participants’ sensemaking, or were negatively impacted by issues rooted in other contextual factors.

Essentially, lack of knowledge and experience, and negative attitudes and emotions even more so, were pivotal to most of the issues that hindered participants’ sensemaking. Lack of knowledge and experience had several causes and many hindering issues and effects that were difficult to address because of lack of interest in acquiring new knowledge and skills. Lack of knowledge and experience also contributed to negative attitudes and emotions. Issues rooted in negative attitudes and emotions were difficult to address until after the positive feedback had convinced

participants of the high quality of what they had so far achieved. This affirming feedback greatly improved participants' attitudes and emotions and encouraged them to take ownership of their task. This also helped them value learning to do what they were required to do and empowered their leaders to help them. Thus, most issues linked to learning and making sense of the redevelopment requirements were resolved in the second part of the redevelopment period after the affirming feedback had been received. However, issues rooted in two other contextual factors—ethnic culture and EAL—while they were reduced, still remain and are unlikely to disappear.

4.7.3 Sensemaking successes

Research Question 3 focused on the positive aspects of the participants' redevelopment experience. The question asked what sensemaking successes emerged from participants' redevelopment experience, why these successes were deemed successes and who experienced these successes. The following paragraphs use the findings that emerged to illustrate that several significant successes were experienced by all participants and that these successes were significant not only to individual participants, they were also significant for the group and for the status of the institution.

Successes experienced by individual participants.

Participants experienced several significant successes at the individual level. The evidence from this study indicates that the most important of these was their exercising of their personal spirituality. Its presence in many participants' lives in the form of a strong and active Christian faith was foundational to successes in other areas. The sense of working to achieve something for a higher cause gave most participants motivation and a source of strength to persist despite all the issues and problems. The perception of being privileged to be a part of something good that they believed was guided by God, strengthened participants' personal faith and gave them a heightened sense of achievement in what they ultimately judged to be a great success.

A more observable success that was another cornerstone for the ultimate success of the degree redevelopment was the change in participants' attitudes and emotions from the negative to the positive. This change was of the greatest significance. This is because the *volte-face* of attitudes and emotions became the

driving force for ending most of the issues and problems that had hindered progress. This change also turned a stressful experience into something that was ultimately really appreciated in retrospect because it brought great satisfaction. Without this change in attitudes and emotions, the redevelopment would have taken even longer to complete and arguably the quality of the new program that finally emerged would have been of a lower standard.

It has already been noted that absence of knowledge and experience in certain areas was a great hindrance to participants' sensemaking of what they were required to do. However, there were two important successes that grew out of what knowledge and experience participants did have. Firstly, was the successful redevelopment of the content and structure of the new program. This was achieved through the lens of the knowledge and experience gained from some participants' recent employment in primary education. The success of this was confirmed by the Curriculum Advisory Panel very early in the redevelopment period (see Table 7). The second success was Pacific participants using their knowledge of, and experience with, *Pacific English* to ensure that concepts and instructions in documentation were written in a way that Pacific students could understand. This was very important for students and was a skill that the redevelopment leader did not have.

The acquisition of new knowledge and skills was another very important success experienced by individual participants, especially during the second part of the redevelopment process. Their new knowledge and skills, amongst other things, empowered them to write effective module descriptors that had internal coherence, and that successfully linked to standardised levels. The Pacific participants' struggles with writing module descriptors also helped them improve their English vocabulary, syntax and grammar, which in turn gave them more confidence in writing new documentation. These writing achievements gave them a strong sense of personal progress. New knowledge and skills also enabled participants to become effective markers at standardised levels—a far cry from the previous situation of “haywire marking” (Lyn). A final success related to acquiring new knowledge and skills was participants coming to some understanding of what critical thinking is, and how it should be practised and taught.

Participants applying their new knowledge and skills has considerably improved their delivery and assessment of program content. However, ensuring that

all new knowledge and skills are constantly utilised in all professional situations is something that, for most participants, is still a work in progress.

Successes experienced at the group level.

The findings revealed that significant successes were experienced by participants in the context of the group. Fewer successes emerged at the group level compared to the micro participant level. However, the successes that were experienced—especially the strengthening of group relationships and active social constructionist processes—were particularly important because they facilitated participants' individual successes.

Despite all the issues linked to resistance and negative attitudes and emotions, relationships between the participants were always good, and became stronger and deeper when the positive external feedback provided the impetus for social constructivist processes to flourish. This is a success in itself. However, a more important success was the way in which this disparate group representing four different cultures was most of the time able to function harmoniously and collaboratively, despite the differences in their ethnic cultural backgrounds. Thus, the Pacific preferences for oral communication and for working co-operatively, when blended with the British redevelopment leader's comfort with asking for clarification and talent for thinking critically, provided a strong foundation for social constructivist processes to flourish. When social constructivist processes received the full support of group culture and positive attitudes and emotions, this culturally preferred way of working empowered participants to persist with, and collaboratively complete their task.

The findings also illustrated how certain aspects of the leadership from the college principal and the group redevelopment leader were successful in that these aspects either helped or inspired the group to create a quality degree program. It was the institutional leader's vision, knowledge and expertise regarding redevelopment requirements, together with his personal drive to guide the whole process through to completion, that inspired participants and was foundational to the success of the whole enterprise. However, it was the meso redevelopment leader, who through her learning gained from the workshops and the principal, as well as through her prior knowledge, skills and personal attributes, who was credited by participants with being the most important means of helping them to understand and achieve their

task. Whilst her help was sometimes given to individuals, she mainly worked through the social constructivist processes that operated at group level.

To summarise, the redevelopment experience, when taken as a whole, replaced a somewhat resistant and negative group culture with a culture that supported group learning and collaboration in the face of a significant challenge. Because of this experience the participants viewed themselves as a better and more efficient team in terms of the way they professionally collaborated in the execution of their jobs, and the way in which they had gelled as a supportive family. Viewing the group in terms of a family working together for the good of all is a norm of Pacific collective cultures. In all these terms, the change in group culture is indeed a success.

Successes and institutional status.

Participants were encouraged by and were even proud of their personal and group successes linked to their redevelopment of the BEd (Prim.) program. However, they also viewed with pride the success of their new program in even wider terms.

The wider terms included the impact on the graduates of the new program, the increased status in Fiji and in the Pacific region that the new program brought, and how what was learned may benefit other LMC faculties regarding improving their qualification programs. Participants were proud of the new BEd (Prim.) program because they believed that it would empower graduates with the ability to put essential knowledge into effective and ethical practice throughout the region. For LMC, participants saw, and still see, the new BEd (Prim.) program as a very marketable product that has helped elevate LMC's Fijian and regional status as a quality institution that offers quality qualifications. Lastly, the lessons learned and successes achieved through this redevelopment experience are now being used by participants, and especially by the redevelopment leader, to benefit all LMC faculties in improving their qualification programs.

Summary

In summary, the successes that emerged from the findings were experienced at the meso sensemaking level, but more especially at the micro level. The findings showed that participants enjoyed many feelings of personal successes. They all believed they had grown markedly in knowledge and skills, had gained confidence and had become more competent in their jobs. This was particularly in relation to their improved ability to effectively deliver and assess what has been externally

perceived to be a very good teacher education program for the Pacific. The strong and supportive personal relationships in the context of a more positive group culture which facilitated active social constructivist processes with the help of leaders eventually produced a program to be proud of that was deemed a success by both peers in other institutions and by stakeholders. It was particularly affirming and encouraging to all participants that despite all the problems, issues, and the stressful nature of the task, the sense that emerged in the form of the redeveloped BEd (Prim.) program resulted in significant successes for themselves, their group, their students and their institution.

4.8 Conclusion to the Chapter

This chapter comprised an in-depth report of the main findings that emerged from an analysis of all the data. By interweaving findings from the main data source—interview comments—with relevant extracts from the reflective journal, the chapter has illustrated and triangulated the findings that emerged from the data analysis process. Overall, the findings provided ample material for answering the first three research questions. A summary of the answers to these research questions now concludes this chapter.

The findings identified the contextual factors impacting participants' sensemaking of redeveloping the BEd (Prim.) degree program (Research Question 1). Thirteen multi-faceted factors impacted participants' sensemaking. However, the five meso level factors, and particularly the six micro level factors, had a much greater impact throughout the redevelopment period compared to the two macro level institutional factors, which had only a small impact at the beginning of the process. The meso and micro level contextual factors were also very connected both within and between levels, in terms of both impacting and being impacted by other factors. One micro factor—the presence or absence of relevant knowledge and skills—impacted the strength of the foundation of the whole redevelopment. However, it was the state of attitudes and emotions in terms of being negative or positive that controlled whether the rest of the program redevelopment processes occurred slowly and stressfully, or quickly and effectively. The presence or absence of strong spirituality impacted participants' persistence with the task and their responses to difficulties.

The findings also illustrated much about the problems and issues that hindered participants' sensemaking (Research Question 2). All contextual factors had facets that created or contributed to issues. However, it was the negative attitudes and emotions that prevailed in the first part of the redevelopment period that reduced the effectiveness of efforts made by participants and their leaders to solve the issues. When attitudes and emotions became positive in the second part of the redevelopment period after the affirming feedback, most problems and issues faded waned or were solved. The few issues that remain, and that are unlikely to be resolved, are those grounded in certain ethnic cultural norms—such as time management and EAL.

Lastly, the findings also revealed successes of the redevelopment experience and how they were perceived (Research Question 3). Sensemaking processes produced a number of successes through most meso level and particularly through micro level contextual factors. Participants experienced successes in terms of their personal and profession growth. In line with the collective norms of Pacific society, they also viewed what they achieved as a tribute to their ability to work together as a family group. Lastly, participants also enjoyed their success in terms of its positive impact on the status of the college both in Fiji and in the Pacific region.

The next chapter discusses what was highlighted by findings in relation to literature. At the end of the chapter, the final research question regarding this study's contribution to sensemaking theory and methodology is answered.

CHAPTER 5: DISCUSSION

This chapter has three main functions. Firstly, it provides a discussion of the key findings of the study reported in the previous chapter in light of previously published literature on sensemaking; secondly, it provides an answer to the final research question regarding the contribution of this research and its findings to sensemaking theory and methodology. Lastly, the chapter concludes with suggesting directions for future research.

There are several reasons why the findings of this study have potential to contribute new knowledge about sensemaking. These were outlined in the Significance section of Chapter 1. One reason is that this study has focused on *what impacted* sensemaking processes rather than the much more commonly studied *how* sense was made. Furthermore, most sensemaking studies have been conducted in business organisations whereas few have been set in higher education institutions, and none at all appear to have been conducted in the Pacific context in either business organisations or higher education institutions. Several findings of this study extend existing sensemaking literature by providing empirical examples from the under-studied Pacific context such as the importance to sensemaking of cognition, identity—particularly in relation to ethnic and group culture and spirituality,— social constructivist processes and communication. However, this chapter focuses on highlighting findings that make new contributions to literature regarding a means of studying sensemaking holistically, especially in relation to the impact on sensemaking of factors that have not yet been widely tested or have not been previously considered. Thus, in this chapter, the impact of the context of a sensemaking event on the process of sensemaking will be explained within a holistic formative context framework, noting in particular the centrality of emotions and attitudes to sensemaking, and how four components of the social-cultural context— ethnic and group culture, EAL issues and spirituality—may impact sensemaking.

5.1 Formative Contexts as Frameworks for Explaining a Sensemaking Event Holistically

The importance of the context of a sensemaking event to aspects of sensemaking (Balogun & Johnson, 2005; Berger & Luckman, 1996; Dervin, 1997/2003) is not a new concept. However, it is important to define what is meant by the context of sensemaking events.

Contexts of sensemaking events are composed of many constituent factors (Dervin, 1997/2003; Mills, 2009) and are considered unique (Allen & Penuel, 2014). The contexts of organisations may also be described as a “cacophony of diversity and complexity” (Klein et al., 2006, pp. 70-71) and are likely to remain so in relation to sensemaking unless a framework capable of bringing order to such complexity is developed. This study has illustrated that when a formative context is conceptualised as a geo socio-cultural framework that is multi-dimensional, multi-faceted and very interconnected, the result is a utilitarian and adaptable framework that yields a holistic explanation of a sensemaking event. This is a new contribution to critical sensemaking literature. The different characteristics of this formative context framework (see Figure 9) are now discussed in relation to the study’s more specific contributions to sensemaking literature.

The first characteristic of the formative context framework developed by this study to be discussed is its multi-dimensional nature with its three levels (macro, meso, micro) of sensemaking. The macro organisational level has been cited as important to sensemaking of a change in organisations (Gioia & Chittipeddi, 1991; Helms Mills et al., 2010) and in at least one study of higher education institutions (Degn, 2015b). The importance of meso group level sensemaking to change in educational contexts (Coburn, 2001; Fullan, 1993), including higher education institutions (Grant, 2003; Knight & Trowler, 2000), has also been noted in the literature review. The existence of a micro level of sensemaking is supported by the large body of literature that emphasises the importance to sensemaking of such individual factors as cognition (Shiraev & Levy, 2010; Weick, 1995; Zhang & Soergel, 2016). Whilst the existence of three organisational levels of sensemaking has been recently acknowledged (Brown et al., 2015; Maitlis et al., 2013), case studies of sensemaking of organisational change that consider the context in terms of all three levels of sensemaking—macro, meso and micro—are not apparent in previous sensemaking research. Therefore, the co-existence of macro, meso and micro sensemaking levels, and particularly the differing importance of the three levels as illustrated by this study, contribute to knowledge of sensemaking in the context of organisational change. Also new to this field of study is the concept that the three contextual levels of sensemaking may significantly vary in their proportional importance to the sensemaking of participants of an organisational change event.

Some aspects of the findings of the study outlined in this thesis are aligned with previous research that cites organisational contexts are composed of many constituent factors (Dervin, 1997/2003; Klein et al., 2006; Mills, 2009). However, as the three co-existing sensemaking levels have not been previously acknowledged, neither have discrete groups of factors that may comprise the different contextual levels. Gioia and Thomas' (1996) two-fold classification of contextual factors as either internal or external to the organisation would place all thirteen of the contextual factors identified in this study into a single undifferentiated internal group. Thus, a second contribution to knowledge of sensemaking emerging from this study is the identification of discrete groupings of contextual factors for each of the three levels of sensemaking.

The multi-faceted nature of individual contextual factors impacting sensemaking is not a new concept and has been frequently illustrated in sensemaking literature. Examples of this multi-faceted nature include cognition with its many mental structures (Soffe, 2002; Weick, 1995), different styles of communication (Bretag et al., 2009; Steigenberger, 2015) and different norms of group culture (Knight & Trowler, 2000). However, this study adds the following understanding to sensemaking literature, that most, if not all contextual factors may have different facets that at one time, or at different times, impact sensemaking in positive and negative ways. While the concept that all dimensions of diversity may have negative as well as positive effects within organisations has been suggested by van Knippenberg et al. (2004, p. 1008), it was not supported by empirical evidence.

Unger (1987) argued that contextual factors are "malleable" (p. 22). The findings of this study support this concept and confirm claims that contextual factors are mostly likely to change late in the sensemaking period (Fullan, 2007; Kotter, 1996). The findings of this study also support Eckel and Kezar's (2003) argument that processes external to an educational institution can effect a transformational change during a sensemaking event. More significantly, however, empirical examples illustrating contextual factors changing during sensemaking are not readily apparent in previous literature explaining organisational sensemaking. Thus, the way in which the findings of this study illustrate how and why facets of several contextual factors changed in the course of the project, particularly in relation to hindering then helping sensemaking, represent another contribution to sensemaking literature.

A final consideration regarding formative contexts is the connectivity of contextual factors. Unger (1987) argued that when a formative context of a social entity such as an organisation is defined in sufficient detail, then its constituent parts are revealed to be connected. This study's findings provide what may be the first empirical example of the intricate connections between the constituent parts—contextual factors—of a formative context impacting participants of an organisational change. More specifically, the findings illustrate how contextual factors within the three sensemaking levels may impact each other during the course of an organisational change. For example, management and leadership may impact each other at the macro sensemaking level, particularly in a small institution such as LMC where the institutional leader is also the driving force in a small management team planning sensemaking activities and timelines. Group culture and social constructivist processes are highly connected at the meso sensemaking level when collegial collaboration is a group behavioural norm. Attitudes and emotions are highly connected at the micro sensemaking level in that attitudes frequently have their roots in emotions (van Giesen, Fischer, van Dijk & van Trijp, 2015, pp. 3 & 4). For example, positive emotions experienced when sensemaking tend to encourage positive attitudes to sensemaking, while negative emotions link to resistant attitudes.

This study also illustrates how contextual factors are closely connected between sensemaking levels, particularly between the meso and micro sensemaking levels. For example, micro level ethnic culture that values collective action strongly impacts meso level group cultural norms, and the clarity and style of meso level communication is impacted by micro level EAL issues and ethnic cultural preferences. Another type of connection between contextual factors that emerged from the findings is how, at different times, different facets of contextual factors may hinder or support sensemaking through their negative or positive impact on other contextual factors. For example, negative attitudes initially hindered attempts and motivation to resolve cognitive dissonance, but later in the project, positive attitudes encouraged social constructivist processes that provided much help for sensemaking. Thus, the findings provide empirical examples of how the constituent parts of the context of an organisation may be intricately connected in their impact on participants of an organisational change (see Figures 9, 10 and 11).

To conclude, the findings of this study support the arguments of critical sensemaking theorists (Helms Mills et al., 2010) that formative contexts and their

constituent parts help explain what impacts people's sensemaking of organisational change events. Most significantly, however, the findings add to previous understanding of sensemaking both a conceptualised formative context framework capable of explaining sensemaking holistically, and an example of a holistic explanation of a sensemaking event attained by the use of this framework.

5.2 Emotions and Attitudes: the Key to Effective Sensemaking

This study's finding that emotions and attitudes together essentially dominated participants' sensemaking of their project by enabling or hindering the helpful facets of many other contextual factors is significant. In this way the findings fill a gap in sensemaking research regarding the central importance of emotions and attitudes to sensemaking, and their connectivity to other contextual factors impacting sensemaking. The definitions of these two terms as understood in this study were given in Chapter 2 (emotions) and Chapter 4 (attitudes).

In most previous sensemaking studies, emotions have either been overlooked (George & Jones, 2001; Helms Mills, 2003), or their impact has been studied in isolation (Dougherty & Drumheller, 2006; Maitlis et al., 2013; Mossholder et al., 2000) despite their centrality to human reactions to stimuli and the inextricable link of emotions to cognition and behaviour (Frijda, 2008; Steigenberger, 2015). However, the findings of this study provide evidence that making sense of a change may be an intensely emotional experience for participants (Maitlis & Sonnetschein, 2010) especially at the micro level, and that emotions have a powerful role in shaping sensemaking and its outcomes (Dougherty & Drumheller, 2006; Maitlis et al., 2013; Steigenberger, 2015).

Despite the link that has been identified between emotions and cognition (Frijda, 2008; Steigenberger, 2015), the ability of the emotional mind to interfere with cognition has not been widely incorporated into sensemaking literature. Rather, sensemaking literature has tended to concentrate on explaining how various mental constructs help achieve cognition (Soffe, 2002; Weick, 1995). The findings of this study provide an example of how emotions may significantly impact cognition by enabling or disabling means of resolving cognitive dissonance. More specifically, the findings support evidence in literature arguing that emotions may negatively impact sensemaking by allowing negative self-schemas to develop (Reber et al., 2009), and

by significantly reducing the resilience that is needed to confront sensemaking challenges (Maitlis & Sonnenshein, 2010; Steinberger, 2015).

As well as emotions, attitudes appear to have also been overlooked in previously published sensemaking research as a major factor impacting sensemaking. Attitudes are the ways in which people view or behave towards something.

The finding that attitudes are important to sensemaking is not surprising. This is because attitudes frequently have their roots in emotions (van Giesen, Fischer, van Dijk & van Trijp, 2015, pp. 3 & 4), and that attitudes have an important role in daily life (Ajzen, 2001; Shiraev & Levy, 2010; van Giesen et al., 2015) and in driving cognition and behaviour (Bizer & Krosnick, 2001, p. 566; Smith & Mackie, 2007, p. 303).

The findings of this study not only foreground attitudes as an important factor impacting participants' sensemaking of an organisational change, they also illustrate how identifying attitudes to change may enrich explanations of sensemaking. One categorisation (Vahasantenen & Etelapelto, 2009) supported by this study's findings is that people's attitudes to making sense of a major educational change that they are faced with may be threefold—approving, inconsistent and resistant. Inconsistent attitudes may imply *ambivalence*, a term used by scholars such as Burke (2014), to describe attitudes to change. Measures of ambivalence to change such as low levels of persistence, weak focus and “foot dragging” (Lines, 2005, p. 21), were all evidenced by findings. Findings not only evidenced resistance or a great reluctance to accept a change, they also illustrated how initial resistance was eventually replaced by approval and support for the change.

The findings of this study also contribute to the body of literature regarding resistance to making sense of an organisational change. First, they provide an empirical example evidencing how attitudinal resistance to sensemaking in an organisation may be passive and/or or aggressive (Kotter & Schlesinger, 2008). Most of the resistance of the participants of this study was passive. However, findings also evidenced some examples of boycotting—of sensemaking meetings—which is suggested by Lines (2005, p. 21) as an example of aggressive resistant behaviour.

A second contribution to literature regarding resistance to making sense of an organisational change is regarding sources of resistance. After an extensive review of change literature, Oreg (2003, pp. 680-681) identified six sources of resistance to sensemaking of a change in business organisations deriving from people's

personalities. Two of Oreg's sources of resistance illustrated by this study's findings are an intolerance of the adjustment period, and reluctance to relinquish old habits—which may also be described as parochial self-interest (Kotter & Schlesinger, 2008). However, lack of knowledge and skills to support the task, the magnitude of the task, and various other issues such as coping with further study and relocating the campus provide understandable reasons for intolerance rather than the intolerance just being a matter of choice grounded in personal psychology.

A third source of resistance apparently illustrated by this study's findings is *cognitive rigidity*—defined as a “stubbornness and an unwillingness to consider alternative ideas and perspectives” (Oreg et al., 2006, p. 936). This study's findings apparently illustrated what scholars regard as natural results of cognitive rigidity. These results—the maintaining of “blind spots” (Maitlis & Sonnenschein, 2010, p. 562) and “blinkers” (Steigenberger, 2015, p. 437) that inhibit sensemaking and result in only a partial acceptance of a change—evidenced what Luttenberg, van Veen and Imants (2013) termed “distantiation” (p. 293). However, an alternate explanation from a Pacific perspective is that Pacific participants' lack of critical thinking experience because of cultural norms meant that they lacked cognitive schemas to help them overcome what appeared to be cognitive rigidity.

It also needs to be noted that Oreg's six sources of resistance were theorised from western literature. One source of resistance in Oreg's (2003) classification not evidenced by findings is the reluctance to lose control. When participants' chiefly Pacific culture is added to their previous reliance on another institution to give them direction, then they may not have felt that control was theirs to lose.

Del Val and Fuentes (2003, p. 153) suggest three other sources of resistance that are illustrated by this study's findings. Two of these also link to Pacific culture—communication issues and what del Val and Fuentes termed “organisational silence” (p. 153), which was manifested in this investigation as group silence in sensemaking meetings. The third source was the “capabilities gap” (p. 153). This was particularly evidenced by participants' lack of knowledge and skills relating to curriculum development, but also by EAL issues.

This suggests that while Oreg's classification of sources of resistance grounded in personality has some utility in higher education institutions as well as in business organisations. However, contextual factors may impact which sources of resistance are evidenced in different cultural settings. Also, this study's findings

regarding the impact of ethnic and group culture illustrates that there are causes of resistance to sensemaking of organisational change that are not related to personality. As yet, there does not appear to be literature evidencing subsequent applications of Oreg's classification to a sensemaking case study in either a business organisation or an educational institution. There also does not appear to be literature that focuses on sources of resistance to organisational change in multicultural contexts that are interpreted from cultural perspectives.

The change of participants' emotions and attitudes from negative to positive towards the end of the project exemplifies the potential of emotions and attitudes to change during sensemaking. Thus, despite the enduring nature of attitudes, as reported by some researchers (APA, 2018; Burke, 2014, p. 23), attitudes can and do appear to change (Luttenberg van Veen & Imants, 2013 p. 306; Piderit, 2000, p. 791) when the advantages of something—in this study, the high status gained by the new program—begin to be perceived as outweighing the effort required to achieve the “something” (Burke, 2014, p. 111; Kotter, 1996, p. 6). One strength of this study is that the long period of time it took enabled it to record different phases of sensemaking and how one phase transformed into another.

The change in participants' emotions and attitudes in the study reported in this thesis also contributes an empirical example of how a see-feel-change gradually transformed into an analyse-think-change (Fullan, 2004, Kotter & Cohen, 2002). Essentially, the see-feel-change in the early stages of the sensemaking process was characterised by emotional reactions to something coming from outside the institution that was not initially perceived as a good change. Over time, this gradually transformed, with the help of positive external feedback, into an analyse-think-change which was characterised by efforts to achieve understanding that resulted in a growth of skill and understanding.

Findings of this study also both support and add to previous research regarding the reasons why emotions and attitudes change in the context of a sensemaking event. While some sensemaking literature recognises the existence of emotional contagion in groups (Barsade, 2002; Maitlis & Sonnenshein, 2010; Steigenberger, 2015), case study examples of its impact on sensemaking, either negatively or positively, are not readily apparent in previously published research. Arguments that attitudes and behaviour are impacted by social pressure (Wallace, Paulson, Lord & Bond, 2005, p. 224) and group norms (White, Hogg & Terry, 2002,

p. 102) imply that attitudes might also be contagious. The change in attitudes and emotions from negative to positive evidenced by this study's findings suggests that attitudinal and emotional contagion are natural partners in explaining how one group's resistance to sensemaking took hold and then decreased to negligible proportions. These findings also support the claim that when links between positive attitudes and behaviour are strong, then focused, effortful and persistent attempts at sensemaking may result (Lines, 2005, p. 19).

The findings evidencing how and why participants' emotions and attitudes alter during their sensemaking of an organisational change inform a source of disagreement between Unger (1987) and Mills (2009). With emotions enabling or disabling sensemaking through their impact on other contextual factors, the findings do not provide much support for Unger's argument that when connected contextual factors change during sensemaking, they "do not have to stand or fall together" (1987, p. 63). However, the centrality of emotions and attitudes to sensemaking does provide support for Mills' (2009) argument that contextual factors are mutually dependent.

A final contribution to sensemaking literature regarding changes in emotions and attitudes is that such changes may be usefully conceptualised as either slow and evolutionary or fast and revolutionary. This study evidenced slow, evolutionary change for the majority of the sensemaking period, and fast, revolutionary and transformational change in attitudes and emotions towards the end of the sensemaking period.

Given the strong links between emotions and attitudes regarding their impact on other contextual factors, and the many findings that illustrate how at different times they were either both negative and both positive, it would be easy to assume that emotions and attitudes are always aligned in their impact on sensemaking. However, this study also contributes to sensemaking literature an example of how emotions and attitudes do not necessarily align in their impact on sensemaking, showing how the negative emotions of fear and doubt hindered a positive attitude to learning.

To conclude, the major role of emotions in this sensemaking study supports sensemaking literature arguing their importance (Bartunek et al., 2006; Maitlis et al., 2013), while the importance of attitudes adds a new dimension to sensemaking literature. Another contribution of this study's findings to our knowledge of

sensemaking processes is the centrality of emotions and attitudes to how change participants make sense of their organisational change. This centrality pertains to the importance of emotions and attitudes impacting cognition and behaviour at both micro and meso levels, and how emotions and attitudes are mostly complementary in their control of sensemaking by enabling or disabling facets of other contextual factors that might help or hinder sensemaking. This study's findings that emotions and attitudes and the other contextual factors they control can change in slow evolutionary, or fast revolutionary ways to transform sensemaking in organisations is another contribution to sensemaking literature. In essence, all these contributions to sensemaking literature exemplify why emotions and attitudes should not be overlooked as factors impacting sensemaking and why, together, they may be the most important contextual factors of all in their impact on sensemaking.

A hypothetical question may be asked regarding whether emotional and attitudinal issues may have been cancelled out if participants had had knowledge and skills from a strong background in curriculum development. When the challenges to sensemaking provided by culture and EAL issues—discussed in the next two sections—are considered, the likely answer to this question is no.

5.3 The Power of Culture in Sensemaking

Identity and identity construction have long been considered important to sensemaking in organisations (Thurlow & Helms Mills, 2015; Weick 1995), however, the culture that they are grounded in has been overlooked as a factor impacting sensemaking (Helms Mills, 2003). It is now acknowledged that important aspects of identity such as values (Vahasantenen & Etalapelto, 2009), beliefs (Duchesne et al., 2013; Myers, 2013), social roles (APA (2018), and the behaviour involved in enacting social roles (Myers, 2013, Watson, 2006), are mostly grounded in socio-cultural contexts. Although socio-cultural contexts are now viewed as the locus of sensemaking (Fellows & Liu, 2016), the precise components comprising socio-cultural contexts in relation to sensemaking are not readily apparent in previous literature that reports sensemaking case studies. This study's findings contribute evidence of four components of a socio-cultural context that had an important impact on participants' sensemaking. Two of these components (ethnic and group culture) are discussed in this section, while the other two (EAL and spirituality) are discussed in the sections that follow this section. In an effort to

overcome assumptions and cultural bias, the discussion of ethnic culture has endeavoured to include Pacific cultural perspectives and literature, particularly where they provide alternative explanations to those suggested by literature written from a Western perspective.

This study revealed that both ethnic and group culture significantly impacted sensemaking of the redevelopment of a teacher education program in a higher education institution, and that the two cultures were very closely linked in their impact. This new contribution to sensemaking literature is strongly supported by claims that ethnic culture permeates all aspects of life through providing countless rules that govern behaviour and shape the beliefs and values (Alberts et al., 2017; De Capua & Wintergerst, 2004; Wade & Tavis, 2011) that enable people to appraise situations (Matsumoto & Juang, 2008). This new contribution to literature also supports the argument that viewing the sensemaking behaviour of change participants through the lens of participants' ethnic and organisational group culture may bring more meaning to and explain some of their behaviour (Shirayev & Levy, 2010). The following discussion of the impact of ethnic and group culture highlights findings that provide examples of how, as argued by Robbins et al. (2017), values, beliefs and behaviour grounded in ethnic and group cultures may be challenges or helpful assets to sensemaking processes.

Findings provide evidence of several behavioural norms linked to Pacific collective cultures that may be perceived as challenging sensemaking. However, the perception is sometimes underpinned by Western orientations to policy. Viewing some of these challenges from the perspective of a Pacific collective viewpoint may suggest a different interpretation. The need to consider different cultural perspectives when sensemaking in a multicultural organisation adds another layer of difficulty to organisational change.

The first behavioural norm that was perceived as a challenge was the collective cultural perception of time. According to previous research, this allows tardiness and alternative appointments to impact planned schedules (Alberts, 2017; De Capua & Wintergerst, 2004; Wade & Tavis, 2011). The collective cultural perception of time did increase the length of time taken to make sense of the project. However, viewing the meeting of deadlines through following planned schedules as a sign of efficiency, is a Western concept. The extended sensemaking period gave participants more time to overcome such structural barriers as doing further study

and moving the campus. It also gave them more time to surmount the knowledge barrier and EAL hindrances. Thus, what the Western world might have called tardiness actually facilitated participants' sensemaking. This also highlights the need for leaders to factor into their planning the local perspectives and challenges that may be unique to their organisational context.

Two more behavioural norms impacting sensemaking were respect and lack of experience with critical thinking. The Pacific ethnic cultural respect for chiefs and leaders encouraged respect for the institutional leader both in terms of his status in the institution, and his knowledge and expertise in the area of curriculum reform. It also encouraged respect for the European redevelopment leader, even though she had no authoritative status in the department. However, a lack of leadership status may result in low self-esteem and self-effacement issues grounded in ethnic cultural schemas. Both these issues were evident in the group studied during this study and may evidence the argument that cultural schemas impact the behaviour and psychological processes of people facing an organisational change (Lehman et al., 2004; Matsumoto & Juang, 2008), and hence also their sensemaking of the change.

When these issues are linked to people not being taught to think critically about things they do not perceive as theirs (Nabobo-Baba, 2006)—issues such as a curriculum change mandate coming from outside the institution—passive compliance and dependence on others to think critically may be the result (Nabobo-Baba, 2006). Both passive compliance and lack of critical thinking may hinder ownership and agency of such things as organisational change, yet both ownership and agency, are considered by the Western world to be crucial for making sense of educational innovations (Ketelaar et al., 2013). This suggests that perceptions of ownership and agency and how they may be achieved in relation to change initiatives may be may depend on the cultural context.

Another issue grounded in ethnic and group culture that may challenge or be an asset to sensemaking is communication. Findings from this study provide much support for the assertion that communication is rarely culture free (De Capua & Wintergerst, 2004). Regarding modes of communication, the collective cultural preference for oral communication greatly helped sensemaking at times. However, the effectiveness of oral communication was sometimes compromised by the cultural custom of indirect expression (Crocombe, 2008; De Capua & Wintergerst, 2004). This custom created a decoding issue (Burton et al., 2009; Matsumoto & Juang,

2008) that hindered the ability of the British redevelopment leader to understand the extent of her colleagues' sensemaking issues. A cultural lack of preference for reading and writing (noted by Teasdale and Puamau, 2006) also appeared to sometimes hinder the effective use of documents and emails for sensemaking communication.

Another decoding issue for the British redevelopment leader was the meaning of participants' silence. Nabobo-Baba (2006) explained that three of the many cultural meanings of silence are respect, a reaction to what is perceived as a lack of respect, or opposition and passive resistance to what is being communicated. This suggests that interpreting silence in a sensemaking and sensegiving setting may be difficult for someone from a different culture. Thus, potential encoding and decoding of communication issues need to be factored into sensemaking and sensegiving activities in multicultural sensemaking contexts.

Findings regarding group harmony and communication provide examples of how behaviour grounded in both ethnic and group culture may inform sensemaking. Researchers have argued that teachers making sense of reforms do not simply reject or accept them, but rather, they actively position themselves in relation to the reforms (Ketelaar et al., 2013; Spillane et al., 2002). In a collective society, positioning requires achieving group harmony through consensus. Initially, the overt consensus portrayed by the participants of this study was perceived as resistance. This consensus may have initially encouraged the adherence to old habits (Barnard, 1938; Robbins et al., 2017; Vaughan, 1999) that was evidenced by some participants. Later, the consensus of this study's group of participants towards their project was one of acceptance, which activated latent behavioural norms that supported sensemaking (these are discussed later). Interestingly, however, both types of consensus exemplify groupthink (Robbins et al., 2017; Wade & Tavis, 2011), which appeared to be another cause of passive compliance grounded in culture as well as something that masked comprehension issues.

This study also contributes to current sensemaking theory an example of how, in relation to sensemaking, group consensus may not be as harmonious as it appears to be, suggesting that group cohesiveness or group alignment (Froemling et al., 2011; Senge, 2006) may only be superficial. Despite the apparent consensus, group cohesiveness was initially weak as some participants tried to retain the status quo, while other participants slowly and quietly began to understand and accept the

change. Also initially, the weak group cohesiveness reduced incidences of group interactions and thus exemplifies a sensemaking experience that was less than satisfying for participants because of underlying tensions (Alberts, 2017). However, as sensemaking of the project progressed, the status quo and accepting groups gradually became more aligned in support of the change. The group finally became fully aligned and cohesive when positive feedback finally convinced everyone of the high quality of their newly redeveloped program.

One norm of ethnic and group culture that this study's findings highlighted as an important asset to sensemaking was the custom of helping others when collaborating to achieve a common goal (Wade & Tavis, 2011). This custom is rooted in collective cultures valuing interdependence in terms of obligation, duty and morality (Lazarus, 1991, p. 365). In the study outlined in this thesis, the custom was followed even in the face of resistance and reluctance. It was also supported by the somewhat anomalous fact that despite all the negative emotions and attitudes, social relationships between group members remained positive through the sensemaking period. However, it took the *volte-face* of emotions and attitudes from negative to positive to facilitate the full flourishing of collaboration through social constructivist processes. The way in which these fully activated processes facilitated a very amicable and successful conclusion to the project supports literature asserting how beneficial collaborative social constructivist processes are to sensemaking (Alberts, 2017; Balogun & Johnson, 2005; Maitlis & Sonnenschein, 2010).

A final contribution from this study regarding sensemaking and group culture is how group culture may mediate the effectiveness of the support given to the group by the sensegiving capabilities of the group leader. Group leaders are claimed to be key assets to successful change (Balogun & Johnson, 2005; Filstad, 2014; Rouleau & Balogun, 2011) through helping their colleagues examine their practices with a view to change (Bartunek et al., 2006; Grant, 2003; Marshall et al., 2011; Rouleau & Balogun, 2011). However, this study showed that despite the ethnic cultural norm affording her respect, the redevelopment leader of the group was initially unable to achieve much.

There were several possible reasons for this. At the very beginning, her leadership style of exhorting participants to change practice while they still had insufficient understanding of what and why, and the requirement to create documents under time constraints—transactional leadership (Knight & Trowler, 2000)—may

have encouraged resistance. Her inability to achieve much may also have been due to an insufficient understanding of group norms because her own cultural schemas had not been adjusted. The problem may also have been partly due to a group culture that was not conducive to change (p. 78). However, when the leader's later change to a more interactional style of leadership—which is more conducive to successful change (Knight & Trowler, 2000)—allied with newly positive emotions and attitudes that allowed social constructivist processes to flourish in an aligned group, the leader's interactional efforts to help her colleagues became much more successful. Thus, findings provide evidence of the concept that, although leaders may have good sensegiving attributes, they need to use these in a leadership style that is conducive to change, and also that leaders' ability to help colleagues sensemaking is mediated by group cultural norms.

To conclude, the above discussion has highlighted how academic faculties can be important “activity sub-systems” (Knight & Trowler, 2000, p. 69) of higher education institutions in which much sensemaking takes place. This discussion of the study's findings also provides several important concepts regarding the impact of ethnic and group culture on sensemaking. Firstly, as findings illustrate how much group culture is grounded in ethnic culture, they also support the claim that people are likely to tailor their reactions to sensemaking issues according to cultural rules (Lazarus, 1991). Findings also extend this concept by illustrating how ethnic and group culture together comprise a complex interacting web whose norms can have a profound impact on group members' feelings and actions (Deal & Peterson, 1999; Grant; 2003; Robbins et al., 2017), and hence also on their sensemaking at both micro and meso contextual levels. In addition, findings provide for literature empirical examples of how ethnic and group cultural norms may be assets to sensemaking, or liabilities, or both. The waning and ultimate demise of resistance as a group norm exemplifies how culture changes at the end of a sensemaking period rather than at the beginning (Kotter, 1996). This study also illustrated how other contextual factors, such as emotions and attitudes, may enable or disable the ability of ethnic and cultural norms to impact sensemaking. Lastly, the addition to formative contexts of ethnic and group culture as contextual factors impacting sensemaking, clearly supports Lehman et al.'s (2004) argument that nothing, including sensemaking, transpires in a cultural vacuum.

5.4 English as an Additional Language as a Handicap to Sensemaking

Language is an integral part of sensemaking communication (Weick, 1995). However, the impact of EAL on sensemaking appears to have been overlooked in previously published research on sensemaking in organisations and institutions. Thus, the emergence in this study of proficiency in another language as a component of the social-cultural context impacting sensemaking makes a contribution to knowledge regarding what impacts organisational sensemaking, and adds a new dimension to the newly developing area of sensemaking studies in multicultural contexts. The following section provides a discussion of this study's findings in relation to EAL literature from the perspective of what, why and how aspects of proficiency in an additional language may impact sensemaking.

This study found that EAL negatively impacts comprehension and the creation of shared meaning as predicted by Watkins-Mathys (2006, p. 224); it therefore also negatively impacts sensemaking. This supports the argument that thinking and language are experienced as connected, and that there are perceptual and cognitive consequences of vocabulary and grammatical issues with a second language (Berry et al., 2011, pp. 180 & 199). Such consequences and issues are likely to be experienced by anyone having to communicate in a language that is not his/her first language.

One cognitive consequence acknowledged by participants was their occasional slowness in deciphering the exact meaning of some sensemaking communication. This exemplifies the "foreign language effect" (Matsumotu & Juang, 2008, p. 251) in which people's thinking ability temporarily declines while translating their first language into English and vice versa. The fact that this is expected for bilingual people (p. 253), lends much weight to the inevitability of proficiency in an additional language impacting cognition during sensemaking.

Whilst sensemaking communication involves reading, listening and dialoguing, it also involves writing when documents need to be produced and shared. This study's findings illustrated that writing documents in an EAL context according to precise expectations can be a significant challenge. This supports arguments that writing is a complex issue when the writer has a less than fully proficient grasp of the grammar, syntax and vocabulary of a language (Celce-Murcia, Brinton & Snow, 2014, p. 223).

With five of the six participants writing in a language which was not their first language, findings also evidenced how the repetition of writing errors can be perpetuated when people frequently mix with other EAL users (Ellis, 2003; Lightbrown & Spada, 2006, p. 187; Swan & Smith, 2001, pp. x & xi).

Before leaving this discussion of EAL as a new contextual factor impacting sensemaking, it is important to note that when sensemakers in a multicultural setting have to communicate in a language that is not their first language, this has the potential to impact their sensemaking directly and indirectly through weak communication and miscommunication (De Capua & Wintergerst, 2004, pp. 243 & 249). Findings of this study also corroborate Gibbon's (1996, p. 5) argument that EAL issues may cause a lack of confidence in writing. As a lack of confidence is a negative emotion, EAL issues were another cause of the negative emotions of this study's participants.

Although writing documents in a language that was not most participants' first language was challenging, findings revealed that this challenge was also an asset in that it enhanced participants' understanding of their students' language issues. This helped the participants to write the English in the new curriculum documents in ways that were meaningful to their students. This added another layer to sensemaking and illustrates what may be described as dual sensemaking.

To summarise, previous researchers have reported that EAL proficiency compromises the interaction, capabilities and performance of individuals and groups in multicultural organisations (Hambrick, Davison, Snell, & Snow, 1998; Luring & Selmer, 2011). The findings of this study evidence that this is true in relation to sensemaking.

5.5 Spirituality and Sensemaking

Spirituality is the final socio-cultural contextual factor that appears to have been overlooked in previously published sensemaking studies (Duchon & Plowman, 2005). The link between spirituality and sensemaking that emerged from the findings of this study is therefore another contribution to knowledge regarding what impacts the sensemaking of participants of an organisational change.

Spirituality may be viewed as having the capacity to impact sensemaking because it is an important dimension of human personality (Halonen & Santrock, 1999; Krishnakumar & Neck, 2002) with strong links to rationality, perceptions and

emotions (Biberman & Tischler, 2008; Rego & Cunha, 2008), as does sensemaking. However, despite the growing interest amongst scholars and practitioners in workplace spirituality (Duchon & Plowman, 2005; Karakas, 2010; Taylor & Bell, 2012), and despite a suggestion that viewing spirituality through organisational culture may help explain how people make sense of their organisation (Long & Helms Mills, 2010), spirituality had not yet been linked to sensemaking of an organisational change, until this research was conducted.

While scholars distinguish between secular and religious spirituality, for a Christian organisation such as LMC, religious spirituality is expected to be an integral part of organisational life (Beardsley, 2008). This study substantiates a link between religious spirituality and sensemaking at the micro and meso levels of organisational sensemaking. The study's findings provide an example of how spirituality and sensemaking positively interact, and how, despite its benefits, the presence of spirituality in an organisation does not necessarily guarantee immunity from the negative effects of other contextual factors that impact sensemaking.

Some researchers, for example Milliman et al. (2003), argue that organisational spirituality may impact organisational members. This may be true in a general sense; however, in this study, it was micro/individual and meso/group spirituality that impacted participants' sensemaking. This study's findings evidenced that many of the benefits claimed by literature for spirituality were experienced by individual participants in the course of their sensemaking. These benefits included receiving emotional support (Rego & Cunha, 2008; Smith et al., 2012), feeling blessed by serving God's purposes (Neal & Bennett, 2000; Neck & Milliman, 1994) and finding meaning, purpose and a sense of mission (Rego & Cunha, 2008; Roof, 2015). Findings also exemplify how a sensemaking experience may be viewed by participants as God shaping an aspect of their lives (Biberman & Tischler, 2008; Smith et al., 2012).

This study's findings showed that *at the same time as spirituality facilitated sensemaking, sensemaking positively impacted spirituality*. This contribution to knowledge of the role of spirituality in sensemaking lends weight to the argument that spirituality can encourage greater acceptance of a task and can motivate positive engagement and persistence with a task (Milliman et al., 2003; Krishnakumar & Neck, 2002; Rego & Cunha, 2008; Roof, 2015). Findings also provide an example of how sensemaking may enable participants to experience a deeper personal

relationship with God through practising and living in greater congruence with their deeply held principles and values (Biberman & Tischler, 2008, Naidoo, 2014; Neal & Bennett, 2000; Smith et al., 2012). In other words, coping with the challenges of sensemaking encourages the practice of spirituality and facilitates participants' views regarding the reaping of spiritual rewards.

This study also found that spirituality, as a group norm, can impact sensemaking. Spirituality in this study was a positive influence that promoted some of the activities associated with the sensemaking event such as the impetus to help colleagues with sensemaking issues. The way in which participants shared heartfelt prayers regarding their project is an example of how active spirituality as a norm of group culture encouraged greater connectedness. This validates what was claimed by Ashmos and Duchon (2000) and Milliman et al. (2003). As noted earlier, the inseparableness of spirituality and learning (Nabobo-Baba, 2006; Naisilisili, 2017), group connectedness and collaboration are also norms of Pacific collective cultures. Thus, this study also provides an example of how sensemaking may be impacted by a belief that is grounded in two overlapping contextual factors—spirituality and ethnic culture. Some researchers argue that practising personal and group spirituality can result in people experiencing a sense of individual and communal wellbeing (Ashmos & Duchon, 2000; Naidoo, 2014; Rego & Cunha, 2008). This was also evidenced by this study's findings.

The above discussion illustrates that personal and group spirituality can support sensemaking. However, this study also provides an example of how sensemaking may greatly test personal spirituality. Negative emotions and attitudes interfered with personal spirituality just like they negatively impacted other contextual factors. Thus, these findings substantiate Biberman and Tischler's (2008) claim that the benefits of spirituality to sensemaking may be mediated by the impact of other contextual factors.

To conclude, the finding that spirituality grounded in Christian faith can have an impact on sensemaking is an important contribution to knowledge of what factors in the socio-cultural context may impact the sensemaking of participants of an organisational change. This link has not been illustrated in previously published sensemaking literature. By substantiating Biberman and Tischler's (2008) claim that individuals bring their spirituality to their jobs, the study's findings also evidence two more arguments. The first is that spirituality may be a sensemaking resource for

participants of an organisational change (Scheitle & Adamczyk, 2016). The second is that, societies with high religiosity, such as Pacific societies, may provide a context in which sensemaking may be impacted by the practice and expression of both personal and group spirituality (Fernando & Jackson, 2006).

5.6 Summary of the Principal Findings and Their Significance

The discussion above has foregrounded the five most significant findings to emerge from the study's findings. All these findings contribute to knowledge of sensemaking in organisations by providing examples from a context that has hitherto been unrepresented in sensemaking literature. More importantly, the findings fill gaps in sensemaking literature that are summarised in the following paragraphs. These findings are offered as the outcomes of the study that has been reported in this thesis. These findings are not presented for the purposes of being generalised across all future sensemaking contexts. Rather, the application of these findings is considered to be the domain of the reader and future researchers.

The most significant contribution to literature relates to formative contexts. These are the geo socio-cultural settings of organisations and institutions. Formative contexts have been claimed to be important to organisational sensemaking events (Helms Mills et al., 2010), but have been loosely defined in previous literature. Thus, the definition of formative contexts that was developed in this study—multi-dimensional, multi-faceted and inter-connected webs of changeable external and internal factors that impact sensemaking of organisational change—contributes a more detailed definition to critical sensemaking literature. The existence of the macro, meso and micro sensemaking levels with discrete groups of contextual factors is also new to sensemaking literature, as is the capacity of each contextual factor to impact to a greater or lesser extent, and in positive and negative ways, other contextual factors during a sensemaking experience. While the formative context of LMC illustrated by Figure 9 may be unique to LMC, it provides a framework that may be considered and adapted to give a holistic explanation of a sensemaking event in other similar organisations or institutions. The framework is firmly grounded in the sensemaking research explored in the literature review reported in Chapter 2 of this thesis, and has been developed from accepted theories and concepts (Barnard, 1938; Mills, 2009; Unger, 1987) that have previously been cited as supporting critical sensemaking (Helms Mills et al., 2010).

Most previous sensemaking studies have tended to overlook the impact of emotions and especially attitudes. Thus, the finding that emotions and attitudes can dominate sensemaking by working together to either hinder or even completely disable, or alternately to enable efforts to achieve cognition, represents a contribution to sensemaking literature. The study also informs sensemaking literature regarding the ability of emotions and attitudes to change in slow and evolutionary, or fast and revolutionary ways in relation to sensemaking.

Previous research on sensemaking of an organisational change does not appear to clearly identify a range of factors comprising the socio-cultural context that are argued to be important for sensemaking (Fellows & Liu, 2016). This study at least partially fills this gap by identifying four components that may comprise this context. Ethnic and group culture, both of which have been somewhat overlooked as impacting sensemaking, are the first two contextual factors identified by findings as components of the socio-cultural context. The study's findings illustrate how participants' shared beliefs, values and norms of conduct are grounded in ethnic and group culture, and form a complex web that impacts participants' sensemaking of a change in positive and negative ways. This is a good reason why ethnic culture and group culture should be included rather than overlooked as factors impacting sensemaking.

The importance of proficiency in a common language when sensemaking takes place in a multicultural context is the third new factor identified by this study as a component of change participants' socio-cultural context. The importance of proficiency in the language used for sensemaking contributes to the as-yet small body of literature regarding sensemaking in multicultural organisations. Such proficiency is very important for the sensemaking of participants of an organisational change because it mediates the effectiveness and accuracy of participants' comprehension of oral and written sensemaking communication. This mediation compromises both the quality of sensemaking and the length of time that it takes.

Spirituality is the fourth newly identified component of a sensemaking socio-cultural context. While the body of literature acknowledging the importance of spirituality to organisations (such as Izak, 2012; Long & Helms Mills, 2010; Scheitle & Adamczyk, 2016) has been growing in recent years, it had not linked spirituality—religious or secular—to sensemaking of an organisational change. Thus, this study's finding that spirituality grounded in the Christian faith both facilitates sensemaking

and is impacted by sensemaking, adds to sensemaking literature both new concepts and a new contextual factor impacting sensemaking of an organisational change.

To conclude, these five findings all present new contributions to knowledge regarding the existence of a formative context as a holistic means of explaining a sensemaking event, its composition, and the impact of its constituent parts (contextual factors) on the sensemaking of participants in an organisational or institutional change. The explicit significance of these findings to sensemaking theory and methodology is discussed next.

5.7 Answer to Research Question 4: How do the Findings Contribute to Sensemaking Theory and Methodology?

The first three research questions, which were answered at the end of Chapter 4, focused on identifying contextual factors, their connectivity and relative importance, particularly in relation to the sensemaking issues and successes that participants experienced during their project. Research Question 4 focuses on sensemaking theory and methodology. The findings of this study support many aspects of sensemaking theory and methodology, but they also contribute new insights to both the theory of sensemaking and to the methodologies that have been used to research sensemaking in the past.

This study's findings contribute support to both current sensemaking theory as well as certain aspects of sensemaking methodology used to investigate sensemaking events. There are two ways in which the support for current sensemaking theory is noteworthy.

First, findings from this study affirm the factors—termed contextual factors in this study—that were identified by Weick and subsequent studies based in his theory as impacting sensemaking. These factors include identity (Brown et al., 2008; van Veen & Lasky, 2005), cognition (Elsbach et al., 2005; Steinbauer et al., 2015; Weber & Manning, 2001), communication (Mills, 2009; van Vuuren & Elving, 2008) and social constructivist processes (Fullan, 2007; Helms Mills, 2003; Weick, 1995). The findings of this study also strongly support the criticism of Weick's 1995 theory as overlooking emotions (Helms Mills, 2003) and the claims by later sensemaking researchers that emotions are, in fact, very important (Maitlis et al., 2013; Steigenberger, 2015).

Second, this study provides support for many aspects of critical sensemaking theory (Helms Mills et al., 2010; Mills, 2008; Thurlow, 2012), particularly its incorporation of the concept of formative contexts (see also Table 3). More specifically, this study's findings support formative contexts being considered open systems of mutually dependent elements that impact sensemaking (Mills, 2009).

The findings also validate the utility of critical sensemaking theory for providing a lens through which to study how individuals make sense of their organisational world (Helms Mills et al., 2010; Thurlow, 2012), and for generating a rich explanation of sensemaking in terms of "Why did we do what we did?" Thus, this study's findings strongly support critical sensemaking's foregrounding of formative contexts as a means of explaining sensemaking as well as supporting other sensemaking studies that have argued the importance of context in impacting sensemaking (Balogun & Johnson, 2005; Dervin, 1997/2003).

Outcomes of the study reported in this thesis support certain aspects of the methodology used in previous sensemaking studies. To begin with, the outcomes affirm the validity of classifying a critical sensemaking study as an ethnomethodological case study (Mills, 2008) because they yielded an explanation of how participants made sense of their activities by answering the question, "Why did we do what we did?" Also, this study's methodology affirms the usefulness to sensemaking research of data collection techniques used by previous sensemaking researchers, specifically, semi-structured interviews (Coburn, 2002; Soffe, 2002), a reflective journal (Soffe, 2002) and participant observation (Landau & Dori, 2008; Mills, 2009).

As well as providing evidence to support the previously identified aspects of sensemaking theory, this study's findings contribute several new insights to sensemaking theory and methodology in general, and to critical sensemaking theory and methodology in particular. The contributions to sensemaking theory are highlighted first.

The first new insight that the findings of this study add to sensemaking theory is that, rather than considering them as discrete entities, *the capacity of contextual factors to impact sensemaking is better understood by taking into account their connectivity with other factors*. This study showed that identity is best viewed and interpreted as being grounded in ethnic and group culture. Cognition may be achieved through processing information through a variety of mental structures,

however, the effectiveness of these processes may be negatively impacted by emotions, attitudes and ethnic culture. Communication is very important to sensemaking, but its efficiency may be compromised by ethnic culture and by having to use an additional language. Skilled leadership, which recent sensemaking studies have cited as an important asset to sensemaking (Filstad, 2014; Rouleau & Balogun, 2011), may be prevented from achieving much helpful sensegiving by the negative emotions, attitudes and group behavioural norms of the people leaders are trying to help. The contextual factors that this study showed to have the greatest connectivity with other factors were emotions and attitudes, hence their ability to dominate sensemaking in negative and positive ways.

Helms Mills et al. (2010, p. 190) argued that the formative context is composed of a complex combination of variables, but they only defined these variables in generalities. The contextual factors impacting sensemaking that emerged from this study provide examples of what contextual factors may be components of those generalities. Specifically, social-psychological properties of individuals may include: ethnic culture, attitudes and emotions; power relationships include management and leadership in both macro and meso sensemaking levels; the dominant assumptions of organisations are organisational and especially group culture; and the importance of discourse is linked to communication.

This study's findings yielded new factors that have not previously been identified as important to sensemaking. The first of these is spirituality, which provided support during the challenging task for participants who actively practised spirituality. With growing interest in spirituality in organisations (Karakas, 2010; Taylor & Bell, 2012), and conjecture that it may also be instrumental in achieving organisational transformation (Neal & Biberman, 2003; 2004; Rego & Cunha, 2008), this is a relevant insight to build into future sensemaking studies of both secular and faith-based organisations and institutions.

Other new contextual factors impacting sensemaking identified by this study are not just new to sensemaking, they also appear to impact sensemaking in partnership with other factors. The first of these is attitudes, which this study showed to be important in impacting sensemaking in both positive and negative ways. This study also identified the insights that attitudinal contagion is a significant factor in group sensemaking and that, as attitudes are often initially grounded in emotions, they form a natural partner to emotions in a sensemaking study.

Although they may also impact sensemaking independently of each other, ethnic culture and group culture primarily work in concert to impact sensemaking. This is because many of the norms of group culture are grounded in ethnic culture—such as the preference for oral communication. As individuals’ vernacular language is most likely to derive from their ethnic cultural setting, EAL is another natural companion to ethnic culture in impacting sensemaking. In essence, the impact on sensemaking of ethnic culture, group culture and their EAL companion should always be considered, especially in multicultural organisations. This is because together, they explain so much about sensemaking behaviour (Shiraev & Levy, 2010), and because “nothing transpires in a cultural vacuum” (Lehman et al., 2004, p. 704), including sensemaking.

There are two final findings from this study that provide new insights to sensemaking theory. The changeability of facets of contextual factors during sensemaking has been noted before (Fullan, 2007; Kotter, 1996; Mills, 2009; Unger, 1987). However, this study’s findings regarding the *volte-face* of emotions and attitudes from negative to positive, informs sensemaking theory regarding how big and transformational changes in contextual factors can be. Another new insight is that together, the changeability and connectivity of contextual factors essentially control the pace of sensemaking in terms of it being a slow, evolutionary experience, or fast, revolutionary and transformational—or both at different times of a sensemaking experience.

A final insight from this study regarding sensemaking theory is that one of its basic assumptions, that individuals engaging in sensemaking will seek information regarding their task (Dervin, 1994/2003), may not always be true. People may need to make meaning; however, they may not want to. Findings showed that participants’ efforts to make meaning were mediated by their ethnic culture and their group culture, as well as by emotions and attitudes. This mediation of an important sensemaking process by contextual factors once again emphasises the importance of taking into account connections between contextual factors when studying sensemaking. Such mediation also illustrates that making meaning may be construed as a want as well as a need.

The methodology employed by this study—utilising a conceptualised formative context framework to analyse and explain an organisational sensemaking event—is grounded in critical sensemaking theory. Helms Mills et al. (2010) have

acknowledged that critical sensemaking research is likely to change and develop when applied to different contexts. Critical sensemaking's view of formative contexts is something whose components link the dominant social values of an organisation's macro level context to individuals' sensemaking actions (Thurlow, 2012). This study expands the view of formative contexts as applied to sensemaking into a framework that includes the macro, meso and micro levels as well as the external contexts of organisations (see Table 3). Thus, a significant development emerging from this research is a fuller definition of formative contexts.

This study's use of this expanded view of formative contexts to create and apply a conceptualised formative context framework to a specific context provides a means of achieving a holistic explanation of a sensemaking event. This contribution to critical sensemaking methodology not only yields a holistic explanation, it also has utility for several other reasons. The framework avoids both the "anything goes" (Rostis, 2012, Conceptual overview & discussion, para. 7) approach that has been a limitation of using formative contexts to investigate transformational events because of the great variability of contexts and the over-generalisation of a single category of contextual factors internal to the organisation as suggested by Gioia and Thomas (1996). Instead, the framework provides an appropriate and useful means of categorising contextual factors into three logical groups—macro, meso and micro contextual levels. Also, the framework avoids being prescriptive by allowing the contextual factors comprising the three levels to emerge from the context.

Essentially, the formative context framework developed by this study provides a methodology for explaining holistically factors that impacted how an organisational sensemaking event occurred. Crucially, the framework may also be sufficiently generic to be useful for explaining any sensemaking event in an organisational or institution in any context. This study, thus, extends the development of the critical sensemaking theory that began to be developed in the 2000s (Helms Mills, 2003; Helms Mills et al., 2010; Mills, 2008), and it also makes a significant contribution to helping researchers identify the processes people use to make sense of their reality.

In summary, the findings of this study support much current sensemaking theory and methodologies used to research sensemaking events and processes in organisations. However, the outcomes of this study also extend sensemaking theories and methodologies in terms of adding new insights regarding contextual factors, and

how their connectedness impacts sensemaking. Also, the conceptualised formative context framework provides a utilitarian means of generating a holistic explanation of sensemaking in any context. The implications of these contributions to sensemaking theory and methodology suggest a number of possibilities for future sensemaking research related to the impact of the context—an area that has yet to be thoroughly researched. These possibilities are discussed next.

5.8 Suggestions for Future Research

Most sensemaking studies have been conducted in, or are related to, business organisations in the western world (such as Brown et al., 2015; Gioia & Chittipedi, 1991; Helms Mills, 2003; Oreg, 2006). The findings of this study suggest several gaps in previously published literature about sensemaking that may be usefully researched in the future regarding holistic sensemaking in business organisations and educational institutions in different ethnic and multicultural settings.

Current sensemaking literature provides much information regarding the impacts of certain individual contextual factors on participants' sensemaking of organisational change events. These factors include identity (Brown et al., 2008; Van Veen & Lasky, 2005), cognition (Elsbach et al., 2005; Steinbauer et al., 2015) and communication (Dervin & Frenette, 2001/2003; Mills, 2005; 2009). However, this research generated a holistic explanation of a sensemaking event by creating a holistic formative context framework (illustrated in Figures 8 and 9) that considered the impact of many contextual factors on the processes and outcomes of a change situation. The use of such a framework to explain sensemaking in organisations more deeply is recommended (Balogun & Johnson, 2005; Dervin, 1997/2000). With applications of the impact of formative contexts on sensemaking rare outside of the discipline of Information Technology (Rostis, 2012), there is scope for applying the concept more widely. The following paragraphs suggest several avenues for future research regarding the three dimensions of formative contexts, and the ramifications of the multi-faceted nature and connectivity of the contextual factors that constitute the three dimensions of sensemaking.

One important property of formative contexts according to this study's findings is that they are multi-dimensional. Current sensemaking research has reported little regarding the comparative importance of the three contextual dimensions—macro, meso and micro—perhaps because frameworks identifying such

levels have not been used to explain sensemaking. Earlier discussion also noted that macro level contextual factors (notably management and leadership) have traditionally been accorded great importance in organisational sensemaking studies (Gioia & Chittipedi, 1991), and in at least one sensemaking study in a higher education institution (Degn, 2015b). However, this study found that the factors comprising the meso and particularly the micro contextual levels had a greater impact on participants' sensemaking than macro level factors. Thus, it would be informative to investigate the relative importance of the three contextual levels in other organisations and institutions. Such research may discover whether macro level contextual factors are as dominant in business organisations as they have hitherto appeared to be, whether such dominance varies between contexts, and to what extent the dominance of levels is similar or different when comparing business organisations and educational institutions.

Another property of formative contexts suggested by this research is that each contextual level is comprised of two or more contextual factors. With no previously existing formative context framework as an example, possible contextual factors impacting sensemaking comprising the three different contextual levels were theorised from literature and confirmed or otherwise by the findings. Two factors also emerged from the findings. Consequently, the formative context framework illustrated by Figure 9 is entirely a product of the investigation in this unique Fijian context. Thus, further studies are needed to explore the composition of formative contexts in other organisations, especially in different cultural settings. Such studies may reveal formative contexts with contextual factors that are similar or significantly different from the factors identified in this investigation.

New research applying the formative context model may also discover the relative importance, characteristics, connectivity and type of impact—negative or positive—of the contextual factors identified and their individual facets. All of these are likely to be context-dependent and thus there may be significant differences in different contexts. One such difference may be the level of autonomy in group cultures. Autonomy is claimed to be higher in higher education institution faculties (Bromage, 2006; Knight & Trowler, 2000; Froemling et al., 2011) compared to departments in business organisations. Findings from this study are somewhat consistent with literature (such as Ketelaar et al., 2013; Knight & Trowler, 2000; Sannino, 2010) suggesting that this autonomy has a significant impact on the locus of

detailed sensemaking and the extent of agency and ownership experienced by sensemaking participants—somewhat, because other group cultural norms also impacted agency and ownership in this study. Thus, the relationship between autonomy, agency and ownership in sensemaking events may not be straightforward and so merits further research. This may be particularly true of higher education institution faculties making sense of creating their own change, compared to the more commonly studied sensemaking of an imposed change which includes little agency regarding details. Thus, the importance of autonomy to quality sensemaking through its impact on agency and ownership merits wider investigation.

What and why contextual factors dominate sensemaking of changes in different organisational settings, and the extent of these factors' domination, requires further research. One example is the importance of emotions in shaping sensemaking processes and outcomes (Dougherty & Drumheller, 2006; Maitlis et al., 2013; Steigenberger, 2015). They were dominant in this study, yet research detailing their impact on sensemaking events is rare, particularly regarding their relationships with other contextual factors. Previous research cites ethnic culture as impacting emotions and their expression (Lazarus, 1991; Matsumoto & Juang, 2008). In this study, it was the participants' religious spirituality that had a strong impact on their emotions. Thus, investigating the potential power of emotions to help or hinder sensemaking through impacting or being impacted by other contextual factors may be another fruitful area to research.

This study also revealed that attitudes had an important impact on participants' sensemaking and were strongly related to emotions (van Giesen et al., 2015). Until now, attitudes and emotions have been somewhat overlooked as factors impacting sensemaking. While other researchers have commented on the potential impact of emotional contagion on sensemaking (Barsade, 2002; Maitlis & Sonnenschein, 2010; Steigenberger, 2015), the existence and impact of attitudinal contagion appears not have been considered. Thus, research into the positive and negative impacts of attitudes and attitudinal contagion on both individual and group sensemaking may provide fruitful avenues for research. Research into the relationships between attitudes and values (Alberts, 2017; Shiraev & Levy, 2010; Smith & Mackie, 2007), and between attitudes and any other sensemaking factors (such as cognition, ethnic culture and spirituality), may also shed further light on sensemaking issues. Furthermore, the extent to which Oreg's (2003) six dispositional

factors predisposing individuals to resist change are evidenced in different sensemaking contexts, and whether new dispositional factors emerge, may also prove to be fruitful areas to research.

There are other individual contextual factors highlighted as important by this study as impacting sensemaking merit further research. One is ethnic culture, which in this study had a significant impact on cognition and sensemaking behaviour. Findings supported literature regarding the existence of cultural schemas (Fellows & Liu, 2016), and there is much scope to explore how these impact sensemaking in a variety of cultural contexts. Literature (Deal & Peterson, 1999; Grant, 2003; Robbins et al., 2017) and this study also suggest that ethnic culture and group culture form a complex and interacting web which profoundly impacts change participants' feelings and actions in relation to sensemaking. Yet there is little to be found in previous literature on the impact of ethnic culture, or group culture, or their connectedness. Thus, there is much still to be discovered regarding the impact on sensemaking of ethnic culture, whether in single or multicultural contexts, and on the strength of its impact and connections with group and organisational cultures.

There are at least three specific aspects of ethnic culture that merit research regarding their impact on sensemaking. One aspect of ethnic and organisational cultures that is subject to much publicity is gender issues. There appears to be no literature on their impact on organisational sensemaking. While evidence was not found in this study to determine whether or not gender issues impacted sensemaking in the context, this may not be true of other contexts. Thus, researching the impact of gender issues on sensemaking in organisations, particularly in relation to ethnic, group and organisational cultures, is another gap in literature that remains to be filled.

Cultural values and the use of common sense are two more aspects of ethnic culture that merit further research regarding their impact on sensemaking. This study revealed that cultural values impact sensemaking, for example, the collective cultural value of mutual interdependence (Wade & Tavis, 2011) encouraged social constructivist processes. However, findings evidenced great differences in how participants from the same culture valued learning. Thus, studies on the sources of values impacting individuals' sensemaking may be instructive. Regarding common sense, Moon (2009) argues how important it is to successful sensemaking. Yet common sense is necessarily culturally defined. Thus, studying common sense in

sensemaking in different ethnic cultural contexts may add a new thread to sensemaking research.

Spirituality and EAL issues are other contextual factors that merit further research regarding their impact on sensemaking. Findings showed that strong individual religious spirituality was a great asset for persisting with challenging sensemaking. This is consistent with the findings of other researchers (Karakas, 2010; Roof, 2015; Scheitle & Adamczyk, 2016). However, further research is needed to ascertain whether this is evident across the spectrum of Christian and other religions, and whether, as suggested, this is true of societies with a high degree of religiosity (Fernando & Jackson, 2006). There is a lack of literature on the impact of secular spirituality on sensemaking. Regarding the impact of EAL, findings illustrated how this negatively impacted cognition and sensemaking of written, oral and aural communication, while other researchers have suggested that the nature of EAL issues is grounded in a person's ethnic and social context (Alberts et al., 2017; Watkins-Mathys, 2007). Thus, it would be informative to discover the extent to which the impacts of EAL issues on sensemaking—or the impact of using any language during sensemaking that is not participants' first language—are generic or related to specific language contexts, and how such impacts may be reduced.

Final suggestions for further research regarding contextual factors stem from the factors' ability to change during a sensemaking experience. Whilst some contextual factors may not change, such as ethnic culture, there is much scope for investigating why and how influences that are internal and external to the organisation change contextual factors during a sensemaking period and the impacts of these changes. There is also scope for more investigation regarding whether change in contextual factors is impacted by their mutual dependence (supported by Mills, 2009 and by this study), or whether factors may change independently of each other as argued by Unger (1987).

Even more intriguing is the somewhat disputed area regarding whether sensemaking in organisations can be managed (Blackler, 1992; Fullan, 1993, 1998; Lovat & Smith, 2003; Mossholder et al., 2000; Steigenberger, 2015) if managers have a good understanding of their context (Barsade, 2002; Rouleau & Balogun, 2011). This claim implies that such an understanding may enable managers and leaders to anticipate sensemaking problems and attempt to change contextual factors to solve problems in advance. Creating a theory of change may help managers in

such an endeavour. If the LMC leaders had employed a theory of change and/or researched causes of resistance to change, they may have been able to forestall some resistance. Thus, future research could be conducted in business organisations and educational institutions regarding attempts to prevent or lessen potential issues that may make sensemaking difficult and the efficacy of such attempts in avoiding such issues. It may also be informative to compare and contrast the results of such studies in relation to the degree of autonomy experienced in business organisations versus educational institutions, particularly higher education institutions.

A final recommendation for future research is very specific to the context of this study. My attendance at many meetings held by Fiji Higher Education Commission—the source of most of the requirements for the project as explained in Chapter 1—since data collection for this study began, as well as conversations with FHEC officials and others, has led me to understand that other higher education institutions in Fiji have been less successful in making sense of FHEC's new requirements for qualification programs. Thus, it may benefit higher education development in Fiji if a study similar to this one is conducted to discover hindrances to the different institutions' sensemaking of FHEC's new requirements.

In conclusion, the holistic framework that was generated by this research suggests a variety of possibilities for extending sensemaking literature. Essentially, there is much to be researched regarding applications of formative context frameworks, especially holistic frameworks, to explaining sensemaking in other organisational and institutional contexts, most particularly in different ethnic cultural and multicultural settings. This is particularly true of the importance and composition of the three levels of sensemaking, and the impact of various contextual factors in terms of their relative importance, their nature and their connectivity. Case studies researching attempts to manage potential sensemaking issues related to contextual factors would also fill a gap in sensemaking literature.

5.9 Conclusion to the Chapter

This chapter presented an in-depth discussion of the key findings of this study in relation to previously published research, particularly regarding how they support and fill gaps in current sensemaking literature and how the study's findings may extend current sensemaking theory. In essence, the key findings add to an understanding regarding how emotions and attitudes may dominate sensemaking, the

power of ethnic and group culture to impact sensemaking, the issues that may be caused by sensemaking in a second language, and the important contribution that spirituality grounded in the Christian faith may make to successful sensemaking. However, the utility of the formative context framework developed for, and employed by, this study to give a holistic explanation of participants' sensemaking experience is arguably both the most important finding, and the most original and significant contribution to sensemaking literature and methodology. The gaps in sensemaking literature noted in the discussion and in the answer to the final research question regarding the contribution of the findings to sensemaking literature and methodology, suggest many avenues that future researchers may profitably explore.

The final chapter provides a conclusion to the thesis. In doing so, it revises the purpose of the study and summarises the main points of the study especially in relation to the significance and implications of what was discovered.

CHAPTER 6: CONCLUSION

This final chapter revises the purpose of the study, its context and how it was conducted. This chapter also provides a synthesis of the main findings of the study with commentary regarding their significance in relation to previous research and the implications of these findings. Finally, a summary of the answers to the study's main research questions are provided, followed by an explanation of the limitations of the research.

6.1 The Purpose, Context and Methodology of this Study

The main purpose of this investigative case study was to utilise the experiences of a small group of teacher-educators to generate a holistic explanation of what, why and how the various components of their unique and dynamic Fijian context impacted how they made sense of redeveloping a teacher education program. The study took place at a small Christian university college given the pseudonym Lakomai College (LMC). Participants' lack of familiarity with the exacting nature of the requirements of their redevelopment project made it a very challenging task that required much sensemaking.

This study was grounded in sensemaking theory and, in particular, the implications of the formative context concept foregrounded in critical sensemaking theory (Helms Mills et al., 2010). The early sensemaking theories of Weick (1995) and Dervin (for example, 1992/2003) emphasised the importance of such factors as communication (Dervin), and cognition, identity and social constructivist processes (Weick) to retrospective sensemaking of significant organisational events. However, a search of literature revealed more potential components or factors of formative contexts—emotions, organisational culture, management and leadership—that had previously been overlooked. An interest in discovering whether a combination of these contextual factors, and possibly others, could together generate a holistic explanation of an institutional change from the perspectives of the participants drove this study.

This qualitative ethnomethodological case study took an interpretive-constructivist approach by seeking an understanding of participants' views of their sensemaking experience through an iterative process of interaction and interpretation (Patton, 2002). This interaction was facilitated by the researcher's familiarity with the participants and context as a participant-observer. Data were collected from the

six culturally diverse members of LMC Faculty of Education from three rounds of semi-structured, open-ended interviews. These data were triangulated by entries from the researcher-participant's journal that reflectively recorded participants' sensemaking interactions. The data were analysed by using some aspects of constructivist grounded theory (Creswell, 2008), the holistic context framework conceptualised from critical sensemaking theory, and the literature review (see Figures 8 and 9). The macro, meso and micro sensemaking levels formed the pre-set themes, and hypothesised contextual factors constituting these three levels provided the categories. However, confirmation of the existence of these themes and categories, as well as the deepest codes that revealed how and why the different contextual factors impacted sensemaking and their connectivity, all emerged from the analysis.

Measures were taken to ensure the research was conducted in an ethical manner. Also, a variety of strategies were employed to ensure the credibility, trustworthiness and potential transferability of the research methodology and findings.

6.2 Implications of this Study for Sensemaking Literature, Theory and Methodology

The discussion chapter illustrated how the main findings of this study provide insights that contribute much to sensemaking literature, theory and methodology. These insights are now highlighted, particularly in relation to their significance and implications.

One significant insight yielded by this study is that, depending on the context, several more factors were identified as impacting participants' sensemaking of an organisation change than were considered in previously published research. These additional factors suggest that, unless the formative context is considered holistically, explanations of sensemaking events will be incomplete. For example, with multicultural organisations proliferating, it is important to acknowledge the impact ethnic culture may have on sensemaking, particularly in terms of the grounding it provides for organisational and group cultures. It is also clear from this study that the impact of second language, especially in multicultural organisations, should be factored into explaining the success or otherwise of sensemaking events.

A second important insight illustrated in the results of this study, is that the contextual factors impacting sensemaking are interconnected in their ability to impact each other in both negative and positive ways during a sensemaking event. While some factors in this study primarily impacted participants' sensemaking independently, others worked together in concert. Emotions and attitudes, both traditionally overlooked as factors impacting sensemaking, form natural partners given that they are both components of the affective domain, and that attitudes are frequently rooted in emotions. Together, emotions and attitudes essentially controlled sensemaking through their hindering or enabling impact on the ability of other contextual factors to support sensemaking. This was particularly true of attempts to achieve cognition. Thus, when explaining sensemaking, it is important to consider what impacts efforts to achieve cognition and not just consider what cognitive structures are utilised to make sense. Ethnic and group cultures are two more factors that worked in concert to impact several other factors, such as communication and social constructivist processes.

The findings from the study also illustrated how contextual factors are subject to either slow evolutionary or fast revolutionary change during sensemaking events. Thus, although the characteristics of some contextual factors—such as ethnic culture—may not change, it should not be assumed that all contextual factors retain the same characteristics throughout a sensemaking event. Contextual factors' changeability also reinforces the concept that sensemaking of an organisational change is a complex event that can only be explained by a holistic perspective of a formative context comprised of factors that are changeable and highly connected.

There are two other important concepts this study contributes to sensemaking literature and theory. To begin with, it has been a basic assumption of sensemaking theory that participants in a change event will actively seek to make meaning of the change (Dervin 1989/2003). However, the findings of this study evidenced that participants in a change event may not always actively seek to make meaning of change requirements, particularly when they are resisting the change. The second, and related, concept is that attitudes can be an important contextual factor impacting change participants' sensemaking, both in the negative and positive sense, particularly when manifested as a group norm. This also suggests that attitudinal contagion may be a companion to emotional contagion in impacting group sensemaking.

The use of interviews and a reflective journal to collect data for this study is unremarkable. However, the use of a holistic multi-dimensional framework is new to sensemaking methodology. This framework served to identify and explain what contextual factors impacted the participants of an organisational change, the relative importance of factors, and how the factors impacted participants, particularly in terms of generating sensemaking issues and successes.

6.3 Answers to the Research Questions

This study's research questions (stated in Chapters 1 and 3) were focused on finding out information about participants' sensemaking, particularly in relation to sensemaking theory and methodology. The first three questions related to the impact of the various contextual factors on participants' sensemaking experience and what issues, problems and successes were experienced in relation to these impacts. The fourth question related to how the findings may contribute to sensemaking theory and methodology.

Research Question 1 asked, *what contextual factors impacted the participants' sensemaking of the program redevelopment?* In the study's findings, thirteen different contextual factors were identified at three different organisational sensemaking levels—micro, meso and macro—that impacted participants' sensemaking of their project. The factors comprising the micro and meso sensemaking levels were highly inter-connected. Macro level management and leadership were instrumental in initiating the project but had little impact thereafter because subsequent sensemaking processes took place at the micro and meso levels. Different facets of the characteristics of contextual factors resulted in the factors both hindering and facilitating participants sensemaking in different ways and at different times. Also, contextual factors varied in their importance. Emotions and attitudes had the greatest impact on sensemaking in both positive supportive and negative hindering ways, and both directly and indirectly in relation to their connectivity with most other micro and meso contextual factors. The importance of attitudes and emotions also contributed to micro level contextual factors having the greatest impact on participants' sensemaking.

Research Question 2 asked, *what problems and issues emerged in the group's sensemaking during the program redevelopment and how were they experienced and addressed?* In essence, many problems and issues were experienced by the

participants in the change event and were addressed to a greater or lesser extent during the project. All contextual factors at all three contextual levels, were either the source of issues that directly or indirectly hindered participants' sensemaking, or were negatively impacted by issues rooted in other contextual factors. This illustrates the complex connectivity between the sensemaking levels and their constituent contextual factors.

Most problems and issues that hindered participants' sensemaking were rooted in negative emotions and resistant attitudes. A major cause of this was participants' challenges with overcoming their lack of relevant knowledge and experience due to the exacting nature of project requirements and second language issues. Positive feedback from valued sources external to LMC in the second part of the redevelopment period regarding the quality of the new program effectively ended lingering resistance to sensemaking, and enabled participants to appreciate their new learning. This, in turn, encouraged social constructivist processes and helped participants take ownership of their project. However, some sensemaking issues related to second language and ethnic cultural mores were never resolved.

Research Question 3 asked, *what successes in sensemaking emerged during the redevelopment process and how were they experienced?* This question was also focused on finding reasons why these successes were deemed successes and who experienced these successes.

Essentially, the disappearance of negative emotions and attitudes paved the way for all participants to experience significant successes at all three contextual levels. Participants' individual successes included gaining new knowledge and skills which in turn increased their confidence and sense of competence in their jobs. The enhancement of personal relationships as a facet of both improved group culture, spiritual connections between participants, and flourishing social constructivist processes, brought significant group successes, which also facilitated the leaders' ability to steer the group to a successful conclusion of the project. The successful conclusion of the project was particularly rewarding because of the stressful issues that had been overcome along the way. The recognition from peers in other higher education institutions and stakeholders heralded a significant success for the institution as well as for individual participants, the group, and their students.

Research Question 4 asked, *how do the findings contribute to sensemaking theory and/or methodology?* The findings further validate aspects of sensemaking

theory that have been previously documented, such as the importance of cognition and communication, and the utility of interviews and a reflective journal for collecting data. However, this study has also made a contribution to sensemaking methodology by conceptualising and utilising as a data analysis tool a formative context framework capable of explaining a sensemaking event holistically.

6.4 Limitations of the Study

This study had certain limitations. These are grounded in the methodology, data analysis, the transferability of the study's findings, and the cultural background of the researcher.

This study lacked close parallels to guide the methodology. This is because relatively few studies have been conducted regarding Pacific Islands' higher education reform, or regarding people's sensemaking experiences as they develop the details of their own organisational change. The year-long gap between interviews was not ideal. This gap may have caused some changes in the participants' views over time. However, many of the participants' memories remained fresh as the project was ongoing during this time. It is also possible that focus group interviews may have added some richness to the data.

The formative context framework developed by this study to assist analysis of data also has limitations. For the context of this study, it yielded a holistic explanation of sensemaking of the change event from participants' perspectives. However, this framework would not necessarily fully explain sensemaking in other contexts. This potential task is placed in the domain of future researchers. A holistic explanation is particularly unlikely if the framework is applied prescriptively rather than letting individual contextual factors and their unique characteristics and impact emerge from the data.

The qualitative nature of this study required a specific and small group of participants in a unique context. Consequently, the findings of this study were not intended to be generalisable to a wider group of participants or institutions. However, the potential transferability of knowledge generated by this investigation has been enhanced by the rich, thick description and explanation of the context, and the collection and analysis of data. Ultimately, the transferability of the study is best considered through the readers' eyes. That is, researchers who recognise elements of

their own contexts in the context described in this study may wish to consider applying the insights revealed in the findings to their own context.

A final limitation was that the researcher was a non-Pacific Islander. She was a well-established member of the group before she became a participant-researcher which resulted in most colleagues comfortably sharing confidences with her during the interviews. However, despite her extensive experience and familiarity with many aspects of Pacific culture developed over decades, her cultural background and heritage were British and not Pacific in origin. This, perhaps somewhat inevitably, impacted her sensemaking of redevelopment issues. However, with the help of Pacific literature, she has endeavoured to point out in this thesis where her sensemaking was compromised by her non-Pacific cultural background. This highlights the need for researchers in multicultural contexts to ground their observations, reflections and their data analysis in the cultures of the participants of the research.

6.5 Conclusion to the Study

Critical sensemaking—the theoretical grounding of this study—is of growing importance in organisational studies, and the research it is generating provides unique insights into the study of sensemaking in organisations (Aromaa et al., 2018). This study provides unique insights into three areas of critical sensemaking that, according to Aromaa et al.'s (2018) analysis of critical sensemaking literature, form promising areas for future critical sensemaking research. Firstly, the outcomes enrich an understanding of how critical sensemaking contributes to the study of people's agency when they participate in an organisational change. Secondly, the outcomes also enrich an understanding of how the various factors comprising an organisation's formative context may influence sensemaking. Lastly, the holistic multi-dimensional and highly interconnected formative context framework that emerged from this study as a data analysis tool contributes to how critical sensemaking theory may be conceptualised.

As critical sensemaking continues to develop as a theory and focus for research, it is anticipated that future critical sensemaking researchers will utilise or adapt the formative context framework that emerged from this study to develop a holistic explanation of an organisational or institutional change in new contexts. The use of a formative context framework to obtain a holistic explanation of an

organisational sensemaking event, or even to pre-diagnose and potentially forestall resistance to a change in the increasing number of multicultural organisations and higher education institutions, may provide particularly fruitful foci for future critical sensemaking research.

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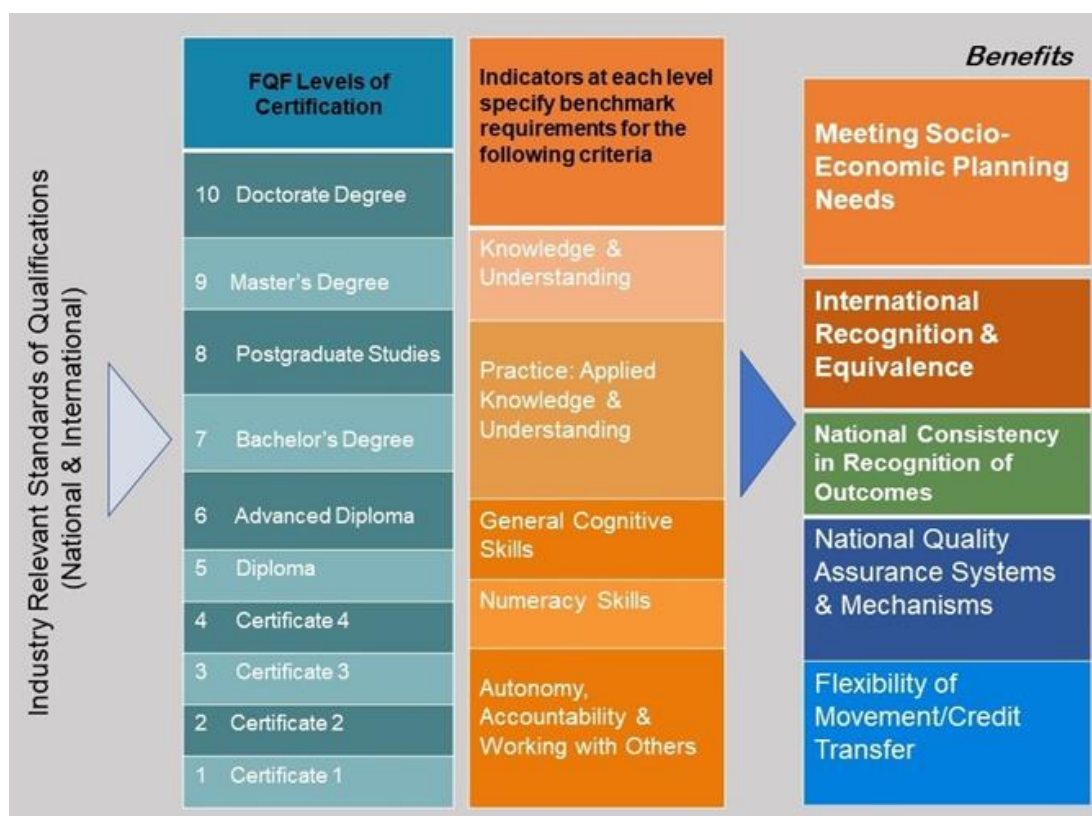
APPENDICES

- Appendix A: Timeline of significant events related to LMC's degree redevelopment and their relationship to data gathering for this proposed investigation .**Error! Bookmark not defined.**
- Appendix B: Fiji Qualification Framework **Error! Bookmark not defined.**
- Appendix C: FHEC Level Descriptors relevant to the BEd (Prim.) qualification **Error! Bookmark not defined.**
- Appendix D: A comparison of three Fijian Teacher Education Qualification Programs prior to redevelopment of LMC BEd (Prim.)**Error! Bookmark not defined.**
- Appendix E: Ethics clearance letter **Error! Bookmark not defined.**
- Appendix F: A profile of the LMC Education Faculty in 2013**Error! Bookmark not defined.**
- Appendix G: A comparison of data collection methods used by sensemaking researchers **Error! Bookmark not defined.**
- Appendix H: Interview question development and procedures**Error! Bookmark not defined.**
- Appendix I: Schedules for Interviews 1 – 3..... **Error! Bookmark not defined.**

Appendix A: Timeline of significant events related to LMC's degree redevelopment and their relationship to data gathering for this proposed investigation

TIME	EVENTS		DATA GATHERING
	FHEC and LMC	OTHER	
Pre-2008		- Regional & Fijian pressures to reform teacher education programs: - in general - contextualise content & assessment	-
2008	Promulgation of FHEC and development of Fijian Qualification Framework	Changes in the Fijian primary school curricula are developed	
2009		<i>Citizenship education</i> as an integrated theme, begins to be developed.	
2010	- Beginning of tertiary institutions recognition requirement - December – LMC granted institutional recognition		
2011	- Preparation for LMC's application for institutional registration - September – application submitted - December – FHEC workshop for aligning qualifications to standards	Fiji introduces class-based assessments (CBAs) into primary schools	- Informal observation - Attendance at FHEC workshops - Collection of relevant documents
2012	- February – Lakomai College granted a change of status by FHEC to Lakomai, a University College - July – Visit to LMC by FHEC to check on application data - November – second FHEC workshop for aligning qualifications to standards - November – LMC granted institutional registration - December – Application to FHEC for accreditation of LMC's Theology program (a test case for feedback)	- Another Fijian higher education institution begins a three-year BEd (Primary) degree - LMC adds conversational Hindi to its program to meet government requirements - August – AAA visit resulting; - in the granting of the maximum 4-year term before the next Accreditation - Various recommendations include to more overtly integrate faith into learning	
2013	- February – Professional development for all faculty involved in redeveloping qualifications - February – Redevelopment of the BEd program begins - March – Stakeholders affirm the broad content and structure of the new program and at LMC-organised meeting. - March & April – FHEC personnel visit LMC to trial FHEC's newly developing self-evaluating quality assurance processes. - April – LMC internal redevelopment workshop - Redevelopment of program documentation begins in earnest in August.	Fijian primary teachers are prepared to begin <i>thematic teaching</i> in 2014	- Participant observation - Reflective journal - Interview 1 (Dec. 2013) - Interview 2 (Dec. 2014) - Collection of relevant documents - Attendance at FHEC workshops
2014	- March – The new 3-year LMC BEd (Prim.) degree begins with year 1 students - Year 2 and 3 students do a one-off phasing-in curriculum - May - The first draft of the application for qualifications' accreditation is sent to FHEC. - December – Final amendments to the application are made.	<i>Thematic teaching</i> begins in Fijian classes 1-3. <i>Accounting</i> is introduced into the Fijian Primary curriculum - Encouragement increases to integrate <i>Climate change</i> into educational curricula.	
2015	- February – The new program operates in its entirety. - FHEC grants accreditation to the BEd (Prim.) program and some other LMC qualifications until 2020.		Interview 3 (December)
2016			Final reflections were recorded

Appendix B: Fiji Qualification Framework



(Source: FHEC. (n.d.). Retrieved from <https://fhec.org.fj/fiji-qualifications-framework/>)

Appendix C: FHEC Level Descriptors relevant to the BEd (Prim.) qualification

LEVEL 5

Knowledge and understanding	Practice: Applied knowledge and understanding	Generic cognitive skills	Communication, ICT and numeracy skills	Autonomy, accountability and working with others
Characteristic outcomes of learning at this level include the ability to;				
Demonstrate and/or work with: • A broad knowledge of the subject/ discipline in general • Knowledge that is embedded in the main theories, concepts and principles • An awareness of the evolving/ changing nature of knowledge and understanding • An understanding of the difference between explanations based on evidence and/ or research and other forms of explanations, and of the importance of this difference.	Use some of the basic, routine professional skills, techniques, practices and/or materials associated with a subject/ discipline. Practice these in both routine and non-routine contexts.	Present and evaluate arguments, information and ideas which are routine to the subject/discipline Use a range of approaches to addressing defined and/or routine problems and issues within familiar contexts.	Use a wide range of routine skills and some advanced skills associated with the subject/discipline, for example: • Convey complex ideas in well structured and coherent form • Use a range of forms of communication effectively in both familiar and new contexts • Use standard applications to process and obtain a variety of information and data • Use a range of numerical and graphical skills in combination • Use numerical and graphical data to measure progress and achieve goals/ targets.	Exercise some initiative and independence in carrying out defined activities at a professional level. Take supervision in less familiar areas of work. Take some managerial responsibility for the work of others within a defined and supervised structure. Manage limited resources within defined areas of work. Take the lead in implementing agreed plans in familiar or defined contexts. Take account of own and others' roles and responsibilities in carrying out and evaluating tasks. Work with others in support of current professional practice under guidance.

Fiji Qualifications Framework-Level Descriptors Appendix 1A- (Adopted from the Scottish Level Descriptors)

20

FIJI QUALIFICATIONS FRAMEWORK

Source:

Fiji Higher Education Commission. (2019, January). *Fiji qualifications framework* (p. 20). Retrieved from <https://www.fhec.org.fj/wp-content/uploads/2019/01/2-2-M-Fiji-Qualifications-Framework-ver2-31Jan19.pdf>

LEVEL 6

Knowledge and understanding	Practice: Applied knowledge and understanding	Generic cognitive skills	Communication, ICT and numeracy skills	Autonomy, accountability and working with others
Characteristic outcomes of learning at this level include the ability to:				
Demonstrate and/or work with: - A broad knowledge of the scope, defining features, and main areas of a subject/discipline - Detailed knowledge in some areas - Understanding of limited range of core theories, principles and concepts - Limited knowledge and understanding of some major current issues and specialisms - An outline knowledge and understanding of research and equivalent scholarly/academic processes.	Use a range of routine skills, techniques, practices and/or materials associated with a subject/discipline, a few of which are advanced or complex. Carry out routine lines of enquiry, development or investigation into professional level problems and issues. Adapt to routine practices within accepted standards.	Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues which are within the common understanding of the subject/discipline. Use a range of approaches to formulate evidence solutions/responses to defined and/or routine problems and issues. Critically evaluate evidence based solutions/responses to defined and/or routine problems/issues.	Use a wide range of routine of skills and some advanced and specialized skills associated with a subject/discipline, for example: - Convey complex information to a range of audiences and for a range of purposes - Use a range of standard applications to process and obtain data - Use and evaluate numerical and graphical data to measure progress and achieve goals/targets.	Exercise autonomy and initiative in some activities at a professional level. Take managerial or supervisory responsibility for the work of others in defined areas of work. Manage resources within defined areas of work. Take the lead on planning in familiar or defined contexts. Take continuous account of own and others' roles, responsibilities and contributions in carrying out and evaluating tasks. Work in support of current professional practice under guidance. Deal with ethical and professional issues in accordance with current professional and/or ethical codes or practices under guidance.

Fiji Qualifications Framework-Level Descriptors Appendix 1A-(Adopted from the Scottish Level Descriptors)

FIJI QUALIFICATIONS FRAMEWORK

21

Source:

Fiji Higher Education Commission. (2019, January). *Fiji qualifications framework* (p. 21). Retrieved from <https://www.fhec.org.fj/wp-content/uploads/2019/01/2-2-M-Fiji-Qualifications-Framework-ver2-31Jan19.pdf>

LEVEL 7

Knowledge and understanding	Practice: Applied knowledge and understanding	Generic cognitive skills	Communication, ICT and numeracy skills	Autonomy, accountability and working with others
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Characteristic outcomes of learning at this level include the ability to;

Demonstrate and/or work with: - A broad and integrated knowledge and understanding of the scope, main areas and boundaries of a subject/discipline - A critical understanding of a selection of the principal theories, principles, concepts and terminology - Knowledge that is detailed in some areas and/or knowledge of one or more specialisms that are informed by forefront developments.	Use a selection of principal skills, techniques, practices and/or materials associated with a subject/discipline. Use a few skills, techniques, practices and/or materials that are specialised or advanced. Practice routine methods of enquiry and/or research. Practice in a range of professional level contexts which include a degree of unpredictability.	Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues. Identify and analyse routine professional problems and issues. Draw from a range of sources in making judgements.	Use a range of routine skills and some advanced and specialised skills in support of established practices in a subject/discipline, for example: - Make formal and informal presentations on standard/mainstream topics in the subject/discipline to a range of audiences - Use a range of IT applications to support and enhance work - Interpret, use and evaluate numerical and graphical data to achieve goals/targets.	Exercise autonomy and initiative in some activities at a professional level. Take significant responsibility for the work of others and for a range of resources. Practice in ways which take account of own and others' roles and responsibilities. Work under guidance with qualified practitioners. Deal with ethical and professional issues in accordance with current professional and/or ethical codes or practices seeking guidance where appropriate.
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Source:

Fiji Higher Education Commission. (2019, January). *Fiji qualifications framework* (p. 22). Retrieved from <https://www.fhec.org.fj/wp-content/uploads/2019/01/2-2-M-Fiji-Qualifications-Framework-ver2-31Jan19.pdf>

Appendix D: A comparison of three Fijian Teacher Education Qualification Programs prior to redevelopment of LMC BEd (Prim.)

	LMC	INSTITUTION B (A new nation university)	INSTITUTION C (A well-established regional university)
<i>Starting date</i>	1999	2011	1999
<i>Duration</i>	4 years full-time	3 years full-time	A 2-year full-time upgrade of a certificate.
<i>Semester/ trimester</i>	8 x16 week semesters	9 x 14 week trimesters	4 x 16 week semesters
<i>Number of subjects</i>	40 (plus practicum)	29 (including practicum)	22 (including practicum)
<i>Practicums</i>	20 weeks	42 weeks	16 weeks
<i>Modes</i>	Face-to-face	Face-to-face	Face-to-face, distance education & flexible mixed-mode.
<i>Admission policy requirements</i>	- Passes in <u>Fiji Form 7</u> Exams with 200+ marks including English. OR - <u>SPBEA Form 6</u> certificate of 13 or less including a pass in English & Maths. OR - <u>Institution A's Foundation Studies</u> course GPA of 2.33+. OR - Other equivalents.	- Passes in <u>Fiji Form 7</u> Exams with 200+ marks including English. OR - Demonstrable ability to succeed on the basis of maturity, work experience or prior learning. OR - Competence in at least one of Fijian, Hindi, Urdu or Rotuman language to Form 2.	- Possession of a teaching <u>certificate or a diploma</u> , plus 3+ years of satisfactory teaching experience.
<i>Accreditation:</i> a) Pre 2012 b) Post 2013	a) SDA Church b) FHEC/SDA Church	a) Fiji Government b) FHEC	a) The university b) FHEC

Appendix E: Ethics clearance letter



Human Research Ethics Committee
Telephone: 02 4980 2121
Fax: 02 4980 2117
Email: research.ethics@avondale.edu.au

18 December 2013

Pauline Potter
Fulton College
Private Mail Bag
SUVA
FIJI

Dear Pauline,

Thank you for resubmitting your amended application for ethics clearance for your project *A sensemaking investigation of the redevelopment of a teacher education program in the Pacific region*, project number [2013:31].

I am happy to advise that final approval is granted for your project *A sensemaking investigation of the redevelopment of a teacher education program in the Pacific region* for the duration of your project until 31 December 2016, project number [2013:31].

These additional standard conditions apply:

1. That you notify the committee of any changes to circumstances or research design, which might require a review of the ethics approval.
2. That you provide an annual interim report of your progress to the committee, and a final report once this project is completed. The first report will be due twelve months from the date you commence the research.

We wish you well in this valuable research endeavour.

Sincerely

A handwritten signature in black ink, appearing to read "A/Prof Phil Fitzsimmons", followed by the word "per" in a smaller font.

A/Prof Phil Fitzsimmons
Chair
Avondale Human Research Ethics Committee

Appendix F: A profile of the LMC Education Faculty in 2013

	CATEGORIES				TOTAL LECTURERS
AGE	20-39 yrs = 1	40-59 yrs = 4	60+ = 1		6
GENDER	Female = 5	Male = 1			6
FULL TIME/* PART TIME IN ED. DEPT.	Full time = 3	Part time = 3			6
CULTURAL ORIGIN	Ethnic Fijian = 3	Fijian, of Kiribati/Rabi Is. Culture = 1	Vanuatu = 1	Expatriate (British) = 1	6
TEACHER TRAINING	Early Childhood = 1	Primary = 4	Secondary = 1		6
QUALIFI- CATIONS	Bachelor = 1	Postgrad. Dip. = 2	Masters = 2	Masters (Hons) = 1	6
YEARS AT LMC	1 , 2 , 2 , 4 , 6 , 10 (These figures are the same as the number of years each lecturer has been teaching in a tertiary institution.)				6
PREVIOUS ED. ADMIN. EXPERIENCE	Deputy Head of a primary school = 1	Sole in charge of a multi-grade primary school = 1	Secondary school HOD = 1	None = 3	6

* All Education Faculty lecturers worked full time, but some taught classes in other departments.

Appendix G: A comparison of data collection methods used by sensemaking researchers

DATA COLLECTION METHODS	METHODS USED IN THIS INVESTIGATION	METHODS USED IN SENSEMAKING STUDIES	AUTHORS OF SENSEMAKING STUDIES
<i>INTERVIEWS</i>	✓	Semi-structured	Mills, 2010 Coburn, 2002 Soffe, 2002 Gioia & Thomas, 1996 Weber & Manning, 2001
		Narrative	Dervin * Landau & Drori, 2008 Thurlow, 2007 Weick *
		Focus group	Soffe, 2002
		Time-line	Dervin * Savoleinen, 1996 *
<i>OBSERVATION</i>		Observation	Soffe, 2002
	✓	Participant observation	Landau & Drori, 2008 Mills, 2009
<i>DOCUMENT ANALYSIS</i>			Landau & Drori, 2008 Soffe, 2002
<i>OTHER</i>		Invitation to email (not successful)	Soffe, 2002

Note:

- * = Recommendations from the authors of the two sensemaking traditions
- At least two authors—Landau & Drori and Soffe—used multiple methods

Appendix H: Interview question development and procedures

INTERVIEW	QUESTION DEVELOPMENT & INTERVIEW PROCEDURES
One 	• Questions and possible prompts strongly linked to: - Research Question 1 (5) - Research Question 2 (1) - Research Questions 3 (8) • Interviews – recorded, transcribed, summarised, key quotes identified & coded • Follow-up questions written • Summaries of interviews sent to participants
Two 	• Questions and possible prompts developed from Interview One Analysis • Focused on - gleaned more insights into successes and issues • Interviews began with follow-up questions • Questions linked to: - Research Question 1 (2) - Research Question 2 (5) - Research Question 3 (5) • Interviews begin with follow-up questions • Interviews – recorded, transcribed, summarised, key quotes identified & coded • Summaries of interviews sent to participants • New follow-up questions written
Three 	• Questions and possible prompts focused on - Linking the success, issues (solved and unresolved) to the contextual factors that had emerged as important - Ranking contextual factors regarding their positive & negative impacts and overall importance • Questions linked to: - Research Question 1 (7) - Research Question 2 (3) - Research Questions 3 (8) • Interviews begin with follow-up questions • Interviews – recorded, transcribed, summarised, key quotes identified & coded • Final follow-up questions
<u>Note</u> - Some interview questions gleaned data that helped answer more than one research question. <u>Research Questions</u> 1. <i>What contextual factors impacted the program redevelopment?</i> a) What was the nature of factors? b) Were factors connected, and if so, how? c) What contextual factors supported sensemaking of the program redevelopment; why and how? d) What was the relative importance of supporting factors and why? e) What contextual factors inhibited sensemaking of the program redevelopment; why and how? f) What was the relative importance of inhibiting factors and why? 2. <i>What problems and issues emerged during the redevelopment and how were they experienced and addressed?</i> a) Were attempts to address problems made individually and/or collectively and why? b) How successful were attempts to address problems and issues? c) If attempts to overcome the problems and issues met with variable success, why? d) Were there any problems and issues perceived as not yet overcome, and if so, why have they not yet been overcome? 3. <i>What successes emerged during the redevelopment process and how were they experienced?</i> a) Why were “successes” deemed successes? b) Were the successes experienced by all participants; why/why not? 4. <i>How do the findings contribute to sensemaking theory and/or methodology? (Not relevant to the interviews.)</i>	

Appendix I: Schedules for Interviews 1 – 3

QUESTIONS FOR INTERVIEW 1

1. The new program is different from the old program. What helped you decide:
 - a) What changes should be made?
 - b) Why and how these changes should be made?
2. What and/or who was helpful in making these changes, and how & why were they helpful?
3. What do you regard as “successes” of the redevelopment, and why do you regard them as successes?
4. What aspects of the degree redevelopment caused problems and were difficult to achieve?
5. In your opinion, why were these aspects difficult to achieve?
6. How did these problems impact the degree redevelopment?
7. How did we try to overcome these problems?
8. In your opinion, how successfully were the problems overcome that you and/or the faculty as a group experienced during the degree redevelopment?
9. Are there some aspects of the degree redevelopment that are still problems?
10. If there are, why and how are they are still problems?
11. How do you think these remaining problems might be overcome?

The relationship between interview questions and research questions	
Research questions (& related sub questions)	Interview questions
1. What contextual factors impacted the program redevelopment?	Q. 1, 2, 4, 5, 6
2. What problems and issues emerged during the redevelopment and how were they addressed?	Q. 4-11
3. What successes emerged during the redevelopment process and how were they experienced?	Q. 3
4.	

Prompts for

- Scheduling of meetings
- Pressures of work
- Extra-curricular pressures
- Issues related to relocating the college
- Communication problems
- IT problems
- Lost pieces of information
- Spirituality

QUESTIONS FOR INTERVIEW 2

Issues

It was felt that many of us underestimated the size and difficulty of the redevelopment task and the length of time it would take.

1. The redevelopment task was very big. Why?
2. When we started out, did you understand how **big** the task would be? Please explain.
3. What did you find particularly **difficult** about the task? Why?
4. If there was **something you didn't understand**, did you do anything to help you understand?
 - a) If no – why not?
 - b) If yes – what did you do, and was this helpful?
5. It took us a **long time** to finish the task.
 - a) Why?
 - b) How did you feel about the long time? Why did you feel that way?
6. Several of us mentioned that **communication** was a problem.
 - a) What types of communication worked well? Why?
 - b) What types of communication did not work well? Why?
 - c) We are a multicultural group, so English is the language used in our meetings. Yet in October and November last year, for the first time, a lot of Fijian was spoken in our redevelopment meetings.
 - (i) Why do you think this happened?
 - (ii) Did you view this as a problem? Why?
7. In semester 1 this year, when we added information for students to the new module descriptors we noticed this added information often linked poorly with the listed content, learning outcomes, assessment and 4 lessons a week instead of 3 etc.
 - a) Why do you think this happened?
 - b) Did we do a better job in semester 2? Why?
8. Moderating and being moderated was something many people feared.
 - a) Did you feel that way? Why?
 - b) Is moderation still an issue? Why?
9. Are there any other issues/problems you would like to mention?

Successes

10. Most of us said how helpful it was working as a group.
 - a) Did you feel that way? Why?
 - b) Was our collaboration impacted by absences from meetings? How?
11. Some people said that they are very happy with the new program.
 - a) Are you? Why?
 - b) What aspects are you most happy with and why?
 - c) Are there some things you can see that we didn't get right and need to change? If yes, what and why? And why did we miss these issues?
12. Some people saw the introduction of departmental marking rubrics as a big success.

Did you feel that way? Why?
13. Are there any other successes that you would like to mention?

PROMPTS	
Q1	- Number of changes - reforming the practicum - combining subjects - writing so many documents
Q2	- Done anything like this before?
Q3	<u>Issues highlighted already</u> - Lacking skills (primary training) - weightings of assessments - linking levels to LOs & assessment - reflecting critically - writing LOs appropriately - second language - writing evidence statements links;
Q4	a) - Resistance to change - time management b)
Q5	a) Distractions e.g. pressures of work / family issues / personal study / relocating, b) Grumbles? Tired?
Q6	a) Verbal? Phone? b) Emails? Late requests? The way you/we were asked/told to do things? c) (i) Unhappy about something? (ii) e.g. How might it have impacted - people who didn't understand? - the feeling of unity?
Q7	a) - Cut & paste - doing things quickly because of the late start - lack of careful proof reading b)
Q8	
Q9	
Q10	a) b)
Q11	a) b) e.g. new subjects / higher standards / practicum / 4 lessons a week c)
Q12	
Q13	Departmental successes? Personal successes e.g. new skills? New knowledge? More confidence?

The relationship between Interview 2 questions and research questions	
Research questions	Interview questions
1. What contextual factors impacted the program redevelopment?	Q. 6, 10
2. What problems and issues emerged during the redevelopment and how were they addressed?	Q. 1-5, 7-9
3. What successes emerged during the redevelopment process and how were they experienced?	Q. 11-13
4.	

QUESTIONS FOR INTERVIEW 3

1. The need to change.
One of us commented how we took a long time to realise/recognise the need for change.
 - a) In the early stages of the redevelopment, how much did you/we understand regarding the need to change and how big the change had to be?
 - b) Why did we know so much/so little?
 - c) How did this knowledge affect the speed of redevelopment?
 - d) What would have helped us to more fully understand these things?
2. How fully were we committed to the redevelopment at the beginning? Please explain.
3. Previous interview answers showed that we had problems understanding some processes.
 - a) What processes did we not understand and why?
 - b) What impact did these problems with processes have on the speed of redevelopment?
4. Our group represented 4 different cultural backgrounds.
 - a) Did your cultural background help you in any way during the redevelopment process? Please explain.
 - b) Did your cultural background cause you any difficulties during the redevelopment process? Please explain.
5. Interviews 1 & 2 suggested that emotion both helped and hindered the redevelopment process.
 - a) Did any positive emotions help you with the redevelopment, what triggered them, and how did they help?
 - b) Did any negative emotions hinder the redevelopment, what triggered them, and how did they hinder it?
6. People's attitudes also seemed to impact the redevelopment process.
 - a) Did you notice positive attitudes that helped redevelopment? If yes, what were those attitudes and how did they help?
 - b) Did you notice any negative attitudes that hindered redevelopment? If yes, what were those attitudes and how did they hinder redevelopment?
7. What impact did working in a second language have on redevelopment in terms of:
 - a) The listening and speaking we needed to do?
 - b) The reading that we needed to do?
 - c) Writing documentation?
8. What were the biggest difficulties that we faced and why were they the biggest difficulties?
9. How successfully did we overcome these difficulties? Why?
10. Successes.
 - a) What successes did we experience?
 - b) How did we experience these successes?

c) How valuable/important were/are these successes?

Summary questions

11. On a scale of 1-10, how much did the following factors affect you in a **positive** way during the redevelopment?

Please circle your answer.

GROUP FACTORS	
1. Working together as a group	1 2 3 4 5 6 7 8 9 10
2. The group leader(s)	1 2 3 4 5 6 7 8 9 10
3. Group culture (the way we normally do things)	1 2 3 4 5 6 7 8 9 10
4. Communication	1 2 3 4 5 6 7 8 9 10
5. Our multicultural group	1 2 3 4 5 6 7 8 9 10
6. Other group factor(s) (please state) _____ _____	1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10
INDIVIDUAL FACTORS	
7. Your cognition	1 2 3 4 5 6 7 8 9 10
8. Ethnic culture	1 2 3 4 5 6 7 8 9 10
9. Your emotion	1 2 3 4 5 6 7 8 9 10
10. Your attitudes	1 2 3 4 5 6 7 8 9 10
11. Working with a second language	1 2 3 4 5 6 7 8 9 10
12. Spirituality	1 2 3 4 5 6 7 8 9 10
13. My communication style	1 2 3 4 5 6 7 8 9 10
a) Other individual factor(s) (please state) _____ _____	1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10

12. Did any of these factors affect you in a negative way? If yes, which ones, and how much (on a scale of 1-10) did they affect you?

13. Is there anything you would like to say about your experience of the degree redevelopment that you haven't already said?

PROMPTS for INTERVIEW 3 QUESTIONS	
1.	a) NEED e.g. content; lack of quality control SIZE OF CHANGE eg: - LOs, levels 5-7 - Credits linked to notional hours of learning - Quality assurance expectations b) Number & quality of workshops? - <i>(knew little) Just didn't take it in or think much about it?</i> c) Slowed us down? No impact?
2.	d) More workshops? - <i>Leaders taking more time to explain things</i> - <i>Being less busy with other things?</i> - Were you happy to go along with all the “new things”? - Resist anything? Why? How? - Still any resistance?
3.	a) Alignment; levels; weighting of assessments; how to write e.g. synopses etc. b)
4.	a) e.g. collective culture help you to work as a group? b) e.g. shy to ask questions?
5.	a) Happiness & satisfaction – what caused them? b) Frustration, unhappiness, occasional “crossness”, lack of confidence (scared!) – what caused them?
6.	Your attitudes &/or the attitudes of others. a) Eg. Desire to get things right; eagerness to learn b) Resistance to things e.g. ... Reluctance to do some things (e.g. corrections, come to meetings)
7.	a) Understanding verbal explanations; expressing questions etc. clearly b) Difficult vocabulary? Dislike of reading? A “slow” reader? c) Writing clearly, grammar (verbs & nouns), choice of words, vocabulary?
8.	- <u>The reasons for making so many mistakes</u> (lack of proof reading; listening & following instructions carefully; copy & paste - Refining & using new marking rubrics - Moderating “properly” - Reluctance to leave comfort zone - Lack of interest in change
9.	
10.	a) b) Feedback? Excitement? Satisfaction? c)

The relationship between Interview 3 questions and research questions	
Research questions	Interview 3 questions
1. What contextual factors impacted the program redevelopment?	1, 3, 4a), 5, 6, 7, 11
2. What problems and issues emerged during the redevelopment and how were they addressed?	2, 4b), 5b), 6b), 7, 8, 9, 12
3. What successes emerged during the redevelopment process and how were they experienced?	5a), 6a), 10,
4.	