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**Agency as dynamic and rhizomatic:
An exploration of learner identities
in two secondary classrooms**

A thesis
submitted in partial fulfilment
of the requirements for the degree

of

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Table of Contents

<i>List of Tables</i>	<i>vii</i>
<i>List of Figures</i>	<i>vii</i>
<i>Abstract</i>	<i>1</i>
Chapter One – Nature and Purpose of this Study	3
1.1 Overview	3
1.2 The Context for the Research	3
1.3 Sociocultural Theory and Poststructuralism.	5
1.4 Conceptual Framework	8
1.4.1 Discourses	8
1.4.2 Identity	9
1.4.3 Reflexive Agency and Rhizomatic Moves	10
1.5 The Study	12
1.6 Overview of the Thesis	15
Chapter Two – Theoretical Framework: Mapping the Territory	17
2.1 Overview	17
2.2 Part One: Identity and Agency	17
2.2.1 Contextualising Sociocultural and Poststructural Views.....	17
2.2.2 The Structure /Agency Dialectic.....	22
2.2.3 Rhizomatic Agency and Identity	24
2.3 Part Two: Discourse and Identity Positioning	26
2.3.1 Subjectivities and Discursive Agency	29
2.4 Part Three: The Dynamics of the Classroom	34
2.4.1 Participatory Learning, Situated Learning and Mediational Means ..	34
2.4.2 Counterscripts and Underlife	36
2.4.3 Studenting and Lifeworlds	38
2.4.4 Thinking Sameness and Difference: Working with Binaries	39
2.5 Chapter Summary	42
Chapter Three – Agency in the New Zealand Classroom	44
3.1 Overview	44
3.2 Learner Agency and Learning	45
3.3 Liberal Humanism	45
3.4 The New Zealand Curriculum Key Competencies	49
3.5 Assessment for Learning	54
3.6 Chapter Summary	57

Chapter Four – Methodology: Making the Invisible Visible.....	59
4.1 Overview _____	59
4.2 Research Questions _____	59
4.3 Qualitative Research – A Contested Space _____	60
4.4 Poststructural Methodology – Multiple Paradigms and Partial Truths _____	61
4.4.1 ‘Pulling the Wool from My Eyes’ – A Rejoinder.....	64
4.5 Researcher Reflexivity, ‘Partial Selves’ and ‘Epistemological Shudders’ _____	66
4.6 Approach to Analysis _____	70
4.6.1 Poststructural Discourse Analysis	70
4.6.2 Micro and Macro Levels of Positioning	73
4.6.3 Identities and Discourses	74
4.7 Rhizomatic Logic _____	76
4.7.1 Rhizoanalysis	77
4.7.2 Rhizo-textual analysis.....	80
4.7.3 Assemblage Analysis – Cartographies	81
4.8 Research Background and Context _____	82
4.9 Data Collection Approaches _____	85
4.9.1 Participant Observer	86
4.9.2 Classroom Observations	87
4.9.3 The Use of Video	90
4.9.4 Interviewing.....	91
4.9.5 Interviews.....	95
4.9.6 Student Interviews	96
4.9.7 Teacher Interviews.....	97
4.9.8 The Lead Teacher Meeting.....	98
4.9.9 Transcription.....	99
4.10 Rationale for the Selection of Classroom Episodes _____	101
4.11 Quality and Robustness _____	102
4.12 Ethical Issues _____	107
4.13 Data Presentation _____	109
4.14 Chapter Summary _____	110
Chapter Five – Plateau One.....	113
5.1 Overview. _____	113
5.2. ‘The Hoax’ Classroom Episode _____	113
5.2.1 Description of the ‘The Hoax’ Classroom Episode.....	119

5.3 Discourses and Identity Affordances in ‘The Hoax’ Plateau	120
5.3.1 Jan’s Science Classroom Discourse.....	120
5.3.2 Critical Thinking Discourse.....	123
5.3.3 Participatory Learning Discourse	128
5.3.4 Discourses of Teenage Counterscript	134
5.4 ‘The Hoax’ Plateau Discussion	136
5.5 ‘The Hoax’ Plateau Summary	138
<i>Chapter Six – Plateau Two</i>	<i>140</i>
6.1 Overview.	140
6.2 ‘The Rebel Thermometers’ Classroom Episode	141
6.2.1 Description of ‘The Rebel Thermometers’ Classroom Episode.....	145
6.3 Discourses and Identity Affordances in ‘The Rebel Thermometers’ Plateau	145
6.3.1 The Science Classroom Discourse.....	146
6.3.2 Discourse of Participatory Learning.....	150
6.3.3 Discourses of Teenage Counterscript and Student-Led Participatory Science Learning Discourse.....	152
6.4 Epistemological Shudders	155
6.5 ‘The Rebel Thermometers’ Plateau Discussion	159
6.6 ‘The Rebel Thermometers’ Plateau Summary	162
<i>Chapter Seven – Plateau Three ‘The Hāngi:’ Entwined Discourses and Interwoven Lines of Flight</i>	<i>164</i>
7.1 Overview.	164
7.2 ‘The Hāngi’ Classroom Episode	165
7.2.1 Description of the ‘The Hāngi’ Classroom Episode.....	170
7.3 Discourses and Identity Affordances in ‘The Hāngi’ Plateau	171
7.3.1 English Classroom Discourse	172
7.3.2 Lifeworld Discourse	177
7.3.3 Participatory Learning Discourse	183
7.3.4 Studenting and Responsibilisation Discourses	185
7.4 ‘The Hāngi’ Plateau Discussion	187
7.5 ‘The Hāngi’ Plateau Summary	190
<i>Chapter Eight – Agency as Dynamic and Rhizomatic Findings and Analysis</i>	<i>193</i>
8.1 Overview	193
8.2 Rhizomatic Agency	193
8.2.1 Overlapping and Hybridising Discourses	194

8.2.2 Discourse Shifts and Turns	195
8.2.3 Deterritorializing and Reterritorializing Discourses.....	195
8.2.4 Directional Shifts	196
8.3 Agency as Performative _____	197
8.3.1 Double Moves.....	197
8.3.2 Acts that Produce Knowledge and Discipline Performances	198
8.3.3 Agency as a Paradox.....	199
8.3.4 Scoping Third Space.....	200
8.4 Identity Affordances _____	201
8.4.1 Multiple meanings and desires	202
8.4.2 Social Affordances.....	202
8.4.3 Reflexive Agency	203
8.4.4 Discursive Agency	204
8.4.5 Productive Resistance -Disrupting and Transforming Discourses ..	205
8.5 Chapter Summary _____	207
<i>Chapter Nine – Learner Performativity, Key Competencies and Assessment for Learning.....</i>	<i>209</i>
9.1 Overview _____	209
9.2 Key Competencies and Agency _____	209
9.3 Assessment for Learning and Agency _____	213
9.4 Chapter Summary _____	215
<i>Chapter Ten – Taking Flight.....</i>	<i>217</i>
10.1 Overview _____	217
10.2 Agency in New Zealand Classrooms _____	217
10.3 Hybridising Poststructural and Sociocultural Discourses _____	220
10.4 The nature of this contribution to knowledge(s). _____	221
10.5 Further Lines of Flight _____	222
10.6 Concluding Remarks _____	224
<i>Appendices.....</i>	<i>254</i>
Appendix 1: Glossary	254
Appendix 2. Gee’s Discourse Analysis Tools (Gee, 2011a)	258
Appendix 3. The Hoax Rhizo-textual Analysis	260
Appendix 4. ‘The Rebel Thermometers’ Rhizo-textual Analysis	261
Appendix 5. Matai’s Hāngi Rhizo-textual Analysis.....	262
Appendix 6. Guidelines for Directing Observations of Specific Activities.	263
Appendix 7. PJ’s Interview (Assemblage One).....	264
Appendix 8. Blake’s interview (Assemblage Two).....	266

Appendix 9. Matai’s Interview (Assemblage Three).....	268
Appendix 10. Extract from a Conversation with Jan (Assemblage One).....	271
Appendix 11. Jan’s Interview (Assemblages One and Two).....	274
Appendix 12. Jan Recounts the Hoax Episode to her Colleagues (Assemblage One).....	279
Appendix 13. Grace’s Interview (Assemblage Three)	282
Appendix 14. Transgressive Validity Checklist: A Simulacrum.....	288
Appendix 15. Hoax Email (Assemblage One).....	289
Appendix 16. Consent Letter Principal.....	290
Appendix 17. Consent Letter to	291
School Board of Trustees.....	291
Appendix 18. Consent Letter to Teacher	292
Appendix 19. Consent Letter to Parent/ Caregiver.....	293
Appendix 20. Consent Letter to Student.....	294
Appendix 21. Information Sheet for Participants/ Caregivers.....	295
Appendix 22. Consent Form for Caregivers.....	297
Appendix 23. Audio Visual Consent for Participants.....	298
Appendix 24. Audio Visual Consent for Caregivers	299

List of Tables

Table 1 Typology of Kinds of Formative Assessment	56
Table 2 Transcription of Data	100
Table 3 Table of Discourses and Subject Positions in 'The Hoax'	120
Table 4 Table of Discourses and Subject Positions in ‘The Rebel Thermometers’	146
Table 5 Table of Discourses and Subject Positions in ‘Matai’s Hāngi’	171

List of Figures

Figure 1. Shark hoax image teacher had shown students	117
Figure 2. Image of shark used in hoax found by PJ on internet	119

Abstract

This thesis is premised on “a politics of becoming” (Gowlett, 2013, p. 149), a Deleuzo-Guattarian notion which speaks to social justice research. Rather than a focus on reductionist reformist politics, I explore moments of possibility as lines of flight that disrupt dominant discourses.

As outlined in the *New Zealand Curriculum*, New Zealand schools are charged with the task of strengthening students’ key competencies (Ministry of Education, 2007a) to lay a foundation for lifelong learning. Learner agency is embedded in a dispositional view of these competencies but there is a paucity of research from a poststructural perspective in this area from New Zealand. Agency is also fundamental to a sociocultural conception of assessment for learning (AfL) where learners initiate, participate and contribute to learning in their classroom communities. Positioned in theoretical landscapes of socioculturalism and feminist poststructuralism, this study investigates agency through a rhizo-textual analysis in two year nine classrooms. The dynamic poststructural view of agency theorised in this thesis is derived from Judith Butler’s (1993) notion of performativity which precludes any prediscursive autonomous subject.

Using data from episodes in two year nine classrooms I explore: how students engage as authoritative, active participants, authoring and directing their own actions in social activity within multiple discourses; how students move themselves from one set of culturally and socially structured subjectivities to another; and how agency can look, sound and feel in the discursive space of the classroom. In keeping with a rhizoanalytic approach, I construct plateaus of discourse based on episodes of classroom activity. These three short episodes of classroom discourse serve to illuminate the subjectivities in play.

There are two forms of analysis used to construct these plateaus. Firstly, I conduct a discourse analysis of identity affordances and discourses to examine the nature of learner positioning. I then use rhizo-textual analysis (Honan & Sellers, 2006) to map the students’ and teachers’ moves in discourse and shifting subjectivities.

The findings highlight how agency can appear as a rapid series of rhizomatic discourse moves that take place as students and teachers deterritorialize and reterritorialize discourses as they enact specific identities. They resonate with Davies' (2000) observation that learners can accept, resist, subvert and change or ignore a range of discourse positions. The study also illustrates that what can appear to be 'off-task' behaviour can be also read as highly agentic.

The dynamic and rhizomatic theory of agency proposed illustrates that learners can inhabit multiple subject positions across discourses as they respond to the interpellations of their teachers and peers. Rather than a performance where individuals act out roles as pre-discursive identities, students exercise performativity within and across classroom discourses as they are constituted agentially through their lines of flight.

The research makes a methodological contribution through combining sociocultural and poststructural theories to explore the discursively constructed social and cultural environments of two classrooms. This is a deterritorializing move away from conventional sociocultural learning theory to incorporate an ecological (Boylan, 2010), rhizomatic view of classroom participation.

This research has implications for how educators conceptualise learners' identities and provide affordances for learners to initiate learning and take up agentic positions in classroom discourse. It also has implications for the ways in which the key competencies can be interpreted and strengthened in classrooms. Rather than 'having' agency to transfer competencies from one situation to the next, competencies are produced and enacted as learners shift subjectivities within and across discourses. The findings also offer students, teachers and policy makers insight into the learning dynamics of classrooms which embody the 'spirit' of AfL (Marshall & Drummond, 2006) where students can be afforded opportunities for lines of flight to initiate learning. Through being aware of learners' rhizomatic moves, teachers may be able to notice, recognise and respond to learner initiatives more readily, and assist them to develop their capacity to be agentic learners.

Chapter One – Nature and Purpose of this Study

*“The self is only a threshold, a door, a becoming between two multiplicities.”
(Deleuze & Guattari, 1987, p.275)*

1.1 Overview

As a feature of lifelong learning, an important concept embedded in the New Zealand Curriculum (Ministry of Education, 2007a), learner agency is under-theorised. This study strives to address this concern. Weaving together Gee’s (2011a) interpretation of micro and macro level discourses, Butler’s performativity and Deleuze and Guattari’s poststructural theory, I conceptualise agency as rhizomatic, dynamic and performative, where learners take up invitations to create new trajectories (Davies, 2004). Poststructural discourse analysis, as a methodological approach, allows such discourse moves to be surfaced and made explicit. Using rhizo-textual analysis (Honan & Sellers, 2006), I explore how classroom subjectivities are co-constituted in the discourses of two year nine classrooms when learners mobilise discursive resources to take up agentic identity positions. I illustrate rhizomatic agency where learners take up agentic subjectivities through lines of flight (Deleuze & Guattari, 1987) within and across classroom discourses. (Appendix 1 contains a glossary outlining the key terms used throughout this thesis.) In this first introductory chapter I detail: the policy context, the use of poststructural and sociocultural theories to locate this research theoretically, the main conceptual and analytical frameworks which include a rhizo-textual approach as the research design, and an outline of how this thesis is structured.

1.2 The Context for the Research

The conceptualisation of agency in this study has particular relevance for two key aspects of curriculum that were prominent in Aotearoa/ New Zealand at the time of this study; key competencies and assessment for learning (Ministry of Education, 2007, pp. 12, 39). I contend that learner agency is at the heart of the New Zealand Curriculum (NZC) which aspires to foster “confident, connected, actively involved, and life-long learners” (Ministry of Education, 2007a, p. 8). This research offers a close look at how personal, social and discursive

resources (Davies, 1990) can be mobilised in classrooms by learners who agentially enact key competencies and demonstrate the “spirit” of assessment for learning (Marshall & Drummond, 2006, p. 137).

Learner agency is congruent with the development of the key competencies in classrooms, as students who are agentic are likely to be effective and on-going learners. In online material published to supplement the NZC, the New Zealand Ministry of Education (2010) state that “key competencies are about developing the dispositions and sense of agency that not only empower the individual but help them better understand and negotiate the perspectives and values of others, contributing towards more productive and inclusive workplaces and societies” (paragraph, 3). As such, key competencies are one of the most significant changes introduced by the NZC. They are linked with lifelong learning which, as an interdiscursive concept, is much debated and critiqued (Biesta, 2006; Edwards, 2010; O’Riley, 2003). In her rhizoanalysis of educational discourses, O’Riley (2003) notes that lifelong learning is a call for perpetual training as a response to the on-going needs of the market economy. Seen this way, there is an economic imperative that sits behind the curriculum drive for learner agency as well as a social justice aspect. On the one hand individuals develop the competencies to compete for limited jobs and resources. On the other, learner agency is an important element in the development of a society of critical thinking citizens who can critique the work discourses do on them and through them (Davies, 2010).

Learner agency is also an intrinsic part of assessment for learning/learning to learn discourse. Embedded in the notion of “learner-driven learners,” Watkins, Carnell and Lodge (2007) consider that learner agency is a “good term, but not used widely enough to be accessible” (pp. 110, 102). This research addresses this gap by furnishing three examples of learner agency from two secondary classrooms. A central tenet of this thesis is that if learners are to know what to do when they don’t know (Claxton, 1999) they require opportunities to mobilise the discursive resources appropriate to their context.

In a New Zealand context AfL discourse is primarily concerned with positioning students as competent assessors of their own learning. Theorising

learner agency from a poststructural perspective enables a focus on the ‘spirit’ of assessment for learning (Marshall & Drummond, 2006) whereby learners can initiate learning and engage in self assessment within the interdiscursive worlds of classrooms. It is compatible with the poststructural approach to the NZC key competencies (thinking, using language, symbols, and texts, managing self, relating to others and participating and contributing) taken in this study which aims to provide a fresh insight into how students and teachers can exercise reflexivity in the classroom.

The school in this research was part of a district wide assessment for learning (AfL) professional development initiative. As an in-service teacher educator (ISTE), I led professional learning with the lead teachers from fifteen schools in the district. The teachers in this research, Grace and Jan, participated in my AfL workshops and were charged with the task of leading AfL professional development with their colleagues. When I invited Grace and Jan to join in this research on learner agency they consented to participate because they considered it related to their interest in both the NZC and AfL.

The research stems from my experience as a high school English teacher and in-service teacher educator. I observed that in most of the classrooms I visited (my own included) there were some students who would choose not to engage with the teacher designed learning opportunities on offer in their classes. I wanted to learn more about the conditions that afforded students to be disposed toward and agentially positioned in their own learning. I used poststructural theory and methodology to guide the research because of its potential to offer a dynamic approach to agency. It also allowed for multiple readings.

1.3 Sociocultural Theory and Poststructuralism.

This thesis brings together elements of poststructuralism and sociocultural theory to explore classroom interactions. While sociocultural theory could be perceived as paradigmatically different to poststructuralism, I make a ‘discourse move’ to draw from both of these traditions. Sellers and Gough (2010) observe that a ‘paradigm shift’ can draw attention to the distinctions between two positions, whereas a “discourse move” (p. 591) emerges from a desire to bring different thinking to a tradition of thought. Turning from paradigm shift to

discourse move, I draw from anthropology (Holland, Lachicotte, Skinner, & Cain, 1998; Gee, 2011a), poststructural philosophy (Butler, 1990, 1997a; Deleuze & Guattari, 1987; Davies, 2004; Mazzei & McCoy, 2010), and sociocultural learning theory (Lave & Wenger, 1991; Lasky, 2005) to take a fresh look at learner agency in this thesis.

The term *sociocultural* encompasses a range of theoretical perspectives which share an interest in relations among the person, activity, and situation, as they are given in social practice (Lave, 2009). Sociocultural theory illustrates the discursive relationships between human mental functioning and the cultural, institutional, and historical situations in which this functioning occurs (Wertsch, del Rio & Alvarez, 1995). Within sociocultural theory, learning involves a transformation of the social practices of an entire group and thus analysis of learning cannot be reduced to an analysis of what any one participant in the group does or knows (Sawyer, 2002). A study of individuals without considering their sociocultural context is invalid. The NZC (Ministry of Education, 2007a) locates learning as a socioculturally embedded concept, recommending that teachers encourage a process of facilitating shared learning by cultivating the class as a situated learning community. “In such a community, everyone, including the teacher, is a learner; learning conversations and learning partnerships are encouraged; and challenge, support and feedback are always available” (p. 34). Sawyer (2002) notes that “...sociocultural method focuses on situated social practices, and denies that one can study individuals or social contexts separately” (p. 3). The research classrooms are socially mediated, culturally determined sociocultural spaces.

In this study the classroom activity as sociocultural is viewed through a poststructural theoretical lens. Poststructuralism provides a set of analytic tools that can open up opportunities to think differently about what we do in order to create something new (Davies, 1994). Poststructural theories focus on how identities are constituted in discourse. Furthermore, they invite questions that can take us beyond the surface of our culturally shared common-sense understandings of the world (Gavey, 2011). Laws and Davies (2000) note that a central interest of poststructural educational theorists is to “explore common

narratives; the way people use the socially available repertoire of storylines to tie the elements of their existence together into ‘meaningful’ ‘continuities’” (p. 206). Poststructuralism enables me to examine the assemblages of discourse in the research classrooms to unsettle what is taken for granted. To do this, in a discourse move, I bring together poststructural positioning and the notion of sociocultural affordances.

There is a significant focus in student participation literature on soliciting student voice and contribution at both classroom and system level that draws from both poststructural and sociocultural theory (Cook-Sather, 2002; Cook-Sather, 2007; Groundwater-Smith, 2009; Lodge, 2002; Lodge, 2005). By employing poststructural epistemology, which values instability (St. Pierre, 2000b), the research strives to contribute to learner agency literature through disrupting humanist notions of the child and theories of learning. While there are essentialist references to student motivation (Kay, 2008; Meyer, Weir, McClure, Walkey & McKenzie, 2009; Zepke, Leach & Butler, 2009), student engagement (Gibbs & Poskitt, 2010), student autonomy (Hunter, 2005), self-determination (Dinham & Rowe, 2007), student-centred learning (Dowden, 2010), student self-efficacy (Marat, 2003; 2007), self-directed learning (Van Deur & Murray-Harvey, 2005) and self-regulated learning (Absolum, 2006; Hattie & Timperley, 2007), there appears to be a dearth of studies into how learners can mobilise the social and discursive resources to take up agentic identities in classrooms. Poststructural classroom research can trouble dominant cultural models at work within education contexts and explore the conscious and unconscious discourses that fashion how subjects become recognised and unrecognised (Britzman, 2000).

A key tenet of this thesis is that there is a connection between learner agency and learning itself. Agentic learners mobilise relevant discourses (Davies, 1990) to take up subject positions conducive to their learning. Greeno (2006) considers that when learners adopt critical and innovative perspectives, positioning themselves as authoritative and accountable, they develop agency. This implies that a strong link can be made between student learning and learner agency. By taking up the notion of relational subjectivity (Drewery,

2005), this research explores how learners can be afforded certain subject positions, accord positions to others and, in turn, consciously or otherwise, take up or resist their positionings.

As an exploration into how agency is enacted in discourse, the study aims to provide an insight into how learning is shaped by and mired in power relations. From their critical perspective Lewis, Enciso and Moje (2007) suggest that learning can provide access to and control of discourses, or ways of knowing, thinking, believing, acting and communicating. In turn, these discourses may be used to control the activity and material goods within a community. Issues of identity, agency, and discursive positioning in the production of knowledge are central to understanding learning as a social and cultural practice (Lewis, Enciso & Moje, 2007).

1.4 Conceptual Framework

To explore learner agency I use the following concepts: discourses, identity, reflexive agency and rhizomatic moves. These provide a framework that is both complex and flexible enough to accommodate the agendas described above.

1.4.1 Discourses

Discourses do not just describe the present; they create it (Gowlett, 2013). In other words, discourses create possibilities for specific practices and subject positions while they exclude others. They construct power relations through the process of constituting “consent and dissent.”

Every discourse constitutes, even as it mobilises and shuts out, imaginary communities, identity investments and discursive practices. Discourses authorise what can and cannot be said; they produce relations of power and communities of consent and dissent, and thus discursive boundaries are always being redrawn around what constitutes the desirable and the undesirable and around what it is that makes possible particular structure of intelligibility and unintelligibility. (Britzman, 2000, p. 36)

Theorising agency as discursively produced, I use Gee’s approach to discourse analysis to investigate how macro and micro discourse play out in the

classroom. Gee (2011a) uses the word Discourse with a capital 'D,' to shed light on social practices -how people combine and integrate "language, actions, interactions, ways of thinking, believing, valuing, and using various symbols, tools, and objects to enact a particular socially recognizable identity" (p. 201). Identities are recognised and defined through their positioning in 'D'iscourses. Small 'd' discourse is the "language-in-use or any stretch of spoken or written language" (Gee, 2011a, p. 205). Discourses, as characteristic ways of saying, doing and being, comprise more than language; it is through 'big D' discourse that we recognise each other as subjects (Gee, 2011a). The term 'discourse' (with a small 'd') is used in this thesis to describe Gee's sociocultural notions of spoken language ('small d') as well as the wider concept of non-language elements that influence individuals and form ways of talking about social reality ('big D' Discourse). The study uses discourse analysis to look at these sociocultural elements and their social origins but also utilises a poststructural interpretation to examine the social effects of power that discourse has on social practices. This thesis is premised on the notion that learners are "co-implicated" (Davies, 2010, p. 54) in discourse as their positioning depends on how they are recognised by others as discursively mediated identities.

1.4.2 Identity

To conceptualise identity, I draw from both poststructural and sociocultural theories. Social identification can only happen in actual events as signs of identity can only be interpreted with respect to their particular contexts of use (Wortham, 2005). Therefore, identities are fluid, responsive to relationships and open to multiple interpretations by others (Sfard & Prusak, 2005). They are always in a state of change, with 'becoming' and 'belonging' encapsulating key perspectives within a sociocultural account of learning (Murphy & Hall, 2008).

Poststructuralist theory suggests that it is not possible to maintain a unified or single identity (Simpson & McDonald, 2000). If life is ever-changing and there is ever-renewed movement out of fixed forms into new possibilities, the notion that identity is a fixed and knowable truth must be challenged (Mansfield, 2000). Taking up Deleuzo-Guattarian theory, writers have suggested that identities grow and shift rhizomatically (Leafgren, 2007; MacNaughton, 2004;

2005). Like the rhizome, the growth of identity is never finished. It is rhizomatic in that we can never ‘be,’ in a fixed and final way as relationships and meanings connect in shifting and complex ways during our process of ‘becoming’ (MacNaughton, 2004).

[Identity is] always ‘becoming’ through crossovers between offshoots, through expansions of one form of growth into another and through the death and decomposition of outdated elements...One meaning about who we are expands into another, some meanings become outdated and new meanings shoot forth. (MacNaughton, 2004, p. 93)

The circumstances that afford (not cause) these identity positions are called identity affordances in this thesis; this notion is a blend of poststructuralism and sociocultural theory. Drawing from Gibson, Greeno (1994) uses the terms “affordance” to refer to “whatever it is about the environment that contributes to the kind of interaction that occurs” (p. 338). Furthermore, Greeno describes affordances as “preconditions for activity,” and that while they do not determine behaviour, they increase the possibility that a certain action or behaviour will occur. In this research identity affordances are conceptualised as social stimuli, objects or conditions that potentially enable or constrain particular identity positions. Constraints in this context are not placed in a binary with affordances. Building on Greeno’s (1994) work, Kennewell (2001) identifies constraints as the conditions and relationships amongst attributes which provide structure and guidance for a student’s course of actions. In particular, teachers can orchestrate affordances and constraints in a setting to increase the possibility that students achieve particular curriculum defined skills and outcomes. Therefore, it follows that teachers and peers, as they contribute to and utilise the physical, intellectual and relational landscape, can have a significant influence on the affordances and constraints that impact on student learning in classrooms.

1.4.3 Reflexive Agency and Rhizomatic Moves

Reflexive agency (Davies, 2000), as the learners’ capacity to interrupt the iterability of their positioning (Stormhoj, 2000), is mediated by the discourses available, social affordances and the personal resources that learners can

mobilise (Davies, 1990). Given these resources, learners may take up agentic positions by acting within and upon discourses in classrooms. To illustrate how a reflexive position takes place rhizomatically, I have chosen to ‘think with’ Deleuze and Guattari (Deleuze & Guattari, 1987; Mazzei & McCoy, 2010). As Malins (2004) points out, the work of Deleuze and Guattari can be best conceived of as a ‘tool box’—a collection of concepts that can be plugged into other concepts and made to work.

The notion of the rhizome allows for multiple, non-hierarchical entry and exit points in data representation and interpretation. Deleuze and Guattari conceptualise rhizomatic connections as lines of flight.

[U]nlike trees or their roots, the rhizome connects any point to any other point, and its traits are not necessarily linked to traits of the same nature... Unlike a structure, which is defined by a set of points and positions, the rhizome is made only of lines; lines of segmentarity and stratification as its dimensions, and the line of flight or deterritorialization¹ as the maximum dimension after which the multiplicity undergoes metamorphosis, changes in nature... Unlike the graphic arts, drawing or photography, unlike tracings, the rhizome pertains to a map that must be produced, constructed, a map that is always detachable, connectable, reversible, modifiable, and has multiple entranceways and exits and its own lines of flight. (Deleuze & Guattari, 1987, p. 21)

Mansfield (2000) points out that rhizomatic theory seeks to subvert a division of the world into simplistic co-ordinated parts where there is a fixed truth, knowing subjects and simple representations (Mansfield, 2000). It challenges traditional research which links traits of the same nature to focus on the cause and effect of classroom dynamics. A rhizomatic view suggests that the interactions of various things in the world cannot be understood in terms of internal structures. This has implications for how identity and agency are

¹ The terms ‘deterritorialize’ and ‘reterritorialize’ retain their American spelling in keeping with the original quotation from Deleuze and Guattari (1987) translated by Massumi.

theorised as the focus shifts from humanist notions of self as an internal truth or a stable structure which can be excavated (Mansfield, 2000).

Gowlett (2013) writes that “moments of deterritorialization... hold the potential to scatter the subjectifying force of the assemblage” (p. 149). Embedded in a “politics of becoming” (Gowlett, 2013, p. 149), the research explores how learners can take up identity affordances through their lines of flight. Learners’ dispositions to engage as active participants in a space where cultural practices are enacted, remade and transformed through social mediation are important in this study (Billett, 2006). Rather than looking at how discourses subject people to particular constructions, in this research I investigate how socioculturally constructed positions can be actively appropriated and used to advantage.

Of particular interest in this study is how students can mobilise discourses to exercise agency (Davies, 1990). The complexity of subjectivation is central to the arguments that I put forth on agency. In a poststructural paradigm agency “seems to lie in the subject’s ability to decode and recode its identity within discursive formations and cultural practices” (St. Pierre, 2000a, p. 504).

Agentic subjects can “reflexively and critically examine their conditions of possibility” and, in doing so, “they can both subvert and eclipse the powers that act on them” (Davies, 2006, p. 426). Therefore, the discursively constituted nature of the subject provides the conditions for agency. “For what is it that enables a purposive and significant reconfiguration of cultural and political relations, if not a relation that can be turned against itself, reworked and resisted?” (Butler, 1995a, p. 46). I designed this study to investigate these propositions in the context of two mainstream secondary classrooms in NZ.

1.5 The Study

This research, with its focus on how learners can take up subjectivities in classroom discourse, opens up a raft of pedagogic possibilities. The specific research questions in this study, which are underpinned by a poststructural view of learners and learning, inquire into how students can engage agentially in classroom learning. I used the following three questions to guide this research:

- How did students move themselves from one set of culturally and socially structured subjectivities to another;
- how did agency look, sound and feel in the discursive space of these classrooms; and
- how did students discursively engage as authoritative, active participants, authoring and directing their own behaviour in social activity within the classrooms?

Data were generated via classroom observations, the use of video and student and teacher interviews. Then, as I outline further in Chapter Four, I selected three episodes of classroom activity to analyse as ‘plateaus’ comprising rhizomatic assemblages of discourse. Two of the plateaus are located in a science classroom. The smaller third plateau is drawn from an English classroom. Deleuze and Guattari (1987) call a plateau “any multiplicity connected to other multiplicities by superficial underground stems in such a way as to form or extend a rhizome” (p. 22).

To shed light on the micro and macro level discourses operating in three data episodes, two forms of analysis were used: discourse analysis and rhizo-textual analysis. As explained earlier, discourses and identity affordances are important theoretical and analytical ideas which can be used to conceptualise agency. In the initial layer I adapt tools of inquiry devised by Gee (2011b), a “big D discourse tool” (p. 176) and an “identities building tool” (p. 106). I also draw from Gee’s situated meanings and social language tools to focus on the micro interactions between students and students and teachers and students in the three episodes. Rogers (2011) points out that schools and classrooms are sites for studying not only the micro-dimensions of classroom talk but also the ways in which social structures are reproduced at macro-levels. Using the micro interactions or small ‘d’ discourses, I generate a macro interpretation of how agency plays out through the discourses and identities that I identify in the data.

The second form of analysis comprises a rhizo-textual analysis (Honan & Sellers, 2006) to examine of how power plays through the participants’ rhizomatic interactions. Following the explanations of rhizomatics of Deleuze

and Guattari (1987) and Honan (2004; 2007), I look at the linkages that connect the classroom activity data as a rhizomatic plateau to chart how the learners shift subjectivities. Employing Honan and Sellers' (2006) notion of rhizo-textual analysis I map lines of flight across assemblages of discourse.

According to Honan and Sellers

...discourses operate within texts in a rhizomatic fashion, intersecting and separating, over and under lapping. A rhizo-textual analysis involves mapping these discursive lines, following pathways, identifying the intersections and connections, finding the moments where the assemblages of discourses merge to make plausible and reason(able) sense to the reader. (Honan & Sellers, 2006, p. 3)

Alvermann (2000), in her seminal work on rhizomatic analysis, describes how her research comprises maps of connections that resemble the fleshy tubers that form the rhizome. This form of mapping draws on various and often contradictory work, ideas and concepts. "Such 'disparate phenomena' can be drawn together to connect diverse fragments of data in ways that produced new linkages and revealed discontinuities" (p. 118). de Freitas (2012) conceptualises the classroom as a rhizomatic space comprising many kinds of agents or nodes, aside from humans, which can factor into the assemblage. These can include whiteboards, data projectors, furniture and even the announcements over the intercom. However, in this research the lines of flight are mapped within the assemblages of data texts that make up the plateaus.

Unlike Alvermann (2000), Honan (2004), Sellers and Honan (2007) and Honan (2007; 2010a), I am not experimenting with a form of analysis that has never been done before. However, as St. Pierre (2001) points out, when we bring other authors and discourses to any assemblage we can produce something new. "Notwithstanding our close and responsible readings of their work 'your' Foucault or Deleuze cannot be 'my' Foucault or Deleuze, for they have inevitably entered into our very different assemblages" (St. Pierre, 2001, p. 150). I am mindful of Honan's (2012) caution against adopting a slavish methodolatry which constrains the opportunities offered by Deleuzian

immanence. Lather describes this emphasis as the kind of the tail of methodology which “wags the dog” of inquiry (Lather, 2006, p. 47).

To conclude this introductory chapter, I signpost the direction this thesis will take.

1.6 Overview of the Thesis

This thesis explores and illustrates that learners can mobilise personal, social and discursive resources to take lines of flight in classroom discourses. In a process of deterritorialization, they move themselves from one set of culturally and socially structured subjectivities to another. To illustrate this in such a way that I support the convention of thesis writing, I have divided this study into ten chapters. Each chapter commences with an overview, outlines a series of points and concludes with a summary and a segue into the following chapter.

The ensuing chapter, ‘Theoretical Framework: Mapping the Territory’ locates this study within sociocultural and poststructural theories. It comprises three parts. The first part focuses on identity and agency. Part two addresses discourses and positioning and the third part identifies selected sociocultural classroom dynamics which have particular relevance to this study.

Chapter three, ‘Agency in the New Zealand Classroom’ explores important New Zealand school discourses which have an impact on the teacher participants’ thinking and the nature of learning they design for their students. This chapter addresses how agency is embedded in the NZC policy document and in AfL practices.

Chapter four, ‘Methodology: Making the Invisible Visible,’ is an exposition of the methodological and analytical framework which support this rhizo-textual analysis. This chapter outlines the research questions, frames the ontology and epistemology and locates the study within the wider debates of qualitative research. I discuss poststructural methodology and its critiques, issues of researcher reflexivity and the positioning of subjects, the analytical use of discourse analysis and rhizoanalysis, and describe the research context and methods of data collection. The chapter concludes with detail of approaches

used to assure the study's validity and ethics, and an explanation of how the data is presented in the subsequent chapters.

In chapters five, six and seven, I present the rhizoanalyses of three classroom episodes as plateaus. For each plateau I identify and illustrate the discourses and identity affordances in play and explore the multiplicities of meaning in the three plateaus. Building on this initial analysis, I undertake a rhizo-textual approach to the data in the three plateaus. Rhizomatic discourse analysis enables me to map the lines of flight as 'rhizomatic moves' which illustrate how the students and teachers are co-constituted in discourse. A discussion and summary conclude each plateau.

Chapter eight, 'Agency as Dynamic and Rhizomatic: Findings and Analysis' comprises a discussion on the findings from the previous three data chapters. The three sections of chapter eight correspond with and provide findings which specifically relate to the three research questions. In particular, I discuss rhizomatic agency, agency as a performative endeavour and the learners' identity affordances.

In chapter nine 'Learner performativity, Key Competencies and Assessment for Learning,' I relate the research findings on learner agency to the NZC key competencies and AfL. In this chapter I consider the research implications for educators.

The last chapter, 'Taking Flight,' concludes with a summary of the contribution this research makes to the field of education; that learner agency is dynamic and rhizomatic. I discuss my methodological contribution, how I have interwoven sociocultural and poststructural threads to conceptualise classrooms as situated spaces and, in rhizomatic style, indicate future directions prompted by the findings of this research.

Chapter Two – Theoretical Framework: Mapping the Territory

“For the question of whether or not a position is right, coherent, or interesting, is in this case, less informative than why it is we come to occupy and defend the territory we do, what it promises us, from what it promises to protect us”
(Butler, 1995b, p. 127–128).

2.1 Overview

A poststructural framework permits an examination of how people resist or appropriate subject positions and, in turn, are positioned by others in discourse. Sociocultural theory offers a view of learning as a social practice. Although these two theories do not mesh neatly together unproblematically, this chapter sets out how they are juxtaposed as a framework in this study. Through understanding the discursively constructed nature of identity and agency we can appreciate the affordances and constraints that impact on learners and learning in social contexts. There are three components to this literature review. The first section addresses identity and agency. Part two explores the intertwined concepts of discourses and positioning. Part three reviews literature on the social dynamics of the classroom.

2.2 Part One: Identity and Agency

In the first section of this review of literature I use both the poststructural notion of subjectivity and the sociocultural conception of identity to illustrate the interrelationship between identity and agency and to clarify how these terms are used in this study. It is somewhat difficult and possibly arbitrary to reduce identity and agency into separate entities. However, I begin this chapter by contextualising identity and subjectivity in theoretical literature. Secondly, I introduce the structure-agency dialectic which is so embedded in sociocultural accounts of agency and, finally, I furnish a theoretical account of rhizomatic agency.

2.2.1 Contextualising Sociocultural and Poststructural Views

Although, as a construct, identity has been described as “overdefined and overdetermined” in theoretical and research literatures (Lewis & Moje, 2003, p. 1982), there have been shifts in how it is theorised.

Many scholars would argue that definitions of identity have moved from the assumption that identity is a single, stable state that one achieves over time and development ...to a more complex and shifting phenomenon, one that is always in flux, depending on one's experiences and contexts. (Lewis & Moje, 2003, p. 1982)

As a sociocultural theorist, Gee (1999) defines identity as “ways of acting, interacting, feeling, believing, valuing together with other people and with various sorts of characteristic objects, symbols, tools, and technologies – to recognize yourself and others as meaning and meaningful in certain ways” (p. 7). From Wenger's (1998a) sociocultural perspective, identity is the pivot between the social and the individual aspects of learning as it arises out of the interplay between participation and reification. As identity development takes place through and around specific social and cultural systems, people develop situative identities, such as ‘daughter,’ ‘mum,’ ‘wife’ and ‘teacher,’ by which they are identified and in turn they identify themselves (Sloan, 2006). Holland et al. (1998) illustrate this interaction between individuals and others. “People tell others who they are, but even more important, they tell themselves and then try to act as though they are who they say they are” (p. 3). Writing about the interplay between a collective narrative and individual agency, Holland et al. (1998) observe that identities are enacted and produced as individuals take up positions in accordance with the day-to-day relations of power, deference, entitlement and social affiliation.

Identity constantly changes through social participation. Far from being a stable, internal state, identity is a “fluid, socially and linguistically mediated construct... that takes into account the different positions that individuals enact or perform in particular settings within a given set of social, economic, and historical relations” (Lewis, Enciso & Moje, 2007, p. 4). Greeno (2006) observes that accounts of learning that use the concepts agency, positioning, and positional identity, draw attention to aspects of interaction such as crediting students with authorship, initiating ideas and topics, and challenging or questioning what others say. A sociocultural interpretation of identity contrasts starkly with notions of personality, character, and nature which have a

connotation of being biologically determined (Sfard & Prusak, 2005). Identity is a dynamic series of categories or processes by which individuals or groups specify who they are and where they locate themselves, relative to other people (Wilson & Deaney, 2010).

In sociocultural theory, learners can have multiple identities that are constituted on a moment by moment basis in social settings. Tan and Calabrese Barton (2008) conclude that learners are not confined to a single identity as they can remake themselves several times in response to new situations and new opportunities. The multiple identity positions afforded learners are socially constructed within classroom discourses.

The sociocultural notion of social construction of identity is important in its shift away from notions of an innate character or personality and its recognition of the dynamic interface between the personal and the social. Nevertheless, in this thesis I make a further discourse move from the notion of a 'core identity' to take up the poststructural notion of identity as subjectivation. Although some sociocultural researchers conceive of a self as a core essence across identities (Holland et al., 1998; Stets & Burke, 2002; Gee, 2001; Lewis, & Moje, 2003; Day, Kington, Stobart & Sammons, 2006), I take a line of flight to deterritorialize this sociocultural interpretation of identity, premising this thesis on the notion of "partial selves" (Ochs & Capps, 1996, p. 22) where there is no "extra-discursive entity, independent of the individual's actions" (Sfard & Prusak, 2005, p. 9).

Poststructuralism eschews claims to objectivity and truth. Gannon (2003) describes poststructural subjects as fluid, non-essentialist, non-unitary, constituted and constituting themselves through discourse and in social relations. These social interactions are hybrid, emerging and relational; co-constituted through social assemblages (Taylor, 2013). I take a Butlerian view that there is no prediscursive self or core identity beyond discourse, that is there is no essential self beyond what is reified and spoken into existence through discursive practices (Davies, 2000). Weedon (1997) in her seminal work argues that identity is not a singular, fixed or static phenomenon, but is multiple and shifting, determined by the competing discourses in which the individual is

placed. Hence, identities can be afforded different and possibly multiple subject positions within classroom discourses.

To explore how students enact subjectivities and mobilise discourses in the classrooms, I draw from Judith Butler's notion of performativity as a "citational practice" (Butler, 1993, p. 2) where subjectivities develop through repeated positioning. This is a continuous process of reiterating and resignifying their positions within frequently used discourses (Butler, 1993; Davies, 2000). Through this performance repetition which Butler (1990) describes as a "stylized repetition of acts" (p. 140), identities become recognisable. They seem solid as they develop an appearance of 'reality' (Applebaum, 2010). By presenting an illusion of stability which is promoted, perpetuated and believed, identities in essence are paradoxical (Jagger, 2008). Identity categories are the product of social discourse and due to this flux and fluidity can be recognised as sites "of permanent openness and resignifiability" (Butler, 1995a, p. 50). The subject positions of 'teacher' and 'student' are produced through effects of power and through the performativity of citational practices (Butler, 1993). Drawing from Derridean philosophy, Butler (1997) uses the term "citational" to describe "the force of reiterated convention" (Butler, 1997a, p. 33) which pertains to how "ontological norms are deployed in discourse, sometimes forcibly and sometimes not" (Salih, 2007, p. 62). In other words discourses regulate how people perceive themselves, each other and the world. When the self is discursively produced, identity is fluid, responsive to relationships and open to multiple interpretations by others. Nevertheless, as a result of these citational practices, learners can become unwittingly complicit in sustaining hegemonic social structures.

Butler (1993) writes that it is important to distinguish performance from performative as the former presumes a recognised subject defined by social norms, while the latter contests the notion of the subject. The notion of performativity in this study provides a means to consider how speech acts bring discourse into being (Butler, 1993). Butler (1990) defines performativity as "that discursive practice that enacts or produces that which it names" (p. 140). Through differentiating between notions of performance and performativity,

Butler offers possibilities for thinking about the constructedness of identity, subjectivity and agency (Gregson & Rose, 2000). Gregson and Rose (2000) acknowledge that performance is subsumed within and must always be connected to performativity. They suggest that there is potential for performance and performativity to be used as conceptual tools, suggesting that they “denaturalise taken-for-granted social practices” (p. 434). Performance is what individual subjects do, say and ‘act-out.’ A more generic concept, performativity encompasses identity-constituting practices “which produce and subvert discourse and knowledge, and which at the same time enable and discipline subjects and their performances” (Gregson & Rose, 2000, p. 433).

There have been extensive debates over Butler’s work (Benhabib, Butler, Cornell, & Fraser, 1995; Stern, 2000; Gregson, & Rose, 2000; Stoetzler, 2005; Magnus, 2006) which have served to both challenge and build on her theories of subjectivity. For instance, Butler’s work on subjectivity has been recently critiqued for being overly focused on actors or ‘subjects’ and their ‘positions’ and not offering a rich enough account of the spaces performed by individuals, their bodies, their material practices, and the discourses on which they draw (Gregson & Rose, 2000; Thrift & Dewsbury, 2000).

Also there have been marked shifts in Butler’s positioning of the poststructural subject. Magnus (2006), translating her Adorno lectures (2003) from their original German, cites Butler’s theoretical innovations which mark a new direction in her thought and make room for a more positive and empowering notion of subjective agency.

According to Butler, a moral or ethical philosophy requires that we ask two questions, and she insists on the following order: (1) “What are the norms to which my being itself is subject and which have the power to include or exclude me as a recognizable subject?” and (2) “Who and where is this other from whose normative frame of reference and allocation of recognition I so fundamentally depend?” (Butler as cited in Magnus, 2006, p. 96).

In this later work Butler acknowledges the notion of intersubjectivity which addresses the issue of a non-ethical, passive subject who is purely determined through discourse (Magnus, 2006). “Although subjects can never be fully known, even to themselves, they are recognised by others and can position themselves deliberately within discourse. However, social norms determine who and how one is recognised as a subject” (Magnus, 2006, p. 98). As Magnus (2006) points out, by introducing the notion of recognition into the heart of her theory of discursive performativity, Butler delineates the possibility of intersubjectively constituted action. Shifting from her former position, she no longer defines the subject as essentially subjected, but now understands the subject to participate in the discursive processes that define its existence. This is significant to this thesis which considers the learner’s role in constituting subjectivity.

In summary, through poststructuralism, agency can be recognised as a discursive act where subjects contribute to their constitution. This is a shift from an essentialist notion of structure which has been a prevailing element in the structure/agency literature (Giddens, 1986; Ares, 2008).

2.2.2 The Structure /Agency Dialectic

Since the Enlightenment agency has been central to educational theory and practice, seen as a key issue in contemporary social theory: sociology, economics and political science (Biesta & Tedder, 2006). As a “source of strain and confusion in social thought” it has been much debated and scholars “have defended, attacked, buried, and resuscitated the concept in often contradictory and overlapping ways” (Emirbayer & Mische, 1998, p. 962). The structure-agency debate which came to the fore in the 1970s and 1980s can be described as one of the defining discussion of modern sociology (Biesta & Tedder, 2006). Highlighting the contextual interplay between structure and agency, Lasky (2005) writes how individuals can have agency to change a context through using resources that are culturally, socially, and historically developed. This sociocultural view suggests that agency is always mediated by the interaction between the individual and the tools and structures of a social setting (Lasky, 2005).

Ares (2008) researched the complexity of the relationship between activity and structure through analyses of students' appropriation of a collaborative learning classroom structure. She found that in classrooms meaning-making and participation in classroom practices modifies the practices themselves as students collectively interpret the intent and nature of classroom life. Structural features of classrooms such as historical, cultural and social norms for behaviour; rules for student–teacher and student–student interaction; and the nature of tasks themselves shape student activity, bracketing the types of participation and meaning-making available (Ares, 2008). These structural features, the historical, cultural and social norms for behaviour in this thesis are theorised in terms of discourses through which people make sense of their worlds.

The degree to which a person becomes a reflective agent within any cultural system is related to how they are identified and their expertise (Holland et al., 1998). Holland et al. (1998) observe that discourse can be a contested space, as one's potential can be constrained by others. "The space of authoring, or self-fashioning, remains a social and cultural space, no matter how intimately held it may become. And it remains, more often than not, a contested space, a space of struggle" (Holland et al., 1998, p. 282).

While a sociocultural view recognises that agency is socially mediated and sociocultural spaces are layered with discourses, a Butlerian interpretation also argues that there is no 'individual' beyond discourse. Therefore the notion of performativity challenges a structure/ agency binary where an individual can or cannot 'have' agency to act. A poststructural acknowledgement of situated narratives troubles the universalising notion that agency is uni-dimensional and contingent on structure. Moreover, Ahearn (2001) warns there is a danger that this structure–agency dialectic "leaves little room for resistance or social change" (p. 118). Calabrese Barton and Tan (2010) observe that while the structure- agency dialectic is useful to explore interactions in relation to the field dependent social structures, it is also useful to remember that they are deeply entrenched culturally, historically and socially in time and place.

Another important critique of the structure- agency dialectic is that it does not take into account how subjects take up identity positions in multiple discourses. In sociocultural theory “agency develops gradually as a person participates in the community and thus gains understanding, experience, and knowledge of its practices as well as responsibility for the community and access to power” (Rainio, 2008, p. 118). The notion of gradual growth can be seen as akin to the tree metaphor, of putting down roots, an idea that Deleuze and Guattari (1987) challenge with their concept of rhizomatics.

2.2.3 Rhizomatic Agency and Identity

In this study I map becomings, how learners author new subject positions through combining discourses or making shifts within them as taking lines of flight or making rhizomatic moves. I introduce the term rhizomatic agency to conceptualise these ‘becomings’ or moves in the classrooms.

Deleuze and Parnet (1987) describe the activity of rhizomes as “becomings” that are ‘in the moment’ which resist structure and binaries.

[They] break free from structure ... [They are] becomings, without future or past, without memory, which resist the binary machine...
[They] leap from one line to another, between completely heterogeneous beings; cracks, imperceptible ruptures, which break the line even if they resume elsewhere, leaping over significant breaks... The rhizome is all this. (Deleuze & Parnet, 1987, p. 26)

The notion of rhizomatics challenges the prevalent arboreal tree metaphor which attributes causality to identity and agency. In *A Thousand Plateaus* trees are “tracings” (Deleuze & Guattari, 1987, p. 14) that are used everywhere from biology to linguistics. Both representational and static, trees imply universals. Deleuze and Guattari write: “We’re tired of trees. We should stop believing in trees, roots, and radicles. They’ve made us suffer too much” (p. 15). Mansfield (2000) points out, arborescent modelling itself is a selective reading of the rhizome. “Each tree model is merely an attempt to suppress the unstable, plural and dynamic nature of things by emphasising one of its aspects or dimensions and pretending that that one feature summarises the meaning of the whole” (p.

146). Nevertheless. Deleuze and Guattari also point out that trees can become “rhizomorphous” which can be a dynamic process.

“... [G]enerative trees...can open up in all directions, and in turn produce a rhizome. To be rhizomorphous is to produce stems and filaments that seem to be roots, or better yet connect with them by penetrating the trunk, but put them to strange new uses.” (p. 15)

Deleuze and Guattari (1987) talk about arborescent systems as hierarchical with “centres of significance and subjectivation” (p. 16). While tree roots are an image of causality, lines of flight comprise spontaneous connections that can be dangerous and dynamic. Rhizomatic lines of flight (or rhizomatic moves) support “deterritorialization” (Deleuze and Guattari, 1987, p. 56) where new ground is covered and fresh meanings revealed before there is any delimitation (Deleuze, 1995).

Therefore deterritorialization pertains to the movement or process by which something escapes or departs from a given territory. In turn, reterritorialization relates to the ways in which deterritorialized elements recombine and enter into new relations in the constitution of a new assemblage or the modification of the old. Lines of flight always tie back to one another which is why a rhizome can never construct a dichotomy (Deleuze & Guattari, 1987).

Rather than seeing identity as internal, rhizomatic subjectivity can be defined by its “exteriority” (Mansfield, 2000, p. 147). Fleeting identity positions are made and unmade through rhizomatic links. Taking a rhizomatic view of identity and the discursively produced ‘self,’ Wallin (2010) challenges the presumption of an underlying subject to which multiple identities are imagined to correspond. “[T]he rhizome creates a way of thinking the subject as a centred interbeing irreducible to a mythical “I” or prior object upon which the subject might reflexively meditate” (Wallin, 2010, p. 87). Incorporating Butler’s notion of performativity, this study conceptualises identity as rhizomatic and learners as always in a state of becoming; constituted in socially negotiated assemblages of discourse.

In summation of this section on identity and agency, I reiterate that I have brought together poststructural and sociocultural theories of identity in a discourse move (Sellers & Gough, 2010) to propose how learners are performatively constituted subjects in situated contexts who can take opportunities for rhizomatic agency. Deleuze and Guattari's theory of the rhizome provides a conceptual frame to map the dynamics of students' subjectivities. The next section further explores the interrelationship between discourse and how identities are mitigated through positioning.

2.3 Part Two: Discourse and Identity Positioning

To situate discourse, I draw from sociocultural and poststructural theories (Gee, 2011a; Butler, 2004) and employ the notion of relational positioning (Davies & Harré, 1990; Drewery, 2005). As frameworks of meaning that can operate independently of the intentions of speakers or writers, discourses both reflect and cohere the social world that they serve to construct (Alldred & Burman, 2005). Like rhizomes, they intersect, overlap and interlace each other (Davis, 2008). More than language, discourses always involve "coordinating language with ways of acting, interacting, valuing, feeling, and with bodies, clothes, non-linguistic symbols, objects, tools, technologies, times and places" (Gee, 2011a, p. 46). Recognition is the key to interpreting discourses as characteristic ways of saying, doing and being (Gee, 2011a; Butler, 2004).

Subject disciplines have their own discourses and therefore, for some students, learning to participate in new forms of discourse can be challenging. Two of the three plateaus in this study are located in a science classroom. In recent science education literature there has been interest in how learners participate in discursive activities that characterise the work of scientists (Windschitl, Thompson, & Braaten, 2008; Harris, Phillips & Penuel, 2012). Scientists have a specialised form of discourse with particular vocabulary and lexical forms. Harris, Phillips and Penuel (2012) explore implications for curricular tools and discuss a need for more examples of effective discourse moves for use by teachers in orchestrating scientific discourse. Writing in the USA, Penuel and Fishman (2012) argue that students have few opportunities to engage in practices where they co-construct convincing explanations and conclusions in

science classrooms. Furthermore, they suggest that for students to engage in and develop new discursive practices which promote scientific reasoning and build knowledge within classroom communities, teachers need to facilitate “talk or conversational moves” (p. 292). This can be seen as ‘small d’ discourse.

‘Discourse move’ is used in two particular ways in this thesis. Firstly it can mean to combine ‘big D’ discourses as in Sellers and Gough’s (2010) use of the term which I outlined in chapter one. Secondly, while acknowledging the way theorists (Harris, Phillips & Penuel, 2012) have used this term to describe the movement of vocabulary and lexical forms of ‘small d’ discourse, I use the term interchangeably with ‘rhizomatic moves’ to describe how learners can make rhizomatic shifts in and/or across ‘big D’ discourses. Fairclough (2010) observes that through recontextualising discourse it is “transformed to suit new contexts” which in turn “affects forms of interdiscursive hybridity” (p. 249). Fairclough (2011) describes interdiscursivity as the mixing of discourses where they are complex interconnected categories. Discourses can interweave with each other in “relationships of alignment” (Gee, 2001, p. 720).

Gee (2001) conceptualises discourse positions as fluid where “the kind of person one is recognised as being, at a given time and place; can change from moment to moment in the interaction, can change from context to context, and, of course, can be ambiguous or unstable” (p. 99). In keeping with Deleuzian imaginings, Davies (2000) describes how, in a poststructural framework, agency is both discursively located yet also reflexively constituted through the learners’ imagination. Learners can constitute new positions through combining discourses in new ways. Davies contends that agency can be thought of as:

- The discursive constitution of a particular individual as having access to a subject position in which they have the right to speak and to be heard;
- the discursive constitution of that person as author of their own multiple meanings and desires...; and
- a sense of oneself as one who can go beyond the given meanings in any one discourse, and forge something new, through a combination of previously unrelated discourses, though the invention of words and

concepts which capture a shift in consciousness that is beginning to occur, to through imagining not what *is*, but what *might be*. (Davies, 2000, p. 67, emphasis original)

Therefore agency is always dependent on the subjectivities made available through discourses. If agency is seen as constituted or spoken into existence through discourse, it follows that subjectivities can only ever be what the various discourses make possible (Davies, 2000).

Positioning is the process by which speakers construct personal stories and are socially afforded positions which they take up in relation to each other so that their actions are made intelligible (Tan & Moghaddam, 1995). Interactive positioning, like relational subjectivity (Drewery, 2005), is where what one person says positions another and reflexive positioning is where one positions oneself in relation to the affordances and constraints within a context (Davies & Harré, 1990; Tan & Moghaddam, 1995). “Positioning theory makes cultural influences visible in discourse on a moment by-moment basis but avoids essentialising such cultural influences as determined by membership of social categories, referencing them instead to the contested world of discourse production” (Winslade, 2005, p. 355).

Davies and Harré (1990) contend that positioning is a “discursive process whereby selves are located in conversations as observably and subjectively coherent participants in jointly produced story lines” (p. 264). Positioning theory helps to explain how discursive practices enable speakers and hearers to constitute themselves in certain ways and negotiate new positions and identities (Davies & Harré, 1990). Barnes (2004) observes that positioning depends on the context, community values and the personal characteristics of all the individuals concerned; their personal histories, preferences and capabilities. Positioning makes visible the ways in which people resist and refuse discursive positions in the midst of conversations (Winslade, 2005). Thus agency is exercised through the possibility of contradiction.

Identities are relationally constituted in discourse through interpellation. Drawing from Althusser’s (1970) interpellation, Butler (1995c) describes how

subject positions are conferred and assumed through the action of ‘hailing.’ This ‘hailing’ can be likened to a position call (Drewery, 2005) which is an invitation to take up a specific position in discourse. Being positioned in a certain way carries obligations or expectations about behaviour under the circumstances and there may be constraints on what it may be possible to meaningfully say or do (Barnes, 2004). The identity bids that learners and teachers make to be recognised as certain types of people (Gee, 2011b), have a bearing on how relational subjectivity (Drewery, 2005) plays out in classrooms. Thus learners are intersubjectively constituted (co-implicated/ co-constituted) in discourse. This intersubjectivity allows scope for agency, in that learners may be able to accept, ignore or even refuse discourse positions. This discursive agency is explored further in the following section.

2.3.1 Subjectivities and Discursive Agency

Agency is a practice of discursively producing the self, where the self is the “site of multiple subjectivities” (Kettle, 2005, p. 5). Therefore subjectivities can be actively taken up and used to advantage. When a learner masters a discourse, a dual process of submission occurs where they both surrender to it and adopt it. Butler (1995c) observes that although one might expect submission to consist in yielding to an externally imposed dominant order which implies a loss of control and mastery, it is also marked by mastery itself.

The more a practice is mastered, the more fully subjection is achieved. Submission and mastery take place simultaneously, and it is this paradoxical simultaneity that constitutes the ambivalence...In this view, neither submission nor mastery is performed by a subject; the lived simultaneity of submission as mastery, and mastery as submission, is the condition of possibility for the emergence of the subject itself. (Butler, 1995c, p. 14-15)

As a form of power, subjectivation is paradoxical. Butler (1997b) describes this discursive duality as the workings of power within discourses which frame our identities.

We are used to thinking of power as what presses on the subject from outside ... But if, following Foucault, we understand power as forming the subject as well, as providing the very condition of its existence and the trajectory of its desire, then power is not simply what we oppose but also, in a strong sense, what we depend on for our existence and what we harbour and preserve in the beings that we are. (Butler, 1997b, p. 2)

The ambivalence of mastery and submission is at the heart of becoming a subject (Davies, 2006). Davies, Dormer, Gannon, Laws, Rocco, Taguchi & McCann (2001) highlight a paradox that while self-regulation is the condition of possibility for the subject itself, the mastery of self-regulation is at the same time an act of submission. One can be subjected in discourse while simultaneously becoming an agentic speaking subject (Laws & Davies, 2000). Influenced by Butler, Davies (2006) describes subjectivation as an “impossible doubleness of subjection” or “double directionality” (p. 428) in which we both act upon and act. Being interconnected, these are not separate acts of domination and submission. Submission relies on mastery and mastery relies on submission. Therefore, subjectivity is a “double move” (Honan, 2002, p. 1) in that learners exhibit agency as they construct themselves by taking up available discourses. At the same time, they are subjected or forced into subjectivity by those same discourses and practices (St. Pierre, 2000a). “At the heart of becoming an agentic subject is the simultaneous act of both submission and mastery: the discourses that constitute us as social beings also condition, shape and dominate us” (Rainio, 2008, p. 9). This paradox of freedom and constraint, inherent in schooling, where freedom is cultivated under conditions of compulsion, is termed by Rainio the “contradiction between control and agency” (p. 2).

Learners contend with multiple contradictory meanings which are inscribed in their bodies and in their conscious and unconscious minds (Davies, 1993). Through her earlier work Davies (1990) rejects a traditional, sovereign definition of agency in favour of a discursively constructed view that certain positionings may be made available to some but not to others. Likewise, Butler

(2005) points out how social transformation can occur only when the conditions that produce and limit us prove malleable.

Davies (1990) argues that to exercise agency, learners require discursive, social and personal resources. Access to discursive resources can enable students to actively make sense of rather than passively receive the meanings available within discourses. Therefore, students can refuse discourses and/or discourse positions. They can stand outside of any particular interactive practices and take these practices up as their own, or not, as they choose. They can recognise a range of alternative positionings and see that where they are discursively located is not inevitable. Social resources enable learners access to interactive others, appropriate discourses and appropriate contexts (Davies, 1990). Through appropriating social resources, students can legitimate their positioning. Personal resources are the means by which alternative positionings can be brought about. These resources include knowledge, personal skills and the ability to mobilise the relevant discourse.

Discursive practices can constitute the speakers and hearers in certain ways, yet they are also a resource through which speakers and hearers can negotiate new positions (Davies & Harré, 1990). According to Butler (1997b) subjectivation

...denotes both the becoming of the subject and the process of subjection...Subjection is, literally, the *making* of a subject, the principle of regulation according to which a subject is formulated or produced. Such subjection is a kind of power that not only unilaterally *acts on* a given individual as a form of domination, but also *activates* or forms the subject. (p. 83-84)

Butler (1997a) maintains that while the subject needs to be named in ways that make recognisable sense in discourse, by being subjectivated the subject can subjectivate another. Butler calls the capacity of subjects to name and so constitute discourse discursive agency (Butler, 1997a). By thinking of agency as discursive Butler retains a subject who can act with intent. For Butler (1997a) discursive agency is not the property of the subject, an inherent will or

freedom, but an effect of power. Butler writes how those who name others have been named themselves in turn.

[T]he one who names, who works within language to find a name for another, is presumed to be already named, positioned within language as one who is already subject to the founding or inaugurating address... The subject of speech who is named becomes, potentially, one who might well name another in time. (Butler, 1997b, p. 29)

Discursive agency is more than just an identity position afforded only those who can recognise and articulate discourse. Youdell (2006), in her reading of an episode of ethnographic data generated in an Australian high school, takes up Butler's notion of discursive agency. However, she recognises that there are multiple degrees of both intent and understanding amongst subjects in terms of the embedded meanings and effects of discourses. She observes that subjects do not necessarily regurgitate discourse unwittingly, nor are discourses cited knowingly as they are not necessarily explicitly known to the subject and/or audience. As such, Youdell notes, subjects need not be self-consciously alert to the discourses deployed in order for their familiar and embedded meanings to be inscribed. However, when discursive threads are made visible, people can develop an awareness of how they experience themselves through their positioning (Davies, 1993).

Access to identity positions relate closely to the power affordances within discourses. From their critical perspective, Moje and Lewis (2007) view agency as the "strategic making and remaking of selves, identities, activities, relationships, cultural tools and resources, and histories, as embedded within relations of power" (p. 8). Ares (2008) uses the term "appropriation" (p. 99) to reflect that knowledge, roles and relations of power are socially constructed and are negotiated social interactions. Agentic learning can be interpreted as appropriating, resisting or disrupting discourses and reconceptualising skills and knowledge.

This acquisition, appropriation, resistance to, and reconceptualisation of skills and knowledge is a process that may involve taking up and taking

on existing discourses or disrupting and transforming fixed discourses. And the act of taking up, disrupting and transforming discourses have implications for how one conceptualises the constructs of identity and agency. (Lewis, Enciso & Moje, 2007, p. 18)

For learners to take up, disrupt and transform discourses, they require a willingness to author alternative identity positions. Agentic learners move themselves from one set of culturally and socially structured subjectivities to another (Maurer & Polansky, 2004). Therefore agency is relational as it emerges through the interactions between people as they act on and within the prevailing discourses. In this research agency is not conceptualised as freedom from discursive constitution, but rather as the capacity to recognise that constitution and to “resist, subvert, and change the discourses themselves” (Davies, 2000, p. 67).

Power structures within discourses constantly shift and subjects accrue identity positions as a result of these relational experiences. In these moments, when discourses are interrupted or troubled there are opportunities for individuals to exercise reflexive agency. Hence, subjects can act upon discourse agentially and are acted upon in their turn. These lines of flight forge new realities (Deleuze, 1995) and fresh vistas. Davies (1993) defends the position that teaching and learning from a place of “willful contradiction” (p. 177) involves identifying the narratives through which one is constituted. Desirable as it is to mindfully adopt a disposition of willful contradiction, discourse and its effects can ultimately exceed the intent or free will of an agent (Youdell, 2006).

To sum up the second part of this chapter, I reiterate that I draw from Butler’s “double directionality” to analyse how learners act upon and submit to discourses in sociocultural spaces such as classrooms. The notion of a performativity is important to this study in that it makes visible the learners’ rhizomatic moves as they author subjectivities. The use of sociocultural theory supports rich analyses of complex learning environments (Moss, Girard & Haniford, 2006). In the third part of this review, which follows, I use sociocultural theory to further contextualise the study’s focus on classroom learning. As an important discourse within the professional development

context, the classrooms are conceived as sociocultural spaces where there are communities of learners. The next section introduces key tenets of sociocultural theory to locate how it interplays with the poststructural theoretical frame employed in the thesis so far.

2.4 Part Three: The Dynamics of the Classroom

In this section I review key sociocultural elements that underpin learning; touching on participatory learning, situated learning and mediational means. In addition, I outline the classroom dynamics of counterscript, underlife, third space, studenting and lifeworlds and introduce elements of Deleuzo-Guattarian theory to describe how I bring binaries together in this thesis.

2.4.1 Participatory Learning, Situated Learning and Mediational Means

In sociocultural discourse classrooms can be described as communities of learners. Wenger (1998b) points out that learning in communities transforms the participants' ability to engage with the world by changing who they are, their practices, and the communities themselves. Furthermore, in schools, subject discipline communities of practice can afford "deep participatory learning" (Lewis, Enciso & Moje, 2007, p. 19). Lewis, Enciso and Moje (2007) describe the development of discipline specific identities: "Deep participatory learning involves learning not only the stuff of a discipline-science content, for example- but also how to think and act something like a scientist, even if one does not enter the profession of science" (p. 19). These specific learner identities are context dependent, as the following section on situated learning demonstrates.

Situated learning has particular relevance in this study, given that the focus is on the contextual interactions within two classroom communities. Sociocultural learning theory posits that learning, thinking, and knowing are culturally structured concepts which are situated within social situations from which they cannot be dissociated. They can only be understood within the contexts in which they occur (Lave & Wenger, 1991). The community and individuals co-emerge through their relationships; the community learns, and individuals learn in and through their relationships with each other (Mayo, 2006). Situated

learning theory suggests that this will vary from class to class and from topic to topic.

Lave and Wenger also argue that learning is a matter of people's changing involvement as "legitimate peripheral participants" (LPP) (Lave & Wenger, 1991, p. 29) in communities of practice. LPP concerns a process through which newcomers become part of a community of practice, developing mastery of knowledge and skill. In this model, newcomers move from the periphery toward full participation in the sociocultural practices of the community. 'Novices' are granted enough legitimacy to be treated as potential members. In his later work Wenger (1998a) moves on from the notion of LLP, describing communities of practice in terms of the interplay of four fundamental dualities - participation and reification, designed and emergent, identification and negotiability, and local and global.

Challenging Lave and Wenger's notion of legitimate peripheral participation, Boylan (2010) postulates that, while participation is a useful analytical tool, it needs to be viewed more as a "multi-dimensional phenomenon with many possibilities" (p. 62). Boylan uses Deleuze and Guattari theory of the rhizome as an ecological metaphor to propose "ecologies of participation" (p. 61) as a means to understand specific moments of learning. Ecologies of participation encompass "the complex interweaving of formally legitimated practices and informal practices in which the importance of the extent and the meaning of the situatedness of practice shifts, sometimes moment to moment, as does the influence of participant identity" (p. 62). Arguing that participation cannot be abstracted, Boylan contends that it "...changes moment to moment and is socially constructed in time, from the specific semiotic, material, personal and social systems of the participants and practices that constitute the ecology of practices" (p. 69). By taking up a rhizomatic perspective on learners and learning, this study evokes "ecologies of participation" (Boylan, 2010, p.61) to read situated practices in classrooms.

Wertsch, del Rio and Alvarez (1995) note that, originating from the writing of both Vygotsky and Leont'ev, the notions of "mediational means" and "mediated action" have emerged as essential building blocks in the formulation

of sociocultural research (p. 64). These concepts provide a link between the concrete actions carried out by subjects and communities, on the one hand, and cultural, institutional, and historical settings, on the other. Mediational means are used in social interaction, particularly in the case of language. Wertsch, del Rio and Alvarez (1995) postulate that we are not able to free ourselves of the constraints imposed by the cultural tools we use to act. “We can never ‘speak from nowhere,’ given that we can speak (or more broadly, act) only by invoking mediational means that are available in the ‘cultural tool kit’ provided by the sociocultural setting in which we operate” (Wertsch, del Rio & Alvarez, 1995, p. 25). The ‘cultural tool kit’ that Wertsch, del Rio and Alvarez (1995) refer to are the discourses that are available to us at any one moment. Within different contexts we have different discursive tool kits at our disposal. The polymorphous notions of script and counterscript, addressed in the next section, can be used as a heuristic to examine power and intersubjectivity in the social settings of the classroom.

2.4.2 Counterscripts and Underlife

Drawing from Bakhtin’s notions of dialogic meaning and social heteroglossia, Gutiérrez et al. (1995) describe how classrooms are inherently multi-voiced. They observe that while some students contribute to and participate in the teacher script, those who do not comply with the teacher’s rules for participation form their own counterscript. Gutiérrez et al. (1995) point out that members of a classroom community hold varied expertise in the form of local knowledge, but the inscribed knowledge of the teacher and classroom regularly displaces the local and culturally varied knowledge of the students. The authors suggest that this displacement of student knowledge creates space for student counterscript to develop. They examine whole class dynamics as official and unofficial spaces; exploring how power is constituted through the various configurations of talk and interaction in the classroom.

By juxtaposing ‘official’ classroom discourse (script) with the foil of student resistance (counterscripts), Gutiérrez et al. constructed a situated binary framework which collapses the multidimensional nature of classroom interaction into a two-dimensional representation of whole class settings.

Although Gutiérrez et al. (1995) acknowledge that classrooms are inherently multi-voiced and dialogic, they binarise script with counterscript (just as ‘off task’ is an objectivist one-dimensional category that contrasts with ‘on-task’). While this binary is acknowledged in this study, counterscripts are also conceived as multi-faceted and emergent with classroom spaces shot through with a range of student driven discourses.

Furthermore, Gutiérrez et al. (1995) use the concept of “third space” as an intermediate place between the “scripts” of sanctioned school discourses and the “counterscript” of alternative student cultural practices (p. 445). The authors observe that the intersections of cultural practices can open up third spaces which allow for the negotiation of meaning, hybridity and the production of new cultural forms of dialogue (Gutiérrez et al., 1995; Moje, Ciechanowski, Kramer, Ellis, Carrillo, & Collazo, 2004). Third spaces can be generative as they can allow for a melange of discourses. Calabrese Barton, Tan and Rivet (2008) describe third space as “a hybrid space because it brings together the different knowledges, discourses, and relationships one encounters.... allowing them to work together to generate new knowledge, discourses, and identities” (p. 73).

Another significant idea contributed by Gutiérrez et al. (1995) is the concept of “underlife” (p. 451). Gutiérrez et al. view that the opportunity for contesting both societal and classroom discursive practices evolves within the social space of underlife in the classroom. Drawing from Goffman they define underlife as the range of activities that people develop to distance themselves from the surrounding institution. An examination of underlife can highlight students’ strategies of differentiation from teacher-dominated classroom discourse.

Underlife, then, consists of those behaviours that undercut the roles expected of participants in a situation (Brooke, 1987). In the face of a seemingly incontestable teacher script, students assert forms of local knowledge that are neither recognized nor included within the teacher script. In this way, individual students take stances towards the roles they are expected to play. (Gutiérrez et al., 1995, p. 451)

Underlife activities can take two primary forms: a disruptive form “where the realistic intentions of the participants are to abandon the organization or radically alter its structure” and a contained form in which the participants attempt to “fit into existing institutional structures without introducing pressure for radical change” (Goffman, 1961, as cited in Gutiérrez et al., 1995, p. 451). While student underlife develops freely in all classrooms, Gutiérrez et al. note that rarely is such activity incorporated into instructional practices. Therefore, despite the inherent multi-voicedness of any classroom, student underlife generally maintains traditional classroom power relations (Gutiérrez et al., 1995). It is in relation to these classroom power relations that students develop practices of ‘studenting’ (Fenstermacher, 1986 as cited in Goldin, 2010).

2.4.3 Studenting and Lifeworlds

Alongside Goffman’s underlife and Gutiérrez et al.’s script and counterscripts sits a discourse that weaves these elements together: studenting. Studenting draws from both official teacher scripted discourse and the students’ peer cultures as a third space blend. It comprises the students’ work in managing and negotiating their roles in schools; getting along with teachers, peers and parents, and handling both the academic and non-academic aspects of school life (Goldin, 2010). In addition to practices that lead to school condoned learning and achievement, students can also develop the following practices:

“...such as ‘psyching out’ teachers, figuring out how to get certain grades, ‘beating the system’, dealing with boredom so that it is not obvious to teachers, negotiating the best deals on reading and writing assignments, threading the right line between curricular and extra-curricular activities, and determining what is likely to be on the test and what is not” (Fenstermacher, 1997 as cited in Goldin, 2010, p. 9).

In his later work Fenstermacher (2006) posits that the art of studenting can be a form of parody where the learner is directed more to negotiating “the rules of the game of school rather than to the mastery of subjects that enhance his or her power to be and act in the world” (p. 104). Bringing together these two ideas of ‘the rules of the game of school’ and ‘mastery of subjects,’ this study uses

Fenstermacher's (1997) non-binarised conception to explore how students evoke studenting discourse alongside academic discourses.

Another similar student oriented concept of relevance in this research is the notion of lifeworld. The term was originally framed by Habermas to describe the background consensus of our everyday lives from which interlocutors “draw agreed-upon patterns of interpretation for use in interpretive efforts” (Habermas, 1990, p. 135). For Gee (2011b), the lifeworld is the domain in which people speak, value and act, claiming to know and understand things as ‘everyday’ people. Gee describes how when we talk as everyday people, we bring our cultures and dialects to the fore, although there may be shared norms across societies. We learn our primary lifeworld discourses as children which gives us our initial world view and lifeworld identities. It is worth noting that people can simultaneously be members of multiple overlapping lifeworld communities (The New London Group, 1996). Both ‘lifeworld’ and ‘studenting’ are important elements with implications for how students might exercise agency.

Having acknowledged that classroom discourses can be seen as embedded dichotomies e.g. forms of underlife, script and counterscript, I use Deleuzo-Guattarian theory to further illustrate how it is possible to simultaneously think sameness and difference to see beyond the binaries.

2.4.4 Thinking Sameness and Difference: Working with Binaries

Binaries are addressed across a range of Deleuze's work, in collaboration with colleagues (Deleuze & Guattari, 1987; Deleuze & Parnet, 1987) and individually (Deleuze, 2003; 2004). Using the ideas of spaces, folds, lines, and mobius strips the interflow between what could be seen as binaries are illustrated as mixtures, relations and linkages. However, this approach where contrasts or dualities are brought together, challenge dominant modes of thinking. Jakubowski (2010) points out that the common difficulties with Deleuze and Guattari's non-binary dualities are based on our “inability to think sameness and difference in a fluid relationship in a way that is radically different to our customary modes of thought” (p. 41). Substantial engagement

with these images can support “a new kind of thinking” so that researchers see differently (Sellers & Gough, 2010).

Deleuze and Guattari (1987) both acknowledge and use binaries to describe the spaces that people can inhabit. They differentiate between striated, sedentary space that is formal, rule-intensive, hierarchical, structured and arboreal and smooth, nomadic, informal space where dynamic creation occurs.

No sooner do we note a simple opposition between the two kinds of space than we must indicate a much more complex difference by virtue of which the successive terms of the oppositions fail to coincide entirely....the two spaces in fact exist only in mixture: smooth space is constantly being translated, transversed into a striated space; striated space is constantly being reversed, returned to a smooth space. In the first case, one organizes even the desert; in the second, the desert gains and grows; and the two can happen simultaneously. (Deleuze and Guattari, 1987, p. 474)

Commentators on *A Thousand Plateaus* have pointed out that Deleuze and Guattari’s two kinds of spaces act as processes that resist strict binaries, in that they exist in a “mixture” with the smooth translated and transversed and the striated become smooth (Bayne, 2004; Tamboukou, 2008). Deleuze and Guattari conceptualise thinking as voyaging across smooth and striated places where there are “always passages from one to the other, transformations of one within the other, reversals” (p. 482). Shurmer-Smith (2002) points out that this element of poststructural thinking does not refute the necessity of structures but questions the stability of their forms. In these dynamic spaces we “constantly move between deterritorialization -freeing ourselves from the restrictions and boundaries of controlled, striated spaces -and reterritorialization -repositioning ourselves within new regimes of striated spaces” (Tamboukou, 2008, p. 360). In another move to collapse binaries Deleuze uses the notion of a fold.

The duplicity of the fold has to be reproduced from the two sides that it distinguishes, but it relates one to the other by distinguishing them: a

severing by which each term casts the other forward, a tension by which each fold is pulled into the other. (Deleuze, 2003, p. 34)

West-Pavlov (2009) points out that the apparent binaries of Deleuze and Guattari's work on space are resolved by this fold metaphor. Similar to the interdispersed movement between striated and smooth spaces, and the collapsed binaries in 'the fold,' lines of flight flee from binary restrictions to creatively construct whole geographies made up of lines: rigid lines, supple lines and lines of flight (Deleuze & Parnet, 1987). In *A Thousand Plateaus* Deleuze and Guattari (1987) use the terms break lines (rigid, segmental or molar lines), crack lines (supple or molecular lines) and rupture lines (lines of flight) to describe how they act upon structures and categories of our lives. Far from binary, these lines always tie back to one another. Deleuze and Guattari argue that this interconnectedness is "why one can never posit a dualism or a dichotomy, even in the rudimentary form of the good and the bad" (Deleuze & Guattari, 1987, p. 9).

In *The Logic of Sense*, Deleuze (2004) uses the geometrical model of the mobius strip as an image that illustrates the shifting flowing movement of both outside and inside simultaneously. Frichot (2006) describes Deleuze's use of the mobius strip as a ready-made conundrum that speaks of ideas, surface, interiority and exteriority, space, time and infinitude. She writes "[u]nfolding the mobius strip, the experience of sense must be stretched out so that we fall neither on the side of ideas nor of things, but walk the tightrope of the threshold in between" (p. 76). Deleuze and Guattari (1987) write how in some form there is an always an escape and challenge to binaries. "There is always something that flows or flees, that escapes the binary organizations, the resonance apparatus, and the overcoding machine: things that are attributed to a "change in values," the youth, women, the mad, etc" (p. 216). It is therefore appropriate to use the concepts: spaces, folds, lines, and mobius strips to examine the classroom youth culture in regard to how classroom binaries are transcended.

To conclude this third section on the dynamics of the classroom I emphasise that the sociocultural components of participatory and situated learning and mediational means are important elements in classrooms that are learning

communities. Script and counterscript, studenting and lifeworlds are named as discourses and used as a heuristic in this research to examine power and intersubjectivity in the classroom settings. While the dualistic nature of these discourses are recognised and acknowledged in this study, Deleuzian theory (spaces, folds, lines and mobius strips) provides a generative frame with which to transcend these binaries, to recognise overlap and tonal variations of the mixtures that take place in the classrooms as rich sociocultural contexts.

2.5 Chapter Summary

To conclude this chapter, I reiterate that learners exercise power and are shaped by it in learning contexts. In classrooms, schools and communities students inhabit discourse positions which are in constant motion; they are signified and resignified through citational practices. Fundamental to this conception of agency and discursive positioning is an awareness of how identities are fluid, relationally constituted and constantly being made and remade across a range of contexts.

This research explores how agentic identity positions can be afforded students when they exercise reflexive agency, submitting to and mastering discourses. Students are interpellated in discourse by others and, in turn, can make identity bids to locate themselves as authoritative and agentic learners. Of particular relevance to this study is the notion that learners reflexively position themselves in relation to competing discourses. The notion of rhizomatic agency is used to conceptualise how learners can take agentic lines of flight in classrooms.

Through identifying discourses and their associated identity affordances, it is possible to gain an insight into the rhizomatic workings of classroom counterscripts, underlife and third spaces. Deleuzian spatial imagery is used to bring binaries together by ‘thinking of sameness and difference’ as fluid and relational.

Sociocultural discourse is framed in this research as a situated, social view of learning where learners can be afforded discursive agency. Sociocultural theory traditionally has revolved around people interacting with one another in micro-level interactions. It can also lay bare the systems of meaning and power that people build, reproduce and contest through their interactions with one another

(Lewis & Moje, 2003). By juxtaposing sociocultural theory with poststructuralism, I examine discourses on both micro and macro levels to explore how agentic learner identities can be relationally constituted in social spaces that offer an ecology of participation. In the next section I make connections between a performative view of agency and three key discourses which are prominent in New Zealand education policies and practices at this time.

Chapter Three – Agency in the New Zealand Classroom

Human agency may be frail, especially among those with little power, but it happens daily and mundanely, and it deserves our attention.

(Holland et al., 1998, p. 5)

3.1 Overview

This chapter outlines a link between agency and learning. In particular, I illuminate how a poststructural interpretation of learner agency is pertinent to three key curriculum discourses that are relevant in New Zealand schools and policies at this time: liberal humanism, key competencies, and assessment for learning (AfL). Liberal humanism is deeply embedded in New Zealand schools despite the popularity of communitarian approaches to learning (Peters & Marshall, 2003). It influences the way that students, teachers and school leaders theorise agency, identity and positionality and how assessment practices and key competencies are enacted in classrooms. There is a paucity of poststructural research on these matters in the New Zealand context. This research aims to make a contribution in this area by describing and explaining how schools and teachers might grapple with what agency means in the light of the complex, often competing, discourses that influence learner identities in classrooms. This chapter provides an overview of these discourses as they are conceptualised in New Zealand research and policy literature.

Attention to the specifics of the New Zealand context is important because as Gadsden (2008) writes, although he does not use the term learner agency, “What is necessary is a stronger grasp on how people learn, when, how, and under what conditions they are disposed to learning, uncovering an issue, and engaging in critical analysis” (p. 44). A poststructural approach to agency as performative offers the reflexivity for educators to consider how they can afford opportunities for students to take up agentic positions and subjectivities in classrooms as learners. An agentic learner, who is capable and competent, replicates and appropriates aspects of their culture through their talk and interactions with others thereby, actively participating in the construction of their own social situations (Danby & Farrell, 2004). For Calabrese Barton and Tan (2010) learning is about “recreating those practices in socially and culturally situated ways that confer on one more (or less) agency with which to

participate across communities” (p. 190). According to Lewis, Enciso and Moje (2007) learning is a social process and learner agency is determined by the nature of social participation in classrooms. It is about the power to control how one’s self, identity, relationships, and activities are made and remade on a daily basis. As a central, essentialist element of liberal humanist discourse, the notion of self is problematised in the next section as a first step in analysing the NZ context.

3.2 Learner Agency and Learning

This thesis argues that a performative view of learner agency can support a dynamic conceptualisation of curriculum and assessment. A poststructural approach offers the reflexivity for educators to consider how they can afford opportunities for students to take up agentic positions and subjectivities in classrooms as learners. An agentic learner, who is capable and competent, appropriates aspects of their culture through their talk and interactions with others thereby, actively participating in the construction of their own social situations (Danby & Farrell, 2004). According to Lewis, Enciso and Moje (2007) learning can both promote and constrain agency by providing or constraining access to discourses. From their sociocultural perspective they consider that learning is a social process and learner agency is determined by the nature of social participation in classrooms. Lewis and Moje (2003) argue that agency relates to one’s power to control how one’s self, identity, relationships and activities are made and remade on a daily basis. The poststructural approach taken in this study builds on this notion that selves are made and remade. As a central, essentialist element of liberal humanist discourse, the notion of self is problematised in the next section.

3.3 Liberal Humanism

Liberal humanism is a ubiquitous education discourse (St. Pierre, 2000a; Lewis & Moje, 2003; Butler, 2004). In the New Zealand and Australian schools where I have worked, I have observed that a liberal humanist view of learners and learning is prominent. In this view the onus for learning is on the learner because as individuals they can determine their own courses of action. St. Pierre (2000a) describes humanism as a pervasive discourse that has come to be

understood as common sense; deemed natural and normal. It is “the air we breathe, the language we speak...the map that locates us on the earth, the futures we can imagine, the limits of our pleasures” (St. Pierre, 2000a, p. 478).

Cherland (2008) contends that humanism contains the following dangerous ideas that present life and the world as simple, certain, and structured in inevitable ways:

- There is a stable, unified, coherent, and individual human “self.”
- Language is a transparent medium, something you can see right through to the pre-existing reality it unveils.
- Reason can provide an objective, reliable, universal foundation of knowledge.
- Knowledge comes through reason. Reason leads to knowledge and truth. (Cherland, 2008, p. 274)

This research seeks to disrupt liberal humanist notions of student empowerment, student responsibility and student choice (St. Pierre, 2000a; Sykes, 2001). The term “responsibilization” (Rose, 2003, p. 154) describes how neoliberal forms of government require each individual to accept responsibility for self and participate in acts of surveillance and control (Davies, 2006). Neoliberal governmentality prioritises individuality and competitiveness, with each student shaped as an economic unit of use in a market economy. A liberal humanist view, which is based on meritocratic values, interprets identity as fixed and agency as the responsibility of the individual. Davies (2000) points out that embedded in humanism is an understanding “that being a person entails an obligation to take oneself up as a knowable, recognizable identity, who ‘speaks for themselves,’ and who accepts responsibility for their actions” (p. 56).

Liberal humanism locates the responsible subject in control of their actions without any regard for the discursively constructed and socially mediated nature of agency. This humanist focus on individual choice and responsibility creates an illusion of agency which does not take into consideration how subjects are constituted through discourse or to what degree desire is manufactured.

Discourses manufacture desire and, therefore, the extent to which a subject is agentic can be seen as paradoxical (Davies, 2000; Butler, 1997b).

Choices are understood as more akin to ‘forced choices,’ since the subject's positioning within particular discourses makes the ‘chosen’ line of action the only possible action not because there are no other lines of action but because one has been subjectively constituted through his/her placement within that discourse to *want* that line of action. (Davies, 2000, p. 60)

St. Pierre (2000a) contends that in liberal humanist discourse power is generally assumed to be the product of agency with which we are naturally endowed. She observes that in this view power exists outside ourselves and we can possess it, deploy it, give it away or take it back. Furthermore, teachers can impart agency to their students as a form of empowerment. Liberal humanist discourse prioritises individuality, constituting teachers and students as unified, rational subjects. Davies (2000) points out how

...central to the ‘good school behaviour’ discourse is the notion that each child freely ‘chooses’ to get it right. In doing so it is understood that they believe that they do have choice, and that they must be seen to be making this choice, again and again. (p. 149)

The unified, rational subject, which Davies (2010) describes in her later work as the “subject-of-will” (p. 54), reflects neoliberal governmentality. Davies writes that in this individualistic view, identity is a means of gaining recognition, competing against others and being seen to have value which makes us both more vulnerable and less capable of agency. In contrast, Davies’ (2010) “subject-of-thought” (p. 54) is focused on the possibilities of what may emerge when learners stand back to see what is assumed, what can be accomplished, and what can be imagined.

A performative view of agency dismisses the notion of self-regulated learning (SRL) as a liberal humanist construct. The literature on SRL sustains a narrow focus which disregards or underplays the importance of the learning context. SRL refers to research and theory that has emerged since the mid-1980s that is

concerned with how students master their own learning processes (Darr & Fisher, 2004). Paris and Paris (2001) conceptualise self-regulated learners as students who exhibit autonomy and control by monitoring, directing, and regulating their actions towards goals of information acquisition, expanding expertise, and self-improvement. For Darr and Fisher (2004) a self-regulated learner is:

...someone who is actively involved in maximising his or her opportunity and ability to learn. This involves not only exerting control over cognitive activity (metacognition), but also developing metavolitional skills that enable the regulation of attitudes, environments and behaviours to promote positive learning outcomes.
(p. 1)

The concept of the self-regulated learner, illustrated in Darr and Fisher's definition, is problematised in this study as it describes an individualistic view of the learner and the way learning takes place. Watkins, Carnell and Lodge (2007) consider 'regulation' to be more like a constraining rather than a driving process. Like Darr and Fisher's "metavolitional skills" (p. 1), Caswell and Nisbett (2005) use the term meta-awareness which has the effect of changing students' attitudes to their roles in the learning process. "Through engaging in meta-awareness, students began regulating their own learning" (p. 215). These are individualistic notions of learning. Self-control, self-management and self-regulated learning can be interpreted as liberal humanist notions that support governmentality. More pervasive than state politics, governmentality links forms of power and processes of subjectivation (Lemke, 2000). There is a danger in uncritically adopting the term self-regulation as the social, participative nature of learning could be overlooked. This is where Butler's performativity can assist us to look at how learners navigate discourses to take up certain identities and not others.

Challenging humanist notions of the rational subject, poststructuralists argue that people are not socialised into the social world. Instead, they go through a process of subjectivation (Davies, 1993) where they are simultaneously rendered a subject through discursive relations of power (Youdell, 2006). This is a useful theoretical framework with which to consider learner subjectivities

in relation to the New Zealand curriculum discourses that have currency at this time.

3.4 The New Zealand Curriculum Key Competencies

The New Zealand Ministry of Education has taken a stance on which competencies are valued in the New Zealand context by outlining them explicitly in the NZC (Ministry of Education, 2007a). Although their Organisation for Economic Co-operation and Development (OECD) origins can be described as a liberal humanist discourse, there is scope for key competencies to be addressed and strengthened in classrooms in ways that afford learner agency. During their development, the Ministry of Education framed Key Competencies as a key mechanism to increased economic productivity in the future. On their initial inclusion in the draft New Zealand Curriculum (Ministry of Education, 2006) their role was described as important to the development of the “knowledge based society” (Gilbert, 2005).

Education has a vital role to play in helping our young people to achieve their individual potential and develop the competencies they will need for further study, work and lifelong learning...It is by developing these competencies that they are equipped to participate fully in New Zealand society and contribute to the growth of the economy. (Ministry of Education, 2006, p. 8)

The subsequent New Zealand Curriculum (Ministry of Education, 2007a) provides a neoliberal rationale for continuous improvement with a major focus on change, flexibility and education for the market. The vision for learners espoused in this document is for young people to be “confident, connected, actively involved, lifelong learners” (Ministry of Education, 2007a, p. 8). The Definition and Selection of Competencies (DeSeCo) Project (Organisation for Economic Co-operation and Development, 2005) has had a significant impact on New Zealand education policy. In the NZC, key competencies are described as “the capabilities that young people need for growing, working, and participating in their communities... The School Curriculum should challenge students to use and develop the competencies across the range of learning areas and in increasingly complex and unfamiliar situations” (Ministry of Education,

2007a, p. 38). DeSeCo outlines that the critical purpose of competencies as a particular collection of knowledge, skills, attitudes and values is for “sustainable development and social cohesion” (lifelong learning). The DeSeCo project defines competencies as more than just knowledge and skills. They involve “the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context” (OECD, 2005, p. 4).

The NZC suggests that students’ engagement with key competencies at school should equip them with the capacity to be resilient, ongoing learners. Hipkins (2006) describes competencies as “the things all people need to know and be able to do in order to live meaningfully in, and contribute to, a well functioning society” (p. 4). However, initial schooling can only form a launchpad for learners. The DeSeCo Project suggests that competencies develop and change throughout the lifespan, with the possibility of acquiring or losing competence as one grows older. As a result of transformations in technology and in social and economic structures, the demands on individuals can be expected to change throughout their adult lives. Therefore, competence development does not end at adolescence but continues through the adult years, in particular, the ability to think and act reflectively grows with maturity (OECD, 2005). Due to the increasing complexity of western societies the DeSeCo Project suggests that citizens need more than a narrow skills based approach to learning.

To make sense of and function well in this world, individuals need for example to master changing technologies and to make sense of large amounts of available information. They also face collective challenges as societies – such as balancing economic growth with environmental sustainability, and prosperity with social equity. In these contexts, the competencies that individuals need to meet their goals have become more complex, requiring more than the mastery of certain narrowly defined skills. (OECD, 2005, p. 4)

There is currently significant policy and practice interest in continuity and transfer of learning dispositions and key competencies over time and place. Carr (2008) describes four dimensions which she calls the ‘ABCD of strength;’

agency, breadth, continuity, and distribution. Carr's interpretation of agency stems from the concept of 'mindfulness' where learners develop practices as part of their own identity and expertise. This emphasises the need to promote the types of learning experiences that support students to develop their capacity to act agentially and risk take with their learning as they move from familiar to unfamiliar contexts.

The focus on a learning curriculum, on competencies over skills, suggests a shift in focus for teachers from the previous New Zealand curriculum. Claxton and Carr (2004) describe the learning curriculum as the attitudes, values and habits students develop towards learning which are strengthened or weakened during the process of learning. Key competencies integrate essential skills with knowledge, as well as with attitudes and values. Unlike skills, competencies focus on all the requirements of a task. This includes what students need to know, not just what they can do (Brewerton, 2004). In her background paper prepared for the Ministry of Education's New Zealand Curriculum Marautanga Project, Brewerton (2004) includes knowledge in her definition:

- Competencies include the skills, knowledge, attitudes and values needed to meet the demands of a task;
- competencies are performance-based and manifested in the actions of an individual in a particular context; and
- key competencies are defined as those competencies needed by everyone across a variety of different life contexts to meet important demands and challenges (p. 2).

Learning dispositions and key competencies are major contributors to lifelong learning and the development of wise, resourceful, creative, and considerate citizens (Carr, 2008). Dispositions are relational terms that dispose learners to interpret, edit and respond to learning opportunities in characteristic ways (Carr, 2002). Action oriented, they reflect to what extent students are "ready, willing and able to engage profitably with learning" (Carr, 2008, p. 87). By building their capacity to learn, students can develop initiative (Carr, 2008). A focus on dispositions connects competencies with the concept of lifelong learning and draws attention to certain aspects of students' learning. These aspects comprise:

the capacity to recognise and draw on particular skills, knowledge, and values on different occasions; the responsibility to reflect on their value and intent; the motivation to exercise them; and the know-how to marshal and orchestrate the relevant resources (Carr, 2004).

Competencies and dispositions have the potential to promote a view of learning that step beyond a simplified technical rational interpretation. Concepts of thinking, social, and emotional behaviours take on more complex and interesting meanings when they are considered as dispositions (Gadsden, 2008). An emphasis on dispositionality underscores a big picture perspective of learning that potentially promotes attributes which are deemed essential for lifelong learning. Dispositionality relates to ideas about inquiry, reflective practice and critical thinking (Gadsden, 2008). This is a complex and contextualised perspective of learning.

It may be a temptation for schools to assume that the key competencies are already integral to what they already do. However, without a focused, holistic approach to competency development which builds on current practice, opportunities may not be realised. In 2006 Hipkins warned that a “we already do that” (Hipkins, 2006, p. 69) response may not enable schools to reflect on their practices and move beyond the status quo. More recently Hipkins (2012) observes that the plain language approach to competencies with their deceptive simplicity may have contributed to superficial readings of their nature and intent. For example, she points out that schools can be cued to view the managing self competency as encompassing traditional and generic behavioural concerns (discipline, attendance organisation, work readiness, homework completion etc.) (Hipkins, 2012).

Therefore, grappling with curricula development may be a larger undertaking than it first appeared for schools. This is particularly true if teachers thoroughly explore what the competencies look like within and across the different learning areas. Hipkins (2006) considers that the curriculum challenge is for every learning area to demonstrate how the key competencies are specifically manifested in that area. Likewise, McChesney and Cowie (2008) ask “if and how a focus on key competencies might offer something new to the debate over

the relative merits and value of content over learning processes” (p. 104). They note that the different learning area descriptions indicate that intellectual curiosity can be exercised in diverse ways, with different kinds of focus and distinct purposes within the different learning areas. They raise questions about the similarities and differences between general and subject-specific thinking strategies. “What might it involve to think mathematically or statistically, or to think scientifically, or to think technologically?” (McChesney & Cowie, 2008, p. 105).

Practices, ways of thinking and identity affordances, unique to the different disciplines, may be embedded within learning contexts and available only to those students with the wherewithall to access them. Kelly, Luke and Green (2008) suggest that over time disciplines have created specialised discourses, signs and symbols, ways of representing knowledge, and ways of thinking and inquiring that come to count as knowledge. Delpit (1988) calls this the “culture of power” (p. 282) and maintains that for those who are not participants in the culture of power, knowledge of the rules of that culture makes acquiring that power easier. Understanding disciplinary discourses and taking up commensurate identities is a key aspect of agency. Therefore, how students understand the processes and procedures that are embedded in the different learning areas is important. This has implications for this particular study which examines how students discursively engage as authoritative, active participants, authoring and directing their own action in social activity within the discourses of English and science subject disciplines.

The rules of the game are aspects of disciplinary knowledge, often not explicitly set out for learners in schools but rather embedded within valued classroom practices and ways of working. The issue for teachers, students, and researchers is how to make these disciplinary rules of the game explicit in meaningful ways. (McChesney & Cowie, 2008, p. 107)

In summation, key competencies can be described as performative and context dependent. As well as being able to adapt existing knowledge, skills, and values to new situations, learners must recognise situations where the demands of a

new context cannot be met by adaptation alone. Competent learners recognise how to adapt competencies to apply them in new learning contexts.

Like the key competencies, assessment for learning is another New Zealand curriculum discourse in which learners take an active part.

3.5 Assessment for Learning

Assessment is defined by the New Zealand Ministry of Education as “the process of gathering, analysing, interpreting and using information about students' progress and achievement to improve teaching and learning” (Ministry of Education, 2011, paragraph 1). However assessment discourses can both afford and constrain access to certain subjectivities. The nature of student/ student and teacher/ student assessment relationships are significant in establishing and developing learning cultures (Black & Wiliam, 1998). Student participation is core to assessment for learning, particularly in a New Zealand context. Wiliam (1998) highlights how important it is for teachers to activate students as the owners of their own learning and to encourage them to be instructional resources for one another. In their ‘Directions for Assessment in New Zealand’ (DANZ) report, Absolum, Flockton, Hattie, Hipkins & Reid (2009) provide broad advice on assessment to the New Zealand Ministry of Education, to guide and inform the design of new and improved strategies, policies, and plans for assessment. The writers locate learners at the heart of assessment where they actively collaborate with their teachers to develop their capability to assess their own learning. While many definitions of assessment for learning prevail, I draw upon a short, second-generation definition.

“Assessment for Learning is part of everyday practice by students, teachers and peers that seeks, reflects upon and responds to information from dialogue, demonstration and observation in ways that enhance ongoing learning” (Klenowski, 2009, p. 264).

The term assessment for learning itself came into vogue following Caroline Gipps’ 1994 distinction from assessment of learning. In 2003 Lorna Earl made the further distinction, assessment *as* learning where learners become competent assessors reflecting on their learning evidence so that they participate fully in the process of learning. Deferring to the second generation

of AfL above (Klenowski, 2009), it does not appear necessary to make the ‘as learning’ distinction. In 2002, the British Assessment Reform Group defined assessment for learning as “the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there” (Assessment Reform Group, 2002, p. 2).

Assessment for learning has a range of meanings. Drawing from the definitions of eighty-three teachers and assessment literature, Hargreaves (2005) generated six summary definitions for assessment for learning. They are as follows: firstly AfL meaning monitoring students’ performance against targets or objectives; secondly AfL meaning using assessment to inform next steps in teaching and learning; thirdly AfL meaning teachers giving feedback for improvement; fourthly AfL meaning (teachers) learning about children's learning; fifthly AfL meaning children take some control of their own learning and assessment; and finally AfL can be defined as turning assessment into a learning event. This involves a process through which pupils are involved in assessment as part of learning – assessment as learning. In this study the AfL practices are concerned with engaging students to be competent assessors of their own learning through the use of dialogic classroom pedagogy. Davies, A. (2009) highlights how AfL can be embedded in the day to day practice of classrooms. “Assessment for Learning is part of everyday practice by students, teachers and peers that seeks, reflects upon and responds to information from dialogue, demonstration and observation in ways that enhance on-going learning” (Davies, 2009, p. 2).

The terms assessment for learning and formative assessment are used interchangeably in this thesis. Carless (2007) addresses the Hargreaves’ third and fourth definitions in his concept “pre-emptive formative assessment” (p. 171) which he defines as the “teacher actions which attempt to clarify student understandings before misconceptions have resulted in ineffective learning or performance and/or loss of marks in assignments” (p. 176). “Pre-emptive formative assessment” is a form of anticipatory feedback in support of student learning which seeks particularly to address the problem of timing in feedback processes. Pre-emptive feedback can enable problems to be tackled before a

piece of work is submitted or an examination is taken. It can be likened to the short cycle of day by day and minute by minute formative assessment alluded to by Wiliam and Thompson (2007) which is embedded in pedagogy and occurs as students and teachers use evidence of learning to adapt teaching and learning to meet the students' learning needs. Table 1. illustrates a framework for the timing and nature of assessment cycles.

Table 1 Typology of Kinds of Formative Assessment

(Wiliam & Thompson, 2007)

Type	Focus	Length
Long-cycle	Across marking periods, quarters, semesters, years	4 wks - 1 year
Medium-cycle	Within and between instructional units	1 - 4 weeks
Short-cycle: day-by-day minute-by-minute	Within and between lessons	24 - 48 hrs 5 sec - 2 hrs

Theorising sociocultural assessment, Gipps (2005) contends that assessment is a relational activity and one can only understand it only by taking account of the social, cultural, economic, and political contexts in which it operates. Like Wiliam and Thompson, Gipps points out that it is embedded in 'day-by-day' and 'minute-by-minute' pedagogy through on-going interchanges between learners and between learners and teachers. The assessment emphasis is on the process as well as the product. "[T]he conception must be dynamic rather than static; and attention must be paid to the social and cultural context of learning and assessment and the relationship between the actors" (Gipps, 2005, p. 98).

Torrance and Pryor (1998) characterised formative assessment practices into two categories, divergent and convergent assessment. Convergent assessment, which was seen most often in their study, is where teachers aim to find out whether the learner knows, understands or can do a predetermined thing. Divergent assessment is characterised by on-going dialogue between and amongst learners and teachers. Learners can initiate as well as respond and ask questions as well as reply (Pryor & Crossouard, 2005).

Processes of assessment can have a profound impact on the nature of classroom relationships in regard to how learners are positioned by their peers and teachers and how they themselves take up social invitations which can afford and/or constrain learner agency. Teacher beliefs about students and their role in the assessment of their own learning have a significant impact on how learner agency plays out in classrooms. Therefore, teacher assessment capability is of great importance for the educational well-being of students (Popham, 2009). Willis, Adie and Klenowski (2013) draw from a sociocultural view of learning to define teacher assessment literacies as:

dynamic social practices which are context dependent and which involve teachers in articulating and negotiating classroom and cultural knowledges with one another and with learners, in the initiation, development and practice of assessment to achieve the learning goals of students. (p. 241)

Marshall and Drummond (2006) describe the adaptive and creative adoption of formative assessment practice as the “spirit” of assessment for learning. “... [A]dhering to the spirit implies an underlying principle which does not allow a simple application of rigid technique” (p. 137). Lessons that adhere strictly to the procedures, or the “letter” of AfL (p. 137) are likely to lose the underlying spirit it is intended to embody. When teachers follow the letter and focus exclusively on ‘closing the gap’, the formative aspect can be lost. AfL can become a variation on continuous summative assessment unless there is a dispositional focus on learners seeking and making sense of feedback.

AfL, with its association with schooling improvement, has currency in a neoliberal discourse that has economic rationalism at its root. There is a sense that AfL offers a mechanism to raise student achievement to meet global competition. Economic rationalism is a significant ethos in New Zealand schools. I recognise how my identities as teacher, teacher educator and researcher are linked with this discourse that is prevalent in my educational settings. During the research I found myself reflecting on the constitutive force of economic rationalism. I acknowledge that, through my own recognition and participation in it, I act within and upon this discourse to constitute it. A

corresponding technical rational approach to AfL suggests a linear focus on performance, plugging gaps and a sense that responsibility for learning and achievement is devolved out to the learner.

3.6 Chapter Summary

This chapter addressed how learner agency can be conceptualised in New Zealand classrooms with their discourses of liberal humanism, key competencies and AfL. Learners can develop key competencies through their participation in learning cultures within and beyond the classroom. They accept or refuse invitations to subject positions, mobilising personal, social and discursive resources to do so. A focus on life-long learning is explicitly embedded in the NZ curriculum. Underpinning this is the notion that learners need to be flexible and adaptable if they are to address the challenges of our fast paced constantly changing society. Carr (2008) writes how dispositions and key competencies are “the major contributors to lifelong learning and to wise, resourceful, creative, and considerate citizens” (p. 6). Therefore, learners need to be equipped with those key competencies that are valued within the culture/s that they live in.

Assessment discourses play an important role in the subjectivation of participants, particularly for those who exercise agency through resistance. When positioned within a sociocultural frame, assessment can be a democratic and divergent process. Through assessment for learning processes, students can have opportunities to strengthen key competencies which, in turn, have the potential to support lifelong learning.

Hipkins (2006) and Carr (2008) allude to the dispositional nature of competency based learning, however there are few New Zealand studies which take a poststructural view of learner agency. Of particular interest is how students can move themselves from one set of culturally and socially structured subjectivities to another. In the next section I outline the analytical framework to theorise how discourses and identities operate within the sociocultural contexts of the research classrooms.

Chapter Four – Methodology: Making the Invisible Visible

When you are working to challenge the taken-for-granted, to make the invisible visible, you cannot escape theory, it is your ally. (Wright, 2008, p. 9)

4.1 Overview

In the last three decades of the so-called ‘paradigm wars’ the contribution of qualitative research to empirical knowledge has been, and still is, hotly contested (Bryman, 2008; Lather, 2006; Lather & St. Pierre, 2013). Arguing for epistemological pluralism, I contextualise this qualitative study in a poststructural analytical framework. The chapter opens with an outline of the three main research questions. To establish methodological coherence, I discuss issues of epistemology and ontology: the contested nature of qualitative research, poststructural methodology- multiple paradigms and partial truths, and issues of researcher positioning and reflexivity- the notions of partial selves and epistemological shudders. I frame my analytical approach, connecting the concepts of identity and discourses with the use of discourse analysis tools. The analytical framework comprises two parts; poststructural discourse analysis and rhizo-textual analysis. In the first instance I use discourse analysis to explore the micro and macro classroom interactions in detail in three episodes of classroom activity. In the second instance the data texts are assemblages (arrangements) that act as a rhizome. Because the analysis is so aligned with a rhizomatic view of social dynamics, I have elected to outline the research methods after I describe the analytical design. I give an account of the research background and context, outline approaches to data collection and furnish a rationale for the selection of the classroom data. The chapter closes with a discussion on ethics, validity and a final summary.

4.2 Research Questions

The three main questions that guide this research are:

- How did students move themselves from one set of culturally and socially structured subjectivities to another;
- how did agency look, sound and feel in the discursive space of these classrooms; and

- how did students discursively engage as authoritative, active participants, authoring and directing their own behaviour in social activity within the classroom?

Through the study, I seek to offer insight into discursive practices as possible ways of seeing and thinking about the classroom dynamics in the plateaus. However, it is worth stressing that no research can capture the full richness of human experience to completely encompass social reality. As social research, the study is positioned within a contested landscape.

4.3 Qualitative Research – A Contested Space

Denzin and Lincoln (2005a) write that qualitative research is a situated activity which makes meaning visible. They observe that qualitative researchers study things in their natural settings, attempting to make sense of or interpreting phenomena in terms of the meanings that people bring to them. Creswell (2003) describes a set of practices that comprise a qualitative research approach: the researcher takes up a position, collects participant meanings, focuses on a single concept or phenomenon, brings personal values into the study, studies the context or setting of the participants, validates the accuracy of findings, makes interpretations of the data and creates an agenda for change/reform.

This conventional view of what comprises qualitative research has been challenged in recent years by writers who use poststructuralism to contest the liberal humanist notion of a unified subject, authoritative interpretations of data outside of discourse and modernist connections between research and progress (St. Pierre, 2000a; Lather, 2007; McLeod, 2008; Bell & Russell, 2000; Baxter, 2002a; Peters & Humes, 2003). MacLure (2006a) critiques a qualitative method which demands closure and a fixed representation of findings. She writes that

“despite its aspirations to openness, nuance and multiple perspectives, and its repudiation of the assurance of positivism, it still inclines towards closure...to have the last word...It is still pretty much in thrall to the closures of innocent knowing, clear vision and settled accounts.”
(p. 224)

Likewise, Schutz (2005) observes that, although research can assist us to build meaning through the detailed analysis of specific incidents of human interaction, it can never really capture the richness of human experience.

“[H]uman experience is vastly richer than scholars can ever hope to capture in cages of words.... Every attempt to describe simplifies” (Schutz, 2005, p. 17).

Rejecting the categories that organise and structure humanist qualitative methodology, Lather and St. Pierre (2013) question what “post-qualitative” (p. 629) research may look like in the interests of generating new possibilities.

They use the term “post-qualitative” (p. 629) to describe researchers’ lines of flight as they rethink humanist ontology to consider what comes after humanist qualitative methodology. This research takes a line of flight towards a ‘post-qualitative’ methodology of representation and truth.

4.4 Poststructural Methodology – Multiple Paradigms and Partial Truths

This research is primarily concerned with a poststructuralist interpretation of agency and identity. Feminist poststructural literature provides the basis for this methodological approach which explores how identities are constituted in discourse. The research itself is identity work in which I interpret discourse, communicate and act upon researched ‘truths.’ These ontological claims are contextualised within discourse. Guba and Lincoln (2005) point out that with the linguistic turn there can only be partial truths, fluid identities and multiple paradigms.

[I]n the postmodern moment, and in the wake of poststructuralism, the assumption that there is no single –truth- that all truths are but partial truths, that the slippage between signifier and signified in linguistic and textual terms creates re-presentations that are only and always shadows of the actual people, events, and places; identities are fluid and not fixed-leads us ineluctably toward the insight that there will be no single conventional paradigm to which all social scientist might ascribe in some common terms with mutual understanding. (p. 212)

Lather (1991) defines ‘postmodern’ as the larger cultural shifts of a post-industrial, post-colonial era and ‘poststructural’ as the working out of those shifts within academic theory. Poststructuralism can be seen as the theoretical

formulations of the postmodern condition in its rejection of totalising, essentialist and foundationalist concepts. Poststructural writers eschew traditional accounts that truth corresponds with reality (Peters & Humes, 2003). Poststructuralism disrupts assumptions about objectivity, the unified subject, and the universality of human experience in order to expose the classist, racist, sexist, and heterosexist underpinnings of western humanist thought (Bell & Russell, 2000).

Poststructuralism is part of the 'critical' tradition in social inquiry which seeks to question, articulate and disrupt practices that repress, silence or exploit subject groups (Harris, 2001). Guba and Lincoln (2005) describe the multivocal plurality of the current contested postmodern condition.

[W]e stand at the threshold of a history marked by multivocality, contested meanings, paradigmatic controversies, and new textual forms...emancipation from hearing only the voices of Western Europe, emancipation from generations of silence, and emancipation from seeing the world in one colour. (Guba & Lincoln, 2005, p. 212)

Ontology is important to consider, especially where truth claims and the notion of "othering" (Krumer-Nevo & Sidi, 2012, p. 299) are concerned. Denzin and Lincoln (2005a) allude to a "crisis of representation" asking whether qualitative researchers can use text to authentically represent the experience of the "other" (p. 3). This crisis of legitimation refers to "a serious rethinking of such terms as validity, generalizability, and reliability, terms already retheorized in postpositivist, constructivist-naturalistic, feminist, interpretive, poststructural, and critical discourses" (Denzin & Lincoln, 2005b, p. 19).

The current era is marked by a proliferation of paradigms (Donmoyer, 2006; Wright, 2006; Nespor, 2006; Dillard, 2006), termed by Caputo (1987) as "post-paradigmatic diaspora" (p. 262). In a "wild profusion" (Lather, 2006, p. 35) of research positions many researchers have embraced a 'linguistic turn' to suggest that research methodologies cannot aim to reflect 'truth.' Moreover they produce "subjective interpretations of data and the differences that come between perceptions and experience" (Trifonas, 2009, p. 302). Lincoln (2010)

emphasises that paradigms and metaphysics do matter as they tell us something about the researcher's proposed relationship to the other(s), what the researcher thinks counts as knowledge, and who can deliver the most valuable slice of this knowledge. 'Knowing' is transactional and truth claims depend on the positions in discourse of those reading the phenomena (Trifonas, 2009). "The ontologies of real-world objects or the meanings of sense phenomena are decided from intersubjective correlation between discourses of knowing among subjects producing differences of perception" (Trifonas, 2009, p. 301).

In her introduction to a collection of papers by Australian researchers, Davies (2004) identifies regularities running through the papers which she extracts as principles of poststructuralist theory. Davies emphasises that 'data' cannot stand as transparent evidence of that which is real. Statements or descriptions can only reveal "*the ways in which sense is being made*" (p. 4 italics in original), rather than convey truth about the object of sense making. By locating subjects, researchers and the research itself in discourse, Davies argues the limitations of data and what it can legitimately say and do. In a similar vein, Baxter (2002b) observes that in poststructuralist discourse individuals are discursively produced as a sequence of contradictory subjectivities in constantly shifting relations of power. In these discursive landscapes they can be rendered both powerful and powerless at different times. As subjectivities are discursively produced and subject to constant change, I view that this research cannot lay claim to truth about the experiences of the participants. However it can reveal what can be taken for granted the classroom discourses.

Poststructuralism draws attention to the cultural and historical specificity of all human knowledge (Bell & Russell, 2000). Cherryholmes (1994) describes how poststructuralism reflects the transitory, shifting nature of education and society: "We believe that we will never fully understand and nail down these ideas because their meanings will continue to shift and drift" (p. 205). Central to poststructuralist research is a conceptualisation of the ways in which shifting power relations between speakers are constantly negotiated through the medium of competing discourses (Baxter, 2002b). Morgan (2007) points out how poststructuralism can assist us to dethrone reified representations and examine

the power relations that lie beneath. “[P]ower relations are always implicated when we formalize particular language/identity correlations. Such representations are always shaped by discourses, and are hence ‘dangerous,’ in that they potentially reify the marginal positions and practices that they name” (Morgan, 2007, p. 949).

There have been compelling critiques of poststructuralism in the literature, many by critical theorists (Hill, McLaren, Cole, & Rikowski, 1999; Rikowski & McLaren, 1999), which I address in the following section.

4.4.1 ‘Pulling the Wool from My Eyes’ – A Rejoinder

Critics of poststructuralism have pointed out that it does not address social reality in the same way that critical theory does (Hill et al., 1999). Rikowski and McLaren (1999) describe postmodernism as “aimless anarchism” (p. 9) which attempts to negate the Enlightenment project, and with it reason and rationality, along with any attempts to secure ‘knowledge.’ They argue that “[m]eta-narratives, ethics and value, and any appeals to ‘truth’ are also scuppered. The effects of postmodernism are predictable: relativism, nihilism, solipsism, fragmentation, pathos, hopelessness. Worse, it acted as obfuscation and veil for the projects of the Radical Right” (p. 9-10). Furthermore, criticism is levelled at poststructuralism in that it does not offer any practical action to address the power structures that perpetuate social injustices (Cole, 2003; Rikowski & McLaren, 1999). Cole (2003) contests the usefulness of poststructural research by asking what meaningful societal change is effected once the views of educators, researchers, social activists or politicians have been challenged. He questions “[w]hat is constructed after the deconstruction process?” (p. 941).

As a methodology, poststructuralism inclines toward research methods that do not seek packaged solutions and closure. It rejects qualitative research as an enlightenment practice which seeks “to dispel illusion and illuminate the dark places of ignorance with the light of reason” (MacLure, 2006a, p. 225). Weedon (1997) contends that by challenging the assumptions which underpin the distribution of power they can be troubled and exposed to critique. Likewise, Laws and Davies (2000) argue against the position that poststructuralist theory

generates inaction and is antithetical to concepts such as ‘agency’ and ‘choice,’ suggesting that poststructuralist theory can have powerful implications for practice. Linnell (2008) rejects the emancipatory truth offered by sovereign theory (that there can be a unitary subject) and postulates that poststructuralism offers opportunities for connection and open-endedness.

Having attempted to dethrone the self-identified agency of a phenomenological subject, I cannot rely on the intervention of a critical theory to pull the wool from my eyes. Sovereign theory is as problematic as any other sovereignty. The effect of this realization, as Butler points out, need not be nihilism, paralysis, unbounded relativism, amorality, or despair. Humility, connectedness, and open-endedness might rather be the implications of such a radical uncertainty. (Linnell, 2008, p. 77)

MacLure (2006a) challenges us to consider the productive incompatibility of postmodernism and educational research. She writes how poststructuralism offers educators opportunities to encourage plurality and other perspectives which raise questions and trouble ‘truth.’ Sikes (2006) notes that a poststructural gaze can help us to see things in different ways, to provide a springboard for transformative action. Poststructural theory is about making “the familiar strange and the strange familiar, to challenge the taken-for-granted and the ‘this is how it is-ness’” (Sikes, 2006, p. 45).

According to St. Pierre (2000b), some readers expect poststructuralism to be accessible and coherent within a structure that it works against. When it is not, poststructuralists can be accused of being deliberately obfusatory, irrational and even nihilistic. Referring to this lack of clarity, Constan (1998) suggests that those who are not attracted to postmodernism have beaten a “hasty retreat from the onslaught of neologisms and doublespeak” (p. 36) that some see as characteristic features of postmodern writing in educational research. “To claim our activities are beyond our own coherent understanding borders on nihilism and does little to promote critical dialogue that must remain the cornerstone of all inquiry, postmodern or not” (Constas, 1998, p. 36). Poststructuralists dispute assumptions like these that underpin an objectivism/ relativism binary since

they think of truth as “multiple, historical, contextual, contingent, political, and bound up in power relations” (St. Pierre, 2000b, p. 23). Relativism is only an issue for those who believe there is a foundation, a “structure against which other positions can be “objectively judged” (Cherryholmes, 1988, p. 185).

In keeping with the notion of “radical uncertainty” (Linnell, 2008, p. 77), I emphasise both the importance of researcher reflexivity and the recognition that any research can only offer partial truths.

4.5 Researcher Reflexivity, ‘Partial Selves’ and ‘Epistemological Shudders’

Poststructural reflexivity sees the researcher as well as the researched discursively subjectivated. A poststructural perspective requires researchers to become critical of their own thinking and to acknowledge that research is constituted as much by the researcher’s positionality as the research participants (Simpson & McDonald, 2000). Researcher reflexivity can be described as the researcher examining their own meaning producing activities (McIntyre, 1998). Moreover, as the word implies, reflexivity involves turning the gaze back on oneself.

Reflexivity involves turning one’s reflexive gaze on discourse—turning language back on itself to see the work it does in constituting the world. The subject/researcher sees simultaneously the object of her or his gaze and the means by which the object (which may include oneself as subject) is being constituted. (Davies, Browne, Gannon, Honan, Laws, Mueller-Rockstroh & Bendix Petersen, 2004, p. 360)

Thus, to turn back to Deleuze, the researcher in the field cannot help but become part of the rhizome. Sermijn, Devlieger, and Loots (2008) argue that researchers cannot possibly remain outside the rhizomatic story as objective observers: “We are within the rhizomatic story as a part of the dynamic construction process” (p. 639). When making their own meaning, poststructural researchers do not aspire to speak on behalf of research subjects.

The researcher is not an “objective” narrator who stands outside or above the written text; she or he is present in the writing. By visibly reflecting on her or his own positions in the writing, as a researcher she

or he dismantles the illusion of direct representation and of the “detached” researcher with her or his ‘all seeing eye/I.’ (Sermijn, Devlieger & Loots, 2008, p. 646)

Krumer-Nevo and Sidi (2012) argue that reflexivity acts against the authoritative stance of the text or the researcher. By bringing to the forefront their own feelings, experiences, and history, researchers can demonstrate their processes of interpretation. Davies (2004) observes that researchers are not separate from their data, nor should they be: “The complexity of the movement and intersections amongst knowledge, power and subjectivity require the researcher to survey life from within itself” (p. 5).

Lather (2007) offers a helpful way to look at the complexity of honouring the realities of research participants through recognising the brokering role of the researcher. After writing her first book ‘Getting Smart’, published in 1991, Lather wonders how an interpretive voice, where a researcher says what things mean, cannot be an imposition of somebody else’s framework. In her later work, ‘Getting Lost’, Lather (2007) contends that if a researcher is to trouble discourse she/he needs to offer some interpretation: “One of my worries about the book is that it will actually feed this idea that data can speak for itself which I see students doing too much of in the narrative turn. I won’t allow my own students to do that” (p. 29). Mazzei and Jackson (2011) also challenge simplistic treatments of data and data analysis in qualitative research that “beckon voices to ‘speak for themselves’ or that reduce complicated and conflicting voices and data to thematic ‘chunks’ that can be interpreted free of context and circumstance” (p. 2).

Davies (2004) notes that the author is not the final arbiter of meanings, nor can she/he necessarily control meanings. She argues that it is the task of those who work with poststructural theory to use and develop ideas as creative possibilities, as “it is the readers who will bring it to life or leave it dead on the page” (p. 6). Nevertheless poststructuralist researchers can surface discourses which reveal how subjectivities are constituted. Davies (2004) also observes that:

[w]hen poststructuralists talk about ‘the way sense is made,’ they are not attempting to reveal something about the sense maker (the subject) her – or himself, about his or her motives or intentions but about the *possibilities of sense making* available within the discourses within a particular sense-making community. (p. 5)

Like Davies, Mazzei (2009) rejects notions of truth, fixity, knowledge and authenticity in her representation of her research participants. She points out how in humanist qualitative inquiry, the assumption is that voice is produced by a unique, essentialist subject. Taking a posthumanist stance she argues that interview data (the voices of participants) cannot be thought of as emanating from an essentialist subject where they are separated from the enactment in which they are produced (Mazzei, 2013). Through grappling with this messiness at these boundaries of understanding, both researchers and teachers can position themselves and those they work with in new ways to author new possibilities (Mazzei, 2009). She urges us to “seek the messy, opaque, polyphonic; a voice that exceeds easy knowing and quick understanding” (Mazzei, 2009, p. 50).

During the research process I experienced jolting doubt and perplexity when there appeared to be obvious paradoxes or contradictions in my understanding. These moments of confusion, which were the result of unexpected information, can be characterised as epistemological shudders. Epistemological shudders, take place at the edge of understanding and add a dimension of reflexivity to research through surfacing contradictions or “irruptions” (MacLure, 2006b, p. 736). They support reflexivity by awakening new understandings in researchers and research participants. Lozinski and Collinson (1999, as cited in Giugni, 2006) were the first to employ the concept of an “epistemological shudder” to describe how preferred representations of the known world can prove insufficient when making sense of the “marvellous” (p. 101). (The term marvellous is used to refer to something out of the ordinary or unexpected.) Through these opportunities, regimes of truth (Foucault, 2007; Stickney, 2012) can be shattered and fragmented. Foucault argued that truth is always relative to a historical discursive regime where it is not discovered but invented (Foucault,

1980). Butler (2005) points out how regimes of truth offer the terms that make self-recognition possible. “[A] regime of truth offers a framework for the scene of recognition, delineating who will qualify as a subject of recognition and offering available norms for the act of recognition” (Butler, 2005, p. 22).

In shattering regimes of truth, epistemological shudders comprise a two part process. Firstly, there is a phenomenological experience of the unexpected and chaotic and secondly there is the cognitive process of ‘placing’ the new knowledge within the displaced and fractured contextual understanding (Lozinski & Collinson, 1999, as cited in Giugni, 2005). The initial experience of chaos can result in an experience of aporia. Derrida used the term aporia to refer to blind spots in any metaphysical argument (Graham, 2005). In Ancient Greek aporia involves doubt, perplexity and that which is impassable. Giugni (2005) assures us that this aporia does not last, in that to reach new understandings, meanings become reconstituted. “A representation can always and must always be found to assuage the shudder. Here, the epistemological shudder offers an understanding of how we deliberately come to experience uncertainty” (Giugni, 2005, p. 83). Once a scenario becomes fragmented, an epistemological shudder can evoke a new way of looking at things (MacNaughton, 2005). It can be likened to what Mazzei (2009) describes as a poststructural crack or a splitting apart of the known. An epistemological shudder entails the “cracking apart” or “fragmentation of contextual understanding” (Giugni, 2005, p. 83).

This research does not presume to provide definitive description of teachers and students; or presume to purvey some form of essentialist truth about their identities. The teachers expressed an interest in participating in the research, viewing it as a further opportunity to develop their understanding of learner agency and key competencies. I view that the teacher and student voice conveyed through the interviews can only reveal “partial selves” (Ochs & Capps, 1996, p. 22). Flax (1993) observes that a unitary self can be “an unnecessary, impossible and dangerous illusion. Only multiple subjects can invent ways to struggle against domination that will not merely recreate it” (p. 93).

Although we can speculate about how people are situated in discourse, we can never really know in any objective sense. Therefore, any claim to knowledge is characterised by instability, contingency and partiality (Humphries & Martin, 2000; Lather & St. Pierre, 2013). The research text is only one of many possible presentations. The discourses in this research are not ‘real’ or ‘actual’ discourses. They are the ones that I see and name that are generated from my own discursive repertoire. Through close examination of these discourses I was able to turn the gaze back on myself and, in the process of doing so, become open to epistemological shudders. I also noticed that these moments of fragmentation happened in the teachers at certain times during the research.

This section has addressed researcher reflexivity, partial selves and the nature of epistemological shudders. In the following sections I outline my analytical methods where I utilise poststructural discourse and rhizo-textual analyses as methods for data analysis.

4.6 Approach to Analysis

I undertake two forms of analysis in this study to bring poststructural social theories into dialogue with theories of language to address the research questions, exploring subjectivities in the classrooms. In my initial poststructural discourse analysis, I examine discourses at macro and micro levels (Gee, 2011a; Anderson, 2009) and draw on ‘thinking devices’ or tools devised by Gee (2011a) to deconstruct the identity affordances and discourses at play in the classroom contexts (Appendix 2).

4.6.1 Poststructural Discourse Analysis

The poststructural discourse analysis (PDA) methodology supports a poststructural view of agency. PDA offers an opportunity to trouble the normal; to deconstruct the taken-for-granted, historical structures of sociocultural organisations. It is a useful method to make explicit how agentic identity positions can be made available to and taken up by learners in the socioculturally negotiated spaces of classrooms. As outlined previously, poststructural research rejects the enlightenment norms of ‘truth,’ ‘objectivity’ and ‘progress’ (Peters & Burbules, 2004). In this respect, PDA differs from critical theory and a critical approach to discourse analysis. Poststructural

discourse analysts reject conceptualisations of identity and agency that constitute a rational and stable self in favour of a fragmented, socially dependent notion that is interdiscursively generated and prone to flux and change. This is in alignment with Deleuze and Guattari's move beyond "discursive determinism" where they "consider the multiple ways energy is being channelled..." (Ringrose, 2011, p. 611). Poststructural discourse analysis avoids the substitution of one 'truth' for another, recognising that there can be no universal truths or absolute ethical positions (Graham, 2005). Alldred and Burman (2005) critique the positivist depiction of data collection as a neutral process of gathering pre-existing facts that are unmediated by our perceptions and unchanged by our practices of description and representation. Scheurich (1997) argues that data analysis is not the development of an accurate representation of the data but a creative interaction between the conscious/unconscious researcher and the decontextualised data which is assumed to represent reality.

Poststructural methods are a logical continuation from the literature explored in the previous chapter: learner identity, agency and discursive positioning. The point of analysis in this research is not to expose the hidden truth in all its simplicity, but to disrupt what is taken as stable or unquestionable. "Such disruptions are closely associated with a sense of agency – or the capacity to create new trajectories" (Davies, 2004, p. 7). Through language play, discourses can be viewed through alternative lenses which trouble the taken for granted. I see the goal of this research being not to 'discover' the 'truth,' but rather to surface discourses in play "to catch language in the act of shaping subjectivities and to take up possibilities inherent in the complex reconfigurations that poststructuralist theory makes possible" (Davies, 2000, p. 142).

Poststructural discourse analysis can be used to deconstruct discourses of power. Language consists of a range of discourses which offer different versions of meaning of social relations and their effects on the individual (Weedon, 1997). Poststructuralists see no essential connection between the word and its meaning, thus meanings do not exist prior to events, experiences or discourses (Letts, 2006). Davies (1993) contends that poststructuralism

“opens up the possibility of agency to the subject through the very act of making visible the discursive threads through which their experience of themselves as specific beings is woven” (p. 12).

A poststructural approach to data analysis can be utilised to draw out alternative possibilities by revealing new subject positions. By surfacing and understanding these conflicting discourses which constitute us as conscious thinking subjects we can give meaning to the world and act to transform it (Weedon, 1997). Therefore, poststructural methodology can surface, recognise and trouble discourses- a fitting approach to a study of learner agency. By troubling the assumptions that form the foundations of various subject positions, new subjectivities become available. If researchers are proponents of the linguistic turn, they see that discourse plays a part in the construction of identity positions, subjectivating individuals and discursively talking them into being. By decentring taken for granted and ‘common sense’ subjectivities, resistance can be made possible through new lines of flight. Davies (2004) employs Deleuzian rhizomatics to illustrate how new pathways can be made possible through poststructural deconstruction.

Poststructural theory, in its openness to meanings not yet thought of, and in its dedication to not getting stuck in old clichés and explanations, is often surprising, joyful and energising, bringing life to research and to teaching- breathing life into educational institutions in which we are (always becoming) subjects. (Davies, 2004, p. 9)

Discourse analysis does not have a unitary theoretical framework or methodology because it can be viewed as a shared perspective encompassing a range of approaches. There is no definitive approach to discourse analysis (van Dijk, 2000; Gee, 2011a; Rogers, 2011). Therefore, this PDA is drawn from an eclectic mix of frameworks that have been chosen to uniquely address this research context. Rogers (2011) calls this notion “methodological hybridity” (p. xvii) where analytic methods are adopted according to the needs of a particular inquiry.

4.6.2 Micro and Macro Levels of Positioning

This study examines the articulation of macro-systems within everyday micropractices and processes (Lewis & Moje, 2003; Anderson, 2009). Language-in-use relates to and contributes to the construction of macro or big ‘D’ discourses (Gee, 2011a). Agency is seen as negotiated through the discursive interactions of micro and macro discourses (Bucholtz & Hall, 2005).

On the one hand, it is only through discursive interaction that large-scale social structures come into being; on the other hand, even the most mundane of everyday conversations are impinged upon by ideological and material constructs that produce relations of power. (Bucholtz & Hall, 2005, p. 607)

By analysing discourses at the micro level (small ‘d’) we can see how macro discourses are comprised. Lewis and Moje (2003) argue that systems of power get built, reproduced, and contested in subtle and usually invisible ways during everyday processes of learning, knowledge production, and meaning making. They advocate for analytical tools that shed light on how macro-systems are tied to micro-systems, practices, and processes. While this research is not specifically concerned with *how* macro-systems are linked with the micro-systems, it utilises a rhizomatic approach to reveal the intricacies and workings of macro discourses in action.

Gee (2011a) describes how analysis from micro through to macro can serve to illuminate the distribution of social goods. An analysis of discourses can support researchers to identify and recognise shifts from specific micro incidents of interaction to the more generic frameworks of social worlds.

Situated meanings, social languages, figured worlds, and discourses move us from the ground of specific uses of language in specific contexts (situated meanings) up to the world of identities and institutions in time and space (Discourses) through varieties of language (social languages) and people’s- taken-for-granted theories of the world (figured worlds). This progression is, in my view, the point of discourse (or better d/Discourse) analysis. (Gee, 2011a, p. 43)

Situated meanings, social languages, and discourses may be thought of as tools of inquiry (Gee, 2011a). These are the social and cultural frameworks for understanding how people use language to accomplish social goals. Situated meanings refer to the historical, intertextual and social trappings of sign systems. Social languages refer to the grammar and the function of language as a social practice. Grammar in this sense is something people design to create certain identities and relationships (Gee, 2011a).

Discourse analysis involves asking questions about how language, at a given time and place, is used to construe the aspects of the situation (Gee, 2011a). These tools are “thinking devices” (Gee, 2011a, p. 60). Drawing from steps and processes defined by Alldred and Burman (2005), Gee (2011b) and Deleuze and Guattari (1987), I generate a process of discourse analysis that addresses the context of this study and is coherent with the epistemological and ontological framework. Operating within ‘transcendental empiricism’ (Deleuze, 1994) rhizoanalysis expresses not what a text means but its “potential to become” (Masny, 2013, p. 341). To locate the varying discursive constructions within wider discourses, I looked at the different ways that the teacher and student subjectivities were co-constituted through their discursive interactions.

4.6.3 Identities and Discourses

In this analysis I employ two interrelated key sociocultural concepts; identity and discourses as analytical tools (Gee, 2011b) to illustrate how learners can be afforded agentic positions within the two research classrooms (Appendix 2). Gee defines discourse analysis tools as the specific questions to ask of data. These ‘tools’ or questions offer a way into the text data; to assist the reader to look closely at the details of language in an oral or written communication (Gee, 2011a). Although Gee deploys these questions as tools to enable the reader to detail what speakers or writers mean, intend, and seek to do and accomplish in the world through the ways in which they have used language (Gee, 2011b), this research does not assume meaning in any totalising sense. Rather the tools enable me to explore the discourses, subject positions and discursive shifts that the participants make. I draw on these tools to illustrate how I engaged with other people’s meaning from my own discursive

framework as a researcher and ISTE. Gee reminds us that anytime we communicate we are building social relationships and identities. “We continually and actively build and rebuild our worlds not just through language, but through language used in tandem with actions, interactions, non-linguistic symbol systems, objects, tool, technologies, and distinctive ways of thinking, valuing, feeling, and believing” (Gee, 2011a, p. 30).

Gee differentiates between ‘big D’ and ‘small d’ discourses by pointing out that analyses take place on different levels. Gee (2011b) interprets small ‘d’ discourse as “language in use or stretches of oral or written language” (p. 177). Big ‘D’ discourse can be recognised in the distinctive ways of speaking/ listening and writing/reading which “are coupled with distinctive ways of acting, interacting, valuing, feeling, dressing, thinking and believing” (Gee, 2011b, p. 177). These actions serve to enact specific socially recognisable identities. People can be recognised as “a distinctive sort of who doing a distinctive sort of what” (Gee, 2011b, p. 178). Gee’s approach is a flexible one which provides an insight into how language-in-use is deployed to both say and do things in social, cultural and political arenas. He observes that there is not just one way to undertake discourse analysis. He encourages discourse analysts to make their own maps and find their own way to navigate the territory (Gee, 2011b).

Gee’s work offers an analytical frame for this study with which to explore how students in their sociocultural contexts can take up agentic positions in discourse. Sociocultural studies focus on situated social systems (Lave & Wenger, 1991) and in this study the participants’ situated interactions are explored as units of analysis. These situated interactions comprise students and teachers within the social settings of classrooms interacting together with discourse tools available to them. Situated interactions are an appropriate unit of analysis for understanding learner agency within a sociocultural/poststructural framework.

The next section gives an account of how I analyse the three plateaus of discourse to map how students can be afforded agentic identity positions as they resist or take up discourses.

4.7 Rhizomatic Logic

Brian Massumi, translator and commentator of Deleuze and Guattari's work, observes how readers (and writers) have licence to be creative with their thinking as they place importance on the creation of the new.

“The question is not: is it true? But: does it work? What new thoughts does it make it possible to think? What new emotions does it make it possible to feel? What new sensations and perceptions does it open in the body?” (Massumi, 1987, p. xi)

Although discourses condition us through our desire, Deleuze and Guattari prompt us to think not of what desire is but how it functions and who it benefits. “What is to be gained from turning desire on its head, to think not what desire is but ‘how it works’, ‘who it works for’ and what it does?” (Mazzei, 2011, p. 658). These performative questions are the heart of this analysis in that this research is not concerned with cause and effect, rather agency is theorised as lines of flight which make new subject positions possible.

According to MacNaughton (2004) rhizomatic logic brings new questions and issues forth about what we can say about what causes us. It offers a productive alternative for exploring complexities, uncertainties and change. Rhizomatic logic moves beyond the linearity and stability that produce universal truths of the social world, towards a lateral, local logic that produces shifting and multiple truths. A rhizomatic approach to research is a relatively new approach. In their groundbreaking studies both Alvermann (2000) and Hagood (2002) used the concept of the rhizome as an analytical tool. Hagood (2002) suggested that looking at her data “within the rhizome” and “creating rhizomatic drawings” (p. 158) made the destabilisation of identities and alternative perspectives on her data more apparent. In her doctoral thesis, Leafgren (2007) conceptualised moments of disobedience within two kindergarten classrooms as rhizomatic resistance to power. Leafgren observed that:

“...children's living, breathing disobedience—their ‘resistance to domination’—implies a rhizomatic, deterritorializing interaction with,

within and without the enclosed and partitioned structures of the classroom space and interactions, and, therefore, manifests a nomadic penchant for resisting the restrictive techniques of power as described by Foucault” (Leafgren, 2007, p. 100).

In keeping with Deleuzian immanence, in the following section I discuss a rhizoanalysis as an analytical approach to data then outline how I specifically use rhizo-textual analysis (Honan, 2004) to map the students’ discourse moves.

4.7.1 Rhizoanalysis

Deleuze and Parnet point out that there is a “multiplicity of dimensions, of lines and directions in the heart of an assemblage” (p. 100). It is not merely a coincidence of parts in a particular space and time as new properties and capacities emerge through interactions, connections and the ongoing processes of assembling (Gannon, Gottschall and Camden Pratt, 2013). As relations of exteriority, assemblages are “never simply open to a free flow of energy or desire, but cut through with relations of power” (Ringrose, 2011, p. 602).

Rhizoanalysis can enable researchers to examine how this power is constituted through relations when subjects take lines of flight to new discursive positions. Leander and Rowe (2006), writing in a literacy context, argue that rhizoanalysis permits an understanding of performances in ways “that more fully engage their affective intensities, the relationships they build, and the ways in which they create unpredictable movements of texts and identities” (p. 432). Tamboukou (2008) considers that the concept of lines of flight support a view of ‘self’ as “a threshold, a door, a becoming between multiplicities, an effect of a dance between power and desire” (p. 361). Honan (2007) uses a rhizomatic process to frame identity as new lines of flight. She employs Deleuzian rhizomatics to disrupt the linear and layered thinking about subject positioning that is so dominant in modernist approaches to identity. These alternative subject positions, which are constantly evolving, can be “pleasurable contradictions.”

Remove the straight lines – remove the layers – and what remains is a map of possible pathways. At any one moment, through any discursive moment, the ground shifts, the path alters, the ‘plane of immanence and univocality’ (Deleuze & Guattari, 1987, p. 294) forms and unforms, and

it is in this process of becoming that one deals pleurably with contradictions. (Honan, 2007, p. 535)

Rhizoanalyses differ from case studies in that a case is defined by parameters and can be described as a “bounded system” (Stake, 1995, p. 2). Plateaus in this rhizoanalysis are mapped (Appendices 3-5) through a non-linear process of cartography (Deleuze & Guattari (1987). These plateaus are rhizomatic, representing middles that have neither a beginning nor an end. Deleuze & Guattari (1987) write that the rhizome “is comprised not of units but of dimensions or rather directions in motion. It has neither beginning nor end, but always a middle from which it grows and which it overflows” (p. 21). The tree image which is used to describe cause and effect can be seen as a section of a rhizome that has solidified and has lost its fluidity. Edwards (2010) observes how through challenging arboreal metaphors, Deleuze and Guattari challenge the centrality of the verb ‘to be’ as the way in which the world is represented. Citing Deleuze and Guattari, Edwards illustrates how the concept of rhizomatic connectedness can come to the fore through challenging the notion of the tree in cause and effect thinking.

“The tree imposes the verb ‘to be,’ but the fabric of the rhizome is the conjunction, ‘and... and... and.’ This conjunction carries enough force to shake and uproot the verb ‘to be’” (Deleuze and Guattari 2003, p. 25). It is important to bear in mind the play of words here, as in French ‘is’ (est) and ‘and’ (et) are pronounced in the same way...The conjunctive ‘and’ here becomes integral to rhizomatic approaches which metaphorically shake the tree of knowledge. (Deleuze and Guattari 2003, 98) (Edwards, 2010, p. 152)

Rhizoanalysis facilitates a shift away from research which focuses on identifying what is present in an interaction toward analysing the interactions within a context as a process of “*producing difference*” (Leander & Rowe, 2006, p. 434, italics in original). Handsfield (2007) takes up this notion, observing how rhizoanalysis serves not to clarify, but to complicate through illustrating how practice produces difference, rather than how difference produces practice (Handsfield, 2007). Honan and Sellers (2006) produce

difference by following lines of flight to make connections between disparate thoughts, ideas, pieces of data and discursive moments. From these assemblages they formed plateaus which merged, connected, and crossed over each other (Honan & Sellers, 2006). Building on Alvermann's influential work, Honan (2010a) describes how each discourse interweaves and interconnects with others forming a discursive web or map. She sees discursive linkages as "lumpy nodes that can appear within a rhizomatic root system, or like the couplings that connect varied systems of pipes in underground water systems and it is these linkages that can explain the plausibility of seemingly contradictory discourses" (p. 182). Agency can be conceptualised as the lines of flight within and across discourses (Davies, 2004). For this reason I have selected an approach that looks for

... middles, rather than beginnings and endings, [that make] it possible to decenter key linkages and find new ones, not by combining old ones in new ways, but by remaining open to the proliferation of ruptures and discontinuities that in turn create other linkages. (Alvermann, 2000, p. 118)

Rhizoanalysis can address the claims made by critics, mentioned previously, that poststructuralism does not offer any practical action to address the power structures that perpetuate social injustices. Wallin (2010) suggests that "we are today forging a romance with the rhizome" through conceptualising it as a vehicle of liberation or an image of "processural renewal" (p. 83). He cautions that our domestication of the rhizome, to theorise curricula and the arts, can reduce it to an education cliché. Thus, he cautions that the radical potential of the rhizome for thinking an ontology of difference can be lost (Wallin, 2010). Like Deleuze and Guattari, Honan and Sellers (2006) consider that difference is important and remind us of the impossibility and undesirability of prescribing a set of methods to be used in research.

This research utilises rhizomatic imagery but not without some degree of caution. Mazzei and McCoy (2010) warn against the easy capture of glib metaphors. They maintain that the challenge is not merely to 'use' select metaphors presented by Deleuze and Guattari (e.g. nomadism, rhizome, lines of

flight, smooth and striated spaces) and to illustrate these metaphors with examples from data, but to think with Deleuzian concepts in ways that might produce previously unthought-of questions, practices, and knowledge. Wallin (2010) contends that conceptualising the rhizome as a model or metaphor undermines its connective potential. Likewise, Sellers & Gough (2010) deliberately distance themselves from those who ‘use’ Deleuze by appropriating metaphors that were never intended as metaphors, preferring to work towards generating discourse practices that challenge such a deployment of complexity-reducing Deleuzian figurations.

I take up Mazzei and McCoy’s (2010) challenge to use Deleuze to attempt thinking *with* the vocabularies to provide new descriptions and encourage different understandings. Mazzei and McCoy contend that “such use of Deleuze attempts a thinking with the vocabularies that provide new means of description and that encourage different understandings or engagements that confront the very image of thought that guides us” (p. 504).

4.7.2 Rhizo-textual analysis

My methodological approach in this research draws from Honan’s (2004) process which she terms rhizo-textual analysis. A rhizo-textual approach depends on understanding that discourses operate within texts in rhizomatic ways – that is they have no beginning and no end, are not linear, or separate (Honan, 2004). Thinking rhizomatically allows for a discursive data analysis in which discourses are treated as intersecting and overlapping, rather than linear or operating on planes (Honan, 2007; Honan, 2010b). Furthermore, Sellers and Honan (2007) write that “rhizo-textual analysis involves mapping these discursive lines, following pathways, identifying the intersections and connections, finding the moments where the assemblages of discourses merge to make plausible and reason(able) sense to the reader...” (p. 147).

Honan and Sellers (2006) consider that, through mapping discursive journeys in a text, the moments of convergence which allow contradictory and conflicting discourses can be illuminated. These authors contend that this constructive and transformative approach to discourse analysis focuses on the possibilities produced through re-construction. Grellier (2013) also highlights the generative

nature of this form of mapping and its potential for drawing the reader into the rhizome. “Rhizomatic mapping involves depicting a number of points that elaborate, shape and disrupt each other, encouraging readers to draw their own interconnecting routes or separating chasms between them” (Grellier, 2013, p. 83).

Writing for an early childhood audience, Sellers and Honan (2007) present their thoughts on developing Deleuzian methods for educational research. These include:

- An approach to writing that is partial and tentative, that transgresses generic boundaries, and allows the inclusion of the researchers’ voice(s).
- Understanding that discourses operate within a text in rhizomatic ways, that they are not linear, or separate; any text includes a myriad of discursive systems, which are connected to and across each other. A rhizomatic discourse analysis follows the lines of flight that connect these different systems in order to provide accounts of (e)merging (mis)readings.
- Data collected for educational research, while appearing to be disparate, can be analysed rhizomatically to find connections between writing, artworks and video, for example. This kind of analysis allows (e)merging readings of connections between and across and within various data. (Sellers & Honan, 2007, p. 145-146)

4.7.3 Assemblage Analysis – Cartographies

The classroom worlds, discourses and identities presented in this thesis were selected on the basis of their potential to trouble the familiar and to deterritorialize the taken for granted. To undertake rhizo-textual analysis, I constructed cartographies (Appendices 3-5). To begin with I broke the classroom episode, the student and teacher interviews and the lead teacher meeting transcripts into discourses which I colour coded. I then placed the transcript of the classroom episode out on the floor to map as an assemblage of discourses. These discourses comprised the middle of the rhizome. Around each classroom episode I laid the cut up coloured texts of the student and teacher interviews to see where I could draw links with these other discursive texts. By

cutting up and placing the interview data alongside the episode, I created rhizomatic links. Through juxtaposing these accounts, I mapped lines of flight within and across the discourses in the classroom episode texts. These diagrammatic assemblages became the three rhizomatic cartographies that underpinned my analysis. Using the cartographies I could see how the data addressed my research questions:

- How did students and teachers move themselves from one set of culturally and socially structured subjectivities to another;
- how did agency look, sound and feel in the discursive space of these classrooms; and
- how did students discursively engage as authoritative, active participants, authoring and directing their own behaviour in social activity within the classrooms?

As I generated the cartographies and afterwards during the process of analysis I employed the following questions as rhizoanalysis tools:

- What are the discourses in play?
- What lines of flight can I see?
- How do discourses merge, intersect, overlap or separate?
- What contradictions am I noticing in the data?

This section has foregrounded the application of Deleuze to data analysis. I next turn to the background and context of the study to introduce the school, the participants, my relationship with them, and give an account of the ethical basis of this research.

4.8 Research Background and Context

In 2006 I commenced working in Mananui College, contracted to deliver a four year schooling improvement project: assessment for learning. Allocated a decile 2² ranking (the second lowest socioeconomic category available on the scale of

²A school's decile indicates the extent to which it draws its students from low socio-economic communities. Decile 1 schools are the 10% of schools with the highest proportion of students

1-10) by the New Zealand Ministry of Education, Mananui College is a rural state co-educational secondary (Year 7-13) school of approximately 638 students. In 2005, the secondary school was expanded to include students from years 7 and 8 when the community intermediate school closed. In that year 85 percent of the students were Māori (New Zealand's indigenous people). Asian and Pacific students made up 1 percent of the student population. The remaining 14 percent of students were pakeha.³ Although the research data was collected in 2009, there is no reason to believe that the demographics of the school population have changed. The school is comprised of predominantly Māori students and therefore it was important that I adhered to research protocols for researching in indigenous contexts (see section 4.12 Ethical Issues).

In my capacity as an ISTE, I facilitated assessment for learning professional development and assisted teachers to give effect to the New Zealand Curriculum (Ministry of Education, 2007a). The district principals, who commissioned the assessment for learning professional development project, adopted a lead teacher model where one or two teachers from each school attended workshops as a region-wide professional learning cluster. Two of the Mananui lead team teachers participated in the research. My historical and ongoing ISTE experience working with staff in the school meant that I had already established positive relationships and could easily approach the principal and teachers for permission to conduct the research.

I chose a secondary school context for this study as the competing discourses within high school settings that seemed to impact on learner agency and possible identity categories were interesting to me. In 2009, I gained informed consent from the Mananui principal, teacher and student participants to commence fieldwork in the school. The two teacher participants, Jan and Grace, were lead teachers with whom I worked. Both Jan and Grace expressed desire to participate in this research, as they were interested in strengthening learner agency in their classrooms. They recognised a connection between fostering

from low socio-economic communities. Decile 10 schools are the 10% of schools with the lowest proportion of these students. (Ministry of Education, 2009)

³A term for a person of New Zealand European origin.

agentic learners and the vision and competencies as defined by the NZC (Ministry of Education, 2007a). My ISTE involvement with the school commenced in 2006 and concluded at the end of 2010, although the research period spanned 2008 through to 2009.

In 2009 Mananui College streamed the Year 9 and 10 classes with the students in 9JG identified as the lowest achieving group in year 9. The students' STAR⁴ assessment data indicated that the group had very low levels of literacy. The two teachers in this study, Grace and Jan, who both taught 9JG, explored the cohort's STAR achievement data collaboratively to identify the students' learning needs. This data informed the teachers' planning across their two learning areas: science and English.

The two larger plateaus of data are drawn from Jan's science classroom. Jan had a gatekeeper role; assisting me with access to staff and students, arranging meetings and timetabling observations and interviews. The smaller plateau was located in Grace's class. While I have other data from Grace which could make up a study of equal size to Jan's two episodes, the parameters of this study dictated that I needed to draw a line to meet the size expectation of this thesis. Grace joined the lead teacher team on the professional development project one year after Jan.

The alliance between Jan and Grace supported a cohesive approach to learning across the two classrooms. Their collaboration enabled me to observe not only how curriculum content was cumulatively built across the classes but also how learners could exercise agency in the two discipline areas. It allowed me to gain a wider view of the discourses and identity affordances in play within the 9JG classroom. I called the group of students 9JG after their year level and the names of the two teacher participants: Jan and Grace. During my classroom observations I noted that traditional whole class teaching was challenging with 9JG. As a group they were difficult to settle and could be reluctant to engage in the learning that their teachers had planned for them. Students would get out of

⁴Supplementary Test of Achievement in Reading. The STAR Reading Tests are standardised assessment tools, designed to supplement the assessments that teachers make about their students' progress and achievement in reading.

their chairs and walk around when they were being given instructions and items were intermittently thrown about the classroom.

The following section discusses my approaches to data collection.

4.9 Data Collection Approaches

In this research, as a participant observer, I used a range of techniques to gather data: classroom observation, recording fieldnotes and video footage; student and teacher interviews; and an audio recording of a lead teacher meeting. The interactions within the classes; between teachers and students, students and students and students and artifacts were of particular interest to me when considering learner agency. Freeman, deMarrais, Preissle, Roulston and St. Pierre (2007) point out that data are produced from social interactions and are therefore necessarily only constructions or interpretations. There are “no ‘pure,’ ‘raw’ data, uncontaminated by human thought and action,” and “the significance of data depends on how material fits into the architecture of corroborating data” (p. 27). It therefore follows that qualitative data and information are always already interpretations made by participants as they answer questions or by researchers as they write up their observations (Freeman et al., 2007).

Because this study addresses the poststructural construction of classroom subjectivities, I was mindful that a technical rational approach to methods would not suffice. To this end St. Pierre (1997) challenges what she describes as:

the ruthlessly linear nature of the narrative of knowledge production in research methodology that goes something like this: first, we employ methods, such as interviewing and participant-observation, which produce data; then we code, categorize, analyze, and interpret those data; finally, from that analysis and interpretation, we develop theories of knowledge. (p. 179)

Furthermore, St. Pierre suggests that if data are the foundation on which knowledge rests, it is important to trouble the “common-sense understandings” of the transcendental signifiers as terms that we have been given to think about

our world: “science, method, validity, truth, power, rationality, objectivity, identity, sexuality, culture, history, democracy” (p. 175). This is the strength of a non-essentialist approach to data collection, analysis and interpretation. Each researcher and each project produces different possibilities for response and different kinds of response data (St. Pierre, 1997). In this instance the nature of the classrooms had an important bearing on the study, given that the research focus is on how agency can be afforded students in situated contexts. My own participation in the context is significant in that subjectivities were relationally constituted between the students, teachers and me.

4.9.1 Participant Observer

Participant observation is a field work technique with a number of components: observation, participation, interviewing and use of records (de Laine, 2000). I had been working in the school in a peripatetic capacity over the previous three years so it followed that I took a participant observer role by facilitating professional learning, listening to and recording the experiences of the teachers and students. Delamont (2012) warns that a main issue with observation in educational settings can be over-familiarity as often researchers have been previously immersed in schools and may find it difficult to concentrate and ‘see’ things. “It can be hard to focus on what is happening rather than what one ‘expects,’ ‘knows’ and is familiar with. It is also hard not to judge” (p. 345). I strove to avoid making assumptions based on my prior connection with the teachers and students. Cotner, (2000) describes the complexity of positioning for participant observers where acceptance as an insider depends on a range of features such as: time spent, nature of inquiry and contexts of the research site, Although the teachers and students were already familiar with me in their midst before I began data collection, I was careful to make a distinction between my two roles of ISTE and researcher so that the participants could differentiate between them. I was mindful that I was not a staff member and that I was taken into the confidence of the teachers as an interested outsider. As ‘insiderness’ and ‘outsiderness’ are perceptions, Cotner suggests that researchers explore what people’s understandings are, instead of making assumptions. She cautions novice researchers to be wary of using the familiarity of insiderness as a crutch

to combat ‘otherness’ as “insiderness is not synonymous with good rapport” (p. 2). Bringing the insider and outsider elements together in a Deleuzian fold, I saw a duplicity in that through my previous work in the school, I was both insider and outsider; interiority and exteriority existed simultaneously.

4.9.2 Classroom Observations

There were eighteen lessons observed in total, nine in each teacher’s classroom. I elected to undertake an unstructured approach to observation (Cohen, Manion & Morrison, 2007) and visited each teacher while they had their year nine class to collect data over three consecutive lessons during one week in each of terms one, two and three. I undertook observations of both the whole class and smaller groups. The first three consecutive lessons each term were spent observing, recording field notes and videoing the class. I noted individual and group interactions. During the third consecutive lesson I observed the lesson for twenty to thirty minutes and interviewed the students for the rest of the time.

Wolcott (2005) contends that any sustained observation is a mysterious process and being attentive for any length of time is difficult to do. He suggests that researchers should be aware that attention to detail come in short bursts and these moments of attention should be capitalised upon. Furthermore, Wolcott advises researchers to be tolerant of ambiguity, adaptable and flexible during the process.

When you are not sure what you should be attending to, turn attention back on yourself to see what is it you are attending to and try to discern how and why your attention has been drawn as it has. What are you observing and noting; of that what are you putting down in your notes, at what level of detail; and at what level are you tracking your personal reactions to what you are experiencing...Don’t worry about all that you are not getting. Observe yourself observing. (Wolcott, 2005, p. 90)

Adapting Wragg & Wragg’s (2012) critical event approach to observation, I looked for irruptions or rhizomatic moments of departure. Wragg & Wragg (2012) describe how a critical event method uses systematically defined criteria to enable the observer to capture and preserve some of the essence of what is

happening. I departed from the systematisation of the critical event approach so that I could look for moments without the structural elements of criteria. This application can be likened to St. Pierre's (1997) use of transgressive data (e.g. emotional data, dream data, sensual data, and response data) "to produce different knowledge and to produce knowledge differently" (St. Pierre, 1997, p. 175). Therefore, I looked for moments of classroom activity which appeared contradictory, evoked my puzzlement and promised an element of discordant discourse interplay.

In recognition of MacLure's (2006b) baroque method in qualitative educational research; I looked for moments which resisted clarity, mastery and a single point of view, were radically uncertain about boundaries and coherence, and favoured movement and tension over structure and composure. Commensurate with Deleuzian immanence, MacLure's baroque style of classroom observation offered a possibility "to open up strange spaces for difference, wonder and otherness to emerge" (MacLure, 2006b, p. 729). The following traits, which MacLure associates with the baroque, resonated with my research experience as I strove to take the dynamic and rhizomatic classroom activity and represent it in thesis form without losing the possibility of multiple entry and exist points within the assemblage. MacLure points out that although these elements can be presented in the following as a list, they are baroquely entwined:

- Favouring of movement and tension over structure and composure;
- defamiliarization – the estrangement of the familiar;
- the attempt to 'represent the unrepresentable';
- loss of mastery of self and of other;
- embrace of the non-rational and the supernatural;
- resistance to generalization, abstraction or totalization;
- proliferation of fragments, details and marginalia;
- epistemic excess – i.e. overflowing of boundaries and structures;
- fragmentary or distorting textual devices – montage, assemblage, allegory, analogy, parody; the *mis en âbime* (the text within the text);
- dislocation of time and space through vertiginous shifts of scale and focus;

- production in the spectator/reader of disconcerting emotional states – vertigo, wonder, fascination, rapture, awe, anxiety; and
- an abject status as frivolous or degraded vis-à-vis dominant meaning systems or cultural practices. (MacLure, 2006b, p. 327)

My connection with the students and teachers allowed me to gain an insight into the dynamics of the 9JG class. I made only written observation notes in the first term of observations ahead of the recorded material used as data which I subsequently gathered. Cohen, Manion and Morrison (2007) note how immersion within a context allows both the salient features of the situation to emerge and a holistic view of the interrelationships to be gathered. Thus, I was able to gain a sense of the class dynamics and the students had an opportunity to get to know me as a researcher in their midst.

During the first three lessons in each class I took field notes and used an audio recorder only, as I wanted the students to get used to me in their midst before introducing the video. Although they can be time consuming, field notes can be highly evocative as personal textual memories of fieldwork (Coffey, 1999). As sensory details, my field notes were used to record events, quotations from students and teachers and my perception data. Both my observation and perception data were balanced in my field notes. Marshall and Rossman (2011) point out that writing notes, reflective memos, thoughts, and insights can be invaluable for generating the unusual insights that move the analysis from the mundane and obvious to the creative (p. 213).

As a bricoleur (Denzin & Lincoln, 2003), borrowing from different disciplines, I used LeCompte and Preissle's (1993) observation guidelines as a starting point to direct my observations and assist my note-taking. I used their questions flexibly (Appendix 6) to assist with recording the teacher and student talk and actions. After the initial lessons I used video to record pupil and teacher responses and non-verbal interactions and a digital voice recorder to capture the students' interactions with other students or with the teacher. There were twelve lessons, six lessons per teacher, videoed in total during the last two terms of data collection. Through this process, I explored the situated interactions as units of analysis. The video was located at the back of the classroom so as to be

as inconspicuous as possible. I used the zoom function to focus on groups where there appeared to be interesting interactions. By gathering data over three consecutive lessons in a week, I collected a snapshot of data from one unit of teaching for each class per term.

4.9.3 The Use of Video

Capturing much of the data on video tape (twelve lessons over terms two and three) enabled my retrospective analysis (Edwards & Westgate, 1987) to be in much greater depth than would have been possible even using techniques involving live coding. Dufon (2002) notes that an advantage of video is its permanence in that it can be played back to participants in order to stimulate recall. They can describe their thoughts, feelings and reactions at different points in time during a given event, which furnishes information about the unobservable. During the research interviews I asked the participants to view sections of classroom footage. In keeping with the epistemological concerns addressed previously, I do not subscribe to a view that a stimulus recall process can give us ‘truth’ about the videoed event. Nevertheless, I saw the process as a restorying that was intersubjectively mediated between the student or teacher and myself.

I reviewed the video footage numerous times, making notes, before deciding which of the particular episodes of classroom activity should be included in the plateaus. The use of video can enable a classroom event to be experienced repeatedly by playing it back (Dufon, 2002). This process of reviewing the footage aided my thinking. As Dufon (2002) points out “[w]ith each repeated viewing, we can change our focus somewhat and see things we had not seen at the time of taping or on previous viewings...Replaying the event also allows us more time to contemplate, deliberate, and ponder the data...” (p. 44). However, the use of video in classroom settings is not unproblematic. Cohen, Manion and Morrison (2007) suggest that video recording can carry with it the “connotation of surveillance” (p.364). Wragg & Wragg (2012) also identify that there can be drawbacks to video in that there can be the loss of important visual cues such as facial expressions, gesture, body language and movement. They point out that sound quality can be poor in a busy classroom where there are lots of students

speaking. Fitzgerald (2011) also recognises that there have been concerns raised regarding the intrusive nature of video cameras and their potential impact on student behaviour. However, she observes that as the camera becomes part of the environment, this reactivity tends to become less likely as participants become more accustomed to the presence of both video cameras and the operators.

4.9.4 Interviewing

Both researchers and interviewees can have multiple intentions and desires, some of which are known and some of which are not (Scheurich, 1995). In keeping with the idea of rhizomatic interactions, Scheurich (1997) describes how human interaction and meaning are neither unitary nor teleological. Instead, interactions and meaning are “a shifting carnival of ambiguous complexity, a moving feast of differences interrupting differences” (Scheurich, 1997, p. 66). This suggests that questions can mean different things to the researcher and interviewees and can change over time or situations. As discussed in the previous chapters, the student and teacher interviews in this research do not purvey truths but rather are produced truths which are filtered through the research process. This “moving feast” (Scheurich, 1995, p. 243) offers a discursive rhizome for contemplation.

The postpositivist interview process has been described as “a conversation with a purpose” (Lincoln & Guba, 1985, p. 268) that aims to “access the perspective of the person being interviewed” (Patton, 1990, p. 278). Scheurich (1997) challenges an unproblematic view of conventional interviewing that is based on modernist assumptions for it underestimates the complexity of one-to-one human interactions. He suggests that in conventional interview research the researcher is situated as omniscient.

...as a kind of god who consciously knows what she/he is doing, who (if properly trained) can clearly communicate meanings to another person, and who can derive the hidden but recoverable meanings within the interview to support an abstract generalization.” (Scheurich (1997, p. 64)

This purpose of gaining essentialist ‘meaning’ can be identified in Kvale’s (1996) summary of six best ‘practice criteria’ which can be used for judging the quality of an interview and are frequently recommended in methodological literature.

- The extent of spontaneous, rich, specific, and relevant answers from the interviewee.
- The shorter the interviewer’s questions and the longer the subjects’ answers, the better.
- The degree to which the interviewer follows up and clarifies the meanings of the relevant aspects of the answers.
- The ideal interview is to a large extent interpreted throughout the interview.
- The interviewer attempts to verify his or her interpretations of the subjects’ answers in the course of the interview.
- The interview is ‘self-communicating’ – it is a story contained in itself that hardly requires much extra descriptions and explanations. (Kvale, 1996, p. 145)

The criteria identified by Kvale require researchers to “centre the subject” (Mazzei, 2013, p. 735). In their research interviews Mazzei and Jackson (2013) resist searching for coherent narratives that represent truth from a centred subject. They acknowledge and accept the centeredness of interviewing practices and work both within and against a project they consider is failed from the start. Rather than give up on the concept of the interview as a method, they are explicit the specific assumptions that they make about data, voice and truth and, instead, work the limits of such practices.

[W]e accept in our research and in the conversations with the women in this study that the data is partial, incomplete, and is always in a process of a retelling and remembering. The methodological implications of this view is that we as researchers question what we ask of data as told by participants, question what we hear and how we hear (our own privilege and authority in listening and telling), and deconstruct why one story is told and not another (Alcoff, 1991). (Mazzei & Jackson, 2013, p. 262)

Language “is not bounded or stable; it is persistently slippery, unstable, and ambiguous from person to person, from situation to situation, from time to time” (Scheurich, 1995, p. 240). Comprising more than language, interview data is not limited to spoken words and may encompass inhabited silences (Mazzei, 2013). Rather than pinning interview data down to establish ‘truth,’ this study takes a poststructural approach to interviewing. This view recognises that individuals are constituted and reconstituted through the various discursive practices in which they participate (Davies & Harré, 1990) and have a vested interest in seeing themselves as coherent selves that have continuity over time (Wright, 2003). Interview texts become dynamic constructions of these subjectivities – both the interviewer's and the interviewee's, and as such they can reveal how individuals discursively constitute particular kinds of subjectivities through their choices of language (Wright 2003). Discursive practices themselves need to be part of a reflexive consideration in relation to the ‘truths’ that are generated (Frankham & Edwards-Kerr, 2009). Popoviciu, Haywood and Mac an Ghail (2006) contend that researchers need to be reflexively aware of how epistemologies may implicitly produce versions of reality rather than being mirrors or devices to access reality.

As interview data is influenced by “participants’ perceptions of the situation, the research focus, interview questions, likely audience and interpretation, as well as the structural constraints they face and their personal values and biographies,” there is no such thing as an “unmediated voice” (Alldred & Burman, 2005, p. 181). For Scheurich (1995), both researcher and interviewee/s bring “a plethora of baggage” (p. 249) to the interpretive moment of the research process. It is important to recognise “the radical, indeterminate ambiguity or openness that lies at the heart of the interview interaction itself, at the lived intersection of language, meaning and communication” (Scheurich, 1995, p. 249). For this reason poststructural researchers strive to recognise and name some of this discursive ‘baggage’ (e.g. epistemological orientation, social positionality etc) although these orientations can be both conscious and unconscious. Of course analysis of this baggage is necessarily mediated by the researcher’s own discursive orientations or baggage. Furthermore, Scheurich considers that terminology is irrelevant; whether we call the process an

'interview,' a *'conversation'* or *'storytelling,'* what is important is what we believe about what occurs during this interaction. He emphasises the importance for researchers of going further than introducing the indeterminance of interviewing and then proceeding to name *'reality.'* In the interviews and in my interpretation of them I have strove to allow for the “shifting openness within the interview itself” (Scheurich, 1995, p. 250). Mazzei (2009) utilises the Deleuzian notion of a crack to illustrate how researchers can listen at the limit to hear what they do not anticipate and rupture what is knowable and askable.

I turn a focus not on what is evident but a return to Deleuze's notion of the crack ... It is this imperceptible crack through which the destabilized and silent voices slip. A listening at the limit then does not ignore the hairline fractures, but notices the pain and uncomfortableness present within them. (Mazzei, 2009, p. 55)

Writing about interviewing in posthumanist research, Mazzei (2013) highlights how human agency can be seen as entanglement as “voice” cannot be thought of as existing separately from the milieu in which it exists. Drawing from Deleuzo-Guattarian ontology she contends that there is no present, conscious, coherent individual, “no participant in an interview study to which a single voice can be linked – all are entangled” (p. 734). This non-essentialist notion of entanglement poses a challenge to interpretive contentions of what comprises quality in regard to interviewing practices. In this study while the voices of the participants are foregrounded in the analysis – they are simultaneously entangled with others, the researcher's included.

Roulston (2010) observes that discussions of *'quality'* in interviewing, encompass how interview questions are asked in practice, how studies are designed and conducted, and how interviewing as a method fits with the underlying theoretical and epistemological assumptions about knowledge production. She cites four inter-related facets of research that have emerged from the methodological literature on qualitative interviewing:

“whether (1) the use of interview data is an appropriate means to inform the research questions posed; (2) the interaction facilitated by

interviewers within the actual interview generated ‘quality’ data – for example, interviewers asked questions in effective ways to elicit the data required to respond to research questions, and both speakers adequately understood one another’s intended meanings; (3) ‘quality’ has been addressed in research design, the conduct of the research project, and the analysis, interpretation and representation of research findings; and (4) the methods and strategies used to demonstrate the quality of interpretations and representations of data are consistent with the theoretical underpinnings for the study.” (Roulston, 2010, p. 202)

The first element is addressed in my research design with the interview data adding detail to and enriching the assemblage of discourses. In regard to the second element, I turn away from liberal humanist approach to align this study with St. Pierre’s response to “The Call for Intelligibility in Postmodern Educational Research” (St. Pierre, 2000b) where she advocates the shift from an insistence on ‘meaning’ to an investigation of where research goes and what it does there. Likewise, Mazzei (2013) connects her approach to interviewing with a Deleuzo-Guattarian emphasis on knowing how things work and what they produce rather than producing meaning. Roulston’s (2010) third and fourth elements are important to this study, in that the research methods align with the study’s epistemology and importance has been placed on the quality of analysis, interpretation and data representation.

4.9.5 Interviews

During the last week of data collection, I met with both the students and teachers to share the selected episodes of classroom footage and audio recordings. These interviews were recorded so that I could gauge how the students and teachers discursively positioned themselves and others in relation to the DVD footage. Kitzinger & Barbour (1999) note within their context of focus group research, that prompts can engage people in discussion without the researcher providing any vocabulary or terminology. The video was a prompt which cued the students and teachers into the particular classroom data that I wanted to explore with them. I selected four episodes of classroom activity (two episodes in plateau two) which I thought revealed dynamic classroom

interactions where the students were initiating learning. I describe the interviews as semi-structured because I used video footage with both students and teachers and I had a loose framework of questions to ask the students which I outline in the next section. The students and teachers were shown clips of varying duration and we engaged in dialogue after each. At times, only a little footage of a few seconds was enough to cue them to talk about what they had experienced during the class and saw on the screen. The student and teacher interviews were kept as informal and as unobtrusive as possible. Where possible, I strove to construct them as conversations. Again, as alluded to previously, any text that results from an interview can only present subjectivities that are discursively co-constituted by the interviewer and interviewee to be subsequently reinterpreted by the listener/reader. Language is problematic as St. Pierre (1997) points out:

Posthumanists are thus suspicious of language... The problem, of course, is that poststructural discourses continue to use the words of humanism but to use them differently. For instance, even though I will continue to use the word data, its meaning has forever shifted for me and will continue to shift as I prod and poke at this foundational signifier on which knowledge rests. (p. 186)

4.9.6 Student Interviews

I conducted student interviews (Appendices 7-9) in follow up to the classroom observations in order to gauge the students' responses to and interpretations of the recorded small group or whole class interactions. I selected a sample of students through reviewing the video footage and after conversations with their teachers. In these post-observation student interviews I invited the students to talk with me about what was happening in the recorded footage. Using the following loose framework of questions as only a guideline to frame my thinking during the interviews, I took direction from the students to follow their lines of flight.

- What do you notice is happening in that lesson?
- What choices did you have in this lesson?
- Who was in control of the learning?

- How do you take charge of your learning?
- How were you learning with others in this lesson?

The poststructural concept of agency, as defined in this research, was not familiar to the students. Therefore, I had to carefully consider the language I employed. I opted to ask students how they were '*in control*' of their learning. I used the word '*control*' to broker the idea of agency with the teenage learners. However, this word had a specific meaning to the students. It triggered a discourse of responsabilisation (Rose, 2003; Davies, 2006) which I touch on later in plateaus two and three. In plateau three it is discussed alongside 'studenting' discourse.

It was my intention that these interviews would be relaxed and flexible in order to encourage the students to talk about their perceptions of the classroom episode. Although all the students expressed a willingness to be interviewed, they varied in the ease with which they talked with me about their experience in their class. For logistical reasons two student interviews were in the back of the classrooms and two were in an interview room. The classroom settings were noisy and it was sometimes hard to hear the students. At times, other interested students would walk past and distract us from our conversation.

4.9.7 Teacher Interviews

There were three individual teacher interviews with each of the two teachers over the three terms, six in total. The teacher interviews were reflective dialogues. Reflective dialogue was a protocol that had been established with the teachers in my ISTE role prior to the research phase in my ISTE role. The teachers were familiar with the Ellinor and Gerard's (1998) characteristics of reflective dialogue as they had lead staff professional development to promote the use of dialogue with their peers. Ellinor and Gerard (1998) advocate that interlocutors suspend judgment, release the need for a specific outcome, inquire into and examine underlying assumptions and strive for authenticity and a slower pace of interaction with silences between speakers.

The teacher interview were dialogues (Appendices 10-13), which, while open ended, also included the videoed episodes of classroom interaction that I had

previously selected. In Jan's case I also included a transcript of the conversation which I had with Jan just before the classroom episode (Appendix 10).

Although I transcribed the whole of each interview, there are only sections included in the appendices. The sections of Jan's interview which pertain to plateaus one and two are combined in Appendix 11. The interviews were held after the third consecutive lesson and lasted for approximately an hour. In this time the teachers talked about what they were seeing. They had opportunities to speak at length and reflect on their classroom dynamics and practice during these conversations. This supported catalytic validity (Lather, 1991) which I discuss later in this chapter. Through the discourse analysis, I was afforded insight into how the teachers positioned themselves and their students in that place and at that moment in time.

In Jan's interview I used Gee's discourse analysis "frame problem tool" (2011b, p. 31) which proved a catalyst for epistemological shudders. Meanings can shift when more information is added and the contextual frame is broadened. New insights can be added to an analysis. This was achieved through the use of successive clips of classroom video material. The frame problem tool shifts how language can be interpreted when contexts are expanded to become more complex. Through viewing the three extracts of footage during her interview, Jan widened her scope of reference.

4.9.8 The Lead Teacher Meeting

The two teacher participants in the research were part of a lead team responsible for embedding AfL into the culture of the school. This lead team held regular professional learning and planning sessions where they would plan for the next round of whole staff professional development. On one occasion Jan and Grace spoke with their lead teacher colleagues about the learner agency they had observed through their participation in the research. The other two lead teachers at the meeting had consented to be part of this research and this meeting was audio recorded and transcribed (Appendix 12). This transcript provided additional rhizomatic data for the first plateau: 'The Hoax.'

4.9.9 Transcription

The reliability and validity of transcripts is an enduring concern for sociocultural linguistic researchers (Bucholtz, 2007, p. 785). Rather than seeing representational differences in transcription as “inconsistency” or “error,” Bucholtz contends that “variation” is an opportunity to “examine the act of transcribing as a socioculturally embedded linguistic and metalinguistic practice” (p. 785). Bucholtz challenges researchers to think reflexively on “entextualization, about what exactly it is that we do when we transform others’ words from spoken to written form ...” (p. 802). She argues that it is important to acknowledge the central role of linguistic representation in this process: “the power we wield to portray and circulate speech and speakers as entextualised entities – compels us to think more carefully about transcription as an inherently and unavoidably sociopolitical act” (Bucholtz, 2007, p. 802). The variability in situated and embodied practices translates to the transcripts themselves and so they cannot be viewed as autonomous texts or as reality, only an interpretation of it. Mondada (2007) points out that the transcripts themselves alone are not data as they are secondary products of representation and annotation practices.

The work of transcribing itself never ends, producing innumerable versions of the same few seconds...which take a definitive form as soon as they are printed on paper...Each printed version is the result of a selective process of displaying, foregrounding, highlighting particular details for a specifically recipient-oriented analysis or demonstration. (Mondada, 2007, p. 819)

I decided to take a “denaturalized”⁵ approach to transcription, where the text retains links to oral discourse, over a “naturalized” one where the text conforms to written discourse conventions and “the process of transcription is made less visible through “literacization” (Bucholtz, 2000, p. 1461). Both ‘naturalized’ and ‘denaturalized’ approaches have “equal potential to serve as “politicized tools of linguistic representation” (Bucholtz 2000, p. 1439). While reducing

⁵ The terms ‘naturalized’ and ‘denaturalized’ retain their American spelling in keeping with the original quotation from Bucholtz (2000).

transcript detail (a ‘denaturalized’ approach) can be seen to limit the readers’ abilities to propose alternative interpretations by controlling detail and establishing transcriber authority (Jaffe, 2007), it should be mentioned that fonts and annotations can technologise a text in such a way that it reifies the author’s scientific expertise to convey a sense of authority (Bucholtz, 2000). Presenting only the level of detail used in the analysis can enhance “readability and reproducibility,” yet it also “increases the authority of the researcher’s interpretation, particularly in the majority of cases in which the original recording is not publicly available (Bucholtz, 2007, p. 794). To address this contentious issue of transcription in this thesis, I point out that although my ‘denaturalized,’ less technologised approach to transcription reduces the opportunities for others’ decontextualised sense-making, it addresses my purpose, allowing for the use micros discourses to be used to generate cartographies of the ‘big D’ discourses operating in the research classrooms. This is in keeping with a poststructural view that the transcribed text can only reveal a regime of truth and should not be used to make truth claims in any essentialist fashion.

Table 2 below provides an outline of the data set. I transcribed all the teacher and student interviews and teacher meeting data in an attempt to produce verbatim transcripts that I could use to construct the cartographies.

Table 2 Transcription of Data

Data Collection	Participants	No. of Sessions Transcribed
Interviews	Teachers (Jan and Grace)	2 interviews per term per teacher over three terms (There were 6 interviews per teacher. All of the teacher interviews were transcribed).
	Students (PJ, Bake and Matai, Zena)	5 student interviews in total ⁶ from terms two and three.
Classroom	Student-student and teacher-student	6 lessons from terms two and three were partially transcribed.

⁶ PJ was interviewed twice in relation to two separate episodes. Only one of these episodes is included in the thesis. Zena’s episode was also not included.

Observations	interactions	(See section 4.10 for further explanation.)
Lead Teacher Meeting	Group of teachers (Jan and Grace included)	1 meeting from term three (5 th August) transcribed

In total I observed eighteen lessons, nine for each teacher at three lessons per term for three terms. As outlined in the data collection section (4.9), I chose the specific episodes to transcribe and look at in more detail by reviewing the video footage of the twelve videoed lessons. I chose to transcribe the six lessons on the basis that they were rich examples of agency (see section 4.10 for a rationale for further detail on the identification and selection of the data set). The transcriptions included all filler words (e.g. ‘er,’ ‘mmm’, ‘you know’) and also duplicated nonstandard grammar and syntax (Powers, 2005). Although Powers (2005) recommends that researchers edit transcripts to provide standard spelling in the interest of readability, comprehension and so that the text is not construed as patronising, I have not done this, preferring the authenticity of the New Zealand dialect.

Although the method is largely denaturalized, some gesture and location data have been included in the episode transcripts. Gesture can be used to both reinforce and disambiguate information in everyday speech (Cartmill, Ece Demir & Goldin-Meadow, 2011). Location information supports a situated analysis of the data. Taylor (2003) reminds us that discourse analysis is not neutral as it always involves theoretical backgrounding and decision making. Therefore, I set out the background rationale for the selection of data for detailed analysis as part of this thesis in the following section.

4.10 Rationale for the Selection of Classroom Episodes

To reiterate section 4.9.3, video recordings constituted a major source of data in the study and my starting point was therefore an analysis of the twelve recorded lessons. Gee (2012) uses the term “sections” to refer to “episodes” which comprise larger units of discourse than “lines and stanzas” (p. 135). I selected four specific episodes from the twelve lessons to make up the dataset for detailed analysis because the students appeared to author agentic positions. On first analysis, the four selected episodes seemed to offer a plethora of ‘big D’

discourses for analysis with potential for mapping shifts in subjectivities. I explored the four episodes from the twelve lessons further with the teachers. During the teacher interviews we spoke about two episodes from each of their classes. These discussions illuminated aspects such as how the students were positioned within the classroom discourses, the social relationships in play and student initiated learning.

Due to the scale of the study only three episodes have been selected for inclusion in the written thesis. The three episodes were events that appeared to me to comprise the more interesting rhizomatic connections where the students redirected the flow of power toward innovative new constructions through their lines of flight. They demonstrated something unique and unexpected in the classroom dynamics and related to my investigation of rhizomatic agency. Just as importantly, as a set, the three episodes demonstrated different types of rhizomatic relationships: a significant whole class event (Plateau One-‘The Hoax’), an interesting group interaction (Plateau Two-‘The Rebel Thermometers’) and an interaction with potential importance for the individuals concerned (Plateau Three-‘The Hāngi’).

The students were asked to give commentary on the three episodes selected for the presentation in the thesis as plateaus. During the student interviews we spoke about what was happening in the video footage and the contextualised decisions that the students made.

The following section looks closely at the issue of validity in this research. This section is an important element in this thesis, as even research that is based on the notion of epistemological pluralism needs to establish a claim to quality.

4.11 Quality and Robustness

In accordance with this study’s theoretical and analytical frames, I defer to poststructuralism to address the validity of this research. The concept of validity in qualitative research can encompass terms like authenticity, credibility, confirmability, internal coherence, transferability and reliability (Koro-Ljungberg, 2010). Turning away from the promise of truth, Denzin and Lincoln (2005a) argue that “objectivity is a chimera: a mythical creature that never

existed, save in the imagination of those who believe that knowing can be separated from the knower” (p. 208). Considering that this research comprises a discourse analysis of the lines of flight in the study classrooms, concepts like objectivity and generalisability are not helpful or relevant. There are no “epistemological guarantees” (Lather, 1993, p. 675). Lather (2007) advocates that researchers interrogate their representations by reflexively exploring their own practices to make decisions about which discursive policy to follow and which ‘regime of truth’ to locate their work within. She describes validity after poststructuralism as a “space of constructed visibility of the practices of methodology” (Lather, 2007, p. 120). Furthermore she uses this view of validity in a doubled movement to mean “all of the baggage that it carries” as well as “what it means to rupture validity as a regime of truth” (Lather, 2007, p. 118). Thus the emphasis is shifted from the real to “discourses of the real” (Gergen & Gergen, 2003b, p. 158).

In rhizoanalysis data is ‘fluid and in flux.’ The integrity of immanence is maintained through keeping the way open, working rhizomatic in-betweens and investigating connections between multiplicities (Masny, 2012). In keeping with this rhizomatic logic, I utilise Lather’s concepts of catalytic and transgressive validity (Lather, 1986; 1991; 2007). Lather initially employed the term catalytic validity to judge the emancipatory potential of research. It is based on the Freirean notion of conscientization (Freire, 1985) in that it offers a collaborative, praxis oriented approach to ensuring research quality. Catalytic validity describes as the degree to which the research process “re-orient, focuses, and energizes participants’ perceptions of reality.” (Lather, 1991, p. 68) Denzin and Lincoln (2005a) view catalytic validity as “the ability of a given inquiry to prompt first, action on the part of research participants and, second the involvement of the researcher in training participants in specific forms of social and political action if participants desire such training” (p. 207). Lather (1986) argues for the need to consciously channel this impact so that respondents gain self-understanding and, ideally, self-determination through their research participation. This research cannot claim that the research interviews were a catalyst for further lines of flight or that (scripting a totalising narrative) the students and teachers were changed in some way. However

during the interviews the students could signify themselves agentially and view examples where they were agentic in their classroom. The teachers had opportunities to talk about pedagogy, the way they interpreted the NZC key competencies and how their learners acted agentially in their classes. As this research is about scrutinising positions in discourse, it would be inappropriate not to engage in a methodology that afforded teachers and students opportunities to realise their own sense of agency and support further lines of flight.

Transgressive validities (Richardson, 1993; Lather, 2007) bring ethics and epistemologies together (Lather, 2007) to uncover hidden assumptions. Lather (2007) presents four framings of validity in her “Transgressive Validity Checklist” (p. 120) which she uses to generate counter practices grounded in the crisis of representation (Appendix 14). These comprise ironic, paralogical, rhizomatic and voluptuous validities. During the research process I was mindful of these elements to ensure a rigorous research process. Ironic validity problematises representation by highlighting the insufficiencies of language. It proliferates forms through recognising that they are rhetorical and without foundation, post-epistemic and lacking in epistemological support (Lather, 1993). Coexisting binaries can surface when the relational subjectivities which exist simultaneously are explored. I acknowledge that there can only be a partial account to any representation and no cohesive totalising narrative to be told. I am explicit in my reflexivity that I do not represent the participants by giving a definitive account, rather, I suggest one interpretation among many possible ones which I base on the discourses that I recognise in play. This highlights the possibility of other depictions and readings. I am careful to look for “strategies, approaches, and tactics that defy definition or closure” (Gannon & Davies, 2007, p. 81).

Paralogical validity incorporates paradoxes, contradictions and conundrums. Using paralogical validity to review this research means looking at how I locate fruitful interruptions, paradoxes, discontinuities, and complexities (Lather, 1993; 2007). For example paralogical validity is made visible through the notion of ‘double moves’ (Honan, 2002) when I explore how the students

concurrently master and submit to discourses. It is also explicit in the epistemological shudders that become apparent during Jan's interview.

Rhizomatic validity or "Derridean rigour" (Lather, 2007, p. 124) works against authority and inscription of some new regime, unsettling from within. It pertains to how rigorously the research highlights webs of complexity. It undermines convention to fashion new understandings. Derridean rigour undermines stability to subvert and unsettle from within. It exceeds what order has tried to make stable and permanent (Lather, 1993; 2007). Peer debriefing with others (Lincoln & Guba, 1985) enabled me to think deeper and beyond my own perceptions to take further lines of flight that I could not do alone. Hays & Singh (2012) write how peer debriefing can be helpful in providing essential accountability in the effort to recognise and understand the influence of the researcher on the interpretation of the data. My on-going dialogue with another doctoral student and my supervisors enabled me to process my data, problematise what I took for granted and take my own lines of flight. This peer lens was more a mirror (O'Riley, 2005) than an 'objective' perspective. Morrow (2005) describes peer consultation as an opportunity for the research to reflect on his/her responses to the research process: "They may also serve as devil's advocates, proposing alternative interpretations to those of the investigator" (p. 254). The process also assisted me to make explicit my own relationship with the data and approach to analysis. It challenged me to air my assumptions and theorise what I was reading in the data. The analysis of how learners shift subjectivities opens up an alternative way for NZ educators to think about agency. Through mapping the lines of flight within the research classrooms, the study works against convention and looks for new directions and alternative discourses. Evaluating this study using rhizomatic validity raises the question of how these examples of learner agency can counter the taken for granted or hegemonic subjectivities that may be currently afforded students in New Zealand classrooms.

Voluptuous validity constructs authority via practices of engagement and self-reflexivity. It surfaces questions that are not necessarily answered and brings ethics and epistemology together (Lather, 2007). Here the study can be

evaluated in regard to the extent to which I engage with the teachers and students ethically to facilitate self-reflection. For eighteen months prior to the study and twelve months after the end of my data collection phase, I worked in the school. I gained an understanding of the school culture through this contact and enjoyed a good rapport with teachers and students. As I have mentioned previously, it was an established protocol to use reflective dialogue when working with the teachers to support professional reflection in a respectful ethical manner. My dialogue with both the students and the teachers allowed space for reflective practice. In writing this thesis I strive to be explicit about my own learning in the field to supplement my research explanations.

Refuting the notion of a ‘universal’ truth located in this study (ironic validity), I position this research within a “regime of truth” (Foucault, 2007). I hesitate to use the term trustworthiness as it could be argued that it stems from an essentialist paradigm. In judging research quality, MacLure (2005) challenges the notion of trustworthiness in that it “asserts positivism’s concern with certainty – i.e., with reliability, validity, rigour and replicability [and has] become an all-purpose synonym” (p. 395). She critiques calls for clarity, as “demanded and enforced by audit cultures” for its epistemological narrowness and potential to reduce complexity (MacLure, 2010, p. 278). This research invites the reader to disrupt the taken for granted to recognise how agency can be conceptualised as performative lines of flight.

Concluding this section on validity and trustworthiness, it is helpful to recognise that discourse analysis can never reflect reality in any simple way. It can only ever be an interpretation of the interpretive work people have done in their specific contexts (Gee, 2011a). I was mindful to address a number of pitfalls or shortcomings that Antaki, Billig, Edwards and Potter (2003) identified can undermine the credibility of discourse analysis. These authors view that writers are not doing analysis if they summarise, take sides, parade quotes, or simply spot features of talk or text in the data that are already well-known. Nor are they doing analysis if their discovery of discourses or mental constructs is circular, or if they unconsciously treat their findings as surveys. “Perhaps it is safe to say that analysis means a close engagement with one’s text

or transcripts, and the illumination of their meaning and significance through insightful and technically sophisticated work. In a word, discourse analysis means *doing analysis*” (Antaki, Billig, Edwards & Potter, 2003, p. 19, italics not in original). I address the rigour advocated by these authors through my rhizo-textual analysis of the micro and macro discourses in play.

Having discussed issues of validity and quality, it follows that in the next section I discuss ethical issues associated with this research.

4.12 Ethical Issues

As alluded to above, I identified the school and teachers as potential participants through my ISTE work and approached the school formally within my role as a researcher after having gained ethical approval. A letter explaining the thesis topic and seeking permission to research in the school was sent to the principal. I also informed the school board of trustees, the principal and teacher participants of the research through face-to-face discussions where I presented them with an information sheet and consent forms (Appendices 16-17, 18 & 23). Informed consent was sought and gained from the students and their parents or caregivers (Appendices 19-24). Access to the students was gained via their teachers. The principal, teachers, students and parents/caregivers were made aware that they participated on their own volition and had the right to pull out at any stage of the research process. I followed up on the written informed consent verbally when I interviewed, observed and talked with the students and teachers.

My ISTE/ researcher roles required that I both support the teachers with collaborative and critical reflection and also ensure the research was ethically conducted in a way that respected the integrity and safety of the participants. For this reason I ensured that the roles of researcher and ISTE were kept separate and clearly delineated for the participants. I also made it clear that the six additional observations over the course of the year were not compulsory and dependent on their consent to participate in the research. I ensured that the research was not at the expense of classroom time, time for professional development (PD) or the teachers’ personal time. As highlighted in the section on validity, I believe that the teacher and student participants gained from the

opportunities for reflection that this research afforded. The teachers reviewed the preliminary findings associated with their teaching at the end of each term. Their confidentiality was assured. Nowhere in this written thesis are the participants identified. Pseudonyms are used for both the school and the participants.

Power circulates throughout social contexts and is fluid however I was aware that my identity categories as professional developer and researcher could construct hierarchical power relations when I engaged with both teachers and students. In particular, there is a power differential in existence between children and adult researchers. For this reason I was sensitive to cues (verbal and nonverbal) that the students gave to indicate that they were reluctant to participate. Where a student's body language or tone of voice suggested he or she did not wish to continue with the interview, I made sure to desist. Because I used the students' data with their teachers, the students were made aware of this at the start of the study and as the research progressed. The students were also told at the time of their interviews that the recorded data was to be used with their teachers. This was so that the students could make an informed decision regarding what they wanted to contribute and share. In keeping with an ethic of care, I exercised my judgment on their behalf if I believed their information could prove damaging to their relationship with their teachers. This was particularly relevant in the case of the video footage of the students that I recorded and used with their teachers.

There were cultural and social considerations in the school research context. The students in the school are predominantly Māori. In my dealings with the students I strove to be culturally responsive; I took my cues from the students in regard to our interactions, striving to ensure that I worked with an ethic of manaakitanga. Macfarlane, Glynn, Cavanagh and Bateman⁷ (2007) describe manaakitanga as an 'ethic of care' in the classroom which enables cultural connectedness. While in the field I was able to consult with a colleague in her

role as Kaitakawaenga Māori⁸ to ensure that my dealings with students and their whānau (family) were culturally appropriate.

The section which follows outlines how I present the data plateaus which follow in chapters five, six and seven.

4.13 Data Presentation

The analyses in the ensuing three data chapters are specific and detailed. Each of the plateaus commences with a transcript of a classroom episode. These classroom episodes are divided into two columns which outline the ‘Dialogue’ and ‘Actions’ taken by the participants. The ‘Dialogue’ column is a record of the talk in the public space of the classroom. Justified to the left of the ‘Actions’ column are the explanations of the dialogue. Justified to the right in the ‘Actions’ column are actions that are not directly linked with dialogue at the time. These actions on the right are significant for they convey, in keeping with shifting rhizomes, the moves of the participants as they are co-implicated in the classroom discourse. Italics are used to give an overview of significant classroom events. I have also used section breaks to highlight the specific discourses and discourse moves that are apparent in the interactions.

The analyses are written in the present tense which, in keeping with Deleuzian immanence, emphasise the generative nature of the rhizome as always in flow. The classroom episodes are followed by commentaries. These commentaries comprise discourse analyses which have been generated using Gee’s theoretical tools of inquiry: discourses and identity affordances. In the commentaries I integrate the classroom episode and the student and teacher interview data to explore the discourses in play and the commensurate subjectivities constituted in the assemblages. The named discourses are italicised and the subjectivities are placed in italics. The classroom episode transcript is referenced with the speaker’s name and a line number/s e.g. (198. Jan). This format provides a reference from the data analysis to the specific sequence of events in the classroom episode. In the analysis I juxtapose text boxes with the relevant quotes which reference both the speaker’s name and the line numbers e.g. (Jan,

⁸Kaitakawaenga Māori is a Māori cultural advisor.

lines 198-202). In the text of the analysis there are just the line numbers e.g. (lines 198-202). References to the interview and lead teacher meeting transcripts (Appendices 7-13) are also embedded in chapters five, six, seven and eight. These transcripts are numerically coded in turns e.g. T12 is turn 12. I refer to specific sections of the interview transcripts by using the speaker's name to indicate which interview the comment is from and which turn number it is (e.g. PJ, T12). Some of the larger passages of the interview dialogue have been broken down into multiple parts to enable the sections to be analysed and used as supporting evidence in the thesis text. In the analysis I use samples of data interdiscursively to identify and interpret the different discourses. I explore the same data samples from different discursive lenses to see how they can refer to the various discourses named in the plateaus. My different interpretations of the same data are in alignment with the poststructural epistemology, which underpins this thesis.

Following on from the discourse analysis, which comprises the commentary in each data chapter, I conclude with a discussion on agency and a chapter summary. The plateaus in chapters five, six and seven are followed by a further layer of analysis in chapter eight where I discuss the rhizomatic nature of the plateaus in light of the research questions.

4.14 Chapter Summary

This chapter commenced with an acknowledgement that qualitative research is contested and poststructuralism can provide a useful analytical lens with which to problematise what can be taken-for-granted. I have outlined a two part analysis process that draws from Deleuze and Guattari's (1987) notion of the rhizome and Gee's (2011a) method of discourse analysis. This approach facilitates the 'affective' element of researching within assemblages. The unboundedness of rhizomatic thinking enables the data to be presented as plateaus. Honan's (2004) rhizo-textual analysis informs the way that I map learner agency across the rhizome as lines of flight in discourse. Rhizoanalysis eschews asking foundationalist questions about what something means (Masny, 2013) focusing on the dynamic element of 'becoming' (in this instance cartographies were produced). While the approach to discourse analysis does engage with textual interpretation, I make the caveat that this sense making is a

process that I use to illustrate the effective force of the assemblage as an arrangement of discourses.

In addition to data collection approaches, I have detailed how I have ensured that the research is robust and ethical. Lather's (2007) notions of 'catalytic' and 'transgressive' validity offer frameworks to ensure that there is merit in the study. In this research I have been careful to act ethically, to ensure that my dual role in the school did not compromise the students or teachers.

In chapters five, six and seven, I present the three rhizomatic plateaus which illustrate how identities are co-constituted in the classroom discourses. Each data chapter comprises a plateau where the interplay between discourses and identity affordances is mapped. I use Gee's (2011b) discourse analysis tools to explore the identities and discourses in play within the research texts. These tools support an examination of the micro discourses or 'language in use' in the plateaus which reveals how the students and their teachers are constituted in discourse. It is important to be mindful that discourses and identities in this research are not constructed as discreet tidy packages offering definitive descriptions. They are multifaceted and heteroglossic.

The classroom episode in each plateau is juxtaposed with the student and teacher interviews and the lead teacher meeting transcript to facilitate rhizo-textual analysis. I use the three cartographies of discourse to map the students' lines of flight in each plateau. The rhizo-textual analysis enables me to address the central concerns of this thesis: how students engage as authoritative, active participants, authoring and directing their own actions in social activity within discourses; how students move themselves from one set of culturally and socially structured subjectivities to another and how agency can look, sound and feel in the discursive spaces of the classrooms. Ontologically the plateaus do not convey a unified 'truth' as such. I seek to explore how the discourses which position the participants intersect, overlap, merge and/or create contradictions.

In the following data chapters students' and teachers' subjectivities shift as they accept different discourse positions. In the first plateau the teacher, a student instigates a lesson on critical thinking. Jan, the teacher, is challenged to respond

to this student's position call to be a 'critical thinker.' In the second plateau a group of students take the initiative to author their own science investigation, unbeknown to their teacher. Both the teacher and student in the third plateau negotiate a speech writing task from their different discourse positions in an English classroom. Each chapter commences with a poem which I assembled from the student interviews. By placing the students' words at the head of the assemblage, they take a place of prominence.

Chapter Five – Plateau One

‘The Hoax:’ Agency as Hybrid, Emerging and Relational.

It was a hoax.
Now everybody knows.
It ain't real.
Don't believe everything
You see. I was hoping
That I woulda showed them
What I showed them
Now. Oh yeah.
It was a fake I reckon.

(PJ)

5.1 Overview.

This plateau, entitled “The Hoax,” illustrates how agency is hybrid, emerging and relational. In this plateau we see interplay between a student, PJ, his peers and his teacher, Jan. The chapter maps the classroom discourses and affordances which enable PJ to make rhizomatic moves during the opening fifteen minutes of a science lesson. The interwoven nature of discourses can be seen when PJ responds to the interpellations of his peers and teacher. As he is resignified in the discourses, shifting and, at times, conflicting subjectivities are produced. The plateau illustrates how subjectivities can be constituted intersubjectively across discourses in the science classroom. PJ takes up authoritative positions across the hybrid discourses to expose his teacher’s image as a hoax.

5.2. ‘The Hoax’ Classroom Episode

‘The Hoax’ episode takes place at the beginning of a 9JG science lesson. To conclude the previous day’s lesson Jan, the teacher, shares an image of a shark behind two divers which a friend had emailed to her (Figure 1 and Appendix 15). At home that evening a student, PJ, locates a picture in Google images of the same shark without the divers in front (Figure 2) and another picture of the shark with a different pair of divers. He realises that Jan’s image is not authentic. Returning to school the next day, PJ tells Jan that her image is a fake, a hoax. Recognising an opportunity for PJ to share his critical thinking as a

model for the class, Jan postpones her planned lesson to allow him to share his find. Jan logs on to her computer while the students stand or sit about the room, laughing and talking loudly. There is a lot of noise and movement as they interact with each other before the lesson begins. Floyd and Blake begin passing a ball. Jan physically positions herself in a teaching location which she uses to cue her students when she is ready to commence the lesson. She projects an image of a shark and two divers on her computer screen (Figure 1). It is the image that she had shown to the class the previous day. The following is an account of the dialogue and action that take place as PJ shares his find with his peers.

Dialogue	Action
<i>Participatory Learning</i>	
Figure 1. Shark hoax image teacher had shown students	
 <p style="text-align: right;">(Christensen, 2007)</p>	
<p>103. Zena: It's huge!</p> <p>104. Valerie: What is it Miss?</p> <p>105. Sharon: Oh look at that shark! I</p> <p>106. just noticed it.</p>	<p>When the shark appears on the large screen at the front of the classroom a group of students are intrigued by it and engage in animated conversations. Valerie's comment is in a high-pitched shriek. Other students start talking in excitement.</p>
<i>Science Classroom Discourse</i>	
<p>107. Jan: Right stop.</p> <p>108. PJ: What's our time?</p> <p>109. PJ: What's our time?</p> <p>110. Jan: Shhhh. Thank youuuuu.</p> <p>111. Jan: Can we please stop and</p> <p>112. focus on this!</p>	<p>The students keep talking over Jan's call for their attention.</p> <p>PJ's question distracts Jan and she points to clock on the back wall.</p> <p>The students continue to talk over Jan so she moves to her 'teacher place' beside the whiteboard. [PJ laughs with Tim.] Firstly Jan</p>

<p>113. Jan: Shhhh! 114. Jan: Nooooow!</p>	<p>offers a polite request, the students also ignore her “shhh”. The last attempt a firm “Now!” succeeds.</p>
<p><i>Discourse Move to Critical Thinking</i></p>	
<p>115. Jan: We were all really blown 116. away by this yesterday. 117. Remember it was an email that 118. got forwarded to me. And you 119. know the story. It was supposed 120. to be a fifteen year old boy 121. taking the underwater photo of 122. his parents. They wondered why 123. he took off very quickly because 124. there was a shark behind them.</p> <p>125. Jan: Now I want us to listen to 126. PJ. PJ has come back this 127. morning. He has found out 128. something. Tell us PJ what you 129. found out. 130. PJ: I seen that same shark. Same 131. shark. No family. But it was the 132. same picture. I’ll show you Miss. 133. Jan: Ok. And it’s the same 134. orientation isn’t it. Like the 135. shark is exactly the same. 136. Henare: It’s in the same place 137. but they animated and put two 138. people in front. 139. Jan: Ahhhhhhhhh!</p>	<p>Jan begins a recount, cuing the students into what had happened in the previous lesson the day before. Jan points to the image on the whiteboard.</p> <p style="text-align: center;">Henare says the words “there was a shark behind them” while Jan is talking. The students begin to talk about the image.</p> <p>Jan asks the students to attend to PJ as he accepts Jan’s invitation to take over the story.</p> <p style="text-align: center;">Thor remains standing and wanders to the back of the classroom throwing a paper dart. Jan ignores this behaviour and continues the lesson.</p> <p>Jan smiles at Henare and speaks with a rising and falling intonation.</p>
<p><i>Discourse Move to Participatory Discourse</i></p>	
<p>140. PJ: I will show you. Can I show 141. you Miss? 142. Jan: Can you show us? Yeah you 143. show us. Um... Now that raised 144. a very important point because...</p>	<p>PJ stands in front of Jan. He moves to Jan’s computer at side bench where it is connected to a data projector.</p> <p style="text-align: center;">Thor throws a dart down the side of the class and retrieves it.</p>
<p><i>Discourse Move within Participatory Discourse (Power Shift)</i></p>	

<p>145. PJ: It's in images. Where are 146. images?</p> <p>147. Jan: Go up to my Favourites. Go 148. to my favourites. Are you right? 149. You know how to...? OK. Cool.</p>	<p>PJ interrupts Jan to find out how to access the images. He bends over the computer and brings up shark images, which are projected onto the whiteboard for all to see. Jan turns to PJ and instructs him where he can find the shark image on her computer.</p>
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Discourse Move to Critical Thinking

<p>150. Jan: So... Thor! So I got that 151. photo. I got that photo. I got that 152. sent to me and I thought well 153. this is absolutely amazing.</p>	<p>Thor stands up and walks down to the back of the classroom with a dart in his hand. Thor throws the dart again. Jan gives a glance to Thor across the classroom. Saying his name to give him a signal that she has noticed him, she goes on talking.</p>
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Discourse Move to Participatory Discourse

<p>154. Zena: Who sent it to you? 155. Jan: I showed you guys and you 156. said 'Wow look at that! That's 157. amazing!' I was believing exactly 158. what I had seen.</p> <p>159. Henare: There Miss! 160. Jan: Click on it. 161. Zena: Oh my God!</p>	<p>Zena interjects and Jan ignores Zena's interjection and continues with her recount. She recaps the scenario from the previous day and comments on how easy it is to be deceived by an internet image. She informs the class that she also believed the shark picture to be authentic. Jan points to the whiteboard as PJ brings up a range of images.</p> <p style="padding-left: 40px;">Henare points to the familiar image of a shark (Figure 2.) among Google images.</p>
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Figure 2. Image of shark used in hoax found by PJ on internet.



(Christensen, 2007)

<i>Discourse Move Critical Thinking</i>	
<p>162. Jan: So there it is there. Look 163. hoax. Do you know what a hoax 164. means?</p> <p>165. Tim: Nah.</p> <p>166. Jan: If something is a hoax it's a 167. fake. It's a trick.</p> <p>168. Henare: Most probably a shark 169. in a tank or something.</p> <p>170. Jan: So PJ. PJ how did you find 171. that? How did you actually find 172. that?</p>	<p>Jan leans into the whiteboard and points to the website name. PJ expands the image so that the other students can see it and read the caption. Jan brokers the word 'hoax' as new vocabulary with the students.</p> <p>Tim speaks quietly, almost in awe.</p> <p style="padding-left: 40px;">Thor spirals his dart to the floor in front of him at the back of the class.</p> <p>Jan waits a few seconds but no one responds before she answers.</p> <p style="padding-left: 40px;">Thor picks up the dart and throws it further.</p> <p>Jan does not seem to notice Henare's remark.</p> <p style="padding-left: 40px;">The students comment among themselves.</p> <p>Jan raises her voice to speak over the students' voices to address PJ.</p>
<i>Discourse Move to Counterscript (Deterritorialization)</i>	
<p>173. Blake: Oh look! Go down! 174. Go down! Look at that shark!</p> <p>175. Jan: How did you actually 176. find that? Shhhhh!</p> <p>177. PJ: I went into images.</p>	<p>Blake interrupts Jan with his exclamation. He sees another shark image that catches his eye and asks PJ to scroll down further in Google images.</p> <p style="padding-left: 40px;">The students all begin to talk.</p> <p>Jan holds up hand to signal to everyone to listen to her. Jan turns to look at the whiteboard.</p> <p style="padding-left: 40px;">Thor, still standing at the back of the class, throws a dart while Jan has her back turned.</p> <p>PJ returns to the Google images search page and clicks on another shark picture. PJ speaks very quietly, almost inaudibly.</p> <p style="padding-left: 40px;">Drawn into the events, Thor stops throwing darts to watch the screen. He walks to his seat, picks up an exercise book and sits down.</p>

<p>178. Henare: It's not the fulla being 179. munched. It's the shark going 180. over the top of the fulla.</p> <p>181. Jan: So you went into images. 182. Did you do that because you 183. thought...? 184. PJ: (inaudible)</p> <p>185. Blake: Look at the shark behind 186. that surfer! 187. Jan: OK. So PJ he looked at the 188. photo a lot more critically. 189. Didn't he?</p> <p>190. Thor: Farr! What is that? 191. Jan: What is that?</p> <p>192. Henare: It's a shark caught in a 193. net and it's hanging over like this. 194. Blake: Where's its mouth? 195. PJ: Down the bottom</p>	<p>Henare describes this shark loudly over PJ.</p> <p>Other students look at the image projected on the screen and talk about what they see.</p> <p>Jan asks PJ to talk with the class about how he discovered that the image is a hoax and PJ responds quietly to Jan's questions.</p> <p>Looking at the googled images, Blake interrupts Jan and speaks loudly over the top of PJ. PJ speaks inaudibly, distracted. The other students comment.</p> <p><i>The students ask PJ to expand other googled shark images, some of which are obvious hoaxes. PJ follows this line of flight, projecting alternate shark images. Jan and the class are intrigued by one particular image the boys find. Everyone looks closely to make out its features, Jan included. This alternative image distracts everyone's attention from Jan's focus on critical thinking.</i></p> <p><i>PJ projects another Google image on the screen, which takes everyone's attention. PJ then finds an image of a shark hanging upside down. He enlarges this shark. The students all lean forward to look closely. PJ bends over the small computer screen for a better look. PJ enthusiastically points to the screen.</i></p> <p>Thor leans forward looking closely at the image PJ has projected onto the big screen. Jan tilts her head to scrutinise the image. Jan sounds intrigued with the image on the screen.</p> <p>Henare makes the shape with his hands. Jan goes over to look at the image from Henare's angle. They examine the image for a few seconds.</p>
<p><i>Discourse Move Critical Thinking (Reterritorialization)</i></p>	
<p>196. Jan: Oh Ok. Can you go back to 197. the shark photo.</p> <p>198. Blake. Oh most of its face is</p>	<p>Jan refocuses the class back to the original hoax shark image.</p> <p>Blake comments almost inaudibly</p>

<p>199. missing.</p> <p>200. Jan: OK. So when PJ looked 201. at it yesterday he didn't say 202. anything but obviously you 203. looked at it a lot more critically 204. that what I did- and what we did. 205. And he thought that doesn't 206. sound quite right having that big 207. shark. How come it didn't chase 208. the boy when he went back to the 209. boat?</p> <p>210. Henare: The flash. 211. Jan: Yeah somebody talked 212. about the flash in the camera. 213. Jan: Yeah</p> <p>214. Jan: So I think- Thank you 215. PJ. Cos we now know maybe we 216. need to be a little more critical of 217. what we are looking at. Maybe 218. we have to sort of think – 'Ahh! 219. Now I am not necessarily going 220. to believe everything that I see. I 221. am not going to believe 222. everything that I get told.</p>	<p>PJ brings up original hoax picture. Jan points out that it is PJ's critical thinking that enabled him to identify the hoax.</p> <p>The students start talking</p> <p>Jan responds to someone inaudible.</p> <p>Jan moves behind the teacher's desk at the front of the room to begin the next part of the lesson, which happens to be a quiz on material from the previous day.</p>
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5.2.1 Description of the 'The Hoax' Classroom Episode

In the classroom a number of discourse moves take place, which are identified in the section breaks in the classroom transcript (above). The episode begins when the shark image that Jan had shown the class the day before is projected onto the big screen at the front of the room (Figure 1). The image causes quite a stir and it takes five attempts for Jan to gain the students' attention when she wants to begin the lesson. She tells the students that PJ is going to share something that he has discovered with them. PJ takes his place at the front of the class and uses Jan's computer to locate the image that dispels the other as a hoax (Figure 2). Jan prompts PJ to talk about his process of critical thinking.

The students are also interested in other sharks and the discourse shifts when PJ takes direction from his peers to explore some of the alternative images that appear on the Google search page. After this short sojourn, Jan refocuses the students' attention back to PJ to highlight the notion of critical thinking.

5.3 Discourses and Identity Affordances in 'The Hoax' Plateau

In this plateau there are four big 'D' discourses in play. These comprise *science classroom*, *critical thinking*, *participatory learning* and *teenage counterscript* discourses. Identity affordances play out at the interface between the personal and social within and across these discourses. Interpellations are accepted and refused and identities are signified and resignified. Consequently, subjectivities change moment by moment. I observed Jan and PJ take up the following positions within the different discourses (Table 3).

Table 3 Table of Discourses and Subject Positions in 'The Hoax'

Discourse	Subject Positions
<i>Science classroom discourse.</i>	PJ as 'good student' Jan as 'teacher authority'
<i>Critical thinking discourse</i>	PJ as a 'critical thinker' Jan as a 'critical pedagogue'
<i>Participatory learning discourse</i>	PJ as 'authoritative decision maker' Jan as 'co-learner' and 'co-presenter'
<i>Teenage counterscript discourse.</i>	PJ as 'one of the boys'

These italicised discourses and their associated subject positions (in inverted commas) are set out in the following sections. These sections juxtapose the classroom episode data with the teacher and student interviews.

5.3.1 Jan's Science Classroom Discourse

Jan's classroom is a typical science room with a teacher table at the front and benches and sinks around the perimeter with their high font taps. There is a

skeleton looking out of the office window on which the teacher's coat sits, a nod to Jan's science oriented sense of humour. The adjacent storerooms house jars and beakers with various chemicals. In this space Jan wears a lab coat; appearing as a scientist figure.

In the New Zealand science curriculum, as defined by the NZC (Ministry of Education, 2007b), ideas about natural phenomena are to be generated and tested. Students are expected to carry out investigations, make observations, model, communicate and debate with each other in order to develop their scientific knowledge, understandings and explanations. There is a concern with evidence and a view that science knowledge and skills can assist with problem solving and decision-making. This understanding of the world is premised on current scientific theories, which continue to evolve.

PJ as 'Good Student'

In the classroom episode PJ makes a bid to be positioned as 'good student' through appearing agreeable to Jan and offering to share his insights. He takes up a 'good student' position by cooperating with Jan to prove that the shark image is a hoax. When Jan hands over responsibility for the computer and data projector to PJ, Jan signals that he has something relevant to contribute to the discourse of the *science classroom*. In his public presentation he does not refer to his peers explicitly (lines 130-132, 140-142) which suggests that he wants to show the image to Jan in particular.

In his interview following the lesson (Appendix

7) PJ makes an identity bid to be positioned as a 'good student.' 'Good students' support the learning of their peers by paying attention and following the teacher's instructions. PJ describes how, as a 'good student,' he follows the

*I seen that same shark.
There was no family but it
was the same picture. I will
show you Miss.
(PJ, Lines 130-132)*

*I will show you. Can I
show you miss?
(PJ, lines 140-142)*

*Listen- listen to
instructions. Try not to get
distracted by other people.
(PJ,T28)*

*I don't know -bring my
working equipment. Listen
to what the teacher says
and do what she wants me
to do- or the whole class.
(PJ,T54)*

teacher's direction and avoids being distracted by his peers (PJ,T28; T54). This position contrasts with the moment when PJ becomes more interested in pursuing the shark images online rather than listening to Jan. It is possible that in the intersubjective space of the interview, PJ may have been articulating what he thought I would like to hear as an adult. In the interview when I asked him 'who was in control of the learning?' he describes how, through his compliance with classroom discourse, he is doing all the right things that he thinks his teacher wants him to do (PJ,T54).

In his interview PJ says that at the time he was "surprised at getting up in front of the class" (PJ,T4). He describes how Jan had to keep the class in check for him to show them the shark that he had found (PJ,T26). This affords him space as a 'good student' to share his find with them. PJ worries about being right in his assertion that the hoax is untrue as he does not want to lose face with his peers (PJ,T12). His comment suggests that he thinks that his peers needed to be controlled by Jan as a 'teacher authority' figure for him to address them as a group. It is Jan's role to ask the group to settle and listen to him.

Jan as 'Teacher Authority'

Jan commences the lesson standing in a central location at the front of the class near the teacher's bench. As a teacher, she strives to keep order and discipline in the classroom (lines 110-114). She establishes her expectation that the students attend to PJ (lines 125-129). There

is persistent talk when Jan tries to bring the class together to listen to him. More interested in their peer relationships, the students prioritise their own conversations while she tries to focus them as a group. Jan bids for their attention (lines 107, 110- 113) and when this does not work she employs a more severe tone to insist that they stop and listen to her "Nooooow!" (line 114).

Miss was keeping the class in control. And I was showing the class the picture. (PJ,T26)

A bit nervous cos I thought it would be wrong or something. I was hoping that I woulda showed them what I showed them now. Oh yeah it was fake I reckon. (PJ,T12)

Now I want us to listen to PJ. PJ has come back this morning. He has found out something. Tell us PJ what you found out... (Jan, lines 125-129)

Jan's insistence (lines 125-129) that the students should listen to PJ could be seen to undermine him. However, it is through this action that Jan makes space in the classroom for his peers to afford PJ an agentic identity where he is accorded attention. Jan's insistence makes it appear that it is not PJ's initiative to stand before the class. This action seems to shield PJ from the risk of being rejected by his peers for pushing his views onto them.

5.3.2 Critical Thinking Discourse

Critical thinking, where students exercise purposeful and reflective judgement, is an important discourse in science classrooms. It is embedded in the science strand of the New Zealand Curriculum with its emphasis on “generating and testing ideas, gathering evidence – including by making observations, carrying out investigations and modelling, and communicating and debating with others” (Ministry of Education, 2007b, paragraph 1). In the ‘nature of science’ strand students are expected to think critically: they “collect evidence that will be interpreted through processes of logical argument” (Ministry of Education, 2007c, level 5), and when they “appreciate that while scientific knowledge is durable, it is also constantly re-evaluated in the light of new evidence” (Ministry of Education, 2007b, paragraph 5). *Critical thinking* is also embedded in the NZC ‘Thinking’ key competency which is characterised by the ability to use “creative, critical, and metacognitive processes to make sense of information, experiences, and ideas... [Students] reflect on their own learning, draw on their personal knowledge and intuitions, ask questions, and challenge the basis of assumptions and perceptions” (Ministry of Education, 2007d, paragraph 6).

PJ as ‘Critical Thinker’

In the classroom Jan assists PJ to mobilise the social and discursive resources to take his line of flight as a ‘critical thinker.’ PJ illustrates how he thought critically when he realised that there was no family in the image in front of the shark that he found on the internet at home (lines 130-132). PJ exercises discursive agency in his capacity to use evidence to evaluate the shark image and challenge existing assumptions. Thus, he illustrates *critical thinking* discourse; although he may not have initially named or described it in this way, Jan resignifies him as a critical thinker.

As PJ stands before the class Jan raises her voice to speak over the other students in an effort to elicit further detail from him about his process of critical thinking (lines 175-176). She has to ask the question “How did you actually find that?” three times (lines 170-176) before the students settle. PJ literally interprets Jan’s invitation to explain his process of critical thinking and tells her in response to her question that he found the shark picture in Google images (line 177). He does not explain his process of critical thinking; he says very little and speaks very quietly when Jan asks about it. It is likely that he senses that his peers are distracted and the brevity of his response is to both minimise this and to placate Jan. The students are intrigued with the shark images on the screen and request that he project alternative images, which he does for a few minutes. Then, at Jan’s request (line 196-197), PJ uses the computer to refocus the students’ attention back on the initial hoax shark photograph. Jan becomes the teacher again and publically asserts PJ’s position as a ‘critical thinker.’

*I seen that same shark. Same shark -no family. But it was the same picture. I’ll show you Miss.
(PJ, lines 130-132)*

*How did you actually find that? Shhhhhhh!
(Jan, lines 175-176)*

*OK. So PJ he looked at the photo a lot more critically. Didn’t he?
(Jan, lines 187-189)*

*OK. So when PJ looked at it yesterday he didn’t say anything but obviously you looked at it a lot more critically that what I did- and what we did.
(Jan, lines 200-204)*

*And he thought that doesn’t sound quite right having that big shark. How come it didn’t chase the boy when he went back to the boat?
(Jan, lines 205-209)*

PJ’s actions interrupt how Jan positions him and her students, prompting her to resignify him as a ‘critical thinker’ (lines 200-204). Because PJ does not articulate his process, Jan answers her own previous question “How did you find that?” by outlining how she thinks PJ used self-questioning to think critically (lines 205-209). In doing so Jan brokers *critical thinking* discourse with the class. She uses the word “more” (line 203) to illustrate how PJ looked more critically than she or the other students did. Jan makes this position call by recognising and naming PJ ‘critical’ (lines 187-189; 200-209). She uses a rhetorical question “Didn’t he?” (line 189) to engage the students’ reflection and

to solicit their unspoken agreement. She supports PJ by being his ‘co-presenter.’ However, by explaining his process to the other students, PJ risks their disapproval as they may not value this discourse. It is also likely that before this lesson PJ was not aware of his criticality at a metalevel.

It was a hoax and it wasn't real...Now everyone knows it ain't real and don't believe everything you see. (PJ,T6-T8)

In his interview, PJ constitutes himself as a ‘critical thinker’ and interpellates his peers into a discourse of *critical thinking* (PJ,T6-T8). He indirectly alludes to Jan’s comment about the need to be critical and acknowledges that he had an influence on his peers’ criticality (PJ,T6-8). We can see reflexive agency exemplified in PJ’s willingness to author an authoritative position in *critical thinking* discourse (PJ,T14). This capacity for reflexive agency is a social affordance that is supported by both PJ’s peers and teacher.

[I wanted to] show everyone that picture- that it is fake, a hoax. (PJ,T14)

Jan explains to me in her interview how much she values what PJ did. She speculates that the class produced PJ’s subjectivity by affording him an agentic subject position and that this had a positive impact on him (Jan,T24). Her comment suggests that PJ’s prior positioning was interrupted when she made space in the classroom for him to appropriate a ‘critical thinker’ identity. Jan describes how PJ was co-constituted a ‘critical thinker’ in the classroom discourse. She observes that he did not expect to have an opportunity to share his discovery with the class and he could have been surprised by the subject position afforded him (Jan,T24).

His opinion was valued very much and the whole class valued it as well. So he should have felt quite valued and you know the fact that he went away and did what he did. I think it might have been a surprise to him that I took it as far as I did. That I valued what he did and took it seriously. He was the learner in charge that day. (Jan,T24)

So away he went. He went and found the photo and shocked us. And the kids were going “Wow!” (I said to him “You know what you just did PJ- you went away and you thought critically. That’s what you were doing, you were critically thinking about that photo that you saw and you knew somehow maybe something was not quite right about it. You were critical. So you went and explored it didn’t you?” And he said “Well. Yeah.” (Jan,T95)

Jan recounts to her colleagues (Appendix 12) how she made PJ's criticality explicit in the classroom. She positions him as an important class member who makes significant contribution to the group. Jan identifies that she did not tell PJ to go home and look up the photos: he did it on his own volition (Jan,T95). This suggests a *critical thinking* discourse response that Jan did not anticipate. Jan uses emotive language such as "shocked," to illustrate the impact of PJ's actions on her and on the class. Through portraying his actions in this way, Jan positions PJ as an independent and 'critical thinker' who takes a line of flight to position himself within *critical thinking* discourse. She observes that this has a significant impact on his peers.

And then Henare was saying -Do you know what he said? I thought about it. I did think about it last night Miss. And he said 'Sharks have to keep swimming.' He said 'Why didn't it just crash into the divers?' And then all these little things come up. But it was PJ. (Jan,T96)

...and Johnny said 'You know everything on the net; you know it's just all fake.' And because he was relating back to the shark picture we had looked at- at least that's what I think. And I said 'Oh really,' and he said 'Yes,' and I said 'Well you do don't you. You have to be critical don't you.' Because he didn't use that word but I thought stuff it I'll use it. (Jan,T113)

PJ's discourse move, of offering his analysis of the hoax photo, was a catalyst which opened up a space for others to take up 'critical thinker' subjectivities. It afforded Henare an opportunity to indicate that he too had thought critically (lines 137-138). Jan notes and affirms Henare's action in her interview (Jan, T96). In a second instance, another student, Johnny, spoke to Jan about the need to be critical of internet information. Jan recounts this incident to her peers (Jan,T113) at a teacher meeting. Jan's colleague, Grace, who also teaches 9JG, affirmed that the students in the class had told her about the hoax. These were further lines of flight that were triggered by PJ's criticality.

Jan as 'Critical Pedagogue'

In this plateau Jan acts and describes herself as a practitioner who values critical thinking. Although his peers did not readily make a space for PJ to talk about his critical thinking in the classroom, Jan insists that they should listen to his discovery (lines 170-183). When PJ initiates an opportunity to model *critical*

thinking discourse, Jan invites him to take up an authoritative position as a ‘critical thinker’ in the class (lines 126-128). Drawing attention to the more formal social language associated with criticality, Jan describes the image as a hoax (lines 162-167) to emphasise to the students that it lacks validity. Jan assists the students to build their small ‘d’ discourse of criticality. She uses the words “hoax,” “fake,” “trick” (lines 166-167) and “critical” (line 214) to build this vocabulary so that the students understand that internet images may be deceiving.

When Jan constitutes PJ as a model ‘critical thinker’ in her recount to her colleagues (Jan,T94) (Appendix 12), she says how she would like her students to be critical, to have the disposition and skills to investigate and find out the “truth” (Jan,T99). She describes the episode as a “golden opportunity” (Jan,T26) to support the class’s learning and points out that she has aspirations for all her students to be ‘critical thinkers’ (Jan,T9). This is so important to her that she shares her experience at length with her colleagues. She asserts how imperative it is that the students strengthen their criticality; emphasising the importance of looking beyond the challenging classroom behaviour of 9JG to promote their critical thinking (Jan,T108).

Furthermore, Jan shares with her colleagues how PJ’s initiative opened up a discursive space for criticality in the class which had a significant impact on her critical thinking. His line of flight prompts Jan to make her criticality

*So there it is there. Look hoax. Do you know what a hoax means?
(Jan, lines 162-167)*

*The next day they came back for science and PJ he comes up to me and said “Miss, you know that photo, that shark picture.” “Yes.” He said “That’s a fake.” And I said “Is it?” He said “I’m sure it’s a fake.”
(Jan,T94)*

To have the strategies or skills or whatever to know where to go to find out the truth. You know what I mean... (Jan,T99)

It was just a golden opportunity. I think teachers have to see the golden opportunity and run with them. Recognising it when you see it. (Jan,T26)

*I want these guys to be critical of their world. I want them to be really open and critical.
(Jan,T9)*

We can teach them to reflect on things, their actions, to inquire and think about what they do before they do it. It’s that whole critical thinking thing. (Jan,T108)

explicit. She positions teenagers as gullible and then expands this position to include herself (Jan,T114), observing how, at the time of the hoax incident, PJ's critical thinking was superior to her own (Jan,T116). Although Jan introduced the shark to the class in the first place, she had not given the email another thought and it was PJ who thought critically to expose it as a hoax. This paradox challenges the conventional teacher/ student positioning where teachers are the experts.

During our reflective dialogue Jan comments on her own learning; how she wanted to let go of the need to dominate the classroom. In a light-hearted way, Jan describes the desire to move from a didactic approach where she was prone to "teacher lust" (Jan,T86). She alludes to how she strives to keep her own desire for attention in check so that PJ could have space to make his contribution. This identity bid locates her as a teacher who supports both *critical thinking* and *participatory learning* discourses, the latter is addressed in the ensuing section.

So that got him thinking, -got him thinking about what he is going to look at on the net and that -cos teenagers can be so gullible but then they can for the rest of their lives. And see I did! I believed that shark photo to start with. (Jan,T114)

It was the end of the period. I'd seen it and thought Wow! Then I showed it to the class at the end of the period. Then the next class came in and I forgot all about it until PJ came back the next day. I never gave it another thought. So there's me I hadn't looked at it critically, PJ did. (Jan,T116)

Teacher lust. I have been avoiding teacher lust. I have been purposely trying to hold back and not show them straight away or give them the answer and letting them try and find it. (Jan, T86)

5.3.3 Participatory Learning Discourse

In *participatory learning* discourse students and teachers are active participants who interact as a learning community within the classroom context. There is an important link with the spirit of assessment for learning, in that students contribute to and make links with their experiences within and beyond the classroom to exercise agency. In a *participatory learning* discourse, student experiences and opinions matter. Learning is divergent and there are opportunities for student to make meaningful contributions in their lessons, to co-construct knowledge together. Learning can occur across contexts at different

times, although it is important to note that not all (out of school) discourses are sanctioned at school.

When Jan asks PJ to share the research he did at home on the shark image with his peers (lines, 142-143), her actions suggest a *participatory learning* discourse where learning can happen anywhere and anytime and that the students' out of school contributions can be valued. She recognises an opportunity for student-initiated learning and purposefully builds on PJ's out of school experience (Jan,T20).

In her interview Jan comments that she would like to promote lifelong learning and community participation (Jan,T107). When Jan focuses on and values PJ's contribution he is afforded authority. Jan also acknowledges Henare's identity bid (Henare, lines 136-138) to be recognised as knowledgeable for his understanding of the hoax (line 139). However, she does not expand on his contribution. If Henare had taken the lead to explain the hoax, this may have overshadowed PJ and at the time Jan was intent on supporting PJ's initiative (Jan,T22).

A participatory orientation is evident in the classroom discourse through Jan's use of the words "we" and "us" (lines, 115; 125; 215-218). Jan recognises that PJ has a desire to contribute to the class in an authentic way (Jan, T20). In accordance with *participatory learning* discourse, Jan positions the students as citizens

Well I didn't tell PJ to go home after school and look it all up. He did it. Then he came back to school to tell me all about it. And it was just an absolute gem. You just had to pick it up and run with it. At least I could see that. (Jan,T20)

Just because these kids are in this class and they've got all these difficulties, it does not mean they can't be lifelong learners and good citizens... Maybe they're not going to be brain surgeons but that doesn't mean that they cannot contribute to their community where they live, where they end up. (Jan,T107)

It's in the same place but they it and put two people in front. (Henare, lines 136-138)

Um well he thought about it more. It was an attention grabbing photo anyway but he had gone away, thought more about and become a bit critical. It interested him enough so that he would go away and research it. And he shared it with the class which was great. So he was contributing his findings to see what the others thought as well. (Jan,T22)

I will show you. Can I show you Miss? (PJ, lines 140-141)

Can you show us? Yeah you show us. (Jan, lines 142-143)

who have the capacity to make a positive contribution to their community (Jan,T107).

PJ as ‘Authoritative Decision Maker’

PJ’s identity bid is decisive. He repeats his offer to Jan to share his discovery “I’ll show you Miss” (lines 132; 140-141). PJ’s repeated use of the personal pronoun “I” suggests that he deliberately accepts this authoritative subjectivity by mobilising *participatory learning* discourse in the classroom. Jan recognises the potential of PJ’s contribution to the class and offers him an opportunity to share his find as an authority figure (lines 142-143). In turn PJ responds to this invitation by stepping up to be ‘the teacher’ at the front of the class. PJ also illustrates his position as a ‘decision maker’ when he explains how he found the hoax image when he “went into images” (line 177). Jan locates PJ as a responsible and active ‘decision maker’ (lines 200-209) when she invites him to take over her computer and data projector to focus the group’s attention on his hoax image. Through his presentation of the internet images, he is able to take up his authoritative position at the front of the room, appearing technologically literate to his peers.

PJ’s performativity produces a space for conflicting subjectivities. Here we can see how PJ’s agency is derived from his peers’ constitution of him as a viable subject. PJ is aware of *counterscript* and his peers’ opinions and reproduces a recognisable identity to contest his place in the class. Through making his rhizomatic move to take up a *participatory* discourse, he risks rejection and ridicule. It is a risk for PJ because he requires his peers to recognise his changed status as both an ‘authoritative decision maker’ and ‘critical thinker.’ These positions are tenuous as PJ does not want to lose face with his peers by making an error and being seen to “be wrong.” His identity bid could have been as a failure, had his line of flight met with resistance from Jan and his peers. It is understandable that he was nervous (PJ,T12).

A bit nervous cos I thought it would be wrong or something. I was hoping that I woulda showed them what I showed them now. Oh yeah it was fake I reckon.
(PJ,T12)

Over the course of the lesson PJ takes up multiples subjectivities which are interpellated into being by his peers and Jan. When Jan unsuccessfully attempts to elicit an explanation from PJ of how he engages in critical thinking, it could appear that Jan undermines PJ by talking for him. However, by doing this she creates a safe space for him to adopt an authoritative identity among his peers. PJ had not delivered an explanatory speech in front of his class before and Jan’s action enables him to safely stand before his peers and ventriloquise through her. Although Jan talks on his behalf, PJ appears to be comfortable with this. He does not risk peer criticism by adopting an identity that is discordant with the laid back one that gains kudos from his peers. Nevertheless, PJ demonstrates his authority and sense of control of the situation when he interrupts Jan (lines 145-146) to ask her to assist him to locate the image. At this point Jan stops her class address to respond to PJ’s question. This moment marks a shift in power (a shift within *participatory learning* discourse) as it is now PJ who holds the floor and has the capacity to capture his peers’ attention through his use of the visual images on the computer. Recognition is a site of power and Jan recognises PJ’s authority. The laptop is a discourse tool which supports this power shift. When his peers call out to see a certain image, it is PJ they address.

In his interview PJ constitutes himself as an ‘authoritative decision maker’ who takes a leadership position (PJ, 22). He acknowledges that he played an active role in how the lesson unfolded when he describes how he initiated ‘The Hoax’ lesson. Although he did not expect to be taken so seriously, PJ says that he willingly accepted Jan’s invitation to share his discovery. Although PJ appeared to court Jan’s favour by offering to share his find specifically with her (lines 132, 140-141), in his interview he says that he elected to share what he found with his peers (PJ,T22). PJ was aware that he brought *critical thinking* discourse to his peers’ attention, although initially he was disappointed that the image was a hoax (PJ,T10).

It’s in images. Where are images? (PJ, lines 145-146)

I wanted to get up and show everyone that picture and to get up in front of everyone. (PJ,T22)

[I felt] bummed out cos it sounded real and I was hoping it was, cos it sounded interesting. (PJ,T10)

To conclude this section on *participatory learning*, it is through PJ's contribution to the classroom discourse that he is constituted agentially in his social relationships. Jan positions PJ as a 'decision maker' and points out that he offered his findings to see what others thought (Jan,T22). She describes him as the "learner in charge that day." (Jan,T24) This simple statement suggests that PJ is discursively produced as powerful. He is "in charge." This reflects one of the more sophisticated aspects of assessment for learning practice where students can have an input into the design of their lessons. While PJ and Jan did not plan for the learning together, she makes space in the classroom for him to share the findings of his investigation with his peers.

Jan as a 'Co-learner' and 'Co-presenter'

The micro discourses in the classroom demonstrate how Jan assumes a 'co-learner' and 'co-presenter' identity. She purposefully asks the students to contribute their thoughts on the hoax image. When she invites PJ to move to her laptop to locate the photo in Google images, Jan's repetition and enthusiastic intonation of the word 'show' (lines 142-143) illustrate that she is pleased for PJ to take the lead and share his find with the class. Jan's question "Can you show us?" repeats PJ's "Can I show you?" The repetition of the question stem implies that Jan does not take for granted that PJ will adopt an authoritative identity. The linguistic repetition is a form of discursive relationship building which connects the two speakers. By turning the word "you" into "us," Jan shifts the target audience from her as the teacher to the class. This reflects *participatory learning* discourse where students are 'authoritative decision makers' in the classroom and Jan is positioned as a 'co-learner.'

*I showed you guys and you said wow look at that! That's amazing! I was believing exactly what I had seen.
(Jan, lines 155-158)*

During the episode Jan reminds the class of their shared misunderstanding the day before (line 155-158). The informal language that Jan uses invites PJ to work alongside her and forges a connection with the class. Her words "OK. Cool!" (line 149) supports her relationship with PJ as a co-presenter when he is at her computer. By using the metaphor that "we were all really blown away by this yesterday" (lines 115-116), Jan highlights how amazed the class were when they were shown the image the day before. Jan uses the

colloquialism “guys” (line 155) and the pronoun “we” to strengthen her relationship with the class through their shared experience of being “blown away.” This example of informal language connects the teacher and student discourse worlds. As interdiscursive language, it integrates the voice of informal teenager speak with teacher instructional language to forge heteroglossic connections.

Jan’s repeated use of the word “I” emphasises that she was initially drawn in by the hoax. By stating her own lack of criticality (lines 157-158), Jan takes up a position as a learner alongside the students. After she describes how amazed the class were the previous day, she shifts the focus to draw the students’ attention to her initial belief that the image was real. The indirect quotation “I showed you guys and you said ‘Wow look at that! That’s amazing!’” (lines 155-157) reminds the class of their reaction to the image and their enthusiasm the previous day. Through this shift in subject, Jan affords the students an opportunity to consider to what extent they had judged the image credible the day before. When Jan emphasises the word “believing” (line 157) she models being a learner and also make a space in the classroom where it is acceptable for the students to acknowledge their own gullibility. In doing this she foregrounds what is to come when the hoax is exposed to the class.

After the students have seen the hoax, Jan uses the plural pronoun “we” (lines 215, 217) to speak on behalf of the class to highlight the message she would like the students to take from the episode. Jan shifts from using a first-person plural pronoun ‘we’ to a first person singular pronoun “I” (lines 214-222). The effect of this is to personalise it by articulating critical thinking on behalf of the students – “Now I am not necessarily going to believe everything that I see.” By modelling these ‘we’ and ‘I’ statements Jan includes herself in the group, suggesting that she too has learned to think critically from this experience.

Thank you P.J. Cos we now know. Maybe we need to be a little more critical of what we are looking at. Maybe we have to sort of think -Ahh! Now I am not necessarily going to believe everything that I see. I am not going to believe everything I get told. (Jan, lines 214-222)

5.3.4 Discourses of Teenage Counterscript

In the *teenage counterscript* discourses that are enacted in this classroom peer culture is of great importance and the students are influenced by their friends' opinions. These discourses are embodied in the language and set norms and mores that the teenagers take up when they distance themselves from the subject positions expected by their teacher. In this plateau the *teenage counterscript* momentarily destabilises *science classroom* discourse. The focus of learning shifts from Jan's emphasis on *critical thinking* to a student-initiated discourse with its focus on internet shark images.

A *counterscript* discourse is evident in 'The Hoax' when Jan tries to quieten the students to give them instructions to start the lesson. The students resist their teacher's positioning when she calls them to begin the lesson (lines 110-114). Jan battles to keep the students' attention focused on PJ's critical thinking (lines 186-188) as they are more interested in taking lines of flight in *counterscript* to see other sharks (lines 173-174, 185-186). PJ balances the expectations of both his peers and his teacher. He shifts rhizomatically from *science classroom* discourse to *counterscript* in a line of flight when he projects alternative images onto the screen.

Oh look! Go down! Go down! Look at that shark! Look at the shark behind that surfer. (Blake, lines 173-174 & 185-186)

PJ as 'One of the Boys'

The *counterscript* opportunity offers PJ a chance to be recognised and accepted by his peers as 'one of the boys.' When his peers see the range of sharks from Google images, their attention is diverted away from the hoax shark image. At this time the students appear to be more interested in what is happening on the screen than the point that Jan wants to make about PJ's critical thinking. They are attentive to the alternative images rather than listening to PJ as a teacher figure (lines 173-174). Henare, Blake and Thor

*Farr. What is that?
(Thor, line 190)*

*It's not the fulla being
munched it's the shark going
over the top of the fulla...
(Henare, 178-180)*

*So you went into images. Did
you do that because you
thought...?
(Jan, lines 181-183)*

make loud references to what is on the screen (lines 178-180; lines 185-186; line 190). Their comments distract PJ and he does not continue with the shark story in any detail. For a while Jan persists with her focus on critical thinking; asking PJ to outline his actions (lines 181-183) and trying to include the class so that they can learn from his model. However, she does not persist for long as PJ does not address the class and speaks quietly only to her (line 184). (It was inaudible to me at the back of the room.) PJ's peers are distracted by the alternative shark images. Thus, he steers the lesson away from Jan's intended focus on critical thinking by using the computer as an affordance to shift discourses. Despite Jan's position at the front of the class, PJ manages this shift through his control of what is on the computer screen.

The *counterscript* images briefly even hooks Jan's interest and she participates as one of the class when she tilts her head to see a hanging shark and asks "What is that?" (line 191). After a few minutes of *counterscript*, however, Jan curtails the students' foray to view the alternative shark images, preferring to redirect their focus back to the hoax and on PJ as a 'critical thinking role model.' In this way she reterritorializes the conversation to keep the *counterscript* line of flight in check (lines 196-197).

In his interview PJ describes how he is torn between *script* and *counterscript*. He comments that the position calls from his peers make him "distracted" (PJ, T32-34). He suggests that it is a challenge to participate in the different *counterscript* conversations and do what he judges is the right thing by teacher *script*. This claim that he is "easily distracted" highlights a tension between teacher condoned, *science classroom* discourse, where PJ can be a 'good student' and 'authoritative decision maker,' and *counterscript* where importance is placed on him being 'one of the boys.' PJ's peers do not, on their own volition, make a space for PJ to talk and Jan struggles to address the class

Oh Ok. Can you go back to the shark photo.
(Jan, lines 196-197)

I was distracted... They were talking about different conversations. They were saying to me- remember that time PJ....and that's when I get distracted. - I'm easily distracted.
(PJ, T32-34)

So PJ. PJ how did you find that? How did you actually find that?
(Jan, lines 170-172)

How did you actually find that? Shhhhh!
(Jan, lines 175-176)

when they are distracted (lines 170-172; 175-176). PJ accepts Jan's position call of 'good student' yet he still remains 'one of the boys' through participating in the *counterscript* by using the computer to project alternative shark images. PJ appears to be very careful not to be too overt in taking up Jan's invitation to a 'good student' position.

5.4 'The Hoax' Plateau Discussion

'The Hoax' plateau illustrates how agency can be relationally constituted and hybrid. PJ's "citational practice" (Butler, 1993, p. 2) emerges as a refusal of norms. He challenges Jan's presentation of the initial shark photo and, in the process, produces agency. Constituted through the classroom discourses (*science classroom /critical thinking /participatory learning* and *teenage counterscript*), PJ demonstrates reflexive agency as he resists, subverts and authors the subjectivities afforded him in this plateau. He both shares his critique of the hoax image with the other students and takes their direction to look at other images. The performative act is not so much PJ showing the students the shark but the citational process which in that moment constitutes PJ as an agentic student and peer.

Deleuze and Parnet (1987) observe how molar lines with their rigid segmentarity support binaries. In this episode we see how PJ acts upon the binary of script and counterscript in that he manages to momentarily rupture the molar normative good student position. His line of flight takes him down a tightrope between discourses and identity positions. Deleuze and Guattari observe how "lines are constantly crossing, intersecting for a moment, following one another" (p. 203). Therefore, PJ's line of flight is not in contrast with the various entangled lines that constitute the assemblage but rather combined with other lines to make his subject positions simultaneously possible. By making rhizomatic moves between *counterscript* and *science classroom script*, PJ momentarily authors a hybrid position where he is both accepted as 'one of the boys' by his peers and recognised as a 'critical thinker' by the teacher. His agentic bid to reveal the hoax interrupts his normative subject position as one of the boys by deterritorializing the classroom structures of expression.

When he responds to the requests of his peers, he hybridises subject positions to construct a third space where he could both be inside and outside the group. As PJ negotiates this third space, he simultaneously takes up invitations to agentic identities across the classroom discourses. He does this through offering his new knowledge about hoaxes to the class while simultaneously participating as ‘one of the boys’ to source alternative shark images. Through this citation, his peers also are afforded opportunities to take up subjectivities as ‘critical thinkers’ by engaging in a brief critique of other shark images.

PJ uses personal, social and discursive resources and discourse tools to make these rhizomatic moves. He mobilises social resources to take his lines of flight when he works in partnership with Jan. She enacts the ‘spirit’ of assessment for learning when she invites PJ to take his authoritative position to lead the class. Jan is attuned to *critical thinking* discourse and recognises PJ as a ‘critical thinker.’ PJ is afforded a discursive resource when he accepts Jan’s recognition of him as a ‘critical thinker.’ However, the other students did not automatically afford PJ space to share his find with them and Jan was positioned as a gatekeeper for PJ to broker the hoax. Without the affordance of her support, PJ’s identity bid to be a ‘critical thinker’ would not have been recognised by his peers. PJ allows Jan to ventriloquise for him so that he does not distance himself from the other students.

PJ uses the computer as a personal resource to support his line of flight and as a discourse tool. This computer competence enables him to initially discover the hoax and demonstrate his mastery of the classroom discourses sharing it with others. The technology allows PJ to decide which images to bring up in response to the requests from his classmates. Through projecting images of alternative sharks, he is ‘one of the boys.’ The high interest material is a social resource that enables him to mobilise the support of his peers to take lines of flight. The laptop in this instance is an affordance which facilitates the constitution of PJ’s hybrid identities. As a discourse tool it aids PJ’s positioning as a ‘good student,’ ‘critical thinker,’ ‘authoritative decision maker’ and ‘one of the boys.’

When students exercise discursive agency they may refuse their teacher’s positioning. Although Jan asks him questions about his critical thinking, PJ momentarily refuses this position call by opting to take the alternative line of

flight with his peers. Although PJ achieves a prominent position before the class, it is a tenuous one. He is careful not to lose his place as ‘one of the boys’ in classroom underlife and resists his ‘good student’ positioning through his line of flight. It is likely that *critical thinking* is a new discourse for the students. It may be one that they do not recognise and PJ risks losing face when he stands before his peers. Thus PJ demonstrates discursive agency (Butler, 1997a) by adopting *critical thinking* discourse to contribute his hoax to the class and by carefully navigating his teen peer relationships so that he can remain ‘one of the boys.’ The recognition of his criticality by Jan and his classmates constitutes him agentially.

When teachers bridge discourses to support students to take up agentic subjectivities, they can also make corresponding shifts in the process. When Jan views the footage of the various shark images from her position as ‘co-learner,’ *counterscript* becomes legitimised in third space and she makes a discourse move to accept this student contribution. Nevertheless, *counterscript* is not *script* and as the lesson drifts into an expedition to find interesting shark images on the internet, Jan reterritorializes the collective focus back to PJ’s model of critical thinking and the hoax. Jan’s openness is fundamental to PJ’s capacity to demonstrate discursive agency (Butler, 1997a). By making space in the classroom for PJ to share his discovery, she supports his identity as a ‘critical thinker,’ ‘authoritative decision maker’ and ‘good student.’ As a ‘co-learner,’ Jan models how PJ’s actions contribute to her critical thinking. She supports PJ to take up *science classroom*, *critical thinking* and *participatory learning* discourses to make his rhizomatic moves. In the process she shifts from her authority figure position to become a ‘co-learner’ and ‘co-presenter.’ In moving aside, she gives PJ space to resignify his position in the classroom discourse. The tendrils of criticality extend outwards as Jan shares this line of flight with her colleagues, potentially prompting further deterritorialization through her critical pedagogy

5.5 ‘The Hoax’ Plateau Summary

Agency in ‘The Hoax’ plateau is dynamic and rhizomatic. PJ’s performativity in this plateau is subtle and nuanced. Agency is produced through his rhizomatic discourse moves that are hybrid, entangled and emergent. There are *science classroom script* and *counterscript* discourses in play in the classroom and some

discourse positions are at different times more inviting to the students than others. Through the social affordances of Jan's critical pedagogy, his peers' willingness to engage with the shark images and his capability to mobilise his personal resources, PJ makes rhizomatic moves to stand before his peers as a 'good student,' 'critical thinker,' 'authoritative decision maker' and 'one of the boys.' Through his resignification in the classroom discourses as a 'critical thinker,' PJ is co-constituted agentially.

Agentic learning can occur as learners deterritorialize classroom norms through performativity as a citational practice. This episode demonstrates how discourses can move and merge in the heteroglossic moment. PJ takes two distinct lines of flight. Firstly, he initiates *critical thinking* discourse and supports the participatory learning community that Jan would like to foster in the classroom. Jan mentors PJ and supports his initiative by endorsing his willingness to stand before his peers and share. In his second line of flight, PJ uses the computer as a discourse tool to negotiate alternative content with his peers so that he can participate in *teenage counterscript*. His lines of flight are identity bids; responses to the discursive interpellations of his teacher and peers. His hoax initiative influences Jan and his peers by opening a space for *critical thinking* discourse to be made explicit in the classroom. This creates the potential for further deterritorialization and rhizomatic connections. While the moment is a digression from Jan's intended lesson focus, it does not challenge her 'teacher authority' position to the extent that the next plateau 'The Rebel Thermometers' does.

Chapter Six – Plateau Two

‘The Rebel Thermometers:’ ‘Counterscript’ and Learner Agency.

It was getting hotter. And yeah!
The thermometer was going up.
I was learning about degrees and all that.
How hot it goes. How cold it goes.
Just like putting it into hot water.
We learn quite a bit.
Like scientists and that.
Just watching the temperature rising.
Someone had to watch it and I was one of them.

(Blake)

6.1 Overview.

Plateau Two comprises an assemblage from another science lesson in Jan’s class. The title of this plateau alludes to the notion that, rather than being binary constructs, *counterscript* activity and agency can occur simultaneously. During the lesson Blake, a student, takes a line of flight with his peers to instigate an alternative investigation at the back of the classroom despite Jan’s appeals as teacher to the boys that they join the rest of the class to conduct an investigation into solar energy outside the classroom. Blake is the main focus of this plateau as he remains at the sink at the back of the classroom consistently whilst the other boys drift in and out of the investigation. Blake’s actions can be described as rhizomatic in that he takes a line of flight to respond to his peers’ interpellations and refuses Jan’s subjectivation as a ‘good student.’ In undertaking his rebel investigation, he blends classroom discourses as he forges subjectivities. When I interview him afterwards, Blake plays down his *counterscript* discourse actions to articulate a ‘good student’ position. When Jan listens to the audio recording of Blake’s interview, she is surprised by his positioning. As she views three video clips of classroom interaction, she experiences an epistemological shudder (see section 6.4). Although she initially struggles with the evidence of Blake’s *counterscript* discourse moves, Jan shifts to argue that ‘The Rebel Thermometers’

episode is a strong example of productive learner agency, even acknowledging Blake's overt participation in *counterscript*.

6.2 'The Rebel Thermometers' Classroom Episode

At the beginning of a science lesson the 9JG students sit at their tables with their books open. Jan stands at the front of the class and asks the students to "think about what happens to solar energy when it hits something." The students 'think in their heads' individually and then talk about their ideas in their small groups of three. Jan gathers a range of the student ideas and then goes on to explain how they are to undertake the planned investigation into solar energy. She outlines that the students are to place three thermometers in a sunny position. They are to cover one bulb with black paper, one with white paper and they are to leave the third uncovered. Jan shows the students where the bulb is on a thermometer and explains to them that, as these items are fragile, they need to be very careful with them. While Jan explains, the students ask questions and comment on the thermometers. The students are asked to write their hypotheses before they start and Jan distributes the equipment. Most of the students begin to leave the room to set up their investigation outside. Once they have their thermometers, the remaining students start to use them in different ways. Blake uses two thermometers as drums sticks to paddle the desk. Hone stands and throws his thermometer like a baton across the room. Henare and Matai pretend to have snorkels, putting the thermometers to their faces. The following is an account of the dialogue and action that take place at the back of the science classroom amongst the remaining students and a few of their peers who return from outside to see what they are doing.

Dialogue	Action
<i>Discourse Move from Science Classroom Discourse (Jan's explanation) to Counterscript</i>	
<p>229. Matai: Ay what a cheat. 230. Matai: Ow!</p> <p>231. Matai: Miss! Look at this fulla!</p>	<p>PJ places his thermometer under the tap at the side of the room to run it under water. He then walks to the back of the classroom and puts the thermometer under a tap. PJ looks closely at the thermometer as the water runs over it. Matai turns in his chair, sees what PJ is doing and goes over to join him.</p> <p>Matai looks over PJ's shoulder and teases him about cheating. He thinks PJ is adjusting his thermometer temperature to skew the results of the solar energy investigation. ("Ow" is an exclamation which is popular with these teenagers. In this instance Matai uses it to signal to his peers that he is about to alert the teacher to their actions.)</p> <p>Matai calls out to the teacher in an attempt to tease PJ. Jan is out of earshot at the front of the classroom near the door, busily distributing equipment and ushering students outside.</p>
<i>Matai Hybridises Science Classroom Discourse with Counterscript.</i>	
<p>232. Hone: Pass it here.</p>	<p>PJ quickly turns the tap off and spins around to see if Jan has noticed. Reading his thermometer, he leaves the sink with Matai. Seeing Jan was not in the room, PJ waves his thermometer to signal to Thor and returns to the sink to stare intently at his thermometer under the running water.</p> <p>Matai comes back to the sink with his thermometer to join in with PJ. After a few seconds Thor also arrives, checking the temperature on his thermometer and placing it under the running water.</p> <p>PJ runs off to show Rawiri, Hone and Blake, who are at the front of the room, the recording on his thermometer.</p> <p>Hone leans across the table asking Blake for the thermometer he is holding.</p> <p>Blake doesn't pass his thermometer to Hone. Instead, he pushes out his chair and both boys run to the sink at the back of the class.</p>

***Boys Hybridise Counterscript, Participatory Learning
and Science Classroom Discourses***

<p>233. Thor: Et! It's not even moving.</p> <p>234. Floyd: They are cheating.</p> <p>235. Rawiri: They're cheating!</p> <p>236. Rawiri: Nah! It's hot water not 237. cold water.</p> <p>238. Blake: It's staying in the same 239. place.</p> <p>240. Thor: 60 eh.</p> <p>241. Blake: Yeah! (Pause) Can you 242. see mine?</p> <p>243. Thor: Nah mine was up there. I 244. thought it was... (inaudible.)</p> <p>245. Hone: (inaudible.</p> <p>246. Blake: Look I'm a scientist. I am 247. taking some temperature. 248. Ahhh!!!</p>	<p>By this time the class are supposed to have taken their thermometers outside, although not all the students have left. PJ leaves the room as Thor and Blake run to the back of the class to place their thermometers under water at the sink. Hone stands with them. They all lean over the sink staring at their thermometers. Matai leaves the group, holding up his thermometer to read the temperature.</p> <p>Thor comments on the temperature.</p> <p>Another two students Floyd and Rawiri come over to the sink and look at the thermometers. Floyd turns and walks away with his hands in his pockets.</p> <p>Rawiri leans over and looks over their shoulders.</p> <p>Rawiri laughs and walks away further commenting that they can't be cheating in their solar energy investigation because they should be using hot water to cheat and their water is too cold</p> <p style="text-align: center;">By this time the rest of the class have taken their thermometers outside to conduct the solar energy experiment.</p> <p>Blake and Thor stare intently at their thermometers and discuss what they are noticing. Hone stands and watches beside them.</p> <p>Hone runs his hands under the tap. He dries his hands on a paper towel from above the sink and says something inaudible. Blake grasps and pulls down a paper towel too.</p> <p>Hone watches as the two boys continue to hold their thermometers under the tap for 30 more seconds. Blake adjusts the taps and bends over the sink to read his thermometer as Thor and Hone turn and leave.</p>
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<p>249. Blake: It's dropping Floyd.</p> <p>250. Jan: I have only got one group 251. out there who have done their 252. experiments. Blake! I have only 253. got one group out there who have 254. done their investigation. That's 255. Henare and Floyd.</p> <p>256. Blake: It's dropping! 257. Hone: What's it dropping for? 258. Jan: One with white paper, one 259. with black paper and one 260. without. Blake, have you got 261. your group organised please?</p> <p>262. Blake: It's up! It's up! I think. 263. Thor: It's cold. Its 20 still. It's 264. cold that's why.</p> <p>265. Jan: You need to go outside with 266. your thermometers and cover one 267. with black paper, one with white 268. paper and one without. Alright?</p>	<p>Blake remains bent over the sink alone concentrating on his thermometer.</p> <p>Floyd and Rawiri come over. The three boys, Floyd, Blake and Rawiri, bend over the sink together.</p> <p>Jan speaks across the classroom from the door.</p> <p>Floyd and Rawiri go outside leaving Blake alone again at the sink. He ignores Jan and leans right over to watch the thermometer as she tries to round up the remaining students to go outside to do their investigations. He adjusts the taps. While Jan speaks Thor moves up to the sink and places his thermometer under the water again. Thor adjusts the taps.</p> <p>Again Hone joins the two boys at the sink and pokes Blake on both sides of the ribs. Blake shows Hone the thermometer.</p> <p>Before Blake can answer Hone, Jan speaks again from the door, reiterating the task to the boys at the sink, challenging them to organise their investigation outside.</p> <p>Blake, Thor and Hone walk away as if to leave for outside but soon return back to the sink to resume running their thermometers under the water.</p> <p>Blake speaks loudly in an excited tone. Thor feels the water. Blake turns the other tap on. Thor begins to turn taps.</p> <p>Jan approaches the boys and again outlines the steps they are to undertake for her intended class investigation.</p>
<i>Discourse Move to Science Classroom Discourse</i>	
<p>269. Blake: Yep.</p>	<p>As Jan comes over to the sink. Hone walks off quickly.</p> <p>Blake rips off a paper towel and dries the thermometer. Thor turns and leaves. Blake follows.</p>

6.2.1 Description of ‘The Rebel Thermometers’ Classroom Episode

Like ‘The Hoax,’ ‘The Rebel Thermometers’ episode is located in Jan’s science classroom and the students move between and hybridise discourses as they take up subjectivities in this plateau. Jan gives the class instructions, distributes equipment and the students begin the lesson. PJ stands at the sink at the back of the room and initiates an investigation into the reading of the mercury in a thermometer in relation to the water temperature. Turning, he signals his peers to show them what he is doing. Matai, Blake, Hone and Thor initially join him at the sink to run their thermometers under the water. After a few moments, PJ, Matai and Hone leave to participate in the class outside. Hone and some of the other students drift in again to see what Blake and Thor are doing and then leave. Jan asks the boys at the sink to join the class three times before they leave their investigation. Blake remains at the sink longest, looking at his thermometer. Although Blake eventually capitulates to Jan’s wishes and joins his peers outside, he only leaves the sink when Jan directly asks him to go out. Once outside, he still resists Jan’s planned science investigation by playing handball with his peers.

6.3 Discourses and Identity Affordances in ‘The Rebel Thermometers’ Plateau

In this plateau I have elected to focus on Blake’s discourse moves to illustrate the nature of agency; that learners can act on discourses to hybridise them for agentic learning to take place. In the classroom episode text I noticed Blake and his peers move rhizomatically between three big ‘D’ discourses: *Jan’s science classroom*, *participatory learning* and *teenage counterscript* with these discourses becoming hybridised in the plateau. When I spoke with Blake (Appendix 8) it also became apparent that these discourses merged. We went to a quiet room to watch the videoed footage of the classroom episode and he commented freely on the reasons for his actions. Jan also viewed the same classroom video footage and heard an audio recording of Blake’s interview where he spoke about the episode. Table 4 sets out the discourses and subject positions that I observed across the assemblage of classroom activity and interview texts.

Table 4 Table of Discourses and Subject Positions in ‘The Rebel Thermometers’

Discourse	Subject Positions
<i>Science classroom discourse.</i>	Blake as ‘good student’ Blake as ‘scientist’/‘good student scientist’
<i>Participatory learning discourse</i>	Blake as ‘authoritative decision maker’
<i>Teenage counterscript discourse</i>	Blake as a ‘rebel scientist’

In section 6.4 of this chapter, entitled ‘Epistemological Shudders,’ I detail two lines of flight which occur in Jan’s interview when she saw the videoed episode and heard Blake’s account of it.

6.3.1 The Science Classroom Discourse

As this episode is located in Jan’s science room, the *science classroom* discourse which was apparent in ‘The Hoax’ episode is also applicable here with a focus on evidence gathering, problem solving and decision making.

In his interview (Appendix 8) Blake uses *science classroom* discourse to describe the findings of his investigation (Blake,T3; T11). He is explicit about his learning of the movement of the mercury in the thermometer

The thermometer was going up if we put it in hot water. (Blake,T3)
Um, I was learning about degrees and that. How hot it goes and how cold it goes. (Blake,T11)

with the water temperature. In her interview (Appendix 11) Jan observes that students drew from their knowledge of *science* discourse and applied it when they measured the water temperature (Jan,T46).

Their prior knowledge about thermometers. They knew they measure hot cold - or measure the temperature. (Jan,T46)

The ‘Good Students’

In Jan’s classroom the subject position of ‘good student’ is one where students are compliant with the teacher’s instructions. Students are supposed to make the ‘right choices’ and do the ‘right thing.’ During the episode all the boys except Blake come and go from the sink as the pull to be a ‘good student’ draws them outside.

At the beginning of the episode Matai calls out to the teacher to tell her about PJ (lines 229-231). In doing so he takes interdiscursive action. The dual discourses of *counterscript* and the *science classroom* are

*“Ay what a cheat -ow! Miss look at this fulla!”
(Matai, lines 229-231)*

evident when Matai jokes that PJ will get into trouble with Jan for tampering with the thermometer temperature just before he is to use it for his solar energy investigation outside. On the one hand Matai is being a ‘good student’ in alerting Jan to PJ’s off-task behaviour and, on the other, he is teasing his friend as ‘one of the boys’ in *counterscript*. The subject position of ‘good student’ is a strong pull for the boys and Matai’s call could be read as an identity bid to ingratiate himself with the teacher. However, this call is interdiscursive as it also serves as a joke to make his classmate move quickly to avoid getting into trouble with Jan.

Matai very briefly joins PJ with his thermometer to see what happens to the temperature when he places it under the tap water. Blake, Thor and Hone see what PJ and Matai are doing and come to the sink to join the water temperature investigation. PJ and Matai leave the sink as Floyd and Rawiri come up to see what Blake, Thor and Hone are doing. However, like PJ and Matai, Floyd and Rawiri do not stay at the sink long. Floyd leaves first and when Rawiri follows him he laughingly accuses Blake and Thor of cheating, suggesting, like Matai, that they are preparing their thermometers to cheat in Jan’s solar investigation outside. Floyd and Rawiri go outside to undertake Jan’s investigation as ‘good students’ (lines 229-237).

*I have only got one group out there who have done their experiments. Blake! I have only got one group out there who have done their investigation. That’s Henare and Floyd.
(Jan, lines 250-255)*

Thor, Hone and Blake continue to conduct their investigation at the sink. Floyd and Rawiri drift back in from outside again to see what they are doing. Jan tries to redirect the Blake, Thor and Hone outside to pursue her planned investigation. She calls to them that Henare and Floyd are the first ones to have finished their investigation; interpellating them publicly as ‘good students’ (lines 250-255). Jan knows that Henare and Floyd are friends with the boys at the sink. It takes three requests for Jan to persuade Blake, Thor and Hone to leave the classroom and when they do go

they only briefly accept ‘good student’ identities as they are quick to play handball once outside.

In his interview (Appendix 8) Blake is quick to adopt *science classroom* discourse and a corresponding ‘good student’ position. When I ask him who was in control of his learning, he positions students

authoritatively, saying “we are the ones.” He locates his teacher as a custodian and disseminator of learning and himself as an active recipient of the learning experiences that Jan plans for him. His words “might as well” imply that Blake accepts a ‘good student’

*Cos we are the ones. Miss looks after it. But she gives it out to us. So might as well learn it.
(Blake, T37)*

*Just be sensible. And carry on with what we are doing.
(Blake, T50)*

identity but does so on his terms (Blake, T37). He talks of being “sensible” and carrying on with the set task as a ‘good student’ (Blake, T50). When I asked Blake what was happening he says that he was “just watching the thermometer.” It is possible that Blake uses a discourse consistent with that of ‘good student’ because he thinks that I, as an adult, would like to hear this. He knows that I am going to share this interview with his teacher and this may be why he does not describe the *counterscript* discourse that is in the video footage. Rather, Blake positions himself as both a ‘good student’ and a good ‘scientist’ in my presence.

Blake as a ‘Scientist’/‘Good Science Student’

There are a range of indicators that suggest that Blake deliberately authors a ‘scientist’ identity in this classroom episode. He enacts this identity when he and the other boys focus so intently on their thermometers and compare their results (lines 241-244). Blake uses

*Blake: Yeah! (Pause) Can you see mine?
Thor: Nah mine was up there. I thought it was...
(inaudible.)
(Blake and Thor, lines 241-244)*

*Look, I’m a scientist I am taking some temperature.
(Blake, lines 246-247)*

scientific tools, takes scientific actions and uses scientific language consistent with the ‘scientist’ identity (lines 246-247) which he explicitly articulates. He is not even distracted from it when Hone pokes him in the ribs.

Blake also takes on his ‘scientist’ identity in his interview when he articulates the findings from his investigation (Blake,T7-T9). Significantly, he connects the outcomes of both Jan’s *classroom science script* and his *counterscript* investigations when he links the impacts of putting a thermometer on black paper and under hot water (Blake,T15). Furthermore, Blake explicitly positions himself in *science classroom* discourse by aligning his learning with the work of a ‘scientist.’ He notes that scientists learn through “discovering” and he compares this process with how learning takes place in his class. In doing so Blake expresses a positive view of science content; that science can help make sense of things that happened “millions of years ago” (Blake,T23).

In her interview Jan is surprised by Blake’s ability to articulate the lesson’s learning intention and content as she finds his behaviour challenging in class. When she listens to Blake’s interview, she identifies him as a ‘good science student’ because of his focus on his investigation. This view is affirmed when, in the first video clip, Jan sees that Blake is watching his thermometer intently (Jan,T37). She observes that he is persistent and attentive as he trials the thermometer under the water (Jan,T38). To Jan, Blake is a student who has limited attention span so it is a surprise to her to see him sustaining his attention for so long (Jan,T40). She describes Blake as

It was getting hotter....Raising the temperature. (Blake,T7-T9)

It raises faster with black paper....Just like putting it into hot water. (Blake,T15)

We learn quite a bit of stuff like scientists and that. Like what have they been discovering millions of years ago and that. (Blake,T23)

I am noticing the other two students are next to him but he is not really concerned with what they are doing. He is just like sharing the space but he is actually focusing on what he is doing. (Jan,T37)

He is quite focused on what he is doing. The others come and go a bit but he’s there. They actually drift back to see what he is doing. Cos he stayed there and he is obviously settled in. He’s crouched down busy looking at his thermometer. They have come to see what he’s up to. (Jan,T38)

For Blake to be in one place for as long as he has been so far. – Well -no seriously for something to- he’s decided ‘this has grabbed my attention and I am going to see this through and try this out.’ (Jan,T40)

though he has the focus and concentration of a ‘scientist’ who is going to see the task through to a productive end. Aware of his engagement and concentration, Jan comments that Blake does not require any assistance from a teacher because he understands the task (Jan,T42).

6.3.2 Discourse of Participatory Learning

In keeping with the *participatory learning* discourse described in plateau one, this episode also shows that the students in Jan’s classroom can actively co-construct their learning. There is a link with the spirit of assessment for learning here. Where learning is divergent there are opportunities for the student to learn agentically; they can act as ‘authoritative decision makers’ who contribute meaningfully to their lessons.

Blake as an ‘Authoritative Decision Maker’

As noted above, Blake describes himself authoritatively as a “scientist” to his peers (lines 246-246) and compares how scientists work with what he is doing in science class (Blake,T23). While PJ initiated the investigation at the sink at the back of the classroom, it is Blake who remains at the sink and follows through with the investigation: his peers capitulate to Jan’s requests to join the class outside in her planned investigation (lines 250-255). When Jan addresses the boys to call them to her task, they are authoritatively discussing the temperature displayed on the thermometer and looking at the impact that the running water has on it (lines 249; 256-257). Blake shares what he notices with his friend, Floyd, who comes over to see what he is doing (line 249). He also shows Hone what he is discovering as they stand at the sink (lines 256). Hone is drawn into this scientific discourse and asks “What’s it dropping for?” (line 257).

*...He just carried on.
(Pause) He didn’t have to verify with anybody that he was... He didn’t sing out to me and say- ‘I’m not -am I miss?’ - He didn’t feel as though he needed to be backed up in what he was doing... Maybe he was doing his own thing with it.
(JanT42)*

*It’s dropping Floyd.
(Blake, line 249)*

*Blake: It’s dropping!
Hone: What’s it dropping for?
(Blake and Hone, lines 256-257)*

*Who is in control of the learning? (Jenny,T34)
The teacher -oh us actually.
(Pause) Us. (Blake,T35)*

When I ask Blake in his interview “Who is in control of the learning?” Blake positions himself and his peers authoritatively. He firstly responds that the teacher is the authority figure and then self corrects to point out that it is the students (“us”) who control their learning (Blake,T35). Blake also comments that learning occurs with others through small groups and whole class discussion (Blake,T52). When I ask him about how he is learning with others in the video footage, he observes that they are talking together (Blake,T54).

Blake’s comments reflect the student ownership that Jan is striving to achieve in her classroom (Jan,T7). When Jan hears Blake say in his interview that he is in charge of his own learning, she is amazed (Jan,T30). She acknowledges that Blake is willing to author an active position in partnership with his teacher. Watching the DVD footage, Jan describes Blake as an active learner when she observes that he does not need to be told what to do (Jan,T42). After both listening to Blake’s interview and watching the video, Jan constitutes Blake as an ‘authoritative decision maker’ who is able to assess both his own learning and learning needs to make a decision about how to proceed (Jan,T62). She is surprised that he has understood her learning

intention and acknowledges that it is likely that he decided to pursue his own study because he knew what would happen with her investigation. Jan observes how Blake and his peers had proactively designed and conducted their own investigation which did not include “making paper darts” but did align with her

Discuss about it. Yeah. Discuss it in groups. Or with the whole class or with the teacher. (Blake,T52)

Talking with them about it to them with each other. (Blake,T54)

...I want them to have control over their learning. (Jan,T7)

At first he said it was me and then very quickly he said Oh- no actually it’s us- and our teacher just kind of directs it. But that completely blew me away. (Jan,T30)

But he knew. So he had obviously spoken to others or he had prior knowledge on it. Which was fine. And maybe he did have prior knowledge so he thought maybe he thought well I don’t need to do that. I have done this and I know what is going to happen. I am going to do some investigating myself. (Jan,T62)

They weren’t sat there making paper darts or drawing on the desk or anything. They had just designed their own investigation and had chosen not to do the investigation I had designed for them. (Jan,T80)

goals for their learning (Jan,T80). Later in her interview Jan says that she would like her students to meaningfully contribute to their community and makes links with the aspirational goals she interprets in the NZC (Jan,T107).

If you look at it in terms of key competences and the new curriculum that's what it's about. Maybe they're not going to be brain surgeons but that doesn't mean that they cannot contribute to their community where they live, where they end up.
(Jan,T107)

6.3.3 Discourses of Teenage Counterscript and Student-Led Participatory Science Learning Discourse

Like 'The Hoax' episode, there is *teenage counterscript* discourse evident in plateau two. This peer culture is important to the students and they are heavily influenced by their friends' opinions. In this particular discourse the students do not readily comply with their teacher's rules for participation and actively subvert the teacher initiated activities. *Counterscript* is manifest in the language and actions of the students, although it is not always apparent to the teacher. In the classroom activity, *teenage counterscript* and Jan's teacher script of a planned investigation into how solar energy heats surfaces differently run simultaneously. Furthermore, during the episode the students hybridise *counterscript* with *participatory learning* and *science classroom* discourses to create a *student-led participatory science learning* discourse.

The 'Rebel Scientists'

In this plateau Blake, Thor and Hone author positions as 'rebel scientists.' These positions are characterised by the hybridisation of *participatory learning*, *science classroom* and *counterscript* discourses. I have located this hybrid position under *counterscript* as these 'rebel' subjectivities occur in a student constructed third space and are unsanctioned by the teacher.

The students initially play with the thermometers, using them as drumsticks and snorkels, physically participating in *counterscript* and using them – as tools to support their rebel subject positions. PJ is the first to cross to the sink to investigate water temperature (lines 229-232). By accusing PJ of cheating (line 229), Matai uses *counterscript* to tease his friend. Although happy to initiate the activity with his peers, PJ leaves the other boys at the sink and joins the class

outside to undertake the teacher's lesson. Thus PJ reterritorializes from 'rebel scientist' *counterscript* to 'good student' *science classroom* discourse.

When PJ leaves to go outside, Blake, Thor and Hone continue to author their 'rebel scientist' identities at the back of the classroom (lines 238-239). Thor and Hone depart, leaving Blake alone at the sink (lines 248-249). Although Jan calls to him, Blake maintains his position as a 'rebel scientist' and stays at the sink to finish his experiment (lines 250-254). Disregarding

I have only got one group out there who have done their experiments. Blake! I have only got one group out there who have done their investigation. (Jan, lines 250-254)

One with white paper one with black paper and one without. Blake have you got your group organised please? (Jan, lines 258-261)

Jan, he places his thermometer under the water again as Jan speaks. Thor returns to the sink to run his thermometer under the water (lines 254-256). For both Blake and Thor, the identity of

*Blake: It's up! It's up! I think.
Thor: "It's cold! Its 20 still! It's cold that's why.
(Blake and Thor, lines, 262-264)*

'rebel scientist' is stronger than their desire to conform to identity positions of 'good students.' When Hone comes up to the pair at the sink, he pokes Blake on both sides of the ribs (line 256). Like Matai, Hone enacts camaraderie as a physical act, something which is common to this *teenage counterscript* discourse.

Jan repeatedly asks Blake if his group is organised (lines 252-253; 260-261), positioning him as a leader of the *counterscript* activity. It is possible that Jan addresses Blake by name and positions him in this way because he appears to be the least willing to participate in her investigation. When Jan reiterates the task from the door (lines 258-261) and appeals to the group of boys again to go outside and join the rest of the class, Blake pretends to leave with Thor and Hone but quickly returns when Jan's back is turned (lines 257-261). The illicit nature of their investigation appears to make it an enticing *counterscript* activity. On their return to the sink the boys talk excitedly with Blake about his discovery that the temperature has increased (line 262). Thor is interested to find that the temperature on his thermometer hasn't moved and he assumes that the reason is because he has been running it under cold water (lines 263-264). Through these interactions and activity at the sink, Blake and his peers hybridise *science classroom, participatory learning* and *counterscript* discourses. By constructing

their ‘scientist’ identities, they generate a *student-led participatory science learning* discourse as they learn together.

We were doing a test- how black paper attracts the sun and white paper doesn't. (Blake, T13)

In the interview when I asked Blake about his learning he described the *counterscript* activity of experimenting with the thermometer.

Learning? Is that one? (Blake, T25)

However, when asked about what he was ‘doing,’ Blake referred to the teacher’s investigation rather than his investigation at the sink that we had just viewed in the video (Blake, T13). Through describing the teacher’s investigation as ‘doing’ and his investigation as ‘learning,’ Blake highlights a counterpoint between the *science classroom* and *teenage*

“[I was] just watching the temperature rising. And how hot it goes... Someone had to watch it so I was one of them.” (Blake, T29, T31, T33)

counterscript discourses. In the *science classroom* discourse at this time Blake is positioned as a student who is supposed to undertake the task set by the teacher. That is, he does what the teacher asks. In *counterscript* Blake, is a ‘rebel.’ By taking up a position as a ‘rebel scientist’ in *student-led participatory science learning* discourse, he situates himself as a proactive learner who initiates learning experiences through his own investigation.

So here he is ricocheting off the walls basically in the room -and the ceiling and the floor- and he still got something out of that learning and he was very quick. (Jan, T29)

When asked about the choices he had in the lesson, it is likely that Blake said what he thought I wanted to hear (Blake, T25). His question implies that he thinks that I was looking for a specific answer. When I back tracked and repeated the question he said that he did not position himself as a key driver (Blake, T29, T31, T33). His comment implies that there was some external requirement to watch the thermometer and Blake had to do it. Blake’s statement is phrased in such a way that it shifts the responsibility for the rebel investigation away from him, as if he was compelled to watch the thermometer just because it was there. Blake knew that his teacher did not want him at the sink and, in remaining there his behaviour was at odds with the teacher sanctioned *science classroom* discourse.

In her interview Jan speaks of Blake as a student who is easily distracted; she uses the metaphor of a ricocheting bullet to describe Blake’s behaviour in the class

(Jan,T29). When coupled with her comment that she was surprised to see him in one place concentrating for so long (Jan,T40), this would suggest that she sees him as a student who is in constant motion, disturbing the status quo. She comments on Blake’s dual positioning in *counterscript* and in *participatory learning* discourse and notices the discordance of these two discursively located subjectivities as “two sides to him;” behaviour which for her just “doesn’t add up” (Jan,T65).

When Jan finds that Blake was learning despite his resistant behaviour, the trouble maker subject position she attributes to him is interrupted. This causes an ‘epistemological shudder.’ In the next section I give an account of Jan’s interview which demonstrates how confronting it can be when the discourses of *science classroom* and *counterscript*, with their associated subjectivities of ‘good student’ and ‘rebel,’ collide.

His behaviour doesn’t add up to the left field comments that you get and the left field knowledge that gets thrown in every so often. It’s like two sides to him.
(Jan,T65)

6.4 Epistemological Shudders

In her interview, Jan looks closely at and comes to view ‘The Rebel Thermometers’ plateau sequence differently. The opportunity to listen to Blake’s interview and view three successive DVD clips affords an epistemological shudder which makes the familiar strange for her and challenges her thinking. In light of evidence of *science classroom* and *participatory learning* discourses, Jan resignifies Blake as a ‘good science student.’

If you hadn’t have played me this I would have thought he would have got absolutely nothing out of that learning.
(Jan,T28)

Because you know- I have made an assumption about Blake based on his behaviour. Cos at the moment his behaviour is the thing that is sitting right in front of me and I can’t see past it to his learning. I am so focused on his behaviour. (Jan, T32)

Jan’s epistemological shudder starts when she hears Blake speak about solar energy in an audio recording. Surprised that he can identify her lesson learning intention and content, she remarks that she would not have known about Blake’s embrace of science discourse in the lesson if the recording of his interview had not been played to her (Jan,T28). Initially Jan thinks that her *counterscript* based assumption about the nature of Blake’s identity as a learner is incorrect (Jan,T32).

Jan does not anticipate such an informed and thoughtful reflection from him and she notes that she finds it hard to move beyond Blake's inappropriate and challenging classroom behaviour to recognise his learning (Jan,T33).

I have to learn to side step it- bypass it- get round it somehow. But his behaviour is at the forefront. (pause) Hmm- That is quite surprising. (Jan,T33)

The first video footage from the lesson further contributes to the shudder that Jan experiences in relation to Blake's positioning. In this first DVD material Blake is focusing intently on his thermometer. Jan does not initially recognise this action as a student-initiated science-related investigation or even realise which lesson where the sequence is from (Jan,T42). As she continues to watch the DVD she notices that Blake is experimenting to find out how the thermometer works – whether and when the temperature moves up and down (Jan,T44). At this point she still believes Blake is on-task.

He is experimenting by himself with a thermometer. Ahh. Ok. Sorry I am on a different lesson. He's trialling and looking how the thermometer works. He's being quite careful with it- which is good. (Jan,T44)

*Jenny: Is that agency to you that he has gone and trialled it himself?
Jan: Yeah borderline. But (pause)
Jenny: Why do you say borderline? Why is it not?
Jan: Because I hadn't –that wasn't part of the lesson that I had in mind- that I had planned. (Jan,T48-T51)*

However, the content of the second DVD clip juxtaposes with the first to broaden Jan's contextual frame. What Jan thought was focused learning behaviour is now revealed to be off-task in relation to her particular lesson goals. As she views the second DVD clip she sees herself approach the boys to redirect them to the experiment outside (Jan,T48-T51). Looking closely she realises that Blake's initiative to investigate water temperature contravenes her lesson goal and she recognises Blake's activity as *counterscript*. Jan quickly shifts to reposition him from 'good student' to 'rebel' calling Blake's line of flight to initiate learning in *counterscript* a "borderline" (T49) example of agency.

In this sequence the second video becomes a frame tool (Gee, 2011b) which foregrounds the boys' rebel activity and challenges Jan to broaden her interpretation of the incident. However, Jan quickly recognises that although Blake is not doing what she wants him to, he is still learning. Jan sees that, in hindsight, she could have planned for the type of activity that Blake is undertaking (Jan,T57) where the students have a chance to "experiment themselves." She observes that there could have been value in the students conducting their own investigations to see how the thermometers worked (Jan,T58).

To recap, in the throes of her epistemological shudder, Jan struggles to see the students' actions as agentic and she is at first reluctant to acknowledge the episode's worth as an example of agency. Her use of the word "unplanned" (T69) in her explanation of why she found the thermometer incident hard to reconcile with her expectations, illustrates how student-initiated learning which takes place beyond the parameters of a planned lesson can sometimes pose a challenge to teacher authority. Teachers may not understand the students' goals or recognise the learning potential of their actions (Jan,T67-T69).

Jan initially finds it hard to look beyond Blake's resistant behaviour in choosing not to undertake the investigation that she had planned. She also acknowledges that she would not have given students the "opportunity" to pursue a similar investigation in previous years, suggesting that she thought that her actions had

So when they did that cos there were quite a few of them who were going and putting them thermometers under running water and weren't setting up the practical I had intended them to do. I thought oh I should have actually planned for this. Planned for them to experiment themselves with the thermometers. (Jan,T57)

Just give them some guidelines on- cos there are some guidelines for the use of thermometers- so that we have still got a class set of thermometers at the end of the period. So just the guidelines about it and reasons why and then just let them do what Blake is actually doing. Cos he was very focused on what he was doing. (Jan,T58)

I guess he's investigating. But I find it really hard to... ..you are looking at a short simple recording of an incident that happened – unplanned- and I think sometimes agency- you are looking for something kind of Wow. Like it really hits you. And you think Wow! That's agency. I know its agency. So looking for things that are small. I find it really hard to say that that little small thing there is agency or key competencies. (Jan,T67; T69)

afforded students this space to investigate (T71). Jan observes that her students were agentic when they made a deliberate decision to engage in *counterscript* and not to participate in her lesson (Jan,T78).

It is just that I am actually having trouble seeing this particular bit. Perhaps I am not seeing what you see... You see I am finding this complicated. This is more complicated to try and draw out the agency to see it... And last year I would not have seen that as agency. I don't know what I would have seen it as. In fact I may not last year and certainly not the year before given them the opportunity. (Jan,T71)

At this stage of the interview, in order for Jan to explore agency further, I share a third piece of video footage from another science lesson in which another group of Jan's students are engaged in the set task of making their own thermometers. This group of students are seated at a table diligently working together. Far from accepting this scene as a preferred model, which is what I thought she would do, Jan uses the footage to compare the two examples.

Doing the plan or not. They made the choice that they weren't. (Jan,T78)

Ok. So now I can see more agency happening with the previous clip. (Jan T82)

Through juxtaposing the two sequences, Jan enters an epistemological shudder resolution phase where she clarifies what she thinks.

...activity- which is just following a recipe on what to do. Is that agency? Jan,T84)

Although the 'rebel' students are engaged in an act of resistance, Jan sees that they are not subversive, as in throwing paper darts, but are participating in *science classroom* discourse through creating an investigation of their own

Teacher lust -I have been avoiding teacher lust. I have been purposely trying to hold back and not show them straight away or give them the answer and letting them try and find it. (Jan,T86)

design (Jan,T80). She recognises an authenticity in Blake's line of flight and so her shudder is assuaged (Jan,T82). Jan comes to see the students' actions as agency that surpass "just following a recipe" (Jan,T84).

Jan comments how she had been trying to avoid "teacher lust" (Jan,T86), or providing quick answers for students without giving them opportunities to problem solve and think. As she reflects on 'The Rebel Thermometers' episode, Jan acknowledges how the students act agentially when they design their own investigation (Jan,T87). At the time Jan struggles to find the words to frame her new understanding. Through her shudder, Jan picks up and re-examines fragments

of her previous perceptions and seeks to reconstruct them to resignify Blake as a learner. This event catalyses Jan to re-view her understanding of agency, in that *teenage counterscript* is not necessarily antithetical to learning. This aspect illustrates the second part of the shudder that Jan experienced where there is the cognitive process of ‘placing’ the new knowledge within the displaced and fractured contextual understanding.

In and through this part of the shudder Jan critiques her desire to enact a powerful position of authority by observing how a prescriptive approach does not enable her students the space to initiate learning. As she resolves her shudder, Jan speaks about how Blake values his student-initiated activity over her investigation and she sees that agency has “to come from the individual” (Jan,T89). Rather than constructing a binary between the *participatory learning/science classroom* and *counterscript* discourses, Jan is able to bring these discourses together to gain an understanding of how Blake enacted *student-led participatory science learning* discourse in her classroom. Even in *counterscript*, learners can initiate learning that is of value within the curriculum.

So I can see, although I cannot word it, I can see the agency there compared to what you showed me. Compared to them making their thermometers. Cos agency has to come from within them. It's their thing. Whereas that other clip- Sure there are three of them there. And they are engaged... You know, but it is very prescriptive. They have a recipe to follow- behind them on the smart board. But then they are choosing to do it. So there is agency in there but there is more in there maybe? (Jan,T87)

6.5 ‘The Rebel Thermometers’ Plateau Discussion

There can be multiple subjectivities in play in a classroom at any one time and, at times, in this plateau these subjectivities are in tension. By taking up a position as a ‘rebel scientist,’ Blake hybridises the subjectivities of ‘good student,’ ‘scientist,’ ‘authoritative decision maker’ and ‘rebel’ in this plateau. He blends discourses to forge a *student-led participatory science learning* discourse when he collaborates with his peers to investigate water temperature with his thermometer.

The plateau demonstrates how students can mobilise personal, social and discursive resources to hybridise positions to act agentially. By drawing from personal resources (his understanding of thermometers) in the classroom, Blake

shifts from being a 'good student' who listens to instructions to a hybridised identity position where he is simultaneously constituted as a 'scientist,' 'authoritative decision maker' and 'rebel.' This hybrid identity of 'rebel scientist' is in tension with the subject position expected by Jan and it differs from a pure form of *counterscript*.

This hybridisation is an example of reflexive agency in that Blake's citational practice emerges as a refusal of the norms expected by his teacher and peers. Rather than merely "cheating," he co-constructs a third space with Hone and Thor for learning. Blake refuses Jan's 'good student' positioning when he takes up his authoritative position as a 'scientist.' Blake's willingness to author this authoritative position and refuse the positioning of his teacher and peers produces agency. In Butlerian terms the performative act is not Blake initiating the investigation, rather the citational process which constitutes Blake as a 'rebel scientist.'

Blake is focused on his learning at the sink; following through with his investigation as his peers come and go. His rhizomatic move creates a third space where discourses collide and hybridise. He and his peers are active and authoritative learners in *counterscript*. They hybridise discourses to create a third space as learners. Although initially, for Jan, Blake's line of flight in the classroom reiterates his subject position as a 'rebel,' it is worth noting that this is not how he positions himself in his interview. He hybridises 'scientist,' 'good student' and 'authoritative decision maker' identities to talk with me about what he is learning in the episode.

Jan's actions afford the group a brief opportunity to relate with each other and co-construct their learning at the back of the classroom. Blake has space for this citational process when Jan does not immediately confront him at the sink with his peers. His peer group afford him social opportunities by initiating the activity (PJ) and taking an on-going interest in his *counterscript* actions. PJ and Thor collaborate with Blake at the sink which affords him the social resource of identity recognition. Jan's willingness to undertake practical science investigations, despite the challenging classroom behaviour of 9JG, offers a context which also supports Blake's capacity to author and blend classroom

discourses. Like the computer in ‘The Hoax’ episode, the thermometers are discourse tools which afford the learners’ rhizomatic moves. The thermometer enables Blake’s line of flight.

Epistemological shudders are powerful experiences which can prompt teachers (and researchers) to explore regimes of truth. In keeping with Deleuzian immanence, they can be catalysts for lines of flight. Through the use of the frame tool (Gee, 2011b) of the three consecutive clips of classroom footage, Jan rethinks her initial impressions and checks her assumptions in light of the new information. Blake’s lines of flight in underlife have a rhizomatic effect on Jan in her interview (Appendix 11). Jan analyses and theorises the learning taking place in the episode. This reframed view of *counterscript* challenges her thinking. Jan’s epistemological shudder is, in essence, a swing in subjectivation. She reviews her position to take a line of flight to resignify and deterritorialize Blake’s positioning (Jan,T28), interrupting her citation of Blake as an off- task student who does not concentrate for long. Through this reconstitution we see identity in the process of ‘becoming.’

Jan’s epistemological shudder bridges the discourse worlds of *classroom science* and *teenage counterscript*. By noticing the paradox between the students who were “following the recipe” and the active learning of the students who were engaging in *counterscript*, Jan interrupts the iteration of Blake’s identity position to see him with fresh eyes as an agentic learner. In comparing the two recorded examples of classroom agency Jan also critiques her own power desires and her view of schooling where learning is predominantly directed by the teacher. She sees that the students who resisted her positioning to initiate their own learning are more agentially positioned than students who compliantly follow her set investigation. Jan recognises that Blake and his peers are learning a variation of science through designing and implementing their alternative investigation. She is able to contrast the two scenes, collapsing the oppositional binaries of *counterscript* and *science classroom* discourses and, through the resulting aporia, she reconstructs a fresh way to look at learner agency.

When Jan questioned the legitimacy of the agency in the second example of DVD footage, it was my turn to experience an epistemological shudder. At that moment

I challenged my own understanding of agency and questioned my selection of ‘The Rebel Thermometers’ episode as a relevant example. When I shared the second DVD clip of presumed agency with Jan and she queried whether the students “following the recipe” and “doing the plan” could be described as agentic, I felt that my understandings were ‘cracked apart.’ Once my confusion which followed Jan’s comment abated, I begin to see agency as more complex, encompassing numerous fleeting subjectivities and acts of resistance. Through recognising where a liberal humanist interpretation would not suffice, I could conceive of a more performative view of learner agency.

6.6 ‘The Rebel Thermometers’ Plateau Summary

‘The Rebel Thermometers’ plateau is an assemblage of discourses which highlights how a student-initiated line of flight can be interpreted from different discourse positions. Jan could easily have overlooked Blake’s initiative if she had not seen the DVD of classroom footage and heard Blake speak about his learning. The plateau illustrates how an agentic line of flight can be interpreted as resistance in a classroom. It maps agency as it is produced through the interplay of subjectivities. Blake is constituted in *science classroom* discourse, *participatory learning* discourse and *counterscript* as he concentrates on his investigation and enacts his ‘rebel scientist’ identity. Thus he generates a *student-led participatory science learning* discourse as both a ‘scientist’ and a ‘rebel’ who does not comply with the teacher’s plan.

Subjectivities can be fleeting; shifting as learners take up, refuse or exploit the invitations extended them in the discourses of the classroom. Blake is afforded the social and discursive resources to access agentic positions as a learner, although this is by no means a totalising narrative. There is no closure to this episode, no definitive change in identities or positioning, just a rupture in identity iteration which suggests future possibilities. The next plateau explores how a student, Matai, and his teacher, Grace, author subjectivities in the discourses of an English classroom. In the poem which opens the chapter I have used Matai’s words to juxtapose *lifeworld* and *English* discourses so as to illustrate a counterpoint between Grace and Matai.

Chapter Seven – Plateau Three ‘The Hāngi:’⁹ Entwined Discourses and Interwoven Lines of Flight

I was telling her about this time...
She was talking to me about all the topics.
Well we were digging a hāngi pit...
She is telling me I gotta take out some bits.
We dug it too deep and had to fill it in....
I was like retying it all.
So I could fill it up with something else.
We asked my uncles if we could dig
The hāngi pit and they just let us...
Her idea was really to just have a class hāngi.
Yeah but I think if we get more people we could cook more.
And get it done faster. Yeah.
Like one of us digging the hole would take ages.
You know how my speech is about if we could have a hāngi.
We could cook us a hāngi.
(Matai)

7.1 Overview.

In this plateau, ‘The Hāngi,’ there is an interchange in an English class between Grace, an English and social studies teacher, and Matai, a student. Matai takes a line of flight by writing a persuasive speech to lobby his teachers and peers for their support to lay a hāngi. He enacts agency through rhizomatic identity moves which he executes throughout his writing conference with Grace. Matai takes up subjectivities as a ‘leader’ in his *lifeworld* and ‘novice writer’ in *English classroom* discourse. He draws from his *lifeworld* to build his relationship with Grace and position himself authoritatively. Matai and Grace’s interviews (Appendices 9 & 13) provide an insight into how they discursively constitute themselves and each other during the episode as they take up positions rhizomatically in the overlapping classroom discourses.

⁹ Hāngi (noun) earth oven; food cooked in earth oven
<http://www.review.mai.ac.nz/info/glossary.php>

7.2 ‘The Hāngi’ Classroom Episode

In this episode we glimpse how Matai is co-constituted in the social context of the classroom. Grace assists the 9JG students to write and practice their speeches, preparing them for delivery the next day. As Matai works with Grace to improve his writing, he initiates lines of flight. Grace’s focus is on speech writing, yet for Matai the speech is a means to an end, suggesting that Matai has a clear understanding of the purpose of speeches as a form of persuasion and that his interpretation of the genre is likely to be culturally different to Grace’s. Through writing his speech he aims to petition his peers, teachers and the school Board of Trustees to put down a hāngi. Matai says that he wants the Board of Trustees student representative to use his speech to convince the board to allow his class to proceed with this project. Hāngis are an important part of Māori cultural occasions and Matai has *lifeworld* experience preparing hāngis. He has also seen Māori orators giving whaikōrero.¹⁰

Matai has been absent from school and is writing his speech on the computer. As he is behind the rest of the class who are almost ready to give their speeches, there is a sense of urgency that Matai should complete his written speech for delivery the next day. Matai leans over his desk writing. Then he picks up his book and walks to a computer. He opens his book, looks closely at it and begins to craft his speech on the computer. Matai rises and approaches me at the back of the room. I smile. Matai also smiles and talks enthusiastically. The following is an account of the dialogue and action that take place in the classroom episode.

Dialogue	Action
<i>Lifeworld Discourse</i>	
270. Matai: Miss, do you like hāngi? 271. Jenny: Yes 272. Matai: My speech is about asking the teachers if we 273. can cook a hāngi. I’ll make sure I get them to call you 274. up so you can come too. 275. Jenny: Oh good on you. 276. Matai: You could help dig the hāngi pit. 277. Jenny: That’s a good idea. I have to earn my keep	

¹⁰Whaikōrero: oratory, oration, formal speech-making - formal speeches usually made by men during a pohiri and other gatherings.

<http://www.maoridictionary.co.nz/index.cfm?dictionaryKeywords=Whaik%C5%8Drero+%n=1&idiom=&phrase=&proverb=&loan=&search.x=0&search.y=0>

<p>278. eh. 279. Matai: You could bring some puddings. 280. Jenny: Hmmm. I hope you convince somebody. 281. Matai: I want to use it with the student who is on the 282. board of trustees. I want them to ask if we can have 283. a hāngi at school.</p>	<p>Matai laughs I laugh with Matai. Matai returns to the computer, looks at his English book and begins to write on the computer.</p>
<p><i>English Classroom Discourse</i></p>	
<p>284. Grace: Do you have a plan for your speech? Is it in 285. your book? 286. Matai: Ummm. (Pause) Yeah.</p>	<p>Ten minutes later Grace approaches him.</p>
<p><i>Lifeworld Discourse</i></p>	
<p>287. But...This is all straight off the top of my head. It's 288. heavy you know.</p>	<p>Matai laughs</p>
<p><i>English Classroom Discourse (Reterritorialization)</i></p>	
<p>289. Grace: OK. 'Natural surroundings. This one time 290. when me and my whānau were out camping...'</p>	<p>Grace stands behind Matai reading over his shoulder.</p>
<p><i>Lifeworld Discourse</i></p>	
<p>291. Matai: They let us ...uh...dig the hāngi pit.</p>	
<p><i>English Classroom Discourse (Reterritorialization)</i></p>	
<p>292. Grace: So here is your plan here. You started off 293. telling us what a hāngi is. 'Hāngi is a 294. traditional Māori food cooked...' Radaradaradara. 295. Matai: In the ground...</p>	<p>Grace moves to stand beside Matai and leans over to turn pages in his book. She locates and reads his written plan aloud.</p>

<p>296. Grace: ‘To cater for many people.’ 297. Yup cool. So you put that up there? 298. Matai: No. 299. Grace: So you’ve got here – for those people who 300. don’t know what hāngi is- its meat with stuffing. 301. That’s not what a hāngi is- is it? A hāngi is the way 302. you cook it.</p>	
<i>Lifeworld Discourse</i>	
<p>303. Matai: But it’s still nice. 304. Grace: It’s delicious -isn’t it?</p>	<p>Matai chuckles.</p>
<i>English Classroom Discourse (Reterritorialization)</i>	
<p>305. Grace: So you need to go back up there and put in 306. exactly what a hāngi is.</p> <p>307. Matai: It’s traditional. 308. Grace: So what’s the way you do it? So put in there 309. ‘it’s a traditional Māori way of cooking food.’ And 310. then go and describe for us how it is. You know do 311. we chuck it in the oven? I like meat with stuffing in 312. the oven?</p> <p>313. Matai: Oh too hard...</p> <p>314. Grace: Yeah. So you need to explain to us what a 315. hāngi is. Your speech is about a hāngi. You go 316. down here and you talk about digging the pit and 317. stuff. Tell us exactly what it is. And that’s good.</p>	<p>Grace points to the screen. She leans over beside Matai and looks at him as they converse.</p> <p>Matai chuckles.</p> <p>Grace points to the screen again to where she says Matai needs to add more information.</p> <p style="text-align: center;">Grace leans back to look at Matai as she talks.</p> <p>Matai sings his protestation.</p> <p>Grace elaborates.</p>
<i>Lifeworld Discourse</i>	
<p>318. Grace: I am really seriously thinking about this for 319. next term. OK. We can discuss it as a class and see 320. What we can come up with. Ok. 321. Matai: Would we have to discuss it with the 322. principal and other year nine teachers? 323. Grace: We could just do it with our class. Or maybe 324. Mrs Jones and Mr Ham because he is your maths 325. teacher. OK? 326. Matai: He could tell us how many metres to dig. 327. Grace: And how much it costs. Ok. So do that cos</p>	

<p>328. that is your introduction. And you are going to tell 329. us what a hāngi is and you are going to break it 330. down. So you are going to say what is a hāngi – and 331. what is your next step here? Yep! So caters for many- 332. So give us an example of when you would have a 333. hāngi? 334. Matai: A lot of times it is tangihangas¹¹. 335. Grace: Tangi? Yeah. 336. Matai: Cry. Sniff.</p>	
<i>English Classroom Discourse</i>	
<p>337. Grace: Thor have you finished?</p> <p>338. Michelle: You put it into order wrong.</p>	<p>Grace checks on other students in the class.</p> <p>She addresses another student to redirect his focus back on to his speech writing.</p> <p>Michelle has been listening and she leans over to comment on Matai's writing.</p>
<i>Lifeworld Discourse</i>	
<p>339. Grace: When else do you have a hāngi. You said to 340. cater for many. So is it just at tangi that you have a 341. hāngi? 342. Matai: That's most of the ones I remember having 343. hāngi. 344. Grace: What do you do at Xmas and 21sts and hui 345. and things like that?</p> <p>346. Matai: Munch out. 347. Grace: Do you have a hāngi there? 348. Matai: Sometimes. You can have it... (inaudible) 349. Grace: So you can put that there too. 350. Grace: So tell us about how it's in a pit and what 351. have you. Do you have to dig a hole? Do you put the 352. stones in and then light the fire or do you light a fire 353. and then put your stones in? Or? 354. Matai: You dig the pit and over the top you stack the 355. wood on top- over it. So it's not in the pit -it is over 356. top. 357. Grace: Yeah. 358. Matai: You stack the stones on top and you burn the</p>	<p>Grace turns back to Matai.</p> <p>Matai laughs.</p>

¹¹ Tangihanga 1. A Māori funeral; 2. *informal* a lamentation
<http://dictionary.reference.com/browse/tangi>
3. mourning (Ryan, 2003)

<p>359. wood. Load it all and what it actually does is it heats 360. the stones up. 361. Grace: Yeah 362. Matai: And when it burns down some of the stones 363. will fall into the pit. 364. Grace: Yeah. Ok. Is that good? 365. Matai: Wood falls in. 366. Grace: So you have to get the wood out? 367. Matai: When it's burnt for long enough and the 368. stones are hot you tip water all over it and with 369. shovels and rakes and stuff you flick out all the 370. wood. Then you stick the baskets in and then cover 371. them up with wet sacks. The sacks help to keep 372. the... 373. Grace: Wet sacks you said eh? 374. Matai: Wet sacks help to keep the dirt from going all 375. over the food and it traps all the steam. 376. Grace: OK. You seal it with dirt over the top do ya? 377. OK. 378. Matai: Sometimes you can chuck...over (inaudible) 379. Grace: Seal it.-</p>	
<p><i>English Classroom and Lifeworld Discourse (Hybridisation)</i></p>	
<p>380. Grace: You have just described how to do 381. your speech then. You described how to make the 382. hāngi pit. You talk about how to prepare the food. 383. Because you said something about baskets. Some 384. people cook it in little tin foil parcels don't they? 385. But when you are feeding heaps you put it into 386. muslin bags and stuff eh and cook it like that. And 387. then how you put it into the pit and how you stack it 388. up and arrange it. 389. Matai: And actually chuck all the um...</p> <p>390. Grace: Yeah –yeah -so do that bit first. And then 391. bring that bit down and put that bit down there near 392. the bottom. 393. Matai: Soooo... what? 394. Grace: So yeah! One, two, three... And then that one 395. comes at the end. That bit there. 'I think we should 396. try a hāngi in our class.' OK? So do what is a hāngi...</p>	<p style="text-align: center;">Grace redirects Matai back to the writing focus.</p> <p>She speaks quickly.</p> <p>Matai sounds unsure.</p> <p>Grace reads the speech.</p>
<p><i>Participatory Learning Discourse</i></p>	
<p>397. Matai: With student council or just our class? 398. Grace: Oh just say with our class. OK?</p>	

Hybrid English and Lifeworld (<i>Hybridisation</i>)	
<p>399. Grace: What is a hāngi - how to make a hāngi pit. 400. Describe just what you said to me about how you 401. build the fire and the stones. OK? 402. Matai: So how do I ... 403. Grace: Fire. Stones. Wood. 404. Matai: So how do I like go from that topic to that 405. topic? 406. Grace: Well you're not -cos that topic is coming 407. down here now. OK cos that is going to come down 408. to the bottom. 409. Matai: How do I go from one topic to another 410. without completely cutting it all off? 411. Grace: Well that's a good question. Because what 412. you do is- how you made the hāngi pit. You 413. described to me before about what you did. And 414. then you said 'and then you put the food in the 415. baskets.' But before you do that 'let me tell you 416. about how to put the food in the baskets.' So that 417. links to there. And then you tell us about how to do 418. it. OK? So right at the end of one paragraph there 419. will be a couple of lines or some words and they 420. will link to your next. Write it out and then we will 421. have a look at it and see if it's going to flow nicely. 422. OK? Do you want to print that out and take it home 423. and finish it? Cos I was hoping we would present 424. our speeches tomorrow. Yours isn't finished yet. 425. Matai: I will take this home and I will write it out 426. cos... 427. Grace: OK! 428. Matai:doing it on the... 429. Grace: Yep. Good as Gold. 430. Matai: ...computer is not very good. 431. Grace: Yep that's good. Alright? 432. Matai: So I just go... I will write it out in my book 433. because it is better written out in my book.</p>	<p>Grace outlines to Matai how to structure his speech.</p> <p>Grace and Matai speak these last lines at the same time.</p>

7.2.1 Description of the 'The Hāngi' Classroom Episode

In the account above Grace and Matai negotiate what Matai needs to do to prepare his speech and improve its structure. Grace has a range of students with significant learning needs and at one point she breaks their conversation to monitor another student in the class. Grace speaks with Matai, to help him add detail to his writing. She alludes to a written plan, which they had previously constructed together, to establish that he needs to write for an audience who may not have an understanding of Māori cultural practices. Matai brings knowledge

from his *lifeworld* to the speech topic and Grace asks him to talk about it with her so that she can help him build on his experiences and add this detail into his written speech. In this episode fast paced discourse moves take place between Matai and Grace as they deterritorialize to different subject positions as they negotiate the task of speech making.

7.3 Discourses and Identity Affordances in ‘The Hāngi’ Plateau

In this plateau Matai moves rhizomatically within and between four big ‘D’ discourses. Firstly, there is English classroom discourse which reflects how the English curriculum is enacted in Grace’s class. Secondly, Matai draws from and moves within *lifeworld* discourse through which his knowledge of te ao Māori¹² is brought to the fore. Grace cues Matai’s *lifeworld* by asking him to embellish on his written ideas. Thirdly, there is *participatory learning* discourse which is also apparent in ‘The Hoax’ and ‘The Rebel Thermometers’ episodes. The fourth discourse, *studenting*, is present in Matai’s interview (Appendix 9).

Matai’s experience is foregrounded in this plateau. We see the following range of subjectivities as Matai makes rhizomatic moves within and across the discourses. Table 5 sets out the discourses and subjectivities that Matai takes up in this assemblage.

Table 5 Table of Discourses and Subject Positions in ‘Matai’s Hāngi’

Discourse	Subject Positions
<i>English classroom discourse.</i>	Matai as ‘novice writer’
<i>Lifeworld discourse</i>	Matai as an ‘authority’ (in Māori cultural practices of preparing hāngi)
<i>Participatory Learning discourse</i>	Matai as a ‘social learner’
<i>Studenting and Responsibilisation discourses (see 7.3.4)</i>	Matai as an ‘independent thinker’ Matai as a ‘compliant student’

¹²A Māori worldview. Literally ‘the Māori world’.
<http://www.natlib.govt.nz/about-this-site/glossary/te-ao-maori>

7.3.1 English Classroom Discourse

Like a science classroom, the English classroom context affords certain activities, languages and subject positions. In New Zealand English classrooms oral, written and visual forms of language are studied and communicated by the students. The students develop their understanding through listening, reading, and viewing. They also create meaning for themselves and others through speaking, writing, and presenting their ideas (Ministry of Education, 2007e). In this English classroom the students are undertaking a mandated task of planning, writing and delivering a speech.

Matai as ‘Novice Writer’

Matai’s recount does not align with his articulated goal of writing a persuasive text and so Grace redirects Matai’s focus to encourage him to persist with his written plan (lines 291-293). Grace gives more emphasis to this planning aspect than Matai does and locates his plan in his book for him (Grace, line 292). Grace had helped Matai plan his speech previously and she knows that there is a structure outlined in his notes. By reading the text aloud, Grace reminds Matai that they had planned to employ a formal register to communicate background information on hāngi to an audience (lines 292-294).

Grace blends English classroom discourse with Matai’s *lifeworld* to make what he takes for granted explicit. She asks him to think about how he can write clearly to explain what a hāngi is to an audience who may not have had this experience and to ensure that he has defined what hāngi is accurately (from her viewpoint)

*Matai: They let us ...uh...dig the hāngi pit.
Grace: So here is your plan here. You started off telling us what a hāngi is. (Matai and Grace, lines 291-293).*

So here is your plan here. You started off telling us what a hāngi is. ‘Hāngi is a traditional Māori food cooked’ ...Radaradaradara. (Grace, lines 292-294)

So you’ve got here – for those people who don’t know what hāngi is- its meat with stuffing. That’s not what a hāngi is- is it? A hāngi is the way you cook it. (Grace, lines 299-302)

So what’s the way you do it? So put in there it’s a traditional Māori way of cooking food. And then go and describe for us how it is. You know do we chuck it in the oven? I like meat with stuffing in the oven? (Grace, lines 308-312)

*Oh too hard!
(Matai, line 313).*

(lines 299-302). Pointing to the screen, she challenges how Matai has defined hāngi (lines 299-302); that his hāngi definition “meat with stuffing” is ambiguous and can imply a generic way of cooking meat (lines 308-312).

When Matai says that the task is “too hard” (line 313) he signals that, as a ‘novice writer,’ he is struggling to craft his ideas. He sings his concern that he cannot achieve what Grace is asking. Grace does not appear to respond to his concern as she does not acknowledge it but persists in assisting him to master English classroom discourse (lines 314-317). In doing so Grace affirms his ‘novice writer’ identity as someone who can develop his skills.

Grace continues to pursue a line of questioning that supports Matai to add details to his speech and impose a useful sequence on his ideas (lines 350-353). Taking an uninformed position to encourage him to speak, she asks him to detail the hāngi process. Again, Matai expresses his confusion about his next steps (line 393) but this position is quickly dismissed by Grace as she recaps the process of writing that she expects him to undertake (lines 394-396). By supporting him as a ‘novice’ and not allowing him to give up when the writing becomes challenging, Grace interrupts Matai’s identity citation as a

‘struggling writer.’ Matai wants to know how to move from one idea to another in his speech writing and Grace provides him with a structure to start with: “Fire. Stones. Wood” (line 403). However, Matai is still unsure and asks what to do (lines 404-405). Although Grace explains to him what she means to him, Matai still finds this confusing (lines 409-410) and wonders how he will be able to embed the additional information that Grace wants him to include in his speech.

Yeah. So you need to explain to us what a hāngi is. Your speech is about a hāngi. You go down here and you talk about digging the pit and stuff. Tell us exactly what it is. And that’s good.
(Grace, lines 314-317)

So tell us about how it’s in a pit and what have you. Do you have to dig a hole? Do you put the stones in and then light the fire or do you light a fire and then put your stones in? Or?
(Grace, lines 350-353)

Soooo...what?
(Matai, line 393)

So yeah! One, two, three... And then that one comes at the end. That bit there. ‘I think we should try a hāngi in our class.’ OK? So do what is a hāngi...
(Grace, lines 394-396).

So how do I like go from that topic to that topic?
(Matai, lines 404-405)

How do I go from one topic to another without completely cutting it all off?
(Matai, lines 409-410)

She encourages him to build on what he has articulated to her, to edit the text so that it links and flows as a piece of oratory (lines 411- 418). This further detail on how food is prepared and placed in the baskets models an example of accepted English classroom discourse to do with speech making which he can use.

By using the first person plural pronoun “we,” (lines 420-422) Grace positions herself in a partnership with Matai as he writes his speech. Grace shares her reason for its urgent completion with him – that it needs to be presented the next day (lines 422-424). Matai echoes Grace’s words, agreeing to work on it in his own time (lines 428; 430). Matai comments that he prefers to write his speech in his book (lines 432-433). It is unclear if Matai has computer access in his home and writing in his book may be the only way that he can complete the speech overnight.

In her interview (Appendix 13) Grace positions Matai as a student who is capable of making decisions about his own learning and is keen to make up for missed class time (Grace,T23). She also describes being impressed by his willingness to address an audience without being reliant on cue cards (Grace,T23). Grace explains how she assists Matai to structure his speech. She acknowledges Matai’s authorship and recognises the interdiscursive tension of providing guidance for his writing while also valuing Matai’s *lifeworld*.

Grace brokers English classroom discourse as an experienced teacher who is working to help a “muddled” ‘novice’ clarify his ideas using the plan he had previously produced (Grace,T25). As an instrument of English classroom

*Well that’s a good question. Because what you do is- how you made the hāngi pit. You described to me before about what you did... ..and then you said- and then you put the food in the baskets. But before you do that- let me tell you about how to put the food in the baskets. So that links to there. And then you tell us about how to do it. OK?
(Grace, lines 411-418).*

*Write it out and then we will have a look at it and see if it’s going to flow nicely. OK?
(Grace, lines 420-422)*

*Do you want to print that out and take it home and finish it? Cos I was hoping we would present our speeches tomorrow. Yours isn’t finished yet.
(Grace, lines 422-424)*

*I will take this home and I will write it out cos ...doing it on the ...computer is not very good.
(Matai, lines 428;430).*

*So I just go... I will write it out in my book because it is better written out in my book.
(Matai, lines 432-433).*

discourse, Grace notes that her actions to illustrate how Matai could structure his speech may have impinged on his agency in determining his own direction in this writing (Grace,T27). Grace expresses this paradox in her explanation that she does not want to take an authoritative stance to tell him what to do and yet, simultaneously, she wants to influence his writing. Describing agency in terms of free will and choice in her interview, she comments that she would like Matai to retain authorship of his piece of writing and so that Matai uses “his own ideas, his own words [and] his own topic” in his writing (Grace,T29). She considered that Matai wrote “what he wanted,” seeing her role as assisting him to “change the order” of his written material.

It can be read as an irony that Matai “didn’t want to put [his speech] on cue cards, although he did handwrite them” (Grace,T30). In this he may have made the cards to comply with Grace’s expectation that he should have them. By not using the cue cards, Matai illustrates his competence with English classroom discourse as a speech maker who can engage directly with his audience. Seen this way, Matai appears to both submit to and resist English classroom discourse in the way that he writes, prepares for and presents his speech. In concluding her interview Grace intimates that it is important to her that Matai comes across as a proficient speech maker and

If I recall cos he had been away. He had just started his speech. I think he had his speech planning sheet and he may have done the first part. I think he has done the brainstorm in his book on his topic. I think he actually chose his topic before he went. He was away for about

Grace: He just wanted to write what he wanted. Cos he did. I said go back –use what you have written just change the order a bit. I didn’t want to say you must do it like this... and what have you. To a certain extent it is but still used his own ideas, his own words, his own topic. He chose it. It was his choice. So that is all agency. (Grace,T29)

(Grace,T29)

He didn’t want to put it on cue cards. He did handwrite them and didn’t type them like the others did. And then when he said his speech he didn’t use them. I don’t think he did. It wasn’t obvious anyway. But yeah -so [I] think he got to say what he wanted to say about I think we should have a hāngi. (Grace,T30)

to get him to see he followed

Hopefully when I drew him back to his plan- Hopefully by the time I sort of talked with him and said this will help you say what you want to say better. If you get it in order to make it clearer you will get your message to the audience at the end about let’s have this hāngi. (Grace,T36).

She was talking to me about all the topics. (Matai,T2)

Talking to the teacher about like... I was telling her about this time –well we were digging a hāngi pit and we dug it too deep and we had to fill it back in. (Matai T6)

understands that a well-structured and ordered speech will assist an audience to follow his line of thought (Grace,T36).

In his interview (Appendix 9) Matai positions himself passively describing how Grace does the talking (Matai,T2). He recalls how Grace suggested that he structure his writing into topics. When Matai explains that Grace asked him to look at the different parts of his speech, he articulates a binary between the nature of the communication that he and Grace engage in (Matai,T2; T6). Grace is “talking to” him about the ideas that he needs to add to his written speech. He is “telling her” his narrative about digging a hāngi pit. Grace talks about persuasive writing (*English* discourse) whereas Matai is storytelling (*lifeworld*). His narrative style is silenced as the talk between Grace and Matai turns to focus on structuring more detail into the writing.

As a ‘novice writer,’ Matai takes up a position of reluctant compliance in following Grace’s advice. Although he is interested in persuading others to join him to prepare the hāngi, he is not enthusiastic to structure his writing for audience effect. (Matai,T10; T12, T14). His use of the words “telling me that I gotta” and “fill” suggests that Matai does not value the editing process (Matai,T12; T14). The metaphor “fill” echoes the way in which the hāngi pit hole that was too deep and had to be refilled.

Both the hāngi pit hole and the speech needed to be ‘filled up.’ He also comments on the fact that he needed to retype it all in such a way to imply that he sees this as an undesirable, act (Matai,T16). Despite this reluctance, when I asked him about what choices he had, Matai says that he made a decision about his speech style and content (Matai,T18).

Matai’s comment about taking some “bits out” of his speech contrasts with Grace’s comment that he needs to add detail and rearrange the text (Grace,T25). Matai phrases his words to make it appear that

*She is telling me that I gotta take out some bits in my speech I was writing.
(Matai, T12)*

*Jenny: Why do you have to take bits out?
Matai: So I could fill it up with something else.
(Matai,T13-14)*

*I was like retyping it all.
(Matai, T16)*

...what I was going to write in my speech and what type of speech I was going to write. (Matai, T18)

he is editing his writing to comply with Grace’s dictum to rework his speech and it is not his decision at all. Taking his position as a ‘novice writer,’ he follows his teacher’s request, although when he speaks with me about his writing he does not appear to connect an authentic purpose with the task of structuring his writing and adding detail to his speech.

7.3.2 Lifeworld Discourse

Matai’s *lifeworld* discourse is woven throughout this plateau. *Lifeworld* is a primary discourse that encompasses Matai’s everyday life experiences. The purpose for Matai’s speech is located in his *lifeworld* and he uses relevant language and understandings in his writing. Matai and Grace live in a predominantly Māori community and both have their view of te ao Māori. This is a world in which hāngi are integral to the community.

Matai as an ‘Authoritative Leader’

In both the classroom and in his *lifeworld* Matai makes bids for leadership positions. He describes in his interview how he was asked by his uncles if he could dig the hāngi pit when the family were camping. He also offered to organise a hāngi for his peers and teachers at school. In the classroom interchange Matai uses his *lifeworld* to make an identity bid for an authority position where he can be a ‘leader’ making decisions to plan the hāngi. Matai identifies himself as an active member of his *lifeworld* community outside of school and illustrates this by writing about digging a pit for a hāngi.

At the beginning of the conversation a binary is in play between Matai’s planned and unplanned writing when he uses humour to talk about how he is writing “off the top of [his] head” without referring to his plan. Matai addresses the binary by metaphorically describing his unplanned written thoughts as “heavy” (lines 287-288). Humour is an element of his *lifeworld* and he uses it as a defence to combat this binary position and to support his

But...This is all straight off the top of my head. It's heavy you know.
(Matai, lines 287-288)

OK. 'Natural surroundings. This one time when me and my whānau were out camping...'
(Grace, lines 289-290)

They let us ...uh...dig the hāngi pit. (Matai, line 291)

relationship with his teacher. The joke is a rhizomatic move from English classroom to *lifeworld* discourse. Grace rapidly reterritorializes the dialogue from *lifeworld* humour back to *English* classroom discourse (lines 289-290) by looking closely at the next piece of his written plan and reading what he has written about camping. Matai clarifies the link with hāngi organisation by adding further information about how his uncles had given him responsibility for digging the hāngi pit with his cousins (line 291).

In Matai’s community, within and beyond school, most people know what a hāngi is. It is likely that Matai assumes that his audience would have this cultural knowledge and recounts this pit digging story from his personal experience without explaining the mechanics of what how a hāngi takes place. Although there are both *English* and *lifeworld* discourses in play as Matai writes, at this stage his *lifeworld* is Matai’s main conversation focus. When Matai tells Grace that he has not adhered to the plan in his book, his “no” (line 298) is ambiguous in that “no” he didn’t insert that text detail there in the speech and/or “no” he doesn’t want to. However, Matai’s possible resistance to this change of focus is silenced when Grace continues with her reference to how he needs to be explicit about how a hāngi is cooked (lines 299-302). He does not contest that there may be a different way to write the speech e.g. with a story “off the top of [his] head.”

When Grace points out that Matai’s definition of hāngi may be unclear for an audience, he chuckles and uses *lifeworld* humour to describing his experience of eating hāngi, deflecting this feedback (line 303). Grace fleetingly shifts to a *lifeworld* discourse to emphasise that they share common ground

You started off telling us what a hāngi is. ‘Hāngi is a traditional Māori food cooked...’ Radaradaradara. (Grace, lines 292-294)

*Grace: Yup Cool. So you put that up there?
Matai: No.
(Grace and Matai , lines 297-298)*

*So you’ve got here – for those people who don’t know what hāngi is- its meat with stuffing. That’s not what a hāngi is- is it? A hāngi is the way you cook it.
(Grace, lines 299-302)*

*“But it’s still nice.”
(Matai, line 303).*

*It’s delicious -isn’t it. So you need to go back up there and put in exactly what a hāngi is.
(Grace, lines 304-306)*

*So what’s the way you do it? So put in there –it’s a traditional Māori way of cooking food. And then go and describe for us how it is. You know do we chuck it in the oven? I like meat with stuffing in the oven.
(Grace, lines 308-312)*

when she also says that hāngi are “delicious” (line 304). Then she swiftly switches to *English* classroom discourse to stress that Matai needs to add detail in his writing to clarify his terms (lines 305-306). She also physically redirects Matai back to *English* classroom discourse by pointing to the screen where he needs to add more information.

Grace acknowledges Matai’s *lifeworld* expertise and elicits aspects of his *lifeworld* from him to assist him to furnish his audience with more background information (lines 308-312). She uses rhetorical questions to enable Matai to refocus on his written text and illustrate how ambiguous his written statements are. Matai has to make the familiar strange in order to write for an audience who have not experienced hāngi. Grace deploys humour to illustrate to Matai what the audience could be thinking when they read his text. She contrasts traditional European cooking methods with the cultural practices of Matai’s *lifeworld* to show Matai how his writing may be interpreted by others (lines 308-312).

Grace says that the speech has a real world application for him, in that his out of school world can be brought into school (lines 318-320). Matai’s purpose for speech making is different to Grace’s. Grace says that the class is the audience, yet Matai’s plans for his speech to persuade other teachers and students to participate in putting down the hāngi. Matai would like his speech to have a wider context than just his classmates (lines 321-322). Matai illustrates his political knowledge of the structure of school hierarchies when he asks Grace about eliciting the support of the school power holders (lines 321-322). When Grace suggests that they could invite 9JG’s maths and science teachers to become involved in the hāngi initiative (Grace, lines 323-325), she discusses the organisational details of the hāngi in such a way that Matai is positioned as a leader. Matai authoritatively weaves *lifeworld* and

I am really seriously thinking about this for next term. OK. We can discuss it as a class and see what we can come up with. Ok.
(Grace, lines 318-320)

Would we have to discuss it with the principal and other year nine teachers?
(Matai, lines 321-322)

We could just do it with our class. Or maybe Mrs Jones and Mr Ham because he is your maths teacher. OK?
(Grace, lines 323-325)

He could tell us how many metres to dig.
(Matai, lines 326)

mathematics classroom discourses together to highlight how the curriculum could be integrated around this project (line 326).

Mathematics is a less prominent discourse in this plateau, although it is worth noting how Matai uses it to communicate to Grace that the hāngi has learning benefits for the class. Matai playfully integrates *mathematics* and *English* with *lifeworld* discourses when he plans to solicit both Mr Ham's mathematics expertise and Grace's support for the idea of integrating curricula. This doubles as a humorous aside in light of the incident where he and his cousins dug the pit too deep (line 326). Grace responds to Matai's initiative to link *mathematics* with *lifeworld* discourse (line 327) and then, in a further discourse move, she reterritorializes the conversation away from *lifeworld* and *mathematics* discourses back to *English* discourse and Matai's speech structure (Grace, lines 327-330).

Grace strives to position Matai as an authority and expert in *lifeworld* discourse by asking about his experiences (lines 332-333). She draws examples of Māori cultural practices from him which are part of his *lifeworld* knowledge (line 334). Grace recognises the word tangihanga and abbreviates it as a sign of her familiarity (line 335) to illustrate her connection with his *lifeworld*. Matai also reveals his cultural fluency by using a pun to play on his knowledge of another meaning for the word 'tangi' (line 336), that it also can mean to cry. Grace's questioning affords Matai an authoritative position (lines 350-353) where he can hybridise *English* and *lifeworld* discourses to enhance his writing.

*And how much it costs. Ok.
So do that cos
that is your introduction.
And you are going to tell
us what a hāngi is and you
are going to break it
down.
(Grace, line 327-330)*

*So give us an example of
when you would have a
hāngi
(Grace, line 332-333)*

*A lot of times it is
tangihangas.
(Matai, line 334)*

Tangi? Yeah. (line 335)

"Cry. Sniff" (line 336).

*Matai: You dig the pit and
over the top you stack the
wood on top- over it. So it's
not in the pit -it is over
top.
Grace: Yeah.
Matai: You stack the stones
on top and you burn the
wood. Load it all and what
it actually does is it heats
the stones up.
Grace: Yeah
Matai: And when it burns
down some of the stones
will fall into the pit.
Grace: Yeah. Ok. Is that
good?
Matai: Wood falls in.
Grace: So you have to get
the wood out?
(lines 354-366)*

As Matai explains the process of creating a hāngi pit oven (lines 354-366), he is positioned in their conversation as an expert with relevant *lifeworld* experiences. Grace prompts Matai to embellish his writing with clarification questions (line 366; 373). She uses the colloquialism “Yeah” to support his positioning (lines 357; 361; 364) and enable Matai to further explain the hāngi preparation process to her. Matai’s experiences of cultural practices are not available to Grace.

Hāngi pits are traditionally dug by men and it is unlikely that Grace has had an experience of this nature. This situates Matai as the expert in their dialogue. While Grace has English discipline knowledge, Matai is authoritative in his understanding of Māori cultural practices. This intersubjective positioning cues him to provide a detailed account of the process (lines 367-377). With Grace’s assistance, Matai articulates his position within his *lifeworld* and Grace uses her knowledge of this discourse to build their relationship. In her interview she admits to having limited knowledge of hāngi so Grace positions herself as a learner, drawing from what she knows to encourage him to speak (lines 382-388). Thus, toward the end of their conversation, they weave together *lifeworld* and *English classroom* discourses, although Matai’s purpose may have been lost.

Although Matai is positioned as an expert on hāngi making, as a ‘novice writer’ he is still unsure about how to structure his speech (line 393). Consequently, Grace explicitly tells Matai what to do with his existing text to improve his speech structure (lines 394-396). Matai, again, in another rhizomatic line of flight, shifts the focus from the speech writing to its context and

Matai: When it’s burnt for long enough and the stones are hot you tip water all over it and with shovels and rakes and stuff you flick out all the wood. Then you stick the baskets in and then cover them up with wet sacks. The sacks help to keep the...

Grace: Wet sacks you said eh?

Matai: Wet sacks help to keep the dirt from going all over the food and it traps all the steam.

Grace: OK. You seal it with dirt over the top do ya? OK.

(Grace and Matai lines 367-377)

You talk about how to prepare the food. Because you said something about baskets. Some people cook it in little tin foil parcels don’t they? But when you are feeding heaps you put it into muslin bags and stuff eh and cook it like that. And then how you put it into the pit and how you stack it up and arrange it.

(Grace, lines 382-388)

Soooo... what?

(Matai, line 393)

What is a hāngi -how to make a hāngi pit.

Describe just what you said to me about how you build the fire and stones.

OK??

(Grace line 390-401)

purpose, reverting to *lifeworld* discourse (line 397). This move demonstrates how he prioritises his *lifeworld* initiative to plan a hāngi over his speechwriting. Grace, who means the project to remain small, quickly answers his question, restricting the project to a smaller group (line 398). She quickly redirects Matai back to the process of writing his speech (lines 399-401).

In his interview Matai claims the hāngi idea as his own, although Grace mentions in her interview that it was Blake's initiative initially. When I ask Matai whose idea it was, he makes an identity bid to be a leader when he says "Mine and Ms Copper" (Matai, T107). Matai describes how he has been assisted by Grace to initiate and develop this idea. He does not acknowledge Blake, appropriating the leadership of the hāngi project by positioning himself alongside his teacher.

Matai elects to talk with me about his *lifeworld* over *English classroom* discourse. When I showed him DVD footage where he is writing at a computer alongside Grace, he is triggered to recount his humorous anecdote about digging a hāngi pit that was too deep (Matai, T6). Casting himself as an initiator in his *lifeworld* discourse, Matai points out how he and his cousins asked his uncles if they were allowed to dig the pit (Matai, T8). The hāngi pit story is important for Matai as he communicates it in his speech, tells Grace about it and refers to it in his interview with me. Digging the pit is an important part of hāngi production. This pit digging can also be seen as a rite of passage for Matai as he begins to take on adult responsibilities in his *lifeworld*. It's a physical job which requires strength and stamina. Matai describes how he and others were left to their own devices when they dug the hāngi pit. These young people were allowed to learn through their mistakes. His comment, "and they just let us" (Matai, T8), suggests how significant this position of responsibility was for Matai. It is an example of agentic positioning within a discourse community.

We asked my uncles if we could dig the hāngi pit and they just let us. (Matai, T8)

In Matai's *lifeworld* discourse, importance is placed on belonging to a community. A hāngi involves sharing and bringing people together. Many people join in and help and Matai takes up an authoritative position by both driving this event and writing a text to persuade others to join him. Organising a

hāngi requires both leadership and organisational skills. He makes an identity bid to be a self-elected spokesperson for the student body and he explores the channels open to him to participate in the decision making (Matai,T103). Matai takes up an authoritative discourse position by making moves to solicit support for his idea from teachers and fellow students (Matai,T105). He intends that his peers participate practically by getting involved. Matai solicits my support for the hāngi idea too, including me in his discourse community. He positions me in a similar way to his speech audience, or perhaps attributes the role for women at a hāngi, when he asks me to bring “some puddings” (line 279).

My speech was to ask the teachers if we could have a hāngi. (Matai,T103)

And see if it's alright with them and see if they want to help out. And get their class involved. (Matai,T105)

You could bring some puddings. (Matai, line 279)

Her idea was really to just have a class- yeah but I think if we get more people we could cook more. (Matai,T109)

Matai acknowledges in his interview that Ms Copper says that the project should be kept to a smaller scale with just the class of 9JG involved (lines 323-325). However, he holds on to his plan to expand the hāngi project beyond the

*Matai: And get it all done faster.
Jenny: Yeah I reckon.
Matai: Yeah – like one of us digging the hole would take ages. (Laugh)
(Matai,T111-T113)*

class (Matai,T109). Matai wants to include more people in the hāngi, despite Grace’s comment to restrict numbers. Matai’s interview comment suggests that he still has designs to include other teachers and students and that he is confident in taking a different view to his teacher. His rationale for running a bigger hāngi with more people is that they would “get it all done faster” (Matai,T111). Matai uses his *lifeworld* experience to make a joke to justify the need to have enough participants to dig the hāngi pit (Matai,T113).

7.3.3 Participatory Learning Discourse

Matai is constituted as a ‘social learner’ within *participatory learning* discourse. As highlighted in plateaus one and two, a *participatory* discourse is embedded in a sociocultural approach to assessment for learning. Teachers and students participate together in the classroom as a learning community. For Matai, this is expressed in his capacity to participate socially as a learner in classroom

discourses; connecting with his peers and contributing to the learning community.

Matai as a Social Learner

Matai is a social learner in the way that he builds on the ideas of his peers. In a recount of a classroom discussion Grace describes how Matai was influenced by Blake's suggestion to plan a hāngi. Matai heard Blake's idea and "cottoned on to it" (Grace,T10).

In his interview Matai describes a social view of learning where learners make a contribution to their peers learning by "helping each other out." He also speaks of how he intends to ask his peers for feedback on his ideas (Matai,T88). As Matai writes his persuasive speech, he liaises with others to rally support and lend weight to his argument. Matai speaks about how he draws on his social networks (Matai,T88) to elicit the support of his peers. When Matai describes how he is going to "talk to the audience of teachers and fellow students... as friends" (Matai,T115), he further indicates he understands and values learning and action as social and participatory processes.

Alongside *participatory learning* discourse in this classroom sit the discourses of *studenting* (Fenstermacher, 2006) and *responsibilisation* (Rose, 2003; Davies, 2006).

...Cos they want to do a hāngi! So I said yeah, yeah OK. How are we going to do it? Like an inquiry thing as well. Well Matai did that -but originally he got the idea off Blake ...So I said how are we going to do that? How are we going to buy all the meat to put in it? He Oh -Thor he goes goat busting. He can go and get us something and Henare – They go hunting. So I said oh Ok! It put a little seed in my mind. Thinking there could be something in this. You know. And then Matai's cottoned on to this and he wants to have this hāngi! (Grace,T10)

You know how my speech is about if we could have a hāngi. We could cook us a hāngi. I could be asking people if it's a good idea or not. Ask them what they think so that I could include it in my speech and know what people think. (Matai.T88)

I've made it so I can be talking with other students about it. And sort of like talk to the teachers about it. Like as friends. Sort of like that and yeah! (Matai,T115)

7.3.4 Studenting and Responsibilisation Discourses

Studenting is conceptualised in plateau three as an underlife discourse that Matai draws from to navigate *responsibilisation*. Through *studenting* Matai can critique the ‘rules of the game’ (Fenstermacher, 2006; McChesney & Cowie, 2008). In *responsibilisation* discourse there is an exclusive focus on individual responsibility over responsibility for others, with the exception of participation in acts of surveillance and control (Davies, 2006).

Matai as an ‘Independent Thinker’

Matai’s *studenting* has had an impact on the way Grace positions him; as an ‘independent thinker’ (Grace,T33). She notes that it is not useful to simply tell him what to do but rather she needs to suggest ‘what if you did it this way’ and to provide some examples so that he has a choice. She says that she deliberately offers Matai choices so that he can make decisions and have ownership over his writing (Grace,T33) and that if she doesn’t do this he can express resistance through being “sulky and bolshie.” Therefore, instead of telling Matai directly what to do she presents him with alternatives. These

Jenny: Who was in control of the learning?

Matai : Far out. Teachers ask this question to us all the time.

Jenny: Do they? Who’s in control of the learning?

Matai : Apparently we are.

Jenny: Apparently?

Matai : Students are.

(Matai,T21-T26).

alternatives are apparent in the scope Matai describes that he has in writing his speech (Matai,T18, T40). There is a ‘double move’ (Honan, 2002) evident in Matai’s comment that he chose the content and nature of his speech. It is ambivalent that Matai did not relate how his interaction with Grace influenced what his speech was about and the message that he conveyed to his audience. He willingly accepted Grace’s positioning as a ‘novice writer’ and spoke to me as if he authored the position.

Matai demonstrates *studenting* discourse when he makes a rhizomatic connection across contexts to comment that my question “Who was in control of the learning?” is common in teacher discourse (Matai,T22). Furthermore, Matai uses a tone of voice which suggests that he is weary with this teacher discourse (Matai,T22). In doing so he positions me as what I interpret to be ‘yet another teacher pulling this patter.’ When I probed why he commented that teachers

always ask this question, Matai said that “apparently” students are in control of their learning (Matai,T24). Matai’s use of this word “apparently” appears to critique a popular approach taken by teachers to evoke student accountability (responsibilisation discourse). His use of this word suggests that he thinks critically about the expectation that he is supposed to ventriloquise a common teacher discourse about taking responsibility for learning in answer to this question. His critique resists the form of governmentality, where teachers (and researchers) ask students the question: “who is in control of the learning?” (Matai,T30). The notion of ‘self control’ aligns with a sovereign interpretation of agency which suggests that agency is something that learners can possess and teachers can impress it on students through telling them that they have it. When Matai says he thinks “it’s quite sort of true,” he takes up *studenting* discourse.

He privileges the notion of individual choice embedded in the discourse of *responsibilisation* (Matai,T29-T36). Matai’s interview gave me an insight into how the notions ‘choice’ and ‘control’ work in constituting subjects. When I used the word choice to broker the notion of agency, I triggered an interpretation of choice where ‘good students’ make ‘good choices.’ In this discourse adherence to the norms of schooling is a choice and at times students evade the ‘good choices’ of teacher script to participate in *counterscript*. Although Matai calls learning a choice (Matai,T32) he also describes the threat of being “given a detention

Jenny: Who is in control of the learning?

Matai: He actually told us that we were in control of our learning.

Jenny: Are you?

Matai: It’s our choice if we learn it or not.

Jenny: And what do you think?

Matai: Think it’s quite sort of true.

Jenny: How come? Can you tell me what you mean by that?

Matai: We could be doing our work but not actually learning- just writing down the answers and yeah just writing, instead of learning. (Matai,T29-T36)

or not” (Matai,T60) a choice. ‘Good students’ are expected to make the ‘right choice’ to comply with school rules or face punishment. In this circumstance students’ choices may have disciplinary consequences. Students proficient at *studenting*, where they know the ‘rules of the game,’ can make the ‘right choice’ to take up a subject position that enables them to ‘do’ school.

Matai as ‘Compliant Student’

The ‘rules of the game’ are evident when Matai takes up his position as a ‘compliant student.’ When I asked Matai in his interview what he was doing in the video footage of his interaction with Grace, he positioned himself as a ‘compliant student’ who was doing the required work (Matai,T10). However, potential for not completing and refusing the task set by the teacher is implicit in Matai’s use of the word “actually.” He speaks as though it is likely that he could have been off-task and not learning in the lesson. Matai observes that students could be undertaking the teacher’s set task “but not actually learning” (Matai,T29-T36). Matai describes a variation of *studenting* where students only pretend to comply with teacher directives. (This contrasts with the classroom activity in plateau two where the students are both off-task and learning and do not pretend that they are cooperating with their teacher.) Matai articulates *studenting* discourse when he describes how learning will occur if students listen to the teacher, undertake the set tasks and strive to understand the work (Matai,T38; T82). In this response Matai clearly positions himself as a compliant, engaged student during our conversation.

7.4 ‘The Hāngi’ Plateau Discussion

In this plateau Matai is constituted agentically as a speaker and speechwriter through his efforts to engage with English classroom discourse. Through his initiative to prepare a speech to elicit his peers’ support for a hāngi at school, he takes a line of flight across *English classroom* and *lifeworld* discourses.

Although Matai is a ‘novice writer,’ during the interchange Grace deliberately deterritorializes from English discourse to join him on his line of flight so that he can speak authoritatively as an expert with knowledge of his *lifeworld* (lines 380-382). She supports him to scaffold and hybridise *lifeworld* into *English classroom* discourse.

*You have just described
how to do your speech then.
You described how to make
the hāngi pit.
(Grace, lines 380-382)*

This plateau illustrates how authentic real world contexts for learning can support learners to draw from their experience to blend discourses

authoritatively. Grace and Matai hold paradoxical priorities in this episode which play out in their discourse moves. Matai's primary focus is to organise the hāngi and his comments suggest that learning to write a speech is an inconvenient but necessary process. Grace's goal is for Matai to become an effective writer. These objectives, while not in tension with each other, are prioritised differently by Matai and Grace.

Matai begins the episode talking about his *lifeworld* and trying to engage Grace with his narrative. Each initiative of Matai's to engage Grace is a line of flight to hook her into talking about his *lifeworld*. As they talk about hāngi preparation and speechwriting, the discourses interchange and Matai and Grace rapidly shift subjectivities. Matai takes his line of flight within *lifeworld* discourse as he focuses on planning the hāngi, while Grace works alongside him to address English curriculum goals. He evokes *lifeworld* humour while Grace strives to focus on English classroom discourse. In a discourse turn, Grace makes a shift to talk with Matai about elements of his *lifeworld*. She encourages him to articulate his experience so that he can generate ideas to write about. In this way Grace also makes a deterritorializing move to follow Matai's passion.

Matai draws on personal, social and discursive resources in the classroom to write his speech. Mobilising personal resources, he submits to English classroom discourse to write his speech, sharing aspects of his *lifeworld* in the process. Although Grace appears not to acknowledge his struggle to write, she addresses Matai's comment that the task is "too hard" by eliciting additional *lifeworld* details from him and encouraging him to integrate them into his written speech. Grace expects him to demonstrate confidence and a capacity to write and Matai persists with *English classroom* discourse although it is a challenge. Grace acts quickly to interrupt his citation as a struggling learner and assists him to mobilise *lifeworld* discourse to achieve this task. Through this social affordance Matai has a purpose for his writing.

There is a juxtaposition between two of Matai's subjectivities as 'hāngi pit digger' and 'novice writer.' Matai takes up different identity positions in the discourses of marae and classroom. He describes the feedback across the two discourses in different terms. He laughs about receiving feedback that the hāngi

pit was too deep, yet after his feedback from Grace he speaks about speech writing as a chore in that he had to “fill it up with something else” (Matai,T14). For Matai, *English classroom* discourse (speechmaking or delivering a speech) appears to be a secondary consideration to the more pressing issue of convincing his school community to put down a hāngi. In his *lifeworld*, Matai undertakes an important job of digging the pit. In his English classroom, he is a student writing a speech. Matai’s words and tone suggest that he is more connected with his identity as a ‘hāngi pit digger’ than being a ‘novice writer’ in his English class. We can infer that Matai did not find digging such an enormous pit “too hard” (Matai, line 312). His reluctance contrasts with the enthusiasm he expressed initially for his story about digging the pit too deep.

Grace’s willingness to support a curriculum that is relevant to her students’ *lifeworlds* is a social affordance that supports Matai to be agentic. In her interview Grace says that she responds to her students by soliciting their input. They influenced her to think about authentic contexts when she was planning for learning (Grace,T10) with them. Grace makes space for learner agency by mobilising the social resources for students to take the lead in the classroom. This action supported Matai’s line of flight. There were potentially missed opportunities for Grace to take lines of flight to further engage with Matai’s te ao Māori lifeworld. Grace could have taken opportunities to learn more about the oratorical practices and devices that he knew about and to explore where English discipline Discourse and Matai’s te ao Māori discourse exist at odds, intersect and hybridise.

This plateau demonstrates how discursive agency can occur through constraint. In her interview Grace points out that when she redirects Matai from his narrative to an emphasis on his speech structure and plan, she constrains his agency; she “probably took a bit [of agency] off him” (Grace,T27). This teacher assistance to become more proficient in English is described as a constraint by both Matai and Grace. It is evident in Matai’s interview which took place before he delivered his speech to the class, in that he did not display passion for speechwriting. Both Matai’s reluctance to edit his speech and Grace’s comment that she could have taken agency off him are paradoxical. While Matai may not

have had ‘free will’ at the time in liberal humanist terms, he demonstrated discursive agency through strengthening his position in English classroom discourse. This resulted in Matai being co-constituted as a successful English student when he later delivered his speech successfully to his peers.

In his interview Matai demonstrates discursive agency through describing how teachers use classroom discourse to solicit student compliance. When he says “Far out. Teachers ask this question to us all the time” he recognises a mechanism of social control and accordingly evokes *studenting* discourse. Matai’s comment indicates that he recognises his student positioning (Matai, T22). When I asked Matai what he thought about the notion that it was the students’ ‘choice,’ he concurred that “[I] think it’s quite sort of true” (Matai, T34). His comment illustrates how he simultaneously submitted to *studenting* discourse and had mastery of it. If, as Davies (2010) suggests, agency lies in the capacity to critically examine thought, to stand back and see what it assumes, Matai demonstrates this form of reflexive agency as a “subject-of-thought” (Davies, 2010, p. 54).

Visible in this plateau is Butler’s ambivalence of subjection. For Matai the process of responding to Grace’s feedback is a simultaneous act of both submission and mastery. Matai is agentic in utilising English classroom discourse as a cultural practice (be it grudgingly) to become an effective writer and speechmaker, yet, at the same time, he becomes a subject through surrendering to it. Here Matai makes a move exemplifying the notion of “double directionality” (Davies, 2006, p. 428) by surrendering to English classroom discourse in order to master it. Grace’s support is both an affordance and a constraint which highlights agency as a paradox or a contradiction of control (Rainio, 2008).

7.5 ‘The Hāngi’ Plateau Summary

In ‘The Hāngi’ plateau, Matai takes a line of flight to write a speech aimed to elicit support to put down a hāngi from his peers, teachers and community. During the writing process Grace bridges *English* and *lifeworld* discourses by encouraging Matai to build on his prior knowledge to structure his writing so

that an audience can follow it. However, Matai takes lines of flight in other directions. He employs *lifeworld* humour as lines of flight to shift the focus from the significant editing Grace asks him to do in his speech. Grace positions herself as a learner when Matai talks about his *lifeworld* and Matai is knowledgeable about hāngi processes and protocols while being a ‘novice’ in *English classroom* discourse. There is a paradox of positioning when Matai and Grace’s subject positions of ‘expert’ and ‘novice’ interchange as the discourses overlap and intertwine.

It is significant that Matai takes up the challenge to structure his writing. He attempts to bring two discourses together; to position himself as a ‘writer’ and a competent organiser, a ‘leader’ among his peers and the wider school community. Grace intends for Matai to become an effective speech writer. However, this is not necessarily a skill that Matai would have developed without the relevance of ‘The Hāngi’ context. It is an affordance in the English programme for Matai to engage with a topic that relates to his *lifeworld*. However there could have been other affordances should Grace have delved further into Matai’s te ao Māori lifeworld to explore oratorical practices. There was the potential for Grace to enrich her pedagogy through further embracing indigenous ways of communicating and contributing to communities. Moreover, there were opportunities missed for Matai to explicitly recognise and juxtapose the cultural signs, symbols and ways of representing knowledge and thinking (Kelly, Luke & Green, 2008) inherent in te ao Māori lifeworld and English discipline discourses.

These three plateaus of data illustrate how agency is dynamic and rhizomatic. Across the three plateaus the students mobilise discourses as agentic learners. Although PJ, Blake and Matai are positioned as leaders and initiators, the influence of their peers is interwoven into the fabric of the plateau. In rhizomatic style, both ‘The Rebel Thermometers’ and ‘The Hāngi’ episodes are initially sparked off by students other than the ones we follow in this data. ‘The Rebel Thermometers’ episode is originally initiated by PJ, although Blake spends the most time conducting the investigation at the back of the room. The hāngi is Matai’s project but Grace reports that Blake originally contributed the idea.

In the next chapter, 'Agency as Dynamic and Rhizomatic,' I further discuss how the students are afforded agentic positions through their lines of flight within and across discourses as they move themselves between culturally and socially structured subjectivities. The discourses outlined in these data chapters interconnect and interweave rhizomatically with each other. These interwoven threads provide us with a rich poststructural map of the research terrain which is addressed in the next chapter.

Chapter Eight – Agency as Dynamic and Rhizomatic Findings and Analysis

We don't know what we can speak /write into existence until we've done it, since even those imaginary worlds through which we conjure up a possibility different from this world are discursively produced. (Davies 1990, p. 54)

8.1 Overview

In each of the three plateaus set out in chapters five, six and seven the students and teachers acted upon and were constituted by discourses. The plateaus illustrate the rhizomatic lines of flight through which students authored new subjectivities by interrupting their prior identity positioning. Through these citational practices within and across discourses, students gained access to agentic identities. The students accepted, resisted and exploited positions as active and authoritative learners as they destabilised subjectivities. In this discussion chapter, building on the rhizo-textual analyses from the previous chapters, I examine agency in and across these plateaus. At the same time I address the three research questions. The first question: 'How do students and teachers move themselves from one set of culturally and socially structured subjectivities to another?' is explored in Section 8.2 entitled 'Rhizomatic Agency.' The second question: 'How does agency look, sound and feel in the discursive space of these classrooms?' is addressed in section 8.3: 'Agency as Performative.' The third question: 'How do students discursively engage as authoritative, active participants, authoring and directing their own behaviour in social activity within the classrooms?' is discussed in section 8.4: 'Identity Affordances.'

8.2 Rhizomatic Agency

The first research question addresses rhizomatic agency, exploring how students and teachers move from one set of culturally and socially structured subjectivities to another. Through the use of Deleuze and Guattari's (1987) notion of the rhizome, I am able to subvert a division of the world into simplistic co-ordinated parts (Mansfield, 2000), to illustrate how students can make rhizomatic moves to take up a variety of different positions in classroom discourses. In keeping with Deleuzian politics of becoming, I map the moments of deterritorialization when discourses twisted, overlapped (Deleuze & Guattari,

1987; Gutiérrez et al., 1995, Honan & Sellers, 2007; Honan, 2007; Davis, 2008) or hybridised (Fairclough, 2010) and new subjectivities became possible. The students acted both on and within the classroom discourses as they made their rhizomatic moves. While the analysis used elements of sociocultural theory to explore social and physical affordances, such as how Blake leveraged social and physical (the thermometer) resources to enact being a ‘rebel scientist,’ my findings illustrate that the adoption of a rhizomatic view of agency can provide deep insights into the intricacies of the discursive relationships between the teachers and students and students with each other.

8.2.1 Overlapping and Hybridising Discourses

Taken together the findings across the three plateaus illustrate that, like rhizomes, the class discourses of *science/ English, participatory learning, critical thinking* and/or *teenage counterscript/studenting* can overlap and/or hybridise as learners take lines of flight as certain subjectivities; both in the moment and across time. In ‘The Hoax’ plateau the discourses of *science, participatory learning, critical thinking* and *teenage counterscript* overlapped as PJ negotiated and re-negotiated his positioning. PJ demonstrates rhizomatic agency when he overlapped *participatory learning* and *critical thinking* discourses to strengthen his position with both Jan and his peers as an agentic, ‘authoritative decision maker’ and ‘critical thinker.’ In ‘The Rebel Thermometers,’ Blake deterritorialized *science classroom* discourse by hybridising it with *counterscript* to conduct his investigation in third space (see 8.3.4) (Gutiérrez et al., 1995). Evidenced by his interview, Blake made a sustained and deliberate rhizomatic move within *science classroom* discourse to strengthen his position as a ‘scientist’ whilst maintaining his positioning with his peers. Through taking up his ‘rebel scientist’ identity with his peers at the sink, he hybridised *science classroom* with *participatory learning* and *counterscript* discourses. In this way Blake moved both within and across discourses simultaneously. During their ‘in the moment’ dialogue, Grace assisted Matai to interlace and hybridise his *lifeworld* with *English classroom* discourse to become an effective writer who could potentially persuade others to participate in preparing a hāngi. All three plateaus demonstrate rhizomatic agency in that

the learners' moves blended classroom discourses and strengthened their positions as learners.

8.2.2 Discourse Shifts and Turns

The three plateaus illustrate some of the ways that the enacted classroom discourses can shift and turn as learners take up different subjectivities within them. PJ made a sustained line of flight to be relationally constituted as a 'critical thinker' by his peers and teacher. When he made his rhizomatic move to explore images in response to his peers' requests, the discourses turned briefly from *critical thinking* to *counterscript* and then back again. In 'The Rebel Thermometers' classroom episode Blake acted upon discourse by making a rhizomatic move to shift *participatory learning* discourse from a teacher-led to a student-led initiative; sharing his results with his peers at the sink at the back of the classroom. During their interchange Grace and Matai made rhizomatic shifts between *English classroom* and *lifeworld* discourses which afforded Matai's corresponding identities of 'novice writer' and 'authoritative leader' to be signified and resignified (Butler, 1993; Hey, 2006; Applebaum; 2010).

8.2.3 Deterritorializing and Reterritorializing Discourses

The study's findings point to the way that agency can appear as a series of rapid moves which occur from moment to moment as students deterritorialize and reterritorialize discourses as they take up specific identities. This aligns with both Butler and Davies who note that subjectivities can be fluid fleeting moments in discourse where learners signify and resignify their positions (Butler, 1993; Davies, 2000). PJ made fleeting rhizomatic moves between subjectivities when he deterritorialized between 'critical thinker,' and 'one of the boys' and then reterritorialized to a 'good student' position. These moves enabled him to respond to the shifting discourses in the classroom and the competing interests of his peers and teacher. In the second plateau Blake only briefly took up a position as a 'good student.' At Jan's bidding he left the sink, however, he soon returned to his rebel investigation when her back was turned. (It is worth noting that Jan did revise her interpretation after listening to Blake's interview and experiencing her epistemological shudder.) 'The Hāngi' episode illustrates a series of rapid rhizomatic moves which took place throughout

Matai's conversation with Grace. The multiple discourse turns took the form of various small lines of flight through which Matai engaged Grace with his *lifeworld* discourse. Matai morphed between identity positions: from 'authoritative leader,' to 'novice writer,' to 'authoritative leader,' to an integration of the two. Grace and Matai interchanged positions between 'novice' and 'authority' during the dialogue. Grace's positioning in these discourses was the inverse of Matai's. Although Grace was an authority in English discipline, Matai was a leader and authority in his *lifeworld* discourse. A dialectic was in operation as Matai and Grace deterritorialized and reterritorialized between *Matai's lifeworld* and *English discipline* discourses. This productive tension signals how lines of flight can map over each other fleetingly in dialogue. This finding is consistent with Hagood's (2002) rhizomatic research which found that, by looking at the data within the rhizome and creating cartographies, alternative perspectives became more apparent.

8.2.4 Directional Shifts

Some of the rhizomatic moves across the plateaus illustrate clear shifts in direction. Winslade (2009) reminds us that lines of flight do not need to be 180 degree turnarounds. Furthermore, he postulates that the trajectory of a line only needs to bend to a small degree to take us to a quite different place where we can become in the process quite different people. Examples include: PJ's approach to Jan to tell her about the hoax; Blake's position call to PJ to be 'one of the boys' and project an alternative shark image; Jan's description of 'The Hoax' episode to her colleagues; Blake's inclination to follow PJ's lead to run his thermometer under water; and Jan's epistemological shudder. Deleuze and Guattari (1987) write that:

“Every rhizome contains lines of segmentarity according to which it is stratified, territorialized, organized, signified, attributed, etc., as well as lines of deterritorialization down which it constantly flees. There is a rupture in the rhizome whenever segmentary lines explode into a line of flight, but the line of flight is part of the rhizome.” (p. 9)

The samples of data are evidence of discursive ‘ruptures’ that push the rhizome of classroom dynamics onwards and outwards in its constant state of becoming as the students continue their escapes through lines of flight.

To sum up, the rhizomatic moves outlined above illustrate how power can play out in classrooms through discursive shifts in direction. Rhizomatic agency is where learners navigate discourses to move from one set of culturally and socially structured subjectivities to another. The findings suggest that these moves are identity power plays. Through their lines of flight students and teachers overlap and hybridise discourses. As different subjectivities are taken up, these classroom discourses are acted upon and themselves shift and turn. Rhizomatic moves can be rapid, occurring moment by moment, as students and teachers deterritorialize and reterritorialize their ground. Even subtle shifts in direction can have a profound impact on classroom dynamics.

8.3 Agency as Performative

The findings in this study highlight performativity as evident in the way that students can take lines of flight across the classroom discourses to constitute themselves agentically. Like Hey (2006), I use Butler’s notion of the performativity of identity to provide a conceptual-empirical space for elaborating how, and under what sort of conditions, the learners in this study came to cite themselves in both recognised and unpredictable ways.

Performativity offers insight into discourse as a social practice of identity (Hey, 2006). As agency is not so easily identifiable in classrooms, positioning theory helps to make visible the ways in which learners accept, utilise and exploit discourse positions. Therefore, I use both Butler’s performativity and positioning theory (Davies & Harré, 1990) to address how agency looks, sounds and feels in the discursive space of the three classrooms in answer to research question two.

8.3.1 Double Moves

In keeping with the ambivalence identified by poststructural researchers, the students in this study were viewed as performatively constituted subjects (Davies, Dormer, Gannon, Laws, Rocco, Taguchi & McCann, 2001; Davies, 2006; Laws & Davies, 2000; Youdell, 2006), who in turn constituted discourse

in double moves (Butler, 1997b; St. Pierre, 2000a; Honan, 2002; Davies, 2006). PJ, for example, demonstrates performativity in the way that he undertakes the dual process of mastering and submitting to the classroom discourses by taking up his ‘critical thinker,’ ‘authoritative decision maker’ and ‘one of the boys’ positions. He managed this duality as an agentic subject through his simultaneous acts of submission and mastery. Likewise, Blake authored and submitted to *science classroom*, *participatory* and *counterscript* discourses to be a ‘rebel scientist.’ Matai both mastered and accepted *English*, *lifeworld* and *studenting* discourses. The findings of this study illustrate that the process of submitting to and mastering discourse constructed PJ’s, Blake’s and Matai’s subjectivities. This is evidence of “paradoxical simultaneity” (Butler, 1995c, p.14), that is described by Davies (2006) as the “impossible doubleness of subjection” or “double directionality” (p. 428). Rather than a performance where individuals act-out roles as pre-discursive identities, the students were performatively constituted through their lines of flight as agentic learners.

8.3.2 Acts that Produce Knowledge and Discipline Performances

The three plateaus provide an account of how students can engage in practices that produce knowledge which, at the same time, can discipline them and their performances (Gregson & Rose, 2000). An example of this is when PJ performed his ‘double moves’ to use *science classroom* discourse to his advantage to expose the hoax and simultaneously accept a ‘good student’ position. PJ instigated a scientific process of disproving theory with evidence through his line of flight as a ‘critical thinker.’ He drew from *science classroom* discourse, his ICT skills and his internet knowledge to generate evidence to back an authoritative and agentic position. However, it is unclear to what extent he deliberately and systematically used this evidence to make his case to the class. At the heart of ‘The Hoax’ is PJ’s capacity to negotiate power in the classroom which enabled him to author multiple discourse positions. PJ illustrates his performativity through the way that he was able to engage in practices which both produced and subverted discourse and knowledge (Gregson & Rose, 2000). Like PJ, Blake was an agentic learner when he persisted with his investigation; this activity constructed and disciplined his performance as a rebel scientist. He

drew from his knowledge of classroom science discourse to generate new knowledge through his investigation into water temperature.

What can be deemed constrictive by a student may be perceived by a teacher as a process of gaining mastery and control of a discipline discourse. My findings demonstrate how a constraint can sometimes afford learner agency. In the third plateau, to address Matai's learning during their interchange, Grace constrained (Kennewell, 2001) the direction of their conversation, reterritorializing their focus back to English classroom discourse. It is ironical that although writing may have felt like a constraint to Matai, as though she "took a bit [of agency] off him" (Grace, T27), it also afforded him a dual position of authority in both *lifeworld* and *English* discourses. Through the constraint of his novice writer position, Grace strengthened his capability to use English discourse. In this instance the constraint provided structure and guidance for Matai to author his position as an English student. This was evident in his subsequent delivery of his speech to the class. Matai drew from his knowledge of his *lifeworld* (Habermas, 1990; Gee, 2011b) and was dually positioned as a 'novice writer' and *lifeworld* 'expert.' He authored his authoritative position (Greeno, 2006) when he spoke about his *lifeworld* in relation to the persuasive text he was crafting.

8.3.3 Agency as a Paradox

Agency can look paradoxical, especially when teacher and student have different priorities and positions. PJ's line of flight into *counterscript* could be seen as a stronger example of student-initiated agency than when he stood with Jan before the class to explain the hoax. He trod a paradoxical line; to be both accepted by his peers as 'one of the boys' and acknowledged as a 'good student' by his teacher. During 'The Rebel Thermometers' episode Jan did not see the student-led investigation as learning. There was a paradox evident in how the students were intersubjectively located in this plateau. While Jan initially just saw the group as rebellious, the students constituted themselves agentially as 'authoritative decision makers' and 'scientists.' Underlife identities (Gutiérrez et al., 1995) by their nature can be unrecognised by teachers and Jan's interview enabled her to disrupt the regimes of truth (Foucault, 2007) which shaped what was accepted and what was subjugated (Gowlett, 2013).

Jan's epistemological shudder interrupted her view of Blake as a troublemaker, and enabled her to reinterpret him as a student undertaking an investigation relevant to his learning needs. Significantly, it is possible that this episode had a rhizomatic effect on Jan, enabling her to deterritorialize her own practice. Paradoxically, Blake's rhizomatic move came to be perceived by Jan as more agentic than students who were simply "doing the plan." Her shudder sparked other lines of flight for both Jan and me: flights which enabled Jan to reposition Blake in *participatory learning* discourse and me to reframe agency as dynamic in that it can defy governmentality (Foucault, 2007; Peters, 2009). The three sequential clips of classroom video footage served as a 'frame tool' (Gee, 2011b) that afforded these rhizomatic moves where the paradox of agency was made apparent. Jan initiated an act of "willful contradiction" as she "resisted and subverted" (Davies, 1993, p. 177) her classroom science discourse to see Blake as an agentic learner and *counterscript* as a productive third space.

8.3.4 Scoping Third Space

On the basis of my findings, I argue that there is value in scoping third space beyond the interplay of *teacher script* and *counterscript*. Gutiérrez et al. (1995) conceptualises third space as an intermediate place where there is negotiated meaning, hybridity and the production of new cultural forms of dialogue. They locate third space at the intersection between official and unofficial discourses; between the scripts of sanctioned school discourses and the counterscript of alternative student cultural practices. In accordance with Gutiérrez et al. (1995), my findings suggest that third space can be a bridge which supports a radical form of underlife which has as its goal the radical restructuring of classroom practices.

While Gutiérrez et al. (1995) looked at whole class dynamics in a ninth grade classroom, 'The Rebel Thermometer' plateau reveals the micropolitics of underlife interactions that take place between a small group of students. This localised view of underlife enables me to conceptualise third space in an exclusively student-led form. Blake blends official and unofficial discourses to conduct his investigation. He and his peers demonstrate that learner-initiated learning can take place in productive third spaces, when classroom discourses

hybridise in underlife. In these learner-initiated third spaces cultural practices and discourses overlap and, unbeknown to teachers, learners can appropriate discourses to act agentically. This student-only third space was a place of “affective intensity” (Kofoed & Ringrose, 2012, p. 14) in the way that the discourses blended as the boys interacted with one another. The shared activity sustained their attention and there were both dialogue and non verbal communications. It was through the rhizoanalysis that this third space became apparent. Leander and Rowe (2006), write that rhizoanalysis can support an understanding of performativity in ways that engage affective intensities, recognise relationships and create unpredictable movements of identities.

As noted above, Butler’s performativity provides a useful conceptual frame for exploring how the learners in this study came to cite themselves in both recognised and unpredictable ways. The students constituted discourse through their double moves, illustrating the paradoxical simultaneity of subjectivities. They produced knowledge, and in doing so were constrained to certain positions in their classrooms. As complex spaces where there can be competing agendas, agency can be rhizomatic and paradoxical. It can be co-constructed between learners in third spaces.

8.4 Identity Affordances

The episodes in this thesis were specifically chosen for their ‘fertility’ in that they offered interesting lines of flight and distinctive shifts in positioning. By noticing and recognising how learners performatively shift subjectivities, it was possible to map learner agency in the classroom as lines of flight. Subjectivities, as explained previously, are fluid in that from moment to moment subjects can slip from one position to another (Gannon, 2003), weaving and hybridising rhizomatically. In this section I discuss the third research question; how students discursively engage as authoritative, active participants, authoring and directing their own behaviour in social activity within the three plateaus. Student identities are relationally constituted and there were affordances common across the plateaus which enabled the students as learners to take their lines of flight.

8.4.1 Multiple meanings and desires

Agency can be thought of as the discursive capacity to author multiple meanings and desires (Davies, 1990). Tan and Calabrese Barton (2008) assert that learners take up multiple identities as they remake themselves in response to new situations and new opportunities. PJ, Blake and Matai forged multiple subject positions across the classroom discourses. PJ mobilised personal resources (Davies, 1990) to know when to step forward in the classroom forum and when to step back. In plateau two Blake authored his ‘rebel scientist’ hybrid identity during the classroom episode, however, he restoried the event depicting himself as a ‘good student’ during his interview. In plateau three Matai made discourse moves as both a struggling ‘novice writer’ and as a ‘authoritative leader’ in his *lifeworld*. The findings across all three plateaus correspond with Holland et al.’s (1998) observation that sociocultural contexts are sites where there are struggles over the authorship of identities. In keeping with Youdell’s (2006) research, the students in this study did not necessarily explicitly name the discourses identified in the data chapters yet they engaged with them through their rhizomatic moves. For example, PJ, Blake and Matai may not have recognised the *critical thinking*, *participatory learning*, *counterscript* and *lifeworld* discourses as such, yet they still authored these discourses or were constituted by them and, in turn, acted upon them as they took up their agentic subjectivities as ‘critical thinker’/ ‘one of the boys’, ‘rebel scientist’ and ‘novice writer’/ ‘authoritative leader.’

8.4.2 Social Affordances

My findings highlight crucial social affordances which facilitate the constitution of learners’ subjectivities across the episodes. The study aligns with Greeno’s (2006) conjecture that authoritative and accountable positioning in learning environments can facilitate agentic learning. Greeno takes up a theme of participation in interaction to shift the focus away from a constructivist view of learning where learners are acquirers and constructors of knowledge toward a broader focus on patterns of participation “that depend on both the contents of what is learned and the agency with which those contents are deployed in activity” (p. 538). This research explored this shift and provides examples across

the plateaus of students' authoritative and accountable positioning (Greeno, 2006) where they were credited with authorship (Matai's hāngi), able to initiate ideas and topics (Blake's rebel investigation), and challenge or question the assertions of their teachers (PJ's hoax).

The teachers, both Jan and Grace, afforded their students the social resources (Davies, 1990) of space and credibility for their lines of flight. Through my in-class observation, I could see that PJ's social position was interrupted when Jan mobilised *critical thinking* and *participatory learning* discourse to invite PJ to use the computer. In this moment he was resignified as a 'critical thinker' and 'authoritative decision maker' by his peers and teacher which enabled him to get up before the class to make his rhizomatic moves. Through Jan's affordance of a third space, Blake took his opportunity to author his agentic position as an active learner. In the third plateau Grace's questioning afforded Matai an authoritative position by enabling him to expand on his ideas in his writing so that he could think like a competent student of English. Affordances like Grace asking Matai about his experience laying down a hāngi, for example, can support the subtle rhizomatic shifts in direction which interrupt subjectivities to allow learners to be constituted in new ways.

The influence of peers relationally constructed the students' subjectivities. PJ's collaboration with his peers to explore alternative Google shark images resignified (Butler, 1993; Davies 2004) his position in *counterscript* discourse. As noted earlier, he managed to stand before the class as 'one of the boys' while simultaneously adopting 'good student,' 'critical thinker' and 'authoritative decision maker' identities. In plateau two Blake was not distracted when Matai pretended to tell the teacher that the boys were not following her instructions. Moreover, Matai's teasing was an affordance that helped to relationally constitute Blake's subjectivity as a 'rebel scientist.' The thermometer as a material discourse tool was an affordance that supported Blake to enact his socially recognisable identity (Gee, 2011a).

8.4.3 Reflexive Agency

The research points to how, through their rhizomatic moves, students can reflexively position (Tan & Moghaddam, 1995) themselves in relation to the

affordances and constraints within their learning contexts. Exercising this reflexive agency, PJ navigated *participatory learning*, *critical thinking* and *counterscript* discourses to take up authoritative positions across them. He managed to maintain his peer relationships and model critical thinking with his teacher. It was important for PJ to keep on-side with Jan, to meet her expectations and simultaneously avoid being perceived as a ‘tall poppy’ or ‘teacher’s pet’ by his peers. Having subtly negotiated his tangential line of flight from Jan’s critical thinking intention, PJ reterritorialized discourse to accept Jan’s positioning as ‘good student’ and ‘critical thinker.’ Reflexive agency is also demonstrated when Blake purposefully interrupted his discursive positioning (Stormhoj, 2000) as a ‘good student’ to forge a *student-led participatory science learning* discourse. Matai’s reflexivity (Tan & Moghaddam, 1995) is visible as he repeatedly positioned himself through deterritorializing English classroom discourse. Across the plateaus the students’ capacity to disrupt or exploit their positioning (Lewis, Enciso & Moje, 2007) depended on the social resources (Davies, 1990) afforded by their peers and teachers and on their ability to mobilise the relevant discourses.

8.4.4 Discursive Agency

Across the plateaus discursive agency can be seen in the students’ relational subjectivities (Drewery, 2005) as they took up new discourses and were repositioned within existing ones with their peers and teachers. Discursive agency is more than an affordance for those who can recognise and articulate discourse. As Youdell (2006) points out, there are multiple degrees of both intent and understanding amongst subjects in terms of the embedded meanings and effects of discourses. The three plateaus illustrate some of these different degrees. As Lewis, Enciso and Moje (2007) point out, deep participatory learning involves learning not only discipline content but also how to think and act like an expert in the field. To varying degrees the students engaged with *English* and *science classroom* discourses. In ‘The Hoax’ plateau PJ enacted discursive agency through evoking *critical thinking* discourse. Although it is doubtful that he would have used the word ‘critical’ or recognised the discourse before the episode, he accepted and gave substance through his actions to Jan’s recognition that he was a ‘critical thinker.’ Blake explicitly cited *science*

classroom discourse when he described himself as a ‘scientist’ to Hone as he conducted his experiment and when he compared his actions with the practice of scientists during his interview. Matai’s knowledge gave him the authority in the classroom to talk about his *lifeworld* and author agentic subjectivities across both *English* and *lifeworld* discourses. Matai was learning the rules of the game (Fenstermacher, 2006; McChesney & Cowie, 2008) which comprised the English classroom discourse, signs and symbols, ways of representing knowledge and thinking (Kelly, Luke & Green, 2008) that could assist him to access what Delpit (1988) describes as the culture of power. Understanding *English classroom* discourses and taking up commensurate identities was fundamental to Matai’s discursive agency. In a sociocultural view, subject disciplines are communities of practice in which students can adopt agentic identity positions (Lewis, Enciso & Moje, 2007). However, Matai did more than take up a community apprenticeship in his conversation with Grace. He demonstrated discursive agency by actively authoring subjectivities through his lines of flight in ‘The Hāngi’ plateau.

8.4.5 Productive Resistance -Disrupting and Transforming Discourses

My findings demonstrate how learners can refuse and exploit subject positions to transform discourse to initiate learning. In keeping with Lewis, Enciso & Moje (2007) who see that learning can provide access to and control of discourses and that in the process learners strategically make and remake selves within relations of power, I illustrate how learners can be active and authoritative when they disrupt and transform discourses. In plateaus one and two the students appeared to resist their positionings as they engaged in practices that subverted their classroom discourses. The findings show that student-initiated learner agency can challenge the current classroom discourse. In ‘The Hoax,’ PJ drew on personal resources (Davies, 1990) to call his teacher’s knowledge into question when he engaged in critical thinking to refute what she had asserted to be true the previous day. In doing so he challenged her to reflect on her critical thinking.

Plateau two illustrates that learner agency can appear as if students are ‘off-task’ or “ricocheting off the walls” (Jan, T29). Acting agentially, Blake engaged in a

“contained” form of underlife (Gutiérrez et al., 1995, p. 451) within the structure of the classroom. However, if more students had joined them to refuse Jan’s planned investigation, the underlife activity could have disrupted the planned class solar investigation. Nevertheless, the notion of underlife in this plateau cannot be read simplistically. Blake initiated learning as an agentic learner through hybridising *science classroom* discourse with *participatory learning* and *counterscript*. He did not have agency in any liberal humanist sense (St. Pierre, 2000a; Sykes, 2001). Rather he drew from the available discourses to refuse Jan’s solar investigation so that he could author an agentic position alongside his peers as ‘a rebel scientist’ in his science classroom. Winslade (2005) points out how positioning theory makes cultural influences visible in discourse on a moment by moment basis, thus making visible the subtle nuances of contradiction and discontinuity in the ways in which people resist and refuse their discursive positions. “...it opens space for people to make choices, to take stands, or to protest injustice. In other words the possibility of contradiction enables us to exercise agency” (p. 355). Through the possibility afforded by the apparent contradiction of learning in *counterscript*, the data from the second plateau provides evidence that what can appear to be ‘off-task’ behaviour can be also read as the highly agentic use of an on-task third space.

In the third plateau Matai disrupted and transformed discourse when he critiqued *studenting* discourse during his interview with his comment: “Far out. Teachers ask this question to us all the time.” As Scheurich (1995) points out, interviewees are not passive, as they are active participants in the interaction. They carve out a space of their own, pushing or resisting the goals, intentions and meanings of the interviewer. Matai illustrates this in the way that he critiqued my question as a common teacher discourse.

As pointed out in this section on identity affordances, subjectivities are fluid; slipping and shifting from one moment to the next. Learners can demonstrate reflexive agency when they forge multiple subject positions within and across classroom discourses. These subjectivities are relationally constituted by their peers and teachers. Moreover, learners can enact discursive agency when they take up new discourses and are repositioned within existing ones. At times

agency can also take the form of productive resistance where learners disrupt and transform discourses to initiate learning.

8.5 Chapter Summary

This research demonstrates that students' lines of flight can be emergent (Somerville, 2007), unplanned (Davies, 2004), and even acts of resistance (Lewis, Enciso & Moje, 2007). The learners demonstrated performativity; exercising reflexive agency by utilising personal, social and discursive resources to hybridise and make shifts within discourses (Davies, 1990). To draw further from the rhizomatic imagery of Deleuze and Guattari, I consider how the notion that agency can be likened to the spontaneous growth of couch grass in a well-tended garden. In the plateaus detailed in the three data chapters there were fertile spaces for spontaneous growth as the students made their rhizomatic discourse moves (Deleuze & Guattari, 1987; Davies, 2004). I was able to map these moments of becoming (Gowlett, 2013) when PJ, Blake and Matai authored agentic subjectivities and authoritative positions.

Findings across all three plateaus show that the students initiated learning as they deterritorialized discourse, taking lines of flight within and across the discourses to new ground and new subjectivities. The findings also reveal that students can be both resistant *and* agentic learners. They can interrupt the iterability of their positioning *and* enact the 'rules of the game' as they use discipline discourses to actively produce meaning in their classrooms. Agency was and is dynamic in that the students' rhizomatic moves were also a potential catalyst for their teachers and peers to make further discourse moves.

Deleuze and Guattari (1897) write that "[t]here is always something that flows or flees, that escapes the binary organizations, the resonance apparatus, and the overcoding machine: things that are attributed to a 'change in values,' the youth, women, the mad, etc" (p. 216). In the plateaus the students take what could be seen as binary discourses (e.g. forms of underlife) and redirect the flow of power toward innovative new constructions by overlapping discourses. In Deleuzian terms these are examples of immanence, where the molar is transformed to the molecular and in a break from arborescent thinking the fixture becomes transformed into a multiplicity. Rather than reverting "back to the same"

(Deleuze and Guattari, 1987, p.12) tracing of the dichotomy of script and counterscript, the rhizomatic discourses mapped in the plateaus of this research decentred established ways of looking at classroom learning. By inspecting the rupture made visible through this bending and blending of discourses (as illustrated above), the stable tracing is repositioned on the map so that new knowledge can be constructed “rather than old knowledge merely propagated” (Alvermann, 2000, p.177). The Deleuzian notion of ‘becoming’ is apparent in the constant flow of rhizomatic action in the plateaus.

Chapter Nine – Learner Performativity, Key Competencies and Assessment for Learning

[R]ead it as a challenge... pry open the vacant spaces that would enable you to build your life and those of the people around you into a plateau of intensity that would leave afterimages of its dynamism that could be reinjected into still other lives, creating a fabric of heightened states between which any number, the greatest number, of connecting routes would exist. Some might call that promiscuous. Deleuze and Guattari call it revolution. (Massumi, 1987, p.xv)

9.1 Overview

In keeping with the sociocultural approach to learning which is outlined in the NZC (Hipkins, 2006; Hipkins, 2010), schools are charged with the task of strengthening students' key competencies and assessment literacy in order to lay a foundation for lifelong learning. Learner agency is embedded in a dispositional interpretation of both competencies (Hipkins, 2006; Carr, 2008) and assessment for learning (Watkins, Carnell, & Lodge, 2007). In chapter eight I explored the three research questions: how agency looked, sounded and felt in the discursive space of the classrooms; how students moved themselves from one set of culturally and socially structured subjectivities to another; and how students discursively engaged as authoritative, active participants, authoring and directing their own behaviour in social activity within the classrooms. I illustrated how learners can make rhizomatic moves when opportunities for emergence (Somerville, 2007) present themselves. In this penultimate chapter I outline the findings of this research in regard to the NZC and AfL as important discourses in New Zealand classrooms. It is my desire that this research can be evocative rather than didactic (Lather, 1991) as I struggle against the tyranny of prescribing a set of recommendations for teacher practice to evoke possibilities and provoke uncertainty.

9.2 Key Competencies and Agency

This exploration of learner agency is highly relevant to New Zealand classrooms with their current emphasis on key competencies. Although agency is inherent as a dispositional attribute of these competencies (Carr, 2004; 2008; Ministry of

Education, 2010), there are different views on what agency means. Liberal humanist discourse dictates that students are obliged to take themselves up as knowable, recognisable identities who speak for themselves and accept responsibility for their actions (Davies, 2000). By conceptualising agency as performative (Butler, 1993; Davies, 2004), I challenge a sovereign (Linnell, 2008) view of key competencies. Hipkins (2006; 2012) notes how some schools can be reluctant to move beyond what they know and can do because they assume they already address competencies. In her view, this approach can lead to very superficial readings of the NZC. This thesis resists reductive interpretations, taking a line of flight to refute humanist notions that learner agency is the sole domain of the individual. A liberal humanist view of key competencies suggests that learners can own and possess them, pulling them from a virtual sack as required. In taking a stance that learner identities are discursively constituted, this research presents an alternative view to the totalising humanist conception of 'self' embedded in terms self-management, self-monitoring and self-regulation. In this chapter I integrate 'managing self' with the notion of positioning.

A product of discourse, agency is co-implicated in social contexts as learners take up subjectivities. Learners have the capacity to recognise their positioning and resist and subvert discourses. Through these opportunities for emergence (Somerville, 2007), selves can be made and remade. I build on the work of Claxton and Carr (2004) who contend that "there is merit in reading 'disposition' not as a noun, as a 'thing' to be acquired, but a verb with qualifying adverbs. One does not 'acquire a disposition,' one 'becomes more or less disposed' to respond in such-and-such a way" (p. 88), depending on the circumstances. A dispositional view is in keeping with the notion of Deleuzian immanence where there is constant motion and a focus on 'becomings' (Deleuze & Guattari, 1987).

I argue that this study provides a fresh look at learners and learning in relation to constantly shifting and 'becoming' classroom subjectivities. The use of Butlerian theory can enable us to look at how classroom action is discursively located. I see competencies as the performative capabilities that learners exercise

as they take up subjectivities in sociocultural interactions. To illustrate this, I blend the sociocultural theories of learning that curriculum commentators have aligned with participatory pathways for key competencies development (Carr, 2004; Hipkins, 2010; Hipkins & Boyd, 2011) with poststructuralism. Thus I illustrate how competencies can be enacted through lines of flight that students undertake as they learn. This research has implications for the ways in which key competencies can be interpreted and strengthened in classrooms.

The evidence from this study suggests that rather than ‘having’ agency to transfer competencies from one situation to the next, competencies are produced and enacted as learners shift subjectivities within and across discourses. As illustrated in the data chapters and discussed further in chapter eight, rhizomatic agency is where learners take lines of flight to mobilise discourses to learn. In the process students access multiple subjectivities as they enact these performances. My findings demonstrate how agency was exercised across the plateaus when the students mobilised the personal, social and discursive resources to learn actively in their classroom settings. In heteroglossic third spaces (Gutiérrez et. al., 1995) there are multiple interpellations or position calls which can engage students to take up subjectivities. Therefore, learners negotiate a plethora of discourse positions on offer in classrooms at any one time. PJ took up positions in *counterscript* and *participatory* discourses. Blake authored subjectivities in *participatory learning*, *science* and *counterscript* discourses. Matai hybridised *English discipline* and *lifeworld* discourses to write his speech. The learners constituted themselves in discourse, enacting competencies as they resignified identities.

Across the plateaus the students demonstrated key competencies (managing self, relating to others, thinking, participating and contributing, using language symbols and texts) as they agentially initiated learning. In ‘The Hoax’ PJ enacted the thinking key competency as he searched for the shark image and found further evidence to confirm that the picture was a hoax. He prompted Jan to take up *critical thinking* discourse and, in turn, she constituted him as a ‘critical thinker.’ Using language, symbols and texts, with the computer as a discourse tool, he brokered *science* and *counterscript* discourses with his teacher

and peers. He authored an authoritative position (managing self) by initiating this investigation at home, relating to others by sharing his find with his teacher and peers. This capacity for agency is also illustrated when PJ took his line of flight in *counterscript* discourse when the opportunity presented itself. Through his rhizomatic moves, he managed multiple discourse positions simultaneously with his peers and teacher. He participated and contributed to the class through mobilising and hybridising discourses as ‘one of the boys’ and a ‘critical thinker.’

In ‘The Rebel Thermometers’ episode, at first glance, the students appeared to be engaging in an act of resistance as they enacted key competencies. Blake collaborated with his peers to initiate a learning activity. He demonstrated a disposition to learn by running to the back of the classroom to commence the investigation at the sink. Blake authored his ‘scientist’ identity as he contributed to the rebel activity. He participated in the investigation with his peers and used language and symbols to communicate discourse with his peers. He related to his peers by discussing his learning with them. Blake took up an agentic position when he evaded Jan so that he could persist in his investigation at the back of the classroom (managing self). In his interview he articulated his learning from both Jan’s intended lesson on solar energy as well as the inquiry he undertook.

Matai mobilised key competencies across discourses. He thought through his persuasive points, drawing from both *English* and *lifeworld* discourses. Using language, symbols and texts, Matai constructed his speech and deepened his capacity to use *English classroom* discourse. Exercising agency, he volunteered to organise a hāngi and persisted in completing his speech to deliver it to his peers (managing self). He authored and directed his pathway with Grace as he took lines of flight to initiate the conversation about his *lifeworld*.

Authoritatively he drew from his experiences for his writing. He demonstrated how he could relate with others by thinking about how his peers and teachers could participate in the hāngi and how he could persuade them to contribute. He brought Grace onside by using humour to adopt a ‘good student’ position when he found the writing process challenging. Thus, he sustained his positive relationship with his teacher. He submitted to *English* discourse in order to

master it, participating in and contributing to his class as he espoused his ideas for a community hāngi.

On one level competencies may be said to be dispositional; the learner can mobilise the personal resources (Davies, 1990) to be ready, willing and able to exercise their knowledge, skills and values judiciously in learning contexts. However, moment by moment there may be competing invitations to learners to adopt particular identities as multiple discourses play out in the classroom. Therefore, on a second level, learners require the capacity to mobilise social and discursive resources to exercise key competencies agentially. Consciously or not, teachers act upon classroom discourses so that their learners can author certain subjectivities to enact competencies. For example, by working creatively with curriculum, Grace assisted Matai to blend *lifeworld* and *English classroom* discourses. This demonstrates how teachers can exploit the potential of discourse hybridity (Gee, 2001; Fairclough, 2010) in the classroom to facilitate learning.

9.3 Assessment for Learning and Agency

As a study that offers insight into classroom dynamics, this research has implications for assessment for learning. Classrooms which embody the spirit of assessment for learning with its corresponding emphasis on learner agency are places where students can be afforded opportunities to take lines of flight where they initiate learning. AfL emphasises the importance of the process as well as the product. It is a dynamic conception of learning that takes into consideration the sociocultural context and the relationships between the participants (Gipps, 2005). Authoritative student participation (Black & Wiliam, 1998; Gipps, 2004; Earl, 2003; Absolum et al., 2009) is fundamental to classroom assessment relationships. The central tenet of this thesis is that it is an advantage for practitioners to recognise and understand how learners can engage with their learning and each other agentially. All three plateaus illustrate how moment by moment (Wiliam & Thompson, 2007) the learners used evidence of learning to alter lines of flight (Winslade, 2009). PJ shared his new discovery with his peers, Blake compared findings at the sink with his peers and Matai acted on Grace's anticipatory feedback to review his plan and extend his speech.

Nevertheless, it may be challenging for teachers to recognise how subtle shifts in discourse can relate to assessment for learning. Recognition is elemental to moment by moment assessment. These learning opportunities or rhizomatic moments occur regularly in classrooms. The examples of AfL in the plateaus illustrate how information from dialogue, demonstration and observation can be reflected upon in ways that enhance on-going learning (Davies, A. 2009). Considering the political climate in many schools where there is pressure for teachers to achieve specific learning outcomes *for* (not necessarily *with*) students, these divergent assessment processes (Gipps, 2005; Pryor & Crossouard, 2005) can be overlooked. Plateaus one and two, as brief sojourns from the planned lessons, illustrate student-driven, divergent assessment practices where the students agentically initiated dialogue to prompt further learning.

Matai's hāngi provides an example of pre-emptive formative assessment (Carless, 2007) in that Grace attempted to assist Matai to clarify his understandings before he delivered his speech. Her anticipatory feedback supported his learning in a timely manner. The dialogic nature of this pre-emptive formative assessment takes the form of rhizomatic moves. These comprised the teacher and student's lines of flight as they shifted subjectivities during their conversation. Matai initially positioned himself as a 'novice' and resisted the challenge that Grace presented him to structure his speech. However, through the constraint that Grace imposed, Matai was able to author an agentic learner identity. He submitted to AfL discourse in the form of pre-emptive feedback to master English.

In AfL practice learners use information in partnership with their teachers to enhance their learning as active participants (Absolum et. al., 2009). Through being aware of learners' rhizomatic moves, teachers may be able to notice, recognise and respond to learner initiatives and assist them to develop their self-assessment and learning to learn practices. The classrooms in this study illustrate intersections of cultural practices (Honan & Sellers, 2006) or third spaces (Gutiérrez et al., 1995; Calabrese Barton et. al., 2008) where there were affordances for alternative subjectivities. In plateaus one and three Jan and

Grace collaborated with their students as active learners to engage in practices that invited PJ and Matai to participate in third space partnerships. For example, PJ was not aware of *critical thinking* discourse when he entered the classroom, yet he took up a ‘critical thinker’ position through his rhizomatic moves. He assessed himself as a ‘critical thinker’ afterwards and also recognised that he had had an impact on the learning of others. Wiliam (2008) considers that activating students as the owners of their own learning and as instructional resources for one another is a non-negotiable component of effective formative assessment.

The students of 9JG could be difficult to teach as their *counterscript* often challenged their teachers’ authority. For example, although Jan wanted to run practical science investigations, these were challenging to execute in a class where the students were “ricocheting off the walls” and misusing equipment. As *counterscript* by its very nature is embedded in classroom underlife (Gutiérrez et. al., 1995), learners may not want to share their activities with their teachers. So although the *counterscript* learning is surfaced in this research, there is a paradox in relation to pedagogy. *Counterscript* is an underground discourse and, therefore, it may not readily be appropriated into teacher script. The opportunities for reflection afforded by Gee’s (2011b) frame tool enabled Jan to see *counterscript* in action in her classroom and to reflect on her learning intention. As Jan pointed out, although she planned for the lesson, it may have been content that Blake already knew. The research shows that when used in conjunction with reflective dialogue, frame tools can be useful for the exploration of classroom dynamics and teacher assumptions.

9.4 Chapter Summary

A rhizomatic view of agency opens possibilities for schools that value and desire to strengthen AfL practices and key competencies. As the capabilities identified in the NZC, competencies are embedded across a range of discipline discourses. Learner agency is fundamental to formative assessment if learners are to initiate their own and others’ learning as they participate and contribute in their classroom community in partnership with their teachers. The findings of this study suggest that if teachers are to assess how students are developing and using their key competencies, it is helpful to notice, recognise and respond to

learner agency in action. The students in this research made rhizomatic moves as they enacted key competencies. By making sense of shifting subjectivities in the classroom, educators can recognise learner agency and, by implication, strengthen key competencies and assessment literacy.

When students appropriate agentic learner identities they use and strengthen key competencies and develop assessment literacy. I also contend that classrooms which embody the ‘spirit’ of assessment for learning (Marshall & Drummond, 2006) with its corresponding emphasis on epistemological pluralism and learner agency, are places where students can be afforded opportunities to signify and resignify themselves agentially in discourse. It was in the spirit of an assessment for learning partnership (Marshall & Drummond, 2006) that Grace and Matai collaborated to write his speech and PJ joined Jan to share the hoax with the class. Butler’s notion of performativity (1993) frames a view that learner identities are co-constituted through discourse. PJ, Blake and Matai inhabited multiple subject positions across discourses as they responded to the position calls (Drewery, 2005) of their teachers and peers. They exercised agency through their capacity to navigate discourses (Butler, 1997a; Davies, 2000; Youdell, 2006).

This research has implications for how educators recognise moments when students mobilise discursive resources and exercise reflexive agency as they enact subjectivities. The study highlights how agentic learner initiatives can be unrecognised when teachers see merely student resistance. Thus the enactment of competencies in *counterscript* can be overlooked. A rhizomatic approach to learner agency is an important element of AfL, in particular if teachers are to creatively adopt practices in keeping with the ‘spirit of assessment for learning’ (Marshall & Drummond, 2006). The notion of rhizomatic agency described in the plateaus presents an alternative view to the simplistic application of rigid AfL technique. Adhering to ‘the spirit’ implies a more nuanced view of assessment practice which takes into consideration the dynamic nature of learner moves in classrooms. Classrooms which embody the ‘spirit of assessment for learning’ with its corresponding emphasis on learner agency are places where students can be afforded opportunities to take up agentic positions in discourse.

Chapter Ten – Taking Flight

The consciousness of self that reflexive writing sometimes entails may be seen to slip inadvertently into constituting the very (real) self that seems to contradict a focus on the constitutive power of discourse.

(Davies, Browne, Gannon, Honan, Laws, Mueller-Rockstroh & Bendix Petersen, 2004, p.360)

10.1 Overview

A rhizomatic view of classrooms recognises that there are a multiplicity of discourses and learner identities in play at any given moment. In this concluding chapter, I argue for a complex conception of agency which defies simplification. I summarise my argument that learner agency is dynamic and rhizomatic. As a methodological contribution, I discuss how I have interwoven sociocultural and poststructural threads to conceptualise classrooms as a rhizomatic ecology where students and teachers hybridise discourses in the construction of relational subjectivities. Finally, I identify alternative paths for research, share my reflexive process and discuss the nature of this contribution to knowledge(s).

10.2 Agency in New Zealand Classrooms

Agency is in constant motion. It is responsive and fluid, fleeting and relational in sociocultural contexts. In accordance with Butler's theory of performativity, the findings demonstrate that learners can simultaneously appropriate multiple positions across discourses. Furthermore, the research illustrates that students can author hybrid identities across multiple discourses which shift fleetingly in the sociocultural milieu. In turn, as learners shift subjectivities, they act on discourses and can blend them in the process. A rhizomatic view of agency has implications for power relationships in classrooms. In this study I argue for a view of student learning where students negotiate power in classrooms, to take unnoticed or unexpected lines of flight. These 'flights' can involve learners initiating opportunities where they take up subjectivities as active and authoritative learners. Students' rhizomatic moves may be challenging to recognise given the hybridisation of discourses and multiple identities in play at any one time. However, it is important to nurture discursive agency (Butler,

1997a) within the complex rhizomatic space of classrooms if students are to negotiate the prevailing discourses to take up agentic learner identities.

This research makes a contribution to teaching through its exploration of identity and discursive hybridity. It illustrates how students can resist invitations to some positions and take up others in classrooms. Learning can be rhizomatic when students take lines of flight to adopt agentic subjectivities as learners. By combining previously unrelated discourses, new trajectories and positions can be created. The students in this research recognised alternative discursive possibilities and mobilised the necessary social resources to hybridise their subject positions. They exercised discursive agency by constituting discourses and inscribing meanings through their relational subjectivities.

The findings pose a challenge to educators to recognise how learners can move rhizomatically between, and hybridise discourses as they take up subjectivities. Classroom discourses are constantly in motion and continually negotiated in third spaces. Learners deterritorialize and reterritorialize discourses as they respond to the sociocultural constraints and affordances in classrooms. Subjectivities can be fragile and easily thwarted in the power relations which are interwoven between peers and teachers. The learners' capacity to resignify subject positions and take up affordances can be tenuous as they tread a line between their peers and teachers in *script* and *counterscript*. Learner agency may pass unnoticed by teachers as students appropriate or resist invitations to take up subject positions.

Agency as a dispositional element of the NZC key competencies and AfL may be very difficult to identify in classrooms because it can be contrary to what teachers expect. This research reframes 'off-task' behaviour through demonstrating how agentic learning can take place in *counterscript*. Rather than embedding learner agency in classroom governmentality where learners are simplistically 'off-task' or 'on-task,' this study illustrates how actions which may seem completely 'left field' can be agentic learning. Thus, I challenge a deficit view that reduces student conduct to a binary operation. Learner agency can be difficult to recognise in *counterscript*. Far from being merely a nuisance, *counterscript* can be constructive in that students author agentic identities when

they initiate learning. Thus rhizomatic moves which appear as resistance can be agentic action.

The evidence from this study suggests that students can subvert powerful discourses through which they are constituted. They can enact reflexive agency through their mastery and submission to these discourses. A Butlerian view of agency has implications for the ways learners exercise key competencies in the service of identities. Key competencies are embodied, enacted and articulated through students' actions in the situated contexts of classrooms. Agentic subjectivities are made possible through their mobilisation of the relevant discourses and their capacity for reflexive agency. Taken together the findings across the plateaus suggest that students can move rhizomatically within and across discourses, to inhabit multiple identities. I argue for pedagogy that is informed by an awareness of how discourse can shape student (and teacher) identities. In particular, I advocate for further consideration of how assessment and competency discourses can influence learner identities. I support practices which are responsive to learner initiatives in keeping with the spirit of AfL as an important dispositional element of life-long learning. Discourses can be subtle and nuanced and it can be challenging for students (and teachers) to agentially navigate the multiple discourses and subject positions in classrooms.

It is also important to recognise the politics of control that can constrain school leaders, teachers and students to specific positions. There can be tension between teacher control and student agency in classrooms. There is "double directionality" (Davies, 2006, p. 428) in play as students are compulsorily required to attend school and, once there, they are expected to submit to schooling behaviour discourse. As the plateaus illustrate, learner agency was embedded in this politics of control. It is a politics that operates in classrooms, as well as at school and state levels. Therefore, it is important to recognise and understand the "contradiction between control and agency" (Rainio, 2008, p. 2). Agency, as both teachers' and students' capacity to initiate action, is framed within the parameters of this discourse.

10.3 Hybridising Poststructural and Sociocultural Discourses

In combining sociocultural and poststructural theories to explore how learners can be afforded agentic positions in discourse, this thesis makes a methodological contribution. I have incorporated a poststructural turn to investigate the critical, discursive dimension of agency. A poststructural understanding of the constructive political power of language adds an activist dimension to this research. Through poststructuralism I explored the sociocultural workings of the classroom discourses and my findings extend sociocultural perspectives of learning beyond the appropriation of the practices of a community. The learners' moves were not an inward drift where they become more integrally positioned within their discourse communities, but rather flights where the students and teachers made rhizomatic shifts. Learners can become more competent in a discourse community, although it is not necessarily a linear process of moving from the periphery to the centre. They can take dynamic lines of flight to resignify subjectivities. My findings suggest that learning can be seen as the generation of new practices through the merging or hybridisation of different discourses as learners take lines of flight.

This study used two forms of analysis, discourse analysis and rhizo-textual analysis, to investigate how identities could be afforded and constrained. Discourses and identity affordances were important theoretical and analytical ideas through which I conceptualised agency. By mapping rhizomatic moves as cartographies, I tracked learner subjectivities through the three plateaus. I argue that rhizo-textual analysis offers a sophisticated way to conceptualise the interactions within classrooms which would not have been possible if my emphasis had been on more conventional forms of qualitative research. Positivist, interpretive, or critical assumptions would not have led me to questions which foreground learner subjectivities, rhizomatic moves and a performative view of learner agency.

A combination of poststructuralism and sociocultural theory has allowed me to address social dynamics in light of regimes of truth. I argue in support of research that troubles taken-for-granted liberal humanist notions of student empowerment and student responsibility. Individualist humanist notions of

learner autonomy and self-regulated learning sanitise difference and context from the equation and underestimate the importance of the discursively located nature of learners and learning. I consider that poststructuralism provides a dynamic conception of learner agency. In this research I destabilise a reductionist view of identity by illustrating how learner subjectivities can be fleeting moments in discourse. Complex and rhizomatic, agency is performatively located at the interface between interactive and reflexive positioning.

10.4 The Nature of this Contribution to Knowledge(s).

As I outlined in chapter four, notions of trustworthiness, researcher bias, credibility, dependability, confirmability, and transferability are not epistemologically applicable to this study. However, this research has been conducted with rigour. Multiple sources of data were used to construct the plateaus and I strove to achieve catalytic and transgressive validity through the research design. I acknowledge that I inhabit a different discourse world to the teenage students with whom I was speaking. While I did have a rapport with the students, the conversations did not flow as smoothly as I would have liked. In some cases the students joined me in settings away from the classroom and there was a marked difference between the in-class interviews and the ones in other rooms. The interviews out of class had a less relaxed feel, although there I could record more easily and there were fewer distractions.

It could have been a powerful process for the teachers and students to identify agentic moments in the research footage and to share these examples with each other, although this would have produced a different study. Initially this study was premised on the notion that through acknowledging student perspectives, teachers can improve current educational practice. As I became more aware of poststructural discourse, I bent my direction to write a thesis which acknowledges the multiplicity of discourses and subjectivities in play within classrooms.

Researcher reflexivity was ongoing throughout the research. I found myself struggling between liberal humanist and poststructural discourses as I tried to

see things in other ways “to produce different knowledge and produce knowledge differently” (St. Pierre, 2000b, p. 27). Poststructuralism is not apolitical (Gowlett, 2013). As a poststructural researcher, I explored how taken-for-granted learner identities and classroom practices (‘on-task’ and ‘off-task’ behaviour) could be destabilised. I am reminded of the partialness of any research and, therefore, have worked against the construction of a totalising narrative which seeks closure with pedagogical solutions. Through this research I speak back to liberal humanist ideas to highlight the complexity of relational subjectivity in the classroom. Nevertheless, in the process I struggled with the ‘slippage’ of my own inclination to adopt schooling improvement discourse. I found myself drawn back to the liberal humanist binaries, often without realizing it. I became aware how my thoughts and words were peppered with universalising statements and tidily packaged assumptions about how the world works. This interdiscursive tension played in the shadows of this study.

Like a great deal of small-scale qualitative research work, this enquiry can only aspire to be a catalyst for further lines of flight on a local level. As the research progressed, other enticing lines of flight emerged which I outline below as promising avenues for further exploration.

10.5 Further Lines of Flight

In *A Thousand Plateaus*, Deleuze and Guattari (1987) write:

The concrete rules of assemblage thus operate along these two axes: On the one hand, what is the territoriality of the assemblage, what is the regime of signs and the pragmatic system? On the other hand, what are the cutting edges of deterritorialization, and what abstract machines do they effectuate? (p. 505)

Writing this thesis assemblage, I am confident in how I have arranged the territoriality and mapped the sign regime and system to outline the cutting edges in the data where the students deterritorialized the classroom norms of expression. At this point I discuss further questions that arise from the study.

The current focus on assessment for learning and key competency discourses in New Zealand suggests that there is scope for further research into how teachers can recognise agency and trouble discourses that marginalise and silence students. Secondary schools in particular, with their emphasis on credentialing and high stakes assessment *of* learning, are important contexts for further research into practices which strengthen key competencies and assessment for learning. These NZC discourses can have a significant impact on student identity and agency. Teachers' pedagogical decisions are constrained and afforded through discourse. I pose the following questions as prompts for further research:

- *What invitations are there in a classroom for students to reflexively and discursively constitute themselves as learners?*
- *What invitations are there in a classroom for students to mobilise social and discursive resources to exercise agency in learning?*
- *What relationships are there between power and agency in secondary classrooms?*
- *How can learners enact key competencies through lines of flight in their learning?*

The emphasis of this research is centred on the learners' experiences. However, there is further scope to explore how teachers can grapple with the notions of rhizomatic agency and emergence in their classrooms:

- *How can teachers take lines of flight in collaboration with their students?*
- *How can teachers work with discursive reflexivity as their learners take up multiple discourses and subjectivities?*

Teachers routinely recognise and reflect on classroom dynamics. There is scope for further explorations into how relational subjectivities play out in classrooms:

- *How can teachers recognise how learners deterritorialize and reterritorialize discourse?*

- *How can teachers recognise emergent moments of possibility through exploring the discursively constituted nature of subjectivities?*

The teachers in this research have participated in a series of school reform projects. In my view some of these initiatives positioned the teachers more agentially than others. It is particularly relevant in a technical rational climate, where there is a strong emphasis on teacher performance, to ask:

- *How can teachers be afforded agency in their professional learning?*

Although the findings of these last two chapters suggest how learner agency is enacted through lines of flight, it is possible that these lines may act to block or create deeper segmentarity.

It can happen in love that one person's creative line is the other's imprisonment. The composition of the lines, of one line with another, is a problem, even of two lines of the same type. There is no assurance that two lines of flight will prove compatible, compossible... There is no assurance that a love, [a pedagogical,] or a political approach, will withstand it. (Deleuze & Guattari, 1987, p. 205)

There may be research contexts where it is appropriate to explore the cutting edges by delving into Deleuze & Guattari's argument that a group or individual's lines of flight may not work to the benefit of another group or individual, thus limiting opportunities for agency. As Colebrook (2002) points out, Deleuze offers researchers an opportunity to "think difference and becoming without relying on common sense notions of identity, reason, the human subject or even 'being'... [Through the works of Deleuze we can] attempt to capture (but not completely) the chaos of life" (p. 4).

10.6 Concluding Remarks

The research presents an element of this "chaos" through illustrating how agency is dynamic when learners make rhizomatic moves to author agentic subjectivities on a moment by moment basis in classrooms. Just as couch grass spans out rhizomatically, students can take opportunities to learn through their

lines of flight. Power shifts as students deterritorialize discourse. Rhizomatic theory shifts learning beyond a process of appropriation within communities of practice to one where learners can author new alternative positions across discourse communities. Agency in the classroom is more than the student being free to take up and act upon available discourses; it lies in its on-going constitution when learners forge new hybrid subjectivities by combining discourses which were previously unrelated. This thesis argues for divergent classroom practices which acknowledge student-initiated lines of flight, and allow for learner agency as a dynamic dispositional element of the enacted curriculum.

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Appendices

Appendix 1: Glossary

Affect/Affective- Deleuze and Guattari use the term affect to describe pre-personal intensities (Massumi, 1987). As Cole (2011) points out, the affective dimension presents a way to map flows of energy and desire and to analyse power relations between bodies and assemblages. This is a different definition to affect as emotion.

Agency –Agency can be understood as the interruption in the iterability of identity positions (Stormhoj, 2000). Identities are continually reiterated and resignified in classrooms. By not accepting or adopting the historicity of norms behind discourse, students can resignify discursive meanings destabilising the speech acts themselves (Applebaum, 2010).

-Discursive agency is the students' capacity to name and constitute discourse (Butler, 1997a).

-Reflexive agency is the students' capacity to negotiate their positioning through discourse (Davies 2000).

- Rhizomatic agency is where students take lines of flight to take up agentic subjectivities.

Assemblages are the patterns of interactions. Assemblages comprise lines of articulation or segmentarity, strata and territories; but also lines of flight, movements of deterritorialization and destratification (Deleuze and Guattari, 1987). In using the notion of assemblages we can gain insight into the relationships between bodies and the flows of affect through space and time (Kofoed & Ringrose, 2012).

Assessment for Learning -The terms formative assessment and Assessment for Learning (AfL) are used interchangeably in this thesis. Assessment for Learning is where students, teachers and peers seek, reflect upon and respond to information from dialogue, demonstration and observation in ways that enhance ongoing learning (Klenowski 2009). Students collaborate with their teachers and peers to develop this capability to assess their own learning (Absolum, Flockton, Hattie, Hipkins, & Reid, 2009).

Counterscript- Students distance themselves from the subject positions expected by teachers, exercised through teacher discourse or script, when they develop counterscript. While some students contribute to and participate in the teacher script, those who do not comply with their teacher's rules for participation form their own 'counterscript' (Gutiérrez, Rymes & Larson, 1995). In counterscript students refuse and resist their teacher's positioning. Learners

exercise a form of agency in counterscript, in that by challenging the norm of teacher scripts learners can resignify meaning and destabilise discourse.

Deterritorialization and reterritorialization are terms coined by Gilles Deleuze and Felix Guattari (1987) in their attempt to theorise the constitution of territory. Both deterritorialization and reterritorialization characterise the rhizomatic potential for transformation. Every assemblage is *territorial* in that it sustains the connections that define it, but every assemblage is also composed of lines of *deterritorialization* that run through it and carry it away from its current form (Lorraine, 2005). Thus, deterritorialization is the movement out of a territory, object or phenomenon into a new composition. Operating as a line of flight, deterritorialization is the creative potential of a rhizome. Reterritorialization re-establishes a territory whereby deterritorialized elements recombine and enter into new relations in the constitution of a new assemblage or the modification of the old (Patton, 2007).

Discourses/discourses - Subject positions in classrooms are constituted by both primary and secondary discourses (Gee, 2012). Gee (2011a) differentiates between these macro and micro elements of discourse which he calls big 'D' and small 'd' discourses. Big 'D' discourses are societal and institutional frameworks for recognition which enable people to position themselves and each other. Small 'd' discourse is spoken language (Gee, 2011a). As small 'd' discourse, words can signal big 'D' discourse between interlocutors.

Hybridity has three meanings in this thesis. Firstly, the intersections of cultural practices open up these third spaces which allow negotiation of meaning and hybridity, which can be described as the production of new cultural forms of dialogue (Gutiérrez, et al., 1995). Third space is theorised as a hybrid space. Secondly hybridity pertains to interdiscursive hybridity (Fairclough, 2010) in which discourses weave together, merge. The third form of hybridity is where learners forge hybrid identities as they are intersubjectively constituted across multiple discourses.

Identity - is a continuous process of reiterating and resignifying one's position within and across discourses (Butler, 1990).

Identity affordances Identity is the pivot between the social and the individual aspects of learning (Wenger, 1998) and subjects can negotiate their positioning to take up identity affordances within and between discourses. *Identity affordances* are conceptualised as social stimuli, objects or conditions that can potentially enable and constrain identity positions.

Interdiscursivity-Interdiscursivity describes how discourses intersect, overlap and interlace (Davis, 2008).

Interpellation seeks to introduce a reality. It is an act of hailing where individuals acknowledge and respond to ideologies, thereby recognizing themselves as subjects (Butler, 1993).

Key Competencies-Key competencies are the knowledge, skills, attitudes and values to address complex tasks (OECD, 2005).

Lines of flight are the tendrils of rhizomatic connections. Deleuze and Parnet (1987) use cracks, ruptures and lines of flight to describe the activity of a rhizome. Lines of flight break free of constraint and defy structure. They occur across discourses making new identity affordances are possible. These lines enables us to take up reflexive positions in figured worlds where there are possibilities to refigure oneself in discourse.

Positioning theory makes visible the ways in which learners resist, refuse, accept, utilise and exploit discourse positions. Positioning theory explains how discursive practices enable learners as speakers and hearers to constitute themselves in certain ways, negotiating new positions (Davies & Harré, 1990) within a context of community values (Barnes, 2004).

Poststructuralism -Poststructural theories focus on the meaning people make in their sociocultural historical contexts and the way in which they are subjectivated through discourse. Poststructuralism provides us with a set of analytic tools that make it possible to open up opportunities to think quite differently about what we do, developing a new set of practices that disrupt old authorities and certainties, that rid us of stereotypical thinking and open up the possibility of creating something new (Davies, 2000).

Relational Subjectivity (Drewery, 2005) is where learners are intersubjectively constituted in discourse. Learners take up subjectivities and are discursively subjectivated by others. They are simultaneously rendered a subject and subjected to relations of power through discourse (Youdell, 2006).

Rhizome -In botany a rhizome is an interconnected mass (for instance a ginger plant) which sends out roots and shoots from it nodes. Deleuze and Guattari's (1987) rhizomatic theory allows for multiple, non-hierarchical entry and exit points in data representation and interpretation. A rhizome is any network of things brought into contact with one another, functioning as an assemblage machine for new affects, new concepts, new bodies and new thoughts (Colman, 2005).

Rhizo-textual analysis is a process which maps lines of flight across assemblages of discourses within a text. (Honan & Sellers, 2006)

Socioculturalism illustrates the discursive relationships between human mental functioning and the cultural, institutional, and historical situations in which this functioning occurs (Wertsch, del Rio & Alvarez, 1995).

Subject-The poststructuralist conception of the subject is an effect of discourse. Although subjects are constituted in and through discourses, they are not determined by them. This thesis is premised on the conception that there is no pre-discursive subject. Subjectivities can emerge and interact through discontinuity, rupture, and multiplicity in a vast interleaving rhizomatic assemblage (de Freitas, 2012).

Third Space- In third spaces meanings are produced and constantly reconstituted between the subject and the 'Other.' A third space is an intermediate place between the 'script' of official school discourse and the 'counterscript' of student resistance in the classroom (Gutiérrez et al., 1995).

Underlife can be described as the range of activities people develop to distance themselves from or fit into the surrounding institution. Underlife activities can take two primary forms: a disruptive form where students desire to abandon the organisation or alter its structure and a contained form in which the participants attempt to fit into the existing institutional structures without pressuring for change (Gutiérrez et al., 1995).

Appendix 2. Gee's Discourse Analysis Tools (Gee, 2011a)

Discourse Questions

- What Discourse or Discourses are involved? How is “stuff” other than language (Mind stuff and emotional stuff and world stuff and interactional stuff and non-language symbols system etc.) relevant in indicating socially situated identities and activities?
- In considering language, what sorts of relationships among different Discourses are involved (institutionally, in society, or historically)? How are different Discourses aligned or in contention here?
- What Discourses are suggested by the way language, action, interaction, values, beliefs, symbols, objects, tools, and places contribute to identity recognition as particular tasks are undertaken?
- What are some of the ways of talking, acting interacting, thinking and valuing that this Discourse does or probably will involve?
- What “kinds of teacher” and “kinds of student” are characterised within the Discourse?
- What objects, ways of acting, interacting, valuing, objects and environments play a role in this Discourse and what role do they play?
- How do the teachers and students talk, act, interact, value, think, and relate to various objects and environments?

Identity Affordances

- What socially recognisable identity or identities the speaker is trying to enact or to get others to recognise?
- How does the speaker's language treat other people's identities?
- What sort of identities does the speaker recognise for others in relationship to his/her own?
- How is the speaker positioning others, what identities are the speaker inviting them to take up?

Building Task Questions on Identity

- What identity or identities is this piece of language being used to enact (i.e., get others to recognise as operative)?
- What identities (roles, positions) seem to be relevant to, taken for granted in, or under construction in the situation?
- How are students co-constructing agentic identity positions for themselves and others?
- How are situated meanings being used to enact and depict identities?
- How are social languages being used to enact and depict identities?
- How is intertextuality being used to enact and depict identities?
- How are Discourses being used to enact and depict identities?
- How are Conversations being used to enact and depict identities?

Appendix 3. The Hoax Rhizo-textual Analysis



Appendix 6. Guidelines for Directing Observations of Specific Activities.

LeCompte & Preissle (1993 as cited in Cohen, Manion and Morrison, 2007, p. 406)

LeCompte and Preissle (1993: 199–200) provide a useful set of guidelines for directing observations of specific activities, events or scenes, suggesting that they should include answers to the following questions:

- Who is in the group/scene/activity – who is taking part?
- How many people are there, their identities and their characteristics?
- How do participants come to be members of the group/event/activity?
- What is taking place?
- How routine, regular, patterned, irregular and repetitive are the behaviours observed?
- What resources are being used in the scene?
- How are activities being described, justified, explained, organized, labelled?
- How do different participants behave towards each other?

- What are the statuses and roles of the participants?
- Who is making decisions, and for whom?
- What is being said, and by whom?
- What is being discussed frequently/infrequently?
- What appears to be the significant issues that are being discussed?
- What non-verbal communication is taking place?
- Who is talking and who is listening?
- Where does the event take place?
- When does the event take place?
- How long does the event take?
- How is time used in the event?
- How are the individual elements of the event connected?
- How are change and stability managed?
- What rules govern the social organization of, and behaviour in, the event?
- Why is this event occurring, and occurring in the way that it is?
- What meanings are participants attributing to what is happening?
- What are the history, goals and values of the group in question?

Appendix 7. PJ's Interview (Assemblage One)

T1. Jenny: You said about finding pictures...

T2. PJ: It was a hoax.

T3. Jenny: How do you know it was a hoax?

T4. PJ: Cos I saw the same picture of the shark on the internet. It was the same picture and it said hoax. I went home and I was bored and I was sitting on the couch. I was surprised getting up in front of the class.

(I show PJ a short 2 minute extract of him standing in front of the class showing the image of the hoax.)

T5. Jenny: What do you notice is happening in that lesson PJ?

T6. PJ: It was a hoax and it wasn't real.

T7. Jenny: What is happening in your class?

T8. PJ: Now everyone knows it ain't real and don't believe everything you see.

T9. Jenny: How did you feel?

T10. PJ: I was bummed out cos it sounded real and I was hoping it was cos it sounded interesting.

T11. Jenny: How did you feel about doing that with the class?

T12. PJ: A bit nervous cos I thought it would be wrong or something. I was hoping that I woulda showed them what I showed them now. Oh yeah it was fake I reckon.

T13. Jenny: This research is about how students have choices in their class? What choices did you have in this lesson?

T14. PJ: To show everyone that picture- to show everyone that it is fake- a hoax.

T15. Jenny: So what has happened since this?

T16. PJ: Everyone won't believe everything they see.

T17. Jenny: What else do you reckon?

T18. PJ: I dunno but Miss said we are going to make a hoax ourselves.

T19. Jenny: How is that going?

T20. PJ: No she hasn't brung it up since that day.

T21. Jenny: What other choices did you have during that lesson?

T22. PJ: I wanted to get up and show everyone that picture and to get up in front of everyone.

T23. Jenny: How did you find that?

T24. PJ: Pretty easy cos we have only got a small class

T25. Jenny: Who was in control of the learning?

T26. PJ: Miss was keeping the class in control. And I was showing the class the picture.

T27. Jenny: How do you take charge of your learning PJ?

T28. PJ: Listen- listen to instructions. Try not to get distracted by other people.

T29. Jenny: During this lesson- how were you taking charge of your learning?

T30. PJ: I don't know. (Pause) Looking- Looking at those pictures.

T31. Jenny: What about other people in the class? How did that go?

T32. PJ: Not good. I was distracted.

T33. Jenny: What do you mean you were getting distracted?

T34. PJ: They were talking about different conversations. They were saying to me- remember that time PJ....and that's when I get distracted. - I'm easily distracted.

T35. Jenny: What questions do you have when you look at that?

T36. PJ: Is it real? Is it a hoax?

T37. Jenny: The word I use is agency. Agency is where kids can know what they want to learn, know how they want to learn and they can make choices and have control of their learning. Do you think that's important?

T38. PJ: You might... We might want to change something and you might tell them and they will change and probably want to learn. Is that how it goes?

T39. Jenny: That you want to learn if things get changed?

T40. PJ: Yeah. How we want it to get changed.

T41. Jenny: Yeah.....

T42. PJ: How we want it to get changed.

T43. Jenny: How do you see agency?

T44. PJ: Pretty good. Cos I small space but we are still learning.

T45. Jenny: What does taking control mean to you?

T46. PJ: Not teaching yourself- just listening and being on task. I will probably be still talking while doing my work and like multi-tasking.

T47. Jenny: Oh yeah- how does that work?

T48. PJ: When you are talking doing your work and you are listening. You could I know in other ways- doing the dishes.

T49. Jenny: Multi-tasking you are learning...?

T50. PJ: You are listening to three things. But boys aren't good that that. Girls are.

T51. Jenny: You reckon? What about in school? How do you take control of your learning in school?

T52. PJ: Bring my – Oh I've forgotten.

T53. Jenny: Bring my?

T54. PJ: I don't know -bring my working equipment. Listen to what the teacher says and do what she wants me to do- or the whole class.

Appendix 8. Blake's interview (Assemblage Two)

T1. Jenny: So we will just go and have a look at what is happening over here.
(Blake and Jenny watch 30 seconds of rebel thermometer episode where Blake, Hone and Thor are running thermometers under cold water at the back of the classroom.)

T2. Jenny: So what was actually happening?

T3. Blake: The thermometer was going up. If we put it in hot water

T4. Jenny: Oh OK.

T5. Blake: Yeah. *(Sounding enthusiastic)*

T6. Jenny: Going up?

T7. Blake: It was getting hotter. And yeah!

T8. Jenny: Oh OK

T9. Blake: Raising the temperature.

T10. Jenny: Can you tell me what was happening in the lesson -what you were learning?

T11. Blake: Um I was learning about degrees and that. How hot it goes and how cold it goes.

T12. Jenny: Can you tell me more about what you were doing?

T13. Blake: We were doing a test- how black paper attracts the sun and white paper doesn't.

T14. Jenny: Mmm

T15. Blake: It raises faster with black paper.

T16. Jenny: Does it?

T17. Blake: Yeah. Just like putting it into hot water.

T18. Jenny: So...ah... Do you want to see a bit more?

T19. Blake: Yeah.

(Blake and Jenny watch 2 minutes of the episode)

T20. Jenny: What are you doing there?

T21. Blake: Just watching it. Just watching the temperature going up I think -if I remember rightly. *(We watch some more footage)*

T22. Jenny: How is your science class?

T23. Blake: We learn quite a bit of stuff like scientists and that. Like what have they been discovering millions of years ago and that.

T24. Jenny: What choices do you have in this lesson?

T25. Blake: Learning? Is that one?

T26. Jenny: Can you tell me about it?

T27. Blake: No. I dunno any. It is difficult.

T28. Jenny: So you are making the choice to learn here. Can you tell me what you mean?

T29. Blake: Oh just watching the temperature rising. And how hot it goes.

T30. Jenny: Oh Ok. What did you choose to do there?

T31. Blake: Watch it.

- T32. Jenny: OK
- T33. Blake: Someone had to watch it so I was one of them.
- T34. Jenny: Who is in control of the learning?
- T35. Blake: The teacher -oh us actually. (Pause) Us.
- T36. Jenny: How?
- T37. Blake: Cos we are the ones. Miss looks after it. But she gives it out to us. So might as well learn it.
- T38. Jenny: Yeah. How are you in charge of the learning there?
- T39. Blake: Just watching the thermometer.
- T40. Jenny: How do you take charge of your learning?
- T50. Blake: Just be sensible. And carry on with what we are doing.
- T51. Jenny: How are you learning with others in this lesson?
- T52. Blake: Discuss about it. Yeah. Discuss it in groups. Or with the whole class or with the teacher.
- T53. Jenny: What about here? (*Pointing to the video*) How were you learning with others?
- T54. Blake: Talking with them about it -to them with each other.

Appendix 9. Matai's Interview (Assemblage Three)

- T1. Jenny: Remember when Miss came along and talked to you.
- T2. Matai: She was talking to me about all the topics
- T3. Jenny: Yeah that's right. And that's what I want to ask you about. If that's alright?
- T4. Jenny: Remember how she was coming along and having a talk with you. (Showing images of speechwriting on the computer)
- T5. Jenny: Can you tell me what is happening in that particular one?
- T6. Matai: Talking to the teacher about like... I was telling her about this time – well we were digging a hāngi pit and we dug it too deep and we had to fill it back in..
- T7. Jenny: What happened?
- T8. Matai: We asked my uncles if we could dig the hāngi pit and they just let us.
- T9. Jenny: Cool and you dug it too deep. Oh my goodness and you had to fill it back up. What is it you are doing in this lesson right here?
- T10. Matai: (Pause) Talking. Can actually say that I am doing my work. (Pause) Ha here goes Floyd again.
- T11. Jenny: So what is it that is happening over here?
- T12. Matai: She is telling me that I gotta take out some bits in my speech I was writing.
- T13. Jenny: Why do you have to take bits out?
- T14. Matai: So I could fill it up with something else.
- T15. Jenny: Can you tell me more about this picture...what are you noticing? I don't have any answer I am just asking you what you think.
- T16. Matai: I was like retyping it all.
- T17. Jenny: The research that I am doing is about how students have choices in their class. I had to prepare my questions or I might not know what to ask you. What I want to find out is how students can have choice....so thinking about his lesson over here...what choice did you have in this lesson. And what's going on? What choices did you have?
- T18. Matai: Err what I was going to write in my speech and what type of speech I was going to write.
- T19. Jenny: Anything else you can think of... (inaudible)
- T20. Matai: No not really.
- T21. Jenny: Who was in control of the learning?
- T22. Matai: Far out. Teachers ask this question to us all the time.
- T23. Jenny: Do they? Who's in control of the learning?
- T24. Matai: Apparently we are.
- T25. Jenny: Apparently?
- T26. Matai: Students are
- T27. Jenny: Who asked you that?
- T28. Matai: Mr Ham- I think.
- T29. Jenny: Who is in control of the learning?

T30. Matai: He actually told us that we were in control of our learning.

T31. Jenny: Are you?

T32. Matai: It's our choice if we learn it or not.

T33. Jenny: And what do you think?

T34. Matai: Think it's quite sort of true.

T35. Jenny: How come? Can you tell me what you mean by that?

T36. Matai: We could be doing our work but not actually learning- just writing down the answers and yeah just writing, instead of learning

T37. Jenny: So what do you have to do to be learning?

T38. Matai: Listen to the teacher. Do your work and understand your work.

T39. Jenny: I never looked at it like that before. The way you say it is different to the way I have thought about it. That is why I am asking these questions because I want to learn about what you think. So can you think of any other choices that you have in this class?

T40. Matai: I could choose to make my speech either funny or not.

T50. Jenny: Either funny or not? What other choices do you have?

T60. Matai: Get a detention or not.

T70. Jenny: Oh no. What other choices do you have?

T80. Matai: Dunno. I just need to ask in case there is something else you want to say.

T81. Jenny: How do you take charge of your learning?

T82. Matai: By doing my work and understanding it.

T83. Jenny: By doing your work and understanding it. Can you tell me more?...Is there any other way that you take charge of your learning?

T84. Matai: Hmmm

T85. Jenny: So how are you learning with others in this lesson?

T86. Matai: Um by helping each other out.

T87. Jenny: How are you helping other people out?

T88. Matai: You know how my speech is about if we could have a hāngi. We could cook us a hāngi. I could be asking people if it's a good idea or not. Ask them what they think so that I could include it in my speech and know what people think.

T89. Jenny: So do you know what key competencies are?

T99. Matai: Sort of.

T100. Jenny: What are they- what do you reckon they are?

T101. Matai: Guidelines.

T102. Jenny: Can you tell me about the hāngi.

T103. Matai: My speech was to ask the teachers if we could have a hāngi.

T104. Jenny: Oh yeah

T105. Matai: And see if it's alright with them and see if they want to help out. And get their class involved.

T106. Jenny: Whose idea was that?

T107. Matai: Mine and Ms Coopers.

T108. Jenny: Really.

T109. Matai: Her idea was really to just have a class- yeah but I think if we get more people we could cook more.

T110. Jenny: That's a good idea.

T111. Matai: And get it all done faster.

T112. Jenny: Yeah I reckon.

T113. Matai: Yeah – like one of us digging the hole would take ages. (Laugh)

T114. Jenny: And if you don't have anyone to give you some guidelines it could be too deep.

T115. Matai: Hmm (Laugh) Who will be watching your speech? I've made it so I can be talking with other students about it. And sort of like talk to the teachers about it. Like as friends. Sort of like that and yeah!

Appendix 10. Extract from a Conversation with Jan (Assemblage One)

In the hour before the hoax lesson Jan and I spoke with Jan. The following is the end of a longer conversation which commenced 20 minutes previously. This section pertains in particular to the hoax lesson as it foregrounds critical thinking discourse.

T1. Jan: 9JG are going to be with us in five minutes time. I am interested in what students learn in schools. –that you don't want them to learn. The social side of students and teachers. What they are learning is not what you intended them to learn. They have learned to manipulate you incredibly well. Quite intricately actually.

T2. Jenny: So could agency be defined as doing something you don't agree with?

T3. Jan: So you're talking about... I am comfortable with that. I was talking about the behavioural stuff.

T4. Jenny: You are talking about he intended learning... and the other learning that happens.

T5. Jan: Now somebody told me the other day in my class and I had no idea about it all. It was really interesting. I wasn't going to tell them that they were wrong. I have a student in year 11 and he will tell me that I am wrong...and it's great.

T6. Jenny: Is this to do with power and control?

T7. Jan: I know there is a lot that goes on but I choose to ignore it. I choose not to sweat the small stuff. And it's nice for kids to think that they have got away with it. When they haven't. You will put a stop to it next time when you have had a chance to think about it...you won't be sitting there then will you. That sort of style. Its' nice to think that they have a bit of – but I want them to have control over their learning. I want them to have control over their behaviour. They need that in life as well. There are certain behaviours that you are not going to get away with in the public arena. The small little classroom arena –just you and your teacher.

T8. Jenny: So it's that socialisation for citizenship?

T9. Jan: I want these guys to be critical of their world I want them to be really open and critical. I don't see why you can't teach critical thinking. Who was it that said we should be starting at the top of Bloom's taxonomy? Why does everyone start at the bottom? Why don't you start at the top? That appeals to me. I can't see the point of starting at the bottom. We do those three bottom things really well. Teachers can do those standing on their heads. They aren't even aware that they are doing them. Start at the top

T10. Jenny: What are the pedagogies that sit behind asking children to synthesise and evaluate? What do you actually have to do in your class of your kids are going to do that?

T11. Jan: Mmm. I wish I had a really great answer for you on that one. Jenny. You have to work it out for yourself to start with. I have to work out... How do think critically? When do I employ critical thinking –what arises?- then I have to analyse it, evaluate it, look at it critically I have to work out how can I go about it then I can model it.

T12. Jenny: Is this an aspect that you want to further develop?

T13. Jan: The most powerful thing for me is to hear back in student voice that they are learning how to learn. Not that they have learned how to learn. So then I am looking at student agency really aren't I? That would really float my boat. If I could walk into that staff room and do a presentation on 9js -who are difficult- They have come a long way you know- if I gave these questions to do out of pathfinder- not one of them put up their hand and said-The one who hasn't got agency is Rawiri. He is very reliant on being told what to do. Being explained adnauseum what to do

(Jenny shows Jan some questions on critical thinking about texts.)

T14. Jan: Who's missing? That's a goodie. Can you email me that? How do we know? This is critical literacy.

T15. Jenny: How do you know how to think critically about texts- in professional readings..?

T16. Jan: How do you know what you got off the net? How does your teacher know?

T17. Jenny: Are you allowed to question your teacher?

T18. See I got my kids to look at some data yesterday and it was Year 11 data on experiments in Science. I said I want you to look critically at these numbers you put up here. Well first of all I said to them I want you to look at this data – you have copied it down and you have averaged it. Now go back have a look at it – look at it closely. And I pointed out one experiment to get them to focus on- focus on that. Just look at it and tell them what you notice. They looked and they said- that value there is a good three minutes out. Between the other two there is only a matter of 30 seconds. Ok- I said yeah it is- so you are looking at it being critical now. So I said how do you know you are being critical? Now you are being critical at it. If this was your investigation and these were your results what would you do about it?

Well he said I would repeat. I would do a fourth one. And then if my fourth one was better I would just take that one out. I said yeah –because these are yours. You can do what you want with them. You have the power. I said this is your data. I said you can manipulate it. I said this is what scientists do. You have to be careful. When you look at their presentations and look at their research you have got to understand that they have manipulated their data. You know a bit of creative accounting really. And they said you could leave it in and talk about it and say why. Exactly why did you not use that? I said yes. You are evaluating, I said to them. Oh so how do you know? You gotto tell them how they do it. How they know.

Now this is going to be really quite bad cos today is DVD day. We are going to look at some little quizzy questions and now that I have spoken to you I have not written down exactly how we are going to go about this. But I will get them in and settled and their bits of paper and we will see what happens.

Appendix 11. Jan's Interview (Assemblages One and Two)

The following comprises Jan's interview after 'The Hoax' and 'The Rebel Thermometers' episodes.

Jan views the video clip of PJ and the shark hoax.

T19. Jenny: How is that agency?

T20. Jan Well I didn't tell PJ to go home after school and look it all up. He did it. Then he came back to school to tell me all about it. And it was just an absolute gem. You just had to pick it up and run with it. At least I could see that.

T21. Jenny: How do you see Competencies in action there?

T22. Jan: Um well he thought about it more. It was an attention grabbing photo anyway but he had gone away, thought more about and become a bit critical. It interested him enough so that he would go away and research it. And he shared it with the class which was great. So he was contributing his findings to see what the others thought as well.

T23. Jenny: How do you think it has an impact on what he has done subsequently?

T24. Jan I'd like to think it has. His opinion was valued very much and the whole class valued it as well. So he should have felt quite valued and you know the fact that he went away and did what he did. I think it might have been a surprise to him that I took it as far as I did. That I valued what he did and took it seriously. He was the learner in charge that day.

T25. Jenny: Is there anything else you want to say about that?

T26. Jan It was just a golden opportunity. I think teachers have to see the golden opportunity and run with them. Recognising it when you see it.

'The Rebel Thermometer' Episode

T27. Jenny: These were the questions.

T28. Jan: If you hadn't have played me this I would have thought he would have got absolutely nothing out of that learning.

T29. So here he is ricocheting off the walls basically in the room -and the ceiling and the floor- and he still got something out of that learning

T30. and he was very quick- that bit there where he is very quick to say who is in charge of the learning. Wasn't he? At first he said it was me and then very quickly he said Oh- no actually it's us- and our teacher just kind of directs it. But that completely blew me away.

T31. Jenny: Why did it blow you away?

T32. Jan: Because you know- I have made an assumption about Blake based on his behaviour. Cos at the moment his behaviour is the thing that is sitting right in front of me and I can't see past it to his learning. I am so focused - yeah -on his behaviour.

T33. I have to learn to side step it- bypass it- get round it somehow. But his

- behaviour is at the forefront. (pause) Hmmm- That is quite surprising.
- T34. Jenny: What were you surprised about?
- T35. Jan: Just his replies. I know he found some of your questions difficult. And like you said it's really hard to explain the question without actually giving them an answer that they could use. Just to give you it back.
- T36. Jenny: How do you think he had agency in this particular piece of footage? What are you noticing? (*I show Jan 30 seconds of footage of a classroom episode where _ boys are using thermometers at the back of a classroom.*)
- T37. Jan: I am noticing the other two students are next to him but he is not really concerned with what they are doing. He is just like sharing the space but he is actually focusing on what he is doing. (*Jan and Jenny view 6 minutes more footage of the episode.*)
- T38. Jan: He is quite focused on what he is doing. The others come and go a bit but he's there. They actually drift back to see what he is doing. Cos he stayed there and he is obviously settled in. He's crouched down busy looking at his thermometer. They have come to see what he's up to.
- T39. Jenny: How do you think this shows agency? Or do you?
- T40. Jan: For Blake I think it does. For Blake to be in one place for as long as he has been so far. – Well -no seriously for something to- he's decided this has grabbed my attention and I am going to see this through and try this out.
- T41. And also, I don't know. When Rawiri said you are cheating and he said no I am not. He knew to put hot water in the bottom of the container. That is what he was doing. He just carried on. (*Pause*)
- T42. He didn't have to verify with anybody that he was...Jan: He didn't sing out to me and say- I'm not -am I miss? - He didn't feel as though he needed to be backed up in what he was doing. Or maybe he was I don't know. I can't quite see maybe he was designing something. Maybe he was doing his own thing with it.
- T43. Jenny: This is the next sequel bit. (Jan comes into the frame and redirects them back to the task)
- T44. Jan: (*inaudible*) ...this- I thought he was. He is experimenting by himself with a thermometer. Ahh Ok. Sorry I am on a different lesson. He's trialling and looking how the thermometer works. He's being quite careful with it- which is good. (*Laughs*)
- T45. Jenny: What agency are you noticing?
- T46. Jan: Their prior knowledge about thermometers. They knew they measure hot cold - or measure the temperature.
- T47. And in that particular lesson I should have –but I allowed them to do that. They took it on themselves to – or he did anyway- to do some trials with the thermometer. Measure some temperatures and have a good look for them.
- T48. Jenny: Is that agency to you that he has gone and trialled it himself?
- T49. Jan: Yeah borderline. But...(pause)
- T50. Jenny: Why do you say borderline? Why is it not?
- T51. Jan: Because I hadn't –that wasn't part of the lesson that I had in mind- that

- I had planned.
- T52. Jenny: This is unintended learning?
- T53. Jan: This is unintended.... (Both laugh.) Absolutely.
- T54. Jenny: Why do you think he is so engaged?
- T55. Jan: He's got a device to use. He is into gadgets. He quite often comes to school with other different bits and pieces. So here he is with a device- with a gadget that he is actually familiar with. But ummm...He's trying it out.
- T56. Jenny: Can you talk more about how this was not what you had intended? You said you had another lesson planned and this is what Blake was
- T57. Jan: So when they did that cos there were quite a few of them who were going and outing them thermometers under running water and weren't setting up the practical I had intended them to do. I thought oh I should have actually planned for this. Planned for them to experiment themselves with the thermometers.
- T58. Just give them some guidelines on- cos there are some guidelines for the use of thermometers- so that we have still got a class set of thermometers at the end of the period. So just the guidelines about it and reasons why and then just let them do what Blake is actually doing. Cos he was very focused on what he was doing.
- T59. Jenny: He said before he knew about black paper and white paper.
- T60. Jan: Well maybe that was prior knowledge. Yeah- Could have been.
- T61. Jenny: Did he complete the other experiment?
- T62. Jan: No. But he knew. So he had obviously spoken to others or he had prior knowledge on it. Which was fine. And maybe he did have prior knowledge so he thought maybe he thought well I don't need to do that. I have done this and I know what is going to happen. I am going to do some investigating myself.
- T63. Jenny: Cos he spoke about being a scientist during the interview. What do you make of that?
- T64. Jan: Ummm (pause) that he likes to have some responsibility and perhaps he doesn't get enough of it. You know and to feel that he knows. Cos he does know quite a lot and he comes out with all sorts of things which are quite amazing. He's one of these kids that come out at you from left field. You think far out! – You know-how did he know that? But he does.
- T65. His behaviour doesn't add up to the left field comments that you get and the left field knowledge that gets thrown in. Every so often. It's like two sides to him.
- T66. Jenny: What key competencies do you notice in this cameo?
- T67. Jan: I guess he's investigating. But I find it really hard to...
- T68. Jenny: Can you say more about that why you find it really hard?
- T69. Jan: Because you are looking at a short simple recording of an incident that happened – unplanned- and I think sometimes agency- you are looking for something kind of Wow. Like it really hits you. And you think Wow! That's agency. I know its agency. So looking for things that are small. I find it really

hard to say that that little small thing there is agency or key competencies.

T70. Jenny: We need to find rich descriptions of them?

T71. Jan: The more reading you do around them the more you become aware of your classroom environment and the more you actually see. It is just that I am actually having trouble seeing this particular bit. Perhaps I am not seeing what you see. I saw it with PJ on Wednesday when he chose (and it was choice) to reflect and record something in his book that was extra which was entirely over to him. He decided for himself. I must check if anybody else did that. I know he did. You see I am finding this complicated. This is more complicated to try and draw out the agency to see it. That was clear cut to me. And last year I would not have seen that as agency. I don't know what I would have seen it as. In fact I may not last year and certainly not the year before given them the opportunity. Mentioned that this was their learning. The conversation about the books. I am so much more relaxed about the books. (*Jenny nods*)

T72. That is my next inquiry. I want to delve into that. I could write a paper on that. Who owns them and what the artefact looks like- it's your learning. You own it. Teachers get so stressed out about it. I used to- to a degree. People come and see my books now- if senior management came in and looked at my class set of books I would be up for the challenge. I would if they looked at them I would have to say look at the learning. OK there is a little doodle on the corner of the page- forget that. They are becoming less and less and less. It's a hypothesis but I strongly believe that it is their learning and this book is a method of recording their learning- You could record it any way you wish. You could have an eportfolio. We have books here. It's the easiest way to go at the moment. It's theirs. It's theirs.

T73. Jenny: That seems to be in line with agency.

T74. Jan: I think so. Absolutely. And interesting would they then take the learning a bit more on board for themselves, if they knew that this was theirs? So, therefore, my inquiry last year was feedback and feedforward. You have to be very careful about the feedback you give in the book. Feedback needs to be nothing about untidy writing, unlined headings etc.

T75. Jenny: What do you think the link is between agency and key competencies?

T76. Jan: They are almost one and the same. I think they fit. Agency fits into Key Competencies and vice versa. That's the way I see it at the moment. And I think the more focus you have on a key aspect the more you are going to see the agency. Well if your focus is learning to learn and you are focusing on learning it is almost like that is the big picture and key competencies come into that. You can't help but get the agency. I can't explain it when I get a good example. The more you're looking at you class like a bunch of learners. The other day I said to a class I was just the learner in charge. Because someone had to be more in charge than anybody else. You know. For the fact that we all had to be in the same room together there had to be. So we were

all learners and I guess I am like the learner in charge. Yeah that's what I said to my Year 10s. So the more you are going together as a group with yourself as a learner. And you are focusing on the learning and sure you have to address some behaviour as you go. Just keep that to an absolute minimum. Then the more you can see where the key competencies fit. All the varying aspects of one key competency. To me you will see agency- you will recognise it and see it for what it is.

- T77. Jenny: When I looked at this and thought that those boys are making choices about whether they are doing (Jenny laughs)
- T78. Jan: Doing the plan or not. They made the choice that they weren't.
- T79. Jenny: They were doing things and possibly they were learning from them.
- T80. Jan: They weren't sat there making paper darts or drawing on the desk or anything. They had just designed their own investigation and had chosen not to do the investigation I had designed for them.
- T81. Jenny: So that's why I thought do I choose this bit? (Jenny and Jan view a video clip of an episode where students are diligently making the own thermometers at a table.)
- T82. Jan: OK so I can now see more agency happening with the previous clip with Blake.
- T83. Jenny: Do you? Ok. These people seem to be agentic cos they are engaged.
- T84. Jan: Does engaged- but that activity- which is just following a recipe on what to do. Is that agency? Is that teacher agency?
- T85. Jenny: So what is teacher agency?
- T86. Jan: Teacher lust. I have been avoiding teacher lust. I have been purposely trying to hold back and not show them straight away or give them the answer and letting them try and find it.
- T87. Jan: Teacher lust...So I can see although I cannot word it I can see the agency there compared to what you showed me. Compared to them making their thermometers. Cos agency has to come from within them. It's their thing. Whereas that other clip. Sure there are three of them there. And they are engaged. KC is getting annoyed cos she can't get hers to work. But Henare has come along to rescue that. You know but it is very prescriptive. They have a recipe to follow- behind them on the smart board. But then they are choosing to do it. So there is agency in there but there is more in there maybe.
- T88. Jenny: I don't know.
- T89. Jan: I am still hanging onto the fact that it has to come from the individual. Blake valued what he did more than what I had asked them to do.

Appendix 12. Jan Recounts the Hoax Episode to her Colleagues (Assemblage One)

At an Assessment for Learning lead team meeting Jan shares the hoax episode as an example of agency with her colleagues. Grace and Trish were both participating in the research.

T90. Jan: I was sent an email and it was about a family who'd gone scuba diving together and the son had taken a underwater photo of the parents and as he's taking the photo he's just looking really panicky and he takes the photo and swims back to the boat very quickly and the parents follow because they're not sure what's going on, they get into the boat and they say what was the problem and he said as I took the photo at the back of you there was a shark and they said 'aah,' they went and had a look at the photo and I got sent the photo, you see

T91. Grace: The kids were telling me about this

T92. Trish: Where are they? (Jan brings up the image on her computer)

T93. Jan: Here they are, these divers and here's this massive shark behind them just incredible, fabulous photo I thought, wow, so with ecology, food chains, food webs and all that sort of thing, sharks fit in quite nicely. Right at the end of this lesson I showed them this photo I had been sent and they went "Wow!" "Look at that!" "Woo!" And then someone said you know "How come they have those flash on those underwater cameras?" I don't actually know how come. I don't really know. It does say here in the email that perhaps the shark was hungry, you know etc. Somebody was saying they have to keep swimming. The bell rang and away they went to their next class.

T94. The next day they came back for science and PJ he comes up to me and said "Miss, you know that photo, that shark picture." "Yes." He said "That's a fake." And I said "Is it?" He said "I'm sure it's a fake." He said "You know I went home and I was thinking about it and I went on the net and I found it. I found a photo that hasn't got the divers." And he said "You know the shark..." and he wanted the word orientation. "It's the same shark because it's the same orientation. It's in the exact position." He didn't have the language and I can't remember the language he used but that's what he wanted. And I said to him "Right! Look, we'll get into the net and you go and find us the photo."

T95. So away he went. He went and found the photo and shocked us. And the kids were going "Wow!" I said to him "You know what you just did PJ- you went away and you thought critically. That's what you were doing, you were critically thinking about that photo that you saw and you knew somehow maybe something was not quite right about it. You were critical. So you went and explored it didn't you." And he said "Well. Yeah."

T96. And then Henare was saying -Do you know what he said? I thought about it. I did think about it last night Miss. And he said Sharks have to keep

- swimming. He said "Why didn't it just crash into the divers?" And then all these little things come up. But it was PJ.
- T97. And so I had this beautiful lesson in critical thinking -but the funniest thing was really that I had a discussion with Jenny beforehand. We were talking about 9JS. They are difficult and they've got lots of learning issues, and they've got social issues, all sorts of things going on and she said "What do you want for them though? What do you want them to be when they leave? What do you want?"
- T98. If anything I could get across to them I want them to be critical about their world. I want them to be very critical about what they see, what people say to them, you know and not to believe everything.
- T99. To have the strategies or skills or whatever to know where to go to find out the truth. Or find out not to sign anything and they say no and they do know that it's OK to sign it because they know this person is a lawyer. You know what I mean- like to be critical about things. And that was just before that particular lesson.
- T100. So the lesson went out the window because we had this whole thing on the shark. We looked it up and we talked about the word hoax, because it had hoax on the photo and what was a hoax? Because you know -I'm trying to build up their vocab. Then we thought we'd do our own hoax photo and Denise is really keen and they're so keen to do these hoax photos.
- T101. Jenny: "So why is it agency for you?"
- T102. Jan: Well PJ -because he went away and did the thinking. He did the research and he came back the next day and told me about it and then he talked to the class about it. Like we all, we were his audience. He stepped in - not much of the time -because they're not use to that sort of thing. But he was the one who told the class -explained- showed us where he found it.
- T103. Trish: You need to catch the moment aye.
- T104. Jan: That's what I did, I ran with that moment
- T105. Grace: But he had the motivation didn't he to go and do it himself, that's the agency isn't it? That's his wanting. Cos we talk about teacher agency when we're doing AFL practices they need to be wanting to do it themselves and to feel a part of it, that they make the decision.
- T106. Jan: His next thing is to email, which we haven't done yet. I need to contact the person who emailed me to let them know that he is going to email them. He is going to email them to tell them very nicely that this is just a fake. And I'm hoping that he'll get some people to email him. (I've set it up actually, so he'll get two or three emails back.)
- T107. Jan: I guess AFL has done a lot for me. Just because these kids are in this class and they've got all these difficulties, it does not mean they can't be lifelong learners and "good" citizens. If you look at it in terms of key competences and the new curriculum that's what it's about. Maybe they're not going to be brain surgeons but that doesn't mean that they cannot contribute to their community where they live, where they end up.

- T108. We can teach them to reflect on things, their actions, to inquire and think about what they do before they do it. It's that whole critical thinking thing. I'm a great believer in the Blooms taxonomy. You start at the top. Don't bother starting at the bottom. We do the bottom bits really well. We don't do the top bits. We don't do the analysing.
- T109. Grace: You never get there, do you? You think you got to get to that step before you can get up.
- T110. Jan: You don't know and that's another thing that he did for me, is well, okay, proved I can start at the top and why not
- T111. Jenny: You mentioned before it had an impact on Johnny?
- T112. Jan: Yes. Now Johnny came to school today and you know that he's only coming once a week. He's got huge issues as you know and we were looking at this You Tube video. I said to him that I hadn't critiqued it. I hadn't. I only looked at it very briefly and they watched it
- T113. Jan: ...and Johnny said 'You know everything on the net; you know it's just all fake.' And because he was relating back to the shark picture we had looked at- at least that's what I think. And I said "Oh really," and he said "Yes," and I said "Well you do don't you. You have to be critical don't you." Because he didn't use that word but I thought stuff it I'll use it. "You have to be critical don't you about what you look at because do you think all of it is? Oh well you know maybe, but you do have to be careful, you know, because a lot of it, a lot of it is fake."
- T114. Jan: So that got him thinking, -got him thinking about what he is going to look at on the net and that -cos teenagers can be so gullible but then they can for the rest of their lives. And see I did! I believed that shark photo to start with
- T115. Trish: Looking at it I would too.
- T116. Jan: It was the end of the period. I'd seen it and thought Wow! Then I showed it to the class at the end of the period. Then the next class came in and I forgot all about it until PJ came back the next day. I never gave it another thought. So there's me I hadn't looked at it critically, PJ did.

Appendix 13. Grace's Interview (Assemblage Three)

- T1. Jenny: What do you think agency is?
- T2. Grace: Agency is like ownership but its more. ...It's like having ownership. But it's more. It's like buy in. If they have buy in and ownership they and see a purpose in it for them they will do it and click onto it. That's how I see it. You can't harness it, you want it to be out in the open, it's not a harnessable thing. You don't want it to be either.
- T3. Jenny: True. How do you interact with the students' agency then if you can't harness it?
- T4. Grace: Well, it's your questioning isn't it?
- T5. Jenny: Can you describe it further?
- T6. Grace: I guess it's a bit like in class when Lenny and PJ did their speeches and they stuffed it up. They want to do it again. He forgot his conclusion 'cos he thought he had been going on too long. He wanted to do it again and make it better. It's not just ownership. It's the whole thing. It's the thinking around their learning as well. They are actually into it.
- T7. Grace: I see agency as more like a buy in thing really.
- T8. Jenny: Who's setting the agenda?
- T9. Grace: Yeah but I see it more like a blend. It's like buy in. It's like ownership- if they can co-construct the criteria of what they are going to do they are more likely to participate and join in and if they get what they want out.
- T10. Next term I don't know what the hell I and going to do with them but I don't want to do any units, I've decided. I want to do a whole term or maybe half a term theme thing. Cos they want to do a hāngi! So I said yeah, yeah OK. How are we going to do it? Like an inquiry thing as well. Well Matai did that -but originally he got the idea off Blake who said one day in one of his blurting out moods... well why don't we just go and have a hāngi? So I said how are we going to do that? How are we going to buy all the meat to put in it? He Oh -Thor he goes goat busting. He can go and get us something and Henare – They go hunting. So I said oh Ok! It put a little seed in my mind. Thinking there could be something in this. You know. And then Matai's cottoned on to this and he wants to have this hāngi!
- T11. Jenny: He said he wanted to write a speech so the Board of Trustees representative could use it to convince the board to do something.
- T12. Grace: Yeah! Yeah! Which quite cool really eh. So thought what we could do next term is nut out how we are going to go about this. If they want to write a speech, letter writing you know let them get involved in all that sort of stuff. To do something that they want to do. We can't go hunting who are they going to ask to hunt? I don't know about police vet checking and stuff. Probably not appropriate to go with parents. Maybe they go on the weekend with their parents. Maybe we get the search and rescue in and teach them about how to use a compass in the bush.

(Jenny and Grace talk for a few minutes about another student, Zena)

T13. Jenny: What do you think the link is between agency and key competencies?

T14. Grace: Well if you are using them -you can't have one without the other really. To have agency you have to be managing yourself. You have to be thinking. You have to be participating and contributing and all that sort of stuff and relating to others...If you can't do all those things. Well to a certain level. But you can't measure it really, if you are not doing them all in combination agency probably isn't as strong as it could be. If you are aware of all those things that they need to do to be better learners that will give them more opportunity to be who they are and have that agency.

T15. Jenny: Can you develop Key Competencies without agency do you think?

T16. Grace: Probably not. Cos if they don't understand what managing self if. That oh yes I have English today and I have got to do my speech homework and bring it along then they have not actually got that buy in. Two do homework Zena and Henare. They need that ownership and buy in for themselves to learn those skills.

T17. Jenny: What do you see the difference to be between skills and key competencies?

T18. Grace: A skill is you can achieve it. You can get to the top. With a competency you are always building on it. It is dynamic it changes. As you get to that thing you think oh I'll try and learn something different and keep developing it...

T19. Jenny: Is there anything else you want to say about how KCs and agency link?

T20. Grace: I guess working closely with Jan. You can do it cross curricula and stuff like that too. You can make those connections that make it easier to see those connections and to transfer that knowledge to realise that they are learning and they are using those competencies. That is probably cos Jan and I talk a lot about them. And more so now than at the beginning of the year.

T21. Jenny: Can you give an example of how that has happened?

T22. Grace: Jan has done 3 or 4 bits of research I taught them notetaking and Jan taught them skimming and scanning. That is probably not a good example actually cos even though Jan and I were aware that we were doing the same thing we keep trying to draw it out of the kids without actually telling them explicitly "well aren't you doing that in Science.". Quite a few times in class there has been a quiz question or something has come up and they'll say we are doing that in Science. There was one about worms the other day. Does a worm have a spine and they said no... It's an invertebrate. I told Jan and she was so excited cos they did that at the beginning of the year. They all remembered it. Just things like that.

T23. Jenny: Shall we take a look at this one? *(Grace and Jenny view another video of Matai.)*

T24. Grace: If I recall cos he had been away. He had just started his speech. I

think he had his speech planning sheet and he may have done the first part. I think he has done the brainstorm in his book on his topic. I think he actually chose his topic before he went. He was away for about a week while we were doing it all. I recall sitting with him and showing him how you have to have your main ideas in paragraphs and things. And he had brainstormed all the main ideas and had written that down...He was quite keen to just say his speech off the top of his head. 'I don't need cue cards. I am just going to say it.' I thought- that's really good

T25. Grace: He is quite capable of speaking like that too. But he needed a written speech to see that they have got the structure and all that sort of stuff. So I was trying to get him to follow his plan. He had started typing it and it wasn't like in a very good sequence. I was trying to explain to him that if he followed his plan it would be sequenced and he could talk about his hāngi bit at the bottom. He got it muddled and he was talking about um how you make a hāngi and he jumped into what a hāngi was and then into his thing about I think we should have a hāngi and then I think he might have gone on and done something else again about what a hāngi was. I was just trying to get him to see he followed his plan it would have a bit more structure and a bit more coherence. And he could actually tell us what it was, why we should do it and then at the end what I think we should do-you know. So it has a bit more focus.

T26. Jenny: Can you describe how Matai had agency in this lesson?

T27. Grace: I probably took a bit off him when I tried to get him to go back to his plan.

T28. Jenny: In what way?

T29. Grace: He just wanted to write what he wanted. Cos he did. I said go back -use what you have written just change the order a bit. I didn't want to say you must do it like this... and what have you. To a certain extent it is but still used his own ideas, his own words, his own topic. He chose it. It was his choice. So that is all agency.

T30. He didn't want to put it on cue cards. He did handwrite them and didn't type them like the others did. And then when he said his speech he didn't use them. I don't think he did. It wasn't obvious anyway. But yeah -so [I] think he got to say what he wanted to say about I think we should have a hāngi.

T31. Jenny: So what does that mean for you in terms of agency?

T32. Well we haven't quite finished cos there are 5 kids who haven't quite finished their speeches. I was hoping to finishing them tomorrow, At the beginning we did the success criteria for the written side and then we did the success criteria for the presenting and they brainstormed all this stuff and I did a peer assessment sheet from that and put them up on the board. When they were practicing I keep trying to say- look up on the board -refer to them what do you need to work on when you are practicing. What do you need to work on when you are presenting your speech? Are you doing all those things? So what I want to them to do... I also gave them this sheet and it had

the old curriculum levels 2, 3, 4, 5. If you are working at level 4 you are doing this, this and this... So I gave them a print out of that. They should have that glued in their books and what I want to do is to go back and to review that and review our success criteria and get them to look. Have you achieved this? Have you achieved that? What have you learned to do- to sum it up? That is what I am hoping to do next week with them. Hopefully that will make them think about their learning- what have they actually learned doing a speech.

T33. Jenny: I am just thinking about this particular example (Is there anything else you want to say about the agency you noticed in Matai?)

T34. Grace: He is quite different to the rest of the kids. His way of thinking is different too. He is quite independent. Like you have to try not to tell him what to do in so many words but coerce him into what if you did it this way? Or give him some examples ... You could do this, this, or this? So he can choose. Make those choices cos he can get a bit sulky and bolshie.

T35. Jenny: What Key Competencies are you noticing here?

T36. Grace: He is another self-managing student. He has thought of his topic. He has done some background. He knows about it. This was one of the things about the speech-they has to know about it so they didn't have to do too much research cos we weren't going to go onto the internet and all that sort of stuff. But he um he does an awful lot of thinking. Maybe not at this stage around presenting the speech but around the content of it. Not a lot of thinking actually about the structure. Hopefully when I drew him back to his plan- Hopefully by the time I sort of talked with him and said this will help you say what you want to say better. If you get it in order to make it clearer you will get your message to the audience at the end about lets have this hāngi.

T37. Jenny: How does this relate to competencies?

T38. Grace: Let him do the thinking. Think about what he's got. Going to put his message across to his audience or does he need some sort of structure. They all know you need you need an introduction and a conclusion but they all fall down when it comes to the body and the ideas and the paragraphing. Not many of them actually paragraph. So we did some paragraphing activities as well earlier on. Cos that was the sort of focus and that is why we broke it down into those main ideas. Each idea had five mini ideas. Those would turn into their sentences for their paragraphs. It's quite babyish. Hopefully it helped a lot of them. So I might ask them was it any good actually. Did the sheet help them? Anything I could adjust for next time.

T39. Jenny: Matai was very excited. He wanted me to cook a dessert.

T40. Grace: What steamed pudding? He said the other day a hāngi isn't a hāngi without a steamed pudding. At parent interviews not one of 9JG parents came. If they could put their learning from their classes into 'YNet' and they could bring their parents along we could have a hāngi that night. We could use the hāngi for great writing. We could take photos. It would be so cool to do. Blake suggested what if we have a night with the parents. The

culmination could be the parents coming in helping with the hāngi. I don't know how to make a hāngi. I could peel the spuds. I don't know that's what I am thinking. I don't know how silly an idea it is but hopefully we can do something.

T41. It's that real life thing too. Making it real. They know about hāngi. They know about that sort of stuff. If we can just grab all that and put it together it would be really good to see.

T42. Jenny: How do you see that real life thing working with competencies?

T43. Grace: That is what it is all about isn't it? Showing them the links to the outside world to the real world. About learning. One day someone was talking about fishing. Was it this class -it might have been. Someone was talking about fishing with their granddad. I said oh so you say you don't learn anything when you go fishing with your granddad? So when you go fishing what do you learn? Nothing. Doesn't your granddad show you how to tie knots and how to cast? Oh yeah! Well isn't that learning. Oh yeaah? (quizzically) So you don't just learn in the classroom you learn out there as well.

T44. Jenny: Is there anything else that you have noticed or that you would like to mention?

T45. Grace: I think this class are starting to manage their own learning than they were at the beginning of the year. They are still bickering amongst themselves but it may be getting better. But their thinking and their talking about learning and they are starting the use the language of learning themselves and in the classroom. It's quite good. Yeah- the links that they are making. They are talking about learning with each other. See the learning happening- so they are more self-managing. I have started this task board. They need to play games to help them socialise better. (Grace talks about instigating a literacy taskboard.) Hopefully that was my plan to see if actually co-constructing success criteria and incorporating the Key Competencies in the classroom would help them to be more self-managing learners.

T46. Jenny: Is that what you have been inquiring into?

T47. Grace: It is around that topic- my question has not been finalised.

T48. Jenny: Can you tell me what your thinking is around your question?

T49. Grace: It's a follow on from last year cos last year I did learning intentions. I wanted to explicitly this year co-construct success criteria with the class. I have been developing KCs as well. I wanted to see if an awareness of success criteria and the KCs helped them to become more self-managing.

T50. Jenny: Awareness?

T51. Grace: Well I have got awareness down but it's my first lot of..

T52. Jenny: How have you been trying to raise awareness?

T53. Grace: We do an activity and we look up to the side and I say what KC do you think we are using today?

T54. Jenny: OK so backward mapping?

T55. Grace: Or we might brainstorm. What do you think participating and

contributing means? What will it look like in a lesson if we see this happening in this class? It's in the lesson they do that and then they go and do their activity. Yes so it's those sorts of things. And I was saying like you're the blue one today. I said what do you mean? I've got them on coloured signs. Oh look there Miss managing self. It was like one of those aha something is happening in this class moments. I don't know if they are starting to manage themselves.

T56. Jenny: Here are Matai and Zena's student voice (We speak about the student voice and I ask Grace about her teacher inquiry.)

T57. Grace: I am going to focus on the literacy taskboard to see if they can self-manage their learning and maybe be a bit more explicit with the KCs. Right we are doing this one today. Cooperative... Let's see what it looks like in your groups working? What does participating or cooperating look like in the classroom. What will I see? What will you see if you are cooperating in your group? Sort of had that conversation with Zena and Matai yesterday cos they couldn't work together and they were emmmm moaning and groaning. They were so stubborn. I said how are you going to work together tomorrow when you get the questions from the other group and you have to answer their questions. How are you going to do this? I spoke to them separately and they both came out with the right stuff we have to behave and not 'dis' each other and cooperate. And I said what does cooperate mean? What does it look like what will I see if you are cooperating? Umm listening. Umm taking turns. Oh cool. So I expect to see this tomorrow when you two are working together. But the next day they completely forgot about it. They did sit beside each other and they wrote in their own books and answered the questions. They didn't do it with one asking the question finding the answers and writing it on the sheet. At least they weren't pulling each other apart –at least not until the end.

T58. Jenny: It was PJs first speech.

T59. Grace: And he wants to get him up in front of the class and do it properly.

T60. Jenny: He got up in front of Jan's class and shared a hoax he found. And then you worked with his speech. Do you think there is a pattern here?

T61. Grace: Just the transferring of that knowledge and building up that confidence. I can see the links between Science and Social studies. I don't know if I have made explicit links to Maths.

Appendix 14. Transgressive Validity Checklist: A Simulacrum

(Lather, 2007, p 128-129)

<p>Ironic validity.</p>	<ul style="list-style-type: none"> - foregrounds the insufficiencies of language and the production of meaning-effects, produces truth as a problem - resists the hold of the real; gestures toward the problematics of representation; foregrounds a suggestive tension regarding the referent and its creation as an object of inquiry - disperses, circulates and proliferates forms, including the generation of research practices that take the crisis of representation into account - creates analytic practices which are doubled without being paralyzed
<p>Paralogical validity.</p>	<ul style="list-style-type: none"> - fosters differences and heterogeneity via the search for ‘fruitful interruption’ - implodes controlling codes, but still coherent with present forms of intelligibility - anticipatory of a politics that desires both justice and the unknown, but refuses any grand transformation - concerned with undecidables, limits, paradoxes, discontinuities, complexities - searches for the oppositional in our daily practices, the territory we already occupy
<p>Rhizomatic validity.</p>	<ul style="list-style-type: none"> - unsettles from within, taps underground - generates new locally determined norms of understanding; proliferates open-ended and context-sensitive criteria; works against inscription of some new regime, some new systematicity - supplements and exceeds the stable and the permanent, Derridean play - works against constraints of authority via relay, multiple openings, networks, complexities of problematics - puts conventional discursive procedures under erasure, breaches congealed discourses, critical as well as dominant
<p>Voluptuous validity.</p>	<ul style="list-style-type: none"> - goes too far toward disruptive excess, leaky, runaway, risky practice - embodies a situated, partial, positioned, explicit tentativeness - constructs authority via practices of engagement and self-reflexivity - creates a questioning text that is bounded and unbounded, closed and opened - brings ethics and epistemology together

Appendix 15. Hoax Email (Assemblage One)



Subject: Read before you look at the pic

Family on holiday in Australia for a week and a half when husband, wife and their 15 year old son decided to go scuba diving. The husband is in the navy and has had some scuba experience.

His son wanted a pic of his mum and dad in all their gear so got the underwater camera on the go. When it came to taking the pic the dad realised that the son look like he was panicking as he took it and gave the "OK" hand sign to see if he was alright.

The son took the pic and swam to the surface and back to the boat as quick as he could so the mum and dad followed to see if he was OK. When they got back to him he was scrambling onto the boat and absolutely packing it.

When the parents asked why he said "there was a shark behind you" and the dad thought he was joking but the skipper of the boat said it was true and that they wouldn't believe him even if he told them what it was. As soon as they got back to the hotel they put the pic onto the laptop and this is what they saw.

(Try and tell me you wouldn't have emptied your entire digestive system right at the point you saw it)

Appendix 16. Consent Letter Principal



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

20th January 2009

The Principal

Dear (Principal),

I am conducting research for my Doctor of Education Degree through the University of Waikato and would appreciate it if you would permit me to conduct this research at your school. The title is *Key Competencies in the Classroom: Keeping them Complex (How can secondary teachers develop key competencies and student agency in their classrooms?)* Little is known about key competencies in practice; what they look like in the different learning areas and how students can transfer these capacities across disciplines. In the literature key competencies are linked with the concept of lifelong learning. I am interested to explore how students can develop this capacity to be ongoing learners.

There will be no reference to the identities of any staff or students in the material gathered. Participants may withdraw from the project at any time and any material pertaining to them will be destroyed. Hard copies of data will be locked in a cupboard in my office. Electronic data will be stored in a pass-worded computer.

The information and understanding gained from the study will be used in a written thesis submitted to the University of at the end of 2011. You are welcome to a summary of the findings. If you permit this research at (school) please complete the consent form and return to me in person or by post. Please discuss with me any concerns or questions you have. I would be happy to elaborate further.

Yours sincerely,

Jenny Charteris

**Appendix 17. Consent Letter to
School Board of Trustees**



Dear trustee,

I am conducting research for my Doctor of Education Degree through the University of Waikato and would appreciate it if you would permit me to conduct this research at your school. The title is *Key Competencies in the Classroom: Keeping them Complex (How can secondary teachers develop key competencies and student agency in their classrooms?)* Little is known about key competencies in practice; what they look like in the different learning areas and how students can transfer these capacities across disciplines. In the literature key competencies are linked with the concept of lifelong learning. I am interested to explore how students can develop this capacity to be ongoing learners.

There will be no reference to the identities of any staff or students in the material gathered. Participants may withdraw from the project at any time and any material pertaining to them will be destroyed. Hard copies of data will be locked in a cupboard in my office. Electronic data will be stored in a pass-worded computer.

The information and understanding gained from the study will be used in a written thesis submitted to the University of at the end of 2011. You are welcome to a summary of the findings. If you permit this research at (school) please complete the consent form and return to me in person or by post. Please discuss any concerns or questions you have with me. I would be happy to elaborate further.

Yours sincerely,

Jenny Charteris

Appendix 18. Consent Letter to Teacher

20th January 2009



Dear (teacher),

I am conducting research for my Doctor of Education Degree through the University of Waikato and would appreciate it if you would participate in this study. The title is *Key Competencies in the Classroom: Keeping them Complex (How can secondary teachers develop key competencies and student agency in their classrooms?)* Little is known about key competencies in practice; what they look like in the different learning areas and how students can transfer these capacities across disciplines. In the literature key competencies are linked with the concept of lifelong learning. I am interested to explore how students can develop their capacity to be ongoing learners.

There will be no reference to your identity in the material gathered. You may withdraw from the project at any time and any material pertaining to you will be destroyed. No reference will be made to any findings linked with this material. Hard copies of data will be locked in a cupboard in my office. Electronic data will be stored in a pass-worded computer.

The information and understanding gained from the study will be used in a written thesis submitted to the University of at the end of 2011. You are welcome to a summary of the findings. If you are able to assist me by participating, please complete the consent form and return to me in person or by post. Please discuss with me any concerns or questions you have. I would be happy to elaborate further.

Yours sincerely,

Jenny Charteris

Appendix 19. Consent Letter to Parent/ Caregiver



20th January 2009

Dear parent/ caregiver,

I am conducting research for my Doctor of Education Degree through the University of Waikato and would appreciate it if you would let your child participate in this study. The title is *Key Competencies in the Classroom: Keeping them Complex*.

The recently released New Zealand Curriculum says that schools need to prepare students to be lifelong learners. I am interested in finding out about what this looks like in a College classroom.

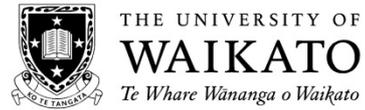
There will be no reference to your child's identity in the material gathered. You may withdraw from the project at any time and any material pertaining to your child will be destroyed. No reference will be made to any findings linked with this material. Hard copies of data will be locked in a cupboard in my office. Electronic data will be stored in a pass-worded computer.

The information and understanding gained from the study will be used in a written thesis. If you are able to assist me by participating, please complete the consent form and return it to school. If you wish to discuss any concerns or questions you have my phone number is 0274225079. I would be happy to talk with you about it.

Yours sincerely,

Jenny Charteris

Appendix 20. Consent Letter to Student



20th January 2009

Dear student,

I am doing research for my Doctor of Education Degree through the University of Waikato and would appreciate it if you participate in this study. The title is *Key Competencies in the Classroom: Keeping them Complex*.

The recently release New Zealand Curriculum says that schools need to prepare students to be lifelong learners. I am interested in finding out about what this looks like in a College classroom.

There will be no reference to who you are in the material gathered. You may withdraw from the project at any time and I will destroy any material pertaining to you. I will not use anything that relates to you in the study.

The information and understanding gained from the study will be used in a written thesis. If you are able to assist me by participating, please complete the consent form and return it to your teacher. If you wish to discuss any concerns or questions you have my phone number is 0274225079. I would be happy to talk about it.

Yours sincerely,

Jenny Charteris

Appendix 21. Information Sheet for Participants/ Caregivers

Key Competencies in the Classroom: Keeping them Complex

My name is Jenny Charteris and in order to complete my Doctor of Education Studies, I am required to conduct research. This research into key competencies in classrooms forms an important part of my Doctoral degree. For my project I wish to research how teachers develop their curriculum in their classes to assist their students to become active learners.

Through this research, I aim to explore to what extent and in what ways teachers support their students in their learning through the development of key competencies in their practice. The recently released curriculum describes them as “capabilities that young people need for growing, working, and participating in their communities.’ They are important if we want young people to be lifelong learners.

I intend to observe in the classrooms two days per term for three terms. I will also conduct interviews that take between 20-40 minutes and will be informal; more like a dialogue. With your permission, I would like to record these interviews and observations using video or audio equipment.

Your responses will be used to write a research report. Only my supervisors and I will have access to the information you provide me in the interview and observation notes, tapes and the paper written. Afterwards, all interviews and notes will be destroyed and tapes erased. I will keep a copy of the paper on file but will treat it with the strictest confidentiality. The thesis itself may be used as a source for presentations at academic conferences or journal articles. You will not be named in the report unless explicit consent has been given, and every effort will be made to disguise your identity.

If you take part in the study, you have the right to:

- Refuse to answer any particular question, and to withdraw from the study before July 4th.
- Ask any further questions about the study that occurs to you during your participation.
- Be given access to a summary of the findings from the study when it is concluded.

If you have any questions about this research project you can contact me on....My project is being supervised by Bronwen Cowie and she can be contacted at....Her postal address is.....

Appendix 20. Consent Form for Participants



Key Competencies in the Classroom: Keeping them Complex (How can secondary teachers develop key competencies and student agency in their classrooms?)

I have read the Participant Information Sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that I am free to withdraw from the study before 3rd July, or to decline to answer any particular questions in the study. I understand I can withdraw any information I have provided up until the researcher has commenced analysis on my data. I agree to provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.

I agree to participate in this study under the conditions set out in the Participant Information Sheet.

Signed: _____

Name: _____

Date: _____

Jenny Charteris
Address

Bronwen Cowie
Address

Appendix 22. Consent Form for Caregivers



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Key Competencies in the Classroom: Keeping them Complex (How can secondary teachers develop key competencies and student agency in their classrooms?)

I have read the Participant Information Sheet for this study. I know what the study is about and that I may ask further questions at any time. I understand that I am free to withdraw my child from the study before 3rd July.

I am aware that I can withdraw any information I have provided up until the researcher has commenced analysis on my data. I agree that my child can provide information to the researcher under the conditions of confidentiality set out on the Participant Information Sheet.

I agree to allow my child to participate in this study under the conditions set out in the Participant Information Sheet.

Student Name:

Caregiver
Name:

Signed:

Date:

Jenny Charteris
Address

Bronwen Cowie
Address

Appendix 23. Audio Visual Consent for Participants



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

I agree / do not agree to my responses to be tape recorded.

I agree / do not agree to my images being used.

Signed:

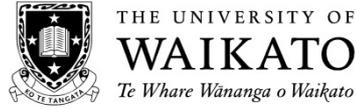
Name:

Date:

Jenny Charteris
Address

Bronwen Cowie
Address

Appendix 24. Audio Visual Consent for Caregivers



I agree / do not agree to my child's responses to be tape recorded.

I agree / do not agree to my child's images being used.

Signed: _____

Name: _____

Date: _____

*Jenny Charteris
Address*

*Bronwen Cowie
Address*